

List of References on Evolutionary Multiobjective Optimization

Carlos A. Coello Coello
ccoello@cs.cinvestav.mx
CINVESTAV-IPN
Departamento de Computación
Av. IPN # 2508
Col. San Pedro Zacatenco
México, D.F. 07300
MEXICO

July 14, 2012

- [1] Gupta S. K. Aatmeeyata. Simulation and optimization of an industrial nylon 6 reactor: A review. *Polymer-Plastics Technology And Engineering*, 37(2):201–239, 1998.
- [2] A. Abakarov, Y. Sushkov, S. Almonacid, and R. Simpson. Multiobjective Optimization Approach: Thermal Food Processing. *Journal of Food Science*, 74(9):E471–E487, November-December 2009.
- [3] H.A. Abbass. An economical cognitive approach for bi-objective optimization using bliss points, visualization and interaction. *Soft Computing*, 10(8):687–698, June 2006.
- [4] Hussein Abbass. Pareto-Optimal Approaches to Neuro-Ensemble Learning. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 407–427. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [5] Hussein A. Abbass. A Memetic Pareto Evolutionary Approach to Artificial Neural Networks. In *The Australian Joint Conference on Artificial Intelligence*, pages 1–12, Adelaide, Australia, December 2001. Springer. Lecture Notes in Artificial Intelligence Vol. 2256.
- [6] Hussein A. Abbass. An Evolutionary Artificial Neural Networks Approach for Breast Cancer Diagnosis. *Artificial Intelligence in Medicine*, 25(3):265–281, 2002.

- [7] Hussein A. Abbass. The Self-Adaptive Pareto Differential Evolution Algorithm. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 831–836, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [8] Hussein A. Abbass. Pareto Neuro-Evolution: Constructing Ensemble of Neural Networks Using Multi-objective Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2074–2080, Canberra, Australia, December 2003. IEEE Press.
- [9] Hussein A. Abbass. Speeding up backpropagation using multiobjective evolutionary algorithms. *Neural Computation*, 15(11):2705–2726, November 2003.
- [10] Hussein A. Abbass. An Inexpensive Cognitive Approach for Biobjective Optimization using Bliss Points and Interaction. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 712–721, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [11] Hussein A. Abbass and Sameer Alam ad Axel Bender. MEBRA: Multiobjective Evolutionary-Based Risk Assessment. *IEEE Computational Intelligence Magazine*, 4(3):29–36, August 2009.
- [12] Hussein A. Abbass and Kalyanmoy Deb. Searching under Multi-evolutionary Pressures. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 391–404, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [13] Hussein A. Abbass and Ruhul Sarker. Simultaneous Evolution of Architectures and Connection Weights in ANNs. In *The Artificial Neural Networks and Expert Systems Conference (ANNES'01)*, pages 16–21, Dunedin, New Zealand, November 2001.
- [14] Hussein A. Abbass and Ruhul Sarker. The Pareto Differential Evolution Algorithm. *International Journal on Artificial Intelligence Tools*, 11(4):531–552, 2002.
- [15] Hussein A. Abbass, Ruhul Sarker, and Charles Newton. PDE: A Pareto-frontier Differential Evolution Approach for Multi-objective Optimization Problems. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 971–978, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [16] M. F. Abbod, D. A. Linkens, and M. Mahfouf. Multi-Objective Genetic Optimization for Self-Organizing Fuzzy Logic Control. In *Proceedings of UKACC Control'98*, pages 1575–1580, University of Wales Swansea, UK, september 1998. IEE.
- [17] M. Lahanas abd D. Baltas and N. Zamboglou. A hybrid evolutionary algorithm for multi-objective anatomy-based dose optimization in high-dose-rate

brachytherapy. *Physics in Medicine and Biology*, 48(3):399–415, February 7 2003.

- [18] Mostafa I.H. Abd-El-Barr and Salman A. Khan. Design and analysis of a fault tolerant hybrid mobile scheme. *Information Sciences*, 177(12):2602–2620, June 15 2007.
- [19] Y.L. Abdel-Magid and M.A. Abido. Optimal Multiobjective Design of Robust Power System Stabilizers Using Genetic Algorithms. *IEEE Transactions on Power Systems*, 18(3):1125–1132, August 2003.
- [20] Hossam Abdelgawad, Baher Abdulhai, and Mohamed Wahba. Multiobjective Optimization for Multimodal Evacuation. *Transportation Research Record*, 2196:21–33, 2010.
- [21] Gh Abdollahi and M. Meratizaman. Multi-objective approach in thermoenvironmental optimization of a small-scale distributed CCHP system with risk analysis. *Energy and Buildings*, 43(11):3144–3153, November 2011.
- [22] Wahabou Abdou, Adrien Henri, Christelle Bloch, Dominique Dhoutaut, Damien Charlet, and Francois Spies. Using an evolutionary algorithm to optimize the broadcasting methods in mobile ad hoc networks. *Journal of Network and Computer Applications*, 36(6):1794–1804, November 2011.
- [23] Salwani Abdullah, Hamza Turabieh, Barry McCollum, and Paul McMullan. A Multi-objective Post Enrolment Course Timetabling Problems: A New Case Study. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 435–441, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [24] Hassan K. Abdulrahim and Fuad N. Alasfour. Multi-Objective Optimisation of hybrid MSF-RO desalination system using Genetic Algorithm. *International Journal of Exergy*, 7(3):387–424, 2010.
- [25] E. Abele and M. Fajara. Simulation-Based Twist Drill Design and Geometry Optimization. *CIRP Annals-Manufacturing Technology*, 59(1):145–150, 2010.
- [26] M. A. Abido. A Niche Pareto Genetic Algorithm for multiobjective environmental/economic dispatch. *International Journal of Electrical Power & Energy Systems*, 25(2):97–105, February 2003.
- [27] M. A. Abido. Multiobjective Particle Swarm Optimization for environmental/economic dispatch problem. *Electric Power System Research*, 79(7):1105–1113, July 2009.
- [28] M. A. Abido. Multiobjective particle swarm optimization with nondominated local and global sets. *Natural Computing*, 9(3):747–766, September 2010.
- [29] M. A. Abido and N. A. Al-Ali. Multi-Objective Differential Evolution for Optimal Power Flow. In *International Conference on Power Engineering, Energy and Electrical Drives (POWERENG '09)*, pages 101–106, Lisbon, Portugal, March 18–20 2009. IEEE Computer Society.

- [30] M. A. Abido and J. M. Bakhshwain. Optimal VAR dispatch using a multi-objective evolutionary algorithm. *International Journal of Electrical Power & Energy Systems*, 27(1):13–20, January 2005.
- [31] M. A. Abido and Ashraf M. Elazouni. Multiobjective Evolutionary Finance-Based Scheduling: Entire Projects’ Portfolio. *Journal of Computing in Civil Engineering*, 25(1):85–97, January-February 2011.
- [32] M.A. Abido. A new multiobjective evolutionary algorithm for environmental/economic power dispatch. In *Power Engineering Society Summer Meeting*, volume 2, pages 1263–1268. IEEE, 2001.
- [33] M.A. Abido. Multiobjective Evolutionary Algorithms for Electric Power Dispatch Problem. *IEEE Transactions on Evolutionary Computation*, 10(3):315–329, June 2006.
- [34] M.A. Abido. Multiobjective Optimal VAR Dispatch Using Strength Pareto Evolutionary Algorithm. In *2006 IEEE Congress on Evolutionary Computation (CEC’2006)*, pages 2745–2751, Vancouver, BC, Canada, July 2006. IEEE.
- [35] M.A. Abido. Two-Level of Nondominated Solutions Approach to Multiobjective Particle Swarm Optimization. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO’2007)*, volume 1, pages 726–733, London, UK, July 2007. ACM Press.
- [36] M.A. Abido. Multiobjective Particle Swarm Optimization for Optimal Power Flow Problem. In Bijaya Ketan Panigrahi, Yuhui Shi, and Meng-Hiot Lim, editors, *Handbook of Swarm Intelligence. Concepts, Principles and Applications*, pages 241–268. Springer-Verlag, Berlin, Germany, 2011. ISBN 978-3-642-17389-9.
- [37] M.A. Abido and J.M. Bakhshwain. A Novel Multiobjective Evolutionary Algorithm for Optimal Reactive Power Dispatch Problem. In *Proceedings of the 2003 10th IEEE International Conference on Electronics, Circuits and Systems, 2003 (ICECS 2003)*, volume 3, pages 1054–1057. IEEE, December 2003.
- [38] Mohammad A. Abido. Multiobjective Evolutionary Algorithms for Electric Power Dispatch Problem. In Christine L. Mumford and Lakhmi C. Jain, editors, *Computational Intelligence Collaboration, Fusion and Emergence*, Studies in Computational Intelligence (SCI), pages 47–82. Springer, Berlin, 2010. ISBN 978-3-642-01799-5.
- [39] R. Aboulaich, R. Ellaia, and S. El Moumen. The Mean-Variance-CVaR model for Portfolio Optimization Modeling using a Multi-Objective Approach Based on a Hybrid Method. *Mathematical Modelling of Natural Phenomena*, 5(7):103–108, 2010.
- [40] Ajith Abraham, Crina Grosan, Sang Yong Han, and Alexander Gelbukh. Evolutionary Multiobjective Optimization Approach for Evolving Assemble of Intelligent Paradigms for Stock Market Modeling. In Alexander Gelbukh, Álvaro

de Alborno, and Hugo Terashima-Marín, editors, *MICAI 2005: Advances in Artificial Intelligence*, pages 673–681, Monterrey, México, November 2005. Springer. Lecture Notes in Artificial Intelligence Vol. 3789.

- [41] Ajith Abraham and Lakhmi Jain. Evolutionary Multiobjective Optimization. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization. Theoretical Advances and Applications*, pages 1–6. Springer, USA, 2005.
- [42] Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors. *Evolutionary Multiobjective Optimization. Theoretical Advances and Applications*. Springer, USA, 2005. ISBN 1-85233-787-7.
- [43] J.A.R. Abraham and I.C. Parmee. Extraction of Emerging Multi-Objective Design Information from COGA Data. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture VI*, pages 221–233, London, 2004. Springer.
- [44] Adnan Acan and Ahmet Unveren. Evolutionary Multiobjective Optimization with a Segment-Based External Memory Support for the Multiobjective Quadratic Assignment Problem. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2723–2729, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [45] Jesús Antonio Acosta Sarmiento. *Aprendizaje de Particiones Difusas para Razonamiento Inductivo*. PhD thesis, Departament d'Enginyeria de Sistemes, Automàtica i Informàtica Industrial, Universitat Politècnica de Catalunya, Barcelona, Spain, December 2006. (In Spanish).
- [46] J. Adeyemo and F.A.O. Otieno. Multi-Objective Differential Evolution Algorithm for Solving Engineering Problems. *Journal of Applied Sciences*, 9(20):3652–3661, 2009.
- [47] Josiah Adeyemo, Faizal Bux, and Fred Otieno. Differential evolution algorithm for crop planning: Single and multi-objective optimization model. *International Journal Of The Physical Sciences*, 5(10):1592–1599, September 4 2010.
- [48] Josiah Adeyemo and Fred Otieno. Differential Evolution algorithm for solving multi-objective crop planning model. *Agricultural Water Management*, 97(6):848–856, June 2010.
- [49] Salem Adra. Optimisation techniques for gas turbine engine control systems. Master's thesis, Department of Computer Science, The University of Sheffield, UK, 27 August 2003.
- [50] Salem F. Adra, Tony J. Dodd, Ian A. Griffin, and Peter J. Fleming. Convergence Acceleration Operator for Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 13(4):825–847, August 2009.

- [51] Salem F. Adra and Peter F. Fleming. A Diversity Management Operator for Evolutionary Many-Objective Optimisation. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 81–94. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [52] Salem F. Adra and Peter J. Fleming. Progressive diversity management in evolutionary multiobjective optimisation. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3852–3859, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [53] Salem F. Adra and Peter J. Fleming. Diversity Management in Evolutionary Many-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, 15(2):183–195, April 2011.
- [54] Salem F. Adra, Ian Griffin, and Peter J. Fleming. Hybrid Multiobjective Genetic Algorithm with a New Adaptive Local Search Process. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 1009–1010, New York, USA, June 2005. ACM Press.
- [55] Salem F. Adra, Ian Griffin, and Peter J. Fleming. A Comparative Study of Progressive Preference Articulation Techniques for Multiobjective Optimisation. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 908–921, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [56] Salem F. Adra, Ian Griffin, and Peter J. Fleming. An Informed Convergence Accelerator for Evolutionary Multiobjective Optimiser. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 734–740, London, UK, July 2007. ACM Press.
- [57] Salem F. Adra, Ian Griffin, and Peter J. Fleming. A Convergence Acceleration Technique for Multiobjective Optimisation. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 9, pages 183–205. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [58] Salem F. Adra, Ahmed I. Hamody, Ian Griffin, and Peter J. Fleming. A Hybrid Multi-Objective Evolutionary Algorithm Using an Inverse Neural Network for Aircraft Control System Design. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 1–8, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [59] Salem Fawaz Adra. *Improving Convergence, Diversity and Pertinency in Multiobjective Optimisation*. PhD thesis, Department of Automatic Control and Systems Engineering, The University of Sheffield, UK, October 2007.

- [60] S.F. Adra, I.A. Griffin, and P.J. Fleming. An Adaptive Memetic Algorithm for Enhanced Diversity. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture 2006. Proceedings of the Seventh International Conference*, pages 251–254, Bristol, UK, April 2006. The Institute for People-centred Computation.
- [61] Jeroen C.J.H. Aerts, Marjan van Herwijnen, and Theodor J. Stewart. Using Simulated Annealing and Spatial Goal Programming for Solving a Multi Site Land Use Allocation Problem. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 448–463, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [62] Frederico G. Guimar aes, Reinaldo M. Palhares, Felipe Campelo, and Hajime Igarashi. Design of mixed h-2/h infinity control systems using algorithms inspired by the immune system. *Information Sciences*, 177(20):4368–4386, October 2007.
- [63] Zouhaler Affi, Badreddine El-Kribi, and Lotfi Romdhane. Advanced mechatronic design using a multi-objective genetic algorithm optimization of a motor-driven four-bar system. *Mechatronics*, 17(9):489–500, November 2007.
- [64] A. Afshar, F. Sharifi, and M.R. Jalali. Non-dominated archiving multi-colony ant algorithm for multi-objective optimization: Application to multi-purpose reservoir operation. *Engineering Optimization*, 41(4):313–325, April 2009.
- [65] A. Afshar, A. Kasaeian Ziaraty, A. Kaveh, and F. Sharifi. Nondominated Archiving Multicolony Ant Algorithm in Time-Cost Trade-Off Optimization. *Journal of Construction Engineering and Management*, 135(7):668–674, July 2009.
- [66] Abbas Afshar and Habib Fathi. Fuzzy multi-objective optimization of finance-based scheduling for construction projects with uncertainties in cost. *Engineering Optimization*, 41(11):1063–1080, November 2009.
- [67] Abbas Afshar, Hamideh Kazemi, and Motahareh Saadatpour. Particle Swarm Optimization for Automatic Calibration of Large Scale Water Quality Model (CE-QUAL-W2): Application to Karkheh Reservoir, Iran. *Water Resources Management*, 25(10):2613–2632, August 2011.
- [68] Alexandros Agapitos and Simon M. Lucas. Evolving a Statistics Class Using Object Oriented Evolutionary Programming. In Marc Ebner, Michael O’Neill, Anikó Ekárt, Leonardo Vanneschi, and Anna Isabel Esparcia-Alcázar, editors, *Genetic Programming, 10th European Conference, EuroGP 2007*, pages 291–300, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4445.

- [69] Alexandros Agapitos, Julian Togelius, and Simon M. Lucas. Multiobjective techniques for the Use of State in Genetic Programming applied to Simulated Car Racing. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1562–1569, Singapore, September 2007. IEEE Press.
- [70] A. Agarwal, U. Tewary, F. Pettersson, S. Das, H. Saxen, and N. Chakraborti. Analysing blast furnace data using evolutionary neural network and multiobjective genetic algorithms. *Ironmaking & Steelmaking*, 37(5):353–359, July 2010.
- [71] Aaditya Agarwal and Santosh K. Gupta. Jumping gene adaptations of NSGA-II and their use in the multi-objective optimal design of shell and tube heat exchangers. *Chemical Engineering Research & Design*, 86(A2):123–139, February 2008.
- [72] Aaditya Agarwal and Santosh K. Gupta. Multiobjective optimal design of heat exchanger networks using new adaptations of the elitist nondominated sorting genetic algorithm, NSGA-II. *Industrial & Engineering Chemistry Research*, 47(10):3489–3501, May 21 2008.
- [73] Akash Agarwal, Frank Pettersson, Arunima Singh, Chang Sun Kong, Henrik Saxén, Krishna Rajan, Shuichi Iwata, and Nirupam Chakraborti. Identification and Optimization of AB₂ Phases Using Principal Component Analysis, Evolutionary Neural Nets, and Multiobjective Genetic Algorithms. *Materials and Manufacturing Processes*, 24(3):274–281, March 2009.
- [74] P. Agarwal and A.M. Raich. Design and optimization of steel trusses using genetic algorithms, parallel computing, and human-computer interaction. *Structural Engineering and Mechanics*, 23(4):325–337, July 2006.
- [75] Pranab Agarwal. Conceptual design of long-span trusses using multi-stage heuristics. Master’s thesis, Texas A&M University, College Station, Texas, USA, 2005.
- [76] Elson Agastra, Leonardo Lucci, Renzo Nesti, Giuseppe Pelosi, and Stefano Selleri. Modified NSGA-II Algorithm for Multiobjective Optimization of Compact High-Efficiency Square Horns. *International Journal of RF and Microwave Computer-Aided Engineering*, 21(2):174–181, March 2011.
- [77] Varun Aggarwal and Una-May O’Reilly. COSMO: A Correlation Sensitive Mutation Operator for Multi-Objective Optimization. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 741–748, London, UK, July 2007. ACM Press.
- [78] Eleni Aggelogiannaki and Haralarnbos Sarimveis. Simulated annealing algorithm for prioritized multiobjective optimization-implementation in an adaptive model predictive control configuration. *IEEE Transactions on Systems, Man, and Cybernetics Part B–Cybernetics*, 37(4):902–915, August 2007.

- [79] Brahim Aghezaf and Mohamed Naimi. The two-stage recombination operator and its application to the multiobjective 0/1 knapsack problem: A comparative study. *Computers & Operations Research*, 36(12):3247–3262, December 2009.
- [80] D. K. Agrafiotis. Multiobjective Optimization of Combinatorial Libraries. *Molecular Diversity*, 5(4):209–230, 2000.
- [81] D. K. Agrafiotis. Multiobjective optimization of combinatorial libraries. *IBM Journal of Research and Development*, 45(3-4):545–566, May-July 2001.
- [82] D. K. Agrafiotis. Multiobjective optimization of combinatorial libraries. *Journal of Computer-Aided Molecular Design*, 16(5-6):335–356, May-June 2002.
- [83] N. Agrawal, G.P. Rangaiah, A.K. Ray, and S.K. Gupta. Multi-Objective Optimization of the Operation of an Industrial Low-Density Polyethylene Tubular Reactor Using Genetic Algorithm and Its Jumping Gene Adaptations. *Industrial and Engineering Chemistry Research*, 45:3182–3199, 2006.
- [84] Naveen Agrawal, G. P. Rangaiah, Ajay K. Ray, and Santosh K. Gupta. Design stage optimization of an industrial low-density polyethylene tubular reactor for multiple objectives using NSGA-II and its jumping gene adaptations. *Chemical Engineering Science*, 62(9):2346–2365, May 2007.
- [85] Shubham Agrawal, Yogesh Dashora, Manoj Kumar Tiwari, and Young-Jun Son. Interactive Particle Swarm: A Pareto-Adaptive Metaheuristic to Multi-objective Optimization. *IEEE Transactions on Systems, Man, and Cybernetics Part A—Systems and Humans*, 38(2):258–277, March 2008.
- [86] Shubham Agrawal, B.K. Panigrahi, and Manoj Kumar Tiwari. Multiobjective Particle Swarm Algorithm with Fuzzy Clustering for Electrical Power Dispatch. *IEEE Transactions on Evolutionary Computation*, 12(5):529–541, October 2008.
- [87] Jose Aguilar and Pablo Miranda. Approaches Based on Genetic Algorithms for Multiobjective Optimization Problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *GECCO-99: Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 3–10, Orlando, Florida, USA, 1999. Morgan Kaufmann Publishers.
- [88] Jose Aguilar and Pablo Miranda. Resolution of the Left Ventricle 3D Reconstruction Problem using Approaches based on Genetic Algorithm for Multiobjective Problems. In *1999 Congress on Evolutionary Computation*, volume 2, pages 913–920, Washington, D.C., July 1999. IEEE Service Center.
- [89] A. A. Aguilar-Lasserre, L. Piboleau, and C. Azzaro-Pantel. Enhanced genetic algorithm-based fuzzy multiobjective strategy to multiproduct batch plant design. *Applied Soft Computing*, 9(4):1321–1330, September 2009.

- [90] Alberto A. Aguilar-Lasserre, Marco A. Bautista Bautista, Antonin Ponsich, and Magno A. Gonzalez Huerta. An AHP-based decision-making tool for the solution of multiproduct batch plant design problem under imprecise demand. *Computers & Operations Research*, 36(3):711–736, March 2009.
- [91] Arturo Hernández Aguirre, Salvador Botello Rionda, and Carlos A. Coello Coello. PASSSS: An Implementation of a Novel Diversity Strategy for Handling Constraints. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 403–410, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [92] Arturo Hernández Aguirre, Ricardo S. Zebulum, and Carlos A. Coello Coello. Evolutionary Multiobjective Design targeting a Field Programmable Transistor Array. In Ricardo S. Zebulum, David Gwaltney, Gregory Hornby, Didier Keymeulen, Jason Lohn, and Adrian Stoica, editors, *Proceedings of the 2004 NASA/DoD Conference on Evolvable Hardware*, pages 199–205, Los Alamitos, California, USA, June 2004. IEEE Computer Society.
- [93] H. Aguirre and K. Tanaka. Random bit climbers on multiobjective MNK-Landscapes: Effects of memory and population climbing. *IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences*, E88A(1):334–345, January 2005.
- [94] Hernán Aguirre, Hiroyuki Okazaki, and Yasushi Fuwa. An Evolutionary Multiobjective Approach to Design Highly Non-linear Boolean Functions. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 749–756, London, UK, July 2007. ACM Press.
- [95] Hernán Aguirre and Kiyoshi Tanaka. Selection, Drift, Recombination, and Mutation in Multiobjective Evolutionary Algorithms on Scalable MNK-Landscapes. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 355–369, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [96] Hernan Aguirre and Kiyoshi Tanaka. Adaptive ϵ -Ranking on MNK-Landscapes. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 104–111, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [97] Hernán Aguirre and Kiyoshi Tanaka. Many-Objective Optimization by Space Partitioning and Adaptive ϵ -Ranking on MNK-Landscapes. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 407–422. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.

- [98] Hernán Aguirre and Kiyoshi Tanaka. A Hybrid Scalarization and Adaptive ϵ -Ranking Strategy for Many-Objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part II*, pages 11–20. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [99] Hernán Aguirre and Kiyoshi Tanaka. A study on the effects of rankings sensitive to density on many-objective MNK Landscapes. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1089–1096, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [100] Hernán Aguirre and Kiyoshi Tanaka. Space Partitioning Evolutionary Many-Objective Optimization: Performance Analysis on MNK-Landscapes. *Transactions of the Japanese Society for Artificial Intelligence*, 25(2):363–376, 2010.
- [101] Hernán E. Aguirre, Masahiko Sato, and Kiyoshi Tanaka. Preliminary Study on the Performance of Multi-objective Evolutionary Algorithms with MNK-Landscapes. In *Proceedings of the 2004 RISP International Workshop on Non-linear Circuits and Signal Processing (NCSP 2004)*, pages 315–318, Hawaii, USA, March 2004. The Research Institute of Signal Processing Japan.
- [102] Hernán E. Aguirre and Kiyoshi Tanaka. Effects of Elitism and Population Climbing on Multiobjective MNK-Landscapes. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 449–456, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [103] Hernán E. Aguirre and Kiyoshi Tanaka. Insights on Properties of Multiobjective MNK-Landscapes. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 196–203, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [104] Hernán E. Aguirre and Kiyoshi Tanaka. Working principles, behavior, and performance of MOEAs on MNK-landscapes. *European Journal of Operational Research*, 181(3):1670–1690, 16 September 2007.
- [105] Hernán E. Aguirre and Kiyoshi Tanaka. Space partitioning with adaptive ϵ -ranking and substitute distance assignments: a comparative study on many-objective MNK-landscapes. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 547–554, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [106] Hernán E. Aguirre, Kiyoshi Tanaka, Tatsuo Sugimura, and Shinjiro Oshita. Halftone Image Generation with Improved Multiobjective Genetic Algorithm. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 501–515. Springer-Verlag, Lecture Notes in Computer Science No. 1993, 2001.

- [107] Hernán Eduardo Aguirre Durán. *Generational Parallel Varying Mutation GAs and their Applications*. PhD thesis, Shinshu University, Japan, March 2003.
- [108] José Luis Bernal Agustín. *Aplicación de Algoritmos Genéticos al Diseño Óptimo de Sistemas de Distribución de Energía Eléctrica*. PhD thesis, Department of Electrical Engineering, University of Zaragoza, Spain, January 1998. (In Spanish).
- [109] Frank J. Aherne, Neil A. Thacker, and Peter I. Rockett. Automatic Parameter Selection for Object Recognition using a Parallel Multiobjective Genetic Algorithm. In *Proceedings of the 7th International Conference on Computer Analysis of Images and Patterns (CAIP'97)*, Lecture Notes in Computer Science 1296, pages 559–566, Kiel, Germany, September 1997. Springer Verlag.
- [110] Frank J. Aherne, Neil A. Thacker, and Peter I. Rockett. Optimal Pairwise Geometric Histograms. In Adrian F. Clark, editor, *Electronic Proceedings of the Eighth British Machine Vision Conference, BMVC97*, University of Essex, United Kingdom, September 1997.
- [111] Frank J. Aherne, Neil A. Thacker, and Peter I. Rockett. Optimising Object Recognition Parameters using a Parallel Multiobjective Genetic Algorithm. In *Proceedings of the 2nd IEE/IEEE International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications (GALESIA'97)*, pages 1–6, Glasgow, Scotland, September 1997. IEE.
- [112] A.S. Ahlawat and A. Ramaswamy. Multiobjective optimal structural vibration control using fuzzy logic control system. *Journal of Structural Engineering-ASCE*, 127(11):1330–1337, November 2001.
- [113] P. Ahmadi, A. Almasi, M. Shahriyari, and I. Dincer. Multi-objective optimization of a combined heat and power (CHP) system for heating purpose in a paper mill using evolutionary algorithm. *International Journal of Energy Research*, 36(1):46–63, January 2012.
- [114] Pouria Ahmadi and Ibrahim Dincer. Thermodynamic analysis and thermoeconomic optimization of a dual pressure combined cycle power plant with a supplementary firing unit. *Energy Conversion and Management*, 52(5):2296–2308, May 2011.
- [115] Pouria Ahmadi, Hassan Hajabdollahi, and Ibrahim Dincer. Cost and Entropy Generation Minimization of a Cross-Flow Plate Fin Heat Exchanger Using Multi-Objective Genetic Algorithm. *Journal of Heat Transfer-Transactions of the ASME*, 133(2):–, February 2011. Article Number: 021801.
- [116] Faez Ahmed, Abhilash Jindal, and Kalyanmoy Deb. Cricket Team Selection Using Evolutionary Multi-objective Optimization. In Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 71–78, Visakhapatnam, Andhra

Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7077.

- [117] Chang Wook Ahn. *Advances in Evolutionary Algorithms. Theory, Design and Practice*. Springer, 2006. ISBN 3-540-31758-9.
- [118] Chang Wook Ahn, Eungyeong Kim, Hyun-Tae Kim, Dong-Hyun Lim, and Jinung An. A hybrid multiobjective evolutionary algorithm: Striking a balance with local search. *Mathematical and Computer Modelling*, 52(11–12):2048–2059, December 2010.
- [119] Chang Wook Ahn and Yehoon Kim. Improving Proximity and Diversity in Multiobjective Evolutionary Algorithms. *IEICE Transactions on Information and Systems*, E93D(10):2879–2882, October 2010.
- [120] Chang Wook Ahn and R.S. Ramakrishna. Multiobjective Real-coded Bayesian Optimization Algorithm Revisited: Diversity Preservation. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 593–600, London, UK, July 2007. ACM Press.
- [121] Chang Wook Ahn and R.S. Ramakrishna. A diversity preserving selection in multiobjective evolutionary algorithms. *Applied Intelligence*, 32(3):231–248, June 2010.
- [122] A. Ahuja, S. Das, and A. Pahwa. An AIS-ACO Hybrid Approach for Multi-Objective Distribution System Reconfiguration. In Bijaya Ketan Panigrahi, Ajith Abraham, and Swagatam Das, editors, *Computational Intelligence in Power Engineering*, Studies in Computational Intelligence (SCI), pages 19–73. Springer, Berlin, 2010. ISBN 978-3-642-14012-9.
- [123] Ashish Ahuja, Sanjoy Das, and Anil Pahwa. An AIS-ACO hybrid approach for multi-objective distribution system reconfiguration. *IEEE Transactions on Power Systems*, 22(3):1101–1111, August 2007.
- [124] Nadjib Aitsaadi, Nadjib Achir, Khaled Boussetta, and Guy Pujolle. Artificial Potential Field Approach in WSN Deployment: Cost, QoM, Connectivity, and Lifetime Constraints. *Computer Networks*, 55(1):84–105, January 7 2011.
- [125] T. Aittokoski and K. Miettinen. Efficient evolutionary approach to approximate the Pareto-optimal set in multiobjective optimization, UPS-EMOA. *Optimization Methods & Software*, 25(6):841–858, 2010.
- [126] Reza Akbari and Koorush Ziarati. Multi-Objective bee swarm optimization. *International Journal of Innovative Computing Information and Control*, 8(1B):715–726, January 2012.
- [127] Mustafa Akbulut and Fazil O. Sonmez. Design optimization of laminated composites using a new variant of simulated annealing. *Computers & Structures*, 89(17 - 18):1712–1724, September 2011.

- [128] Shamim Akhtar, Kang Tai, and Tapabrata Ray. A Socio-Behavioural Simulation Model for Engineering Design Optimization. *Engineering Optimization*, 34(4):341–354, 2002.
- [129] C. R. Akli, B. Sareni, X. Roboam, and A. Jeunesse. Integrated optimal design of a hybrid locomotive with multiobjective genetic algorithms. *International Journal of Applied Electromagnetics and Mechanics*, 30(3-4):151–162, 2009.
- [130] Uğur Akyazi and A. Sima Uyar. Detection of DDoS Attacks via an Artificial Immune System-Inspired Multiobjective Evolutionary Algorithm. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Marc Ebner, Muddassar Farooq, Andreas Fink, Jörn Grahl, Gary Greenfield, Penousal Machado, Michael O'Neill, Ernesto Tarantino, and Neil Urquhard, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMNET, EvoENVIRONMENT, EvoFIN, EvoMUSART and EvoTRANSLOG*, pages 1–10, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6025.
- [131] Raslan Hashim Al-Abaji. Evolutionary Techniques for Multi-Objective VLSI Netlist Partitioning. Master's thesis, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, August 2002.
- [132] Mohammad A. Al-Mayyahi, Andrew F.A. Hoadley, Nicholas E. Smith, and G.P. Rangaiah. Investigating the trade-off between operating revenue and CO(2) emissions from crude oil distillation using a blend of two crudes. *Fuel*, 90(12):3577–3585, December 2011.
- [133] A. Al-Yamani, SM. Sait, H. Youssef, and H. Barada. Parallelizing tabu search on a cluster of heterogeneous workstations. *Journal of Heuristics*, 8(3):277–304, May 2002.
- [134] Ahmad Al-Yamani, Sadiq M. Sait, and Hassan R. Barada. HPTS: Heterogeneous Parallel Tabu Search for VLSI Placement. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 351–355, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [135] Sameer Alam, Lam T. Bui, Hussein A. Abbass, and Michael Barlow. Pareto Meta-heuristics for Generating Safe Flight Trajectories Under Weather Hazards. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 829–836. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [136] Arturo Alarcon-Rodriguez, Graham Ault, and Stuart Galloway. Multi-objective planning of distributed energy resources: A review of the state-of-the-art. *Renewable & Sustainable Energy Reviews*, 14(5):1353–1366, June 2010.

- [137] Arturo. D. Alarcón-Rodríguez. *A Multi-objective Planning Framework for Analysing the Integration of Distributed Energy Resources*. PhD thesis, Institute of Energy and Environment, Department of Electronic and Electrical Engineering, University of Strathclyde, Glasgow, Scotland, April 2009.
- [138] Bilal Alatas and Erhan Akin. Multi-objective rule mining using a chaotic particle swarm optimization algorithm. *Knowledge-Based Systems*, 22(6):455–460, August 2009.
- [139] Bilal Alatas, Erhan Akin, and Ali Karci. Modenar: Multi-objective differential evolution algorithm for mining numeric association rules. *Applied Soft Computing*, 8(1):646–656, January 2008.
- [140] Inès Alaya, Christine Solnon, and Khaled Ghédira. Ant Colony Optimization for Multi-objective Optimization Problems. In *Proceedings of the 19th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2007)*, volume 1, pages 450–457. IEEE Computer Society Press, October 2007.
- [141] E. Alba, B. Dorronsoro, F. Luna, A.J. Nebro, P. Bouvry, and L. Hogie. A cellular multi-objective genetic algorithm for optimal broadcasting strategy in metropolitan MANETs. *Computer Communications*, 30(4):685–697, February 2007.
- [142] Enrique Alba, A. Cervantes, J. A. Gómez, P. Isasi, M. D. Jaraíz, Coromoto León, Gabriel Luque, Francisco Luna, Gara Miranda, Antonio J. Nebro, R. Pérezaa, and Carlos Segura. Metaheuristic Approaches for Optimal Broadcasting Design in Metropolitan MANETs. In Roberto Moreno-Díaz, Franz Pichler, and Alexis Quesada-Arencia, editors, *Computer Aided Systems Theory - EUROCAST 2007, 11th International Conference on Computer Aided Systems Theory*, pages 755–763, Las Palmas de Gran Canaria, Spain, February 12-16 2007. Springer. Lecture Notes in Computer Science Volume 4739.
- [143] Enrique Alba and Bernabé Dorronsoro. *Cellular Genetic Algorithms*. Springer, New York, 2008. ISBN 978-0-387-77609-5.
- [144] A. Albers, N. Leon-Rovira, H. Aguayo, and T. Maier. Development of an engine crankshaft in a framework of computer-aided innovation. *Computers in Industry*, 60(8):604–612, October 2009.
- [145] I. Alberto, C. Azcarate, F. Mailor, and P. M. Mateo. Optimization with simulation and multiobjective analysis in industrial decision-making: A case study. *European Journal of Operational Research*, 140(2):373–383, July 16 2002.
- [146] I. Alberto and P.M. Mateo. Representation and management of MOEA populations based on graphs. *European Journal of Operational Research*, 159(1):52–65, November 2004.
- [147] I. Alberto and P.M. Mateo. A crossover operator that uses Pareto optimality in its definition. *TOP*, 19(1):67–92, July 2011.

- [148] Isolina Alberto, Asuncion Beamonte, Pilar Gargallo, Pedro M. Mateo, and Manuel Salvador. Variable Selection in STAR Models with Neighbourhood Effects Using Genetic Algorithms. *Journal Of Forecasting*, 29(8):728–750, December 2010.
- [149] Andre L. Alberton, Marcio Schwaab, Evaristo Chalbaud Biscaia Jr., and Jose Carlos Pinto. Sequential experimental design based on multiobjective optimization procedures. *Chemical Engineering Science*, 65(20):5482–5494, October 15 2010.
- [150] M. Nassar Albunni, Volker Rischmuller, Thomas Fritzche, and Boris Lohmann. Multiobjective Optimization of the Design of Nonlinear Electromagnetic Systems Using Parametric Reduced Order Models. *IEEE Transactions on Magnetics*, 45(3):1474–1477, March 2009.
- [151] R. Alcala, M. J. Gacto, F. Herrera, and J. Alcala-Fdez. A multi-objective genetic algorithm for tuning and rule selection to obtain accurate and compact linguistic fuzzy rule-based systems. *International Journal of Uncertainty Fuzziness and Knowledge-Based Systems*, 15(5):539–557, October 2007.
- [152] Rafael Alcalá, Jesús Alcalá-Fdez, María José Gacto, and Francisco Herrera. On the Usefulness of MOEAs for Getting Compact FRBSs Under Parameter Tuning and Rule Selection. In Ashish Ghosh, Satchidananda Dehuri, and Susmita Ghosh, editors, *Multi-objective Evolutionary Algorithms for Knowledge Discovery from Data Bases*, pages 91–107. Springer, Berlin, 2008.
- [153] Rafael Alcala, Pietro Ducange, Francisco Herrera, Beatrice Lazzerini, and Francesco Marcelloni. A Multiobjective Evolutionary Approach to Concurrently Learn Rule and Data Bases of Linguistic Fuzzy-Rule-Based Systems. *IEEE Transactions on Fuzzy Systems*, 17(5):1106–1122, October 2009.
- [154] Rafael Alcala, Yusuke Nojima, Francisco Herrera, and Hisao Ishibuchi. Multi-objective genetic fuzzy rule selection of single granularity-based fuzzy classification rules and its interaction with the lateral tuning of membership functions. *Soft Computing*, 15(12):2303–2318, December 2011.
- [155] M. E. Alemany, C. Andrés, and E. Vicens. A new genetic algorithm for the machine grouping problem with multiple objectives. In Ashayeri, Sullivan, and Ahmad, editors, *Proceedings of Flexible Automation and Intelligent Manufacturing (FAIM 1999)*, pages 461–473, 1999.
- [156] E. Alfaro-Cid, P. A. Castillo, A. Esparcia, K. Sharman, J. J. Merelo, A. Prieto, A. M. Mora, and J. L. J. Laredo. Comparing Multiobjective Evolutionary Ensembles for Minimizing Type I and II Errors for Bankruptcy Prediction. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2907–2913, Hong Kong, June 2008. IEEE Service Center.
- [157] A. Alfieri. Workload simulation and optimisation in multi-criteria hybrid flow-shop scheduling: a case study. *International Journal of Production Research*, 47(18):5129–5145, 2009.

- [158] Leonardo Alfonso, Andreja Jonoski, and Dimitri Solomatine. Multiobjective Optimization of Operational Responses for Contaminant Flushing in Water Distribution Networks. *Journal of Water Resources Planning and Management-ASCE*, 136(1):48–58, January-February 2010.
- [159] S. Alfonzetti, E. Dilettoso, S. A. Rizzo, and N. Salerno. Stochastic Optimization Shields in Induction Heating Applications by Means of the FEM-DBCI Method and the SALHE Evolutionary Algorithm. *IEEE Transactions on Magnetics*, 45(3):1752–1755, March 2009.
- [160] Reda Alhajj and Mehmet Kaya. Multi-objective genetic algorithms based automated clustering for fuzzy association rules mining. *Journal of Intelligent Information Systems*, 31(3):243–264, December 2008.
- [161] Layak Ali, Samrat L. Sabat, and Siba K. Udgata. Adaptive and Accelerated Exploration Particle Swarm Optimizer (AAEPSO) for Solving Constrained Multiobjective Optimization Problems. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary, and Memetic Computing, SEMCCO 2010*, pages 155–162, Chennai, India, December 16-18 2010. Springer. Lecture Notes in Computer Science Vol. 6466.
- [162] Musrrat Ali, Patrick Siarry, and Millie Pant. An efficient Differential Evolution based algorithm for solving multi-objective optimization problems. *European Journal of Operational Research*, 217(2):404–416, March 1 2012.
- [163] N. Bel Hadj Ali and I. F. C. Smith. Dynamic behavior and vibration control of a tensegrity structure. *International Journal of Solids and Structures*, 47(9):1285–1296, May 1 2010.
- [164] Sk. Faruque Ali and Ananth Ramaswamy. Optimal fuzzy logic control for MDOF structural systems using evolutionary algorithms. *Engineering and Applications of Artificial Intelligence*, 22(3):407–419, April 2009.
- [165] Yamina Mohamed Ben Ali. Evolutionary Bi-objective Learning with Lowest Complexity in Neural Networks: Empirical Comparisons. In Bartłomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA 2007, Part I*, pages 128–137, Warsaw, Poland, April 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4431.
- [166] M. Ali-Tavoli, N. Nariman-Zadeh, A. Khakhali, and M. Mehran. Multi-objective optimization of abrasive flow machining processes using polynomial neural networks and genetic algorithms. *Machining Science and Technology*, 10:491–510, October-December 2006.
- [167] B. Aljibouri, E.G. Lim, H. Evans, and A. Sambell. Multiobjective genetic algorithm approach for a dual-feed circular polarised patch antenna design. *Electronics Letters*, 36(12):1005–1006, June 2000.

- [168] A. Allahverdi and T. Aldowaisan. No-wait flowshops with bicriteria of makespan and total completion time. *Journal of the Operational Research Society*, 53(9):1004–1015, September 2002.
- [169] Robin Allenson. Genetic Algorithms with Gender for Multi-function Optimisation. Technical Report EPCC-SS92-01, Edinburgh Parallel Computing Centre, Edinburgh, Scotland, 1992.
- [170] Richard Allmendinger, Xiaodong Li, and Jürgen Branke. Reference Point-Based Particle Swarm Optimization Using a Steady-State Approach. In Xiaodong Li, Michael Kirley, Mengjie Zhang, David G. Green, Victor Ciesielski, Hussein A. Abbass, Zbigniew Michalewicz, Tim Hendtlass, Kalyanmoy Deb, Kay Chen Tan, Jürgen Branke, and Yuhui Shi, editors, *Simulated Evolution and Learning (SEAL 2008)*, pages 200–209, Melbourne, Australia, December 2008. Springer. Lecture Notes in Computer Science, Vol. 5361.
- [171] M.N. Almasri and J.J. Kaluarachchi. Multi-criteria decision analysis for the optimal management of nitrate contamination of aquifers. *Journal of Environmental Management*, 74(4):365–381, March 2005.
- [172] Carolina P. Almeida, Richard A. Gonçalves, Myriam R. Delgado, Elizabeth F. Goldberg, and Marco C. Goldberg. A Transgenetic Algorithm for the Bi-objective Traveling Purchaser Problem. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 719–726, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [173] Leandro M. Almeida and Teresa B. Ludermit. A multi-objective memetic and hybrid methodology for optimizing parameters and performance of artificial neural networks. *Neurocomputing*, 73(7-9):1438–1450, March 2010.
- [174] Monica Alonso, Hortensia Amaris, and Carlos Alvarez-Ortega. A multiobjective approach for reactive power planning in networks with wind power generation. *Renewable Energy*, 37(1):180–191, January 2012.
- [175] Fernando Alonso Zotes and Matilde Santos Penas. Multi-criteria genetic optimisation of the manoeuvres of a two-stage launcher. *Information Sciences*, 180(6):896–910, March 15 2010.
- [176] P. Alotto, U. Baumgartner, F. Freschi, M. Jaendl, A. Koestinger, Ch. Magele, W. Renhart, and A. Repett. SMES optimization benchmark extended: Introducing Pareto optimal solutions into TEAM22. *IEEE Transactions on Magnetics*, 44(6):1066–1069, June 2008.
- [177] P. Alotto, A. V. Kuntsevitch, Ch. Magele, G. Molinari, C. Paul, K. Preis, M. Repetto, and K. R. Richter. Multiobjective Optimization in Magnetostatics: A Proposal for Benchmark Problems. Technical report, Institut für Grundlagen und Theorie Electrotechnik, Technische Universität Graz, Graz, Austria, 1996. <http://www-igte.tu-graz.ac.at/team/berl01.htm>.

- [178] Abdullah Alsheddy and Edward E.P.K. Tsang. Guided Pareto Local Search based frameworks for biobjective optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2770–2777, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [179] Julio E. Alvarez-Benitez, Richard M. Everson, and Jonathan E. Fieldsend. A MOPSO Algorithm Based Exclusively on Pareto Dominance Concepts. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 459–473, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [180] Álvaro Garcia-Piquer. *Facing-up Challenges of Multiobjective Clustering Based on Evolutionary Algorithms: Representations, Scalability and Retrieval Solutions*. PhD thesis, Computer Science Department, Escola Tècnica Superior d'Enginyeria Electrònica I Informàtica La Salle - Universitat Ramon Llull, Barcelona, Spain, March 2012.
- [181] Álvaro Gomes, Carlos Henggeler Antunes, and Eunice Oliveira. Direct Load Control in the Perspective of an Electricity Retailer - A Multi-objective Evolutionary Approach. In António Gaspar-Cunha, Ricardo Takahashi, Gerald Schaefer, and Lino Costa, editors, *Soft Computing in Industrial Applications*, volume 96 of *Advances in Intelligent and Soft Computing Series*, pages 13–26, Berlin, 2011. Springer. ISBN 978-3-642-20504-0.
- [182] Álvaro Luis Bustamante, José M. Molina López, and Miguel A. Patricio. Video encoder optimization via evolutionary multiobjective optimization algorithms. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1835–1836, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [183] Álvaro Rubio-Largo, Miguel A. Vega-Rodríguez, and Juan A. Gómez-Pulido. A Multiobjective Gravitational Search Algorithm Applied to the Static Routing and Wavelength Assignment Problem. *Applications of Evolutionary Computation*, 2(1):41–50, April 2011.
- [184] Álvaro Rubio-Largo, Miguel A. Vega-Rodríguez, Juan A. Gómez-Pulido, and Juan M. Sánchez-Pérez. A Multiobjective Gravitational Search Algorithm Applied to the Static Routing and Wavelength Assignment Problem. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Rolf Drechsler, Muddassar Farooq, Jörn Grahl, Gary Greenfield, Christian Prins, Juan Romero, Giovanni Squillero, Ernesto Tarantino, Andrea G.B. Tettamanzi, Neil Urquhart, and A. Şima Uyar, editors, *Applications of Evolutionary Computation, EvoApplications 2011: EvoCOMNET, EvoFIN, EvoHOT, EvoMUSART, EvoSTIM, and EvoTRANSLOG*, pages 41–50, Torino, Italy, April 27-29 2011. Springer. Lecture Notes in Computer Science Vol. 6625.

- [185] Álvaro Rubio-Largo, Miguel A. Vega-Rodríguez, Juan A. Gómez-Pulido, and Juan M. Sánchez-Pérez. Tackling the Static RWA Problem by Using a Multiobjective Artificial Bee Colony Algorithm. In Joan Cabestany, Ignacio Rojas, and Gonzalo Joya, editors, *Advances in Computational Intelligence, 11th International Work-Conference on Artificial Neural Networks, IWANN 2011*, pages 364–371, Torremolinos-Málaga, Spain, June 8-10 2011. Springer. Lecture Notes in Computer Science Vol. 6692.
- [186] Maria Joao Alves and Marla Almeida. MOTGA: A multiobjective Tchebycheff based genetic algorithm for the multidimensional knapsack problem. *Computers & Operations Research*, 34(11):3458–3470, November 2007.
- [187] Stefano Alvisi and Marco Franchini. Multiobjective Optimization of Rehabilitation and Leakage Detection Scheduling in Water Distribution Systems. *Journal of Water Resources Planning and Management-ASCE*, 135(6):426–439, November-December 2009.
- [188] N. Amanifard, N. Nariman-Zadeh, M. Borji, A. Khalkhali, and A. Habibdoust. Modelling and Pareto optimization of heat transfer and flow coefficients in microchannels using GMDH type neural networks and genetic algorithms. *Energy Conversion and Management*, 49(2):311–325, February 2008.
- [189] P. Amato and M. Farina. An Alife-Inspired Evolutionary Algorithm for Dynamic Multiobjective Optimization Problems. In F. Hoffmann, M. Köppen, F. Klawonn, and R. Roy, editors, *Advances in Soft Computing*, pages 113–125. Springer, 2005.
- [190] P. Amato, M. Farina, and C. Manara. Analysis of fuzzy-based extensions of pareto optimality theory. In *ERCIM Workshop on Soft Computing*, pages 126–134, Vienna, Austria, July 2004.
- [191] H. Amin-Tahmasbi and R. Tavakkoli-Moghaddam. Solving a bi-objective flow-shop scheduling problem by a Multi-objective Immune System and comparing with SPEA2+and SPGA. *Advances in Engineering Software*, 42(10):772–779, October 2011.
- [192] N. Amjady and H. Sharifzadeh. Security constrained optimal power flow considering detailed generator model by a new robust differential evolution algorithm. *Electric Power Systems Research*, 81(2):740–749, February 2011.
- [193] Paranya Ammaruekarat and Phayung Meesad. A Chaos Search for Multi-Objective Memetic Algorithm. In *2011 International Conference on Information and Electronics Engineering (ICIEE 2011)*, pages 140–144, Bangkok, Thailand, May 28-29 2011. IACSIT Press.
- [194] Paranya Ammaruekarat and Phayung Meesad. A Multi-Objective Memetic Algorithm Based on Chaos Optimization. *Applied Mechanics and Materials*, 130–134:725–729, 2012.

- [195] Lionel Amodeo, Haoxun Chen, and Aboubacar El Hadji. Multi-objective Supply Chain Optimization: An Industrial Case Study. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2007: EvoCOMNET, EvoFIN, EvoIASP, EvoINTERACTION, EvoMUSART, EvoSTOC and EvoTRANSLOG*, pages 732–741, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4448.
- [196] Lionel Amodeo, Haoxun Chen, and Aboubacar El Hadji. Supply Chain Inventory Optimisation with Multiple Objectives: An Industrial Case Study. In Andreas Fink and Franz Rothlauf, editors, *Advances in Computational Intelligence in Transport, Logistics and Supply Chain Management*, pages 211–230. Springer. Studies in Computational Intelligence Vol. 144, 2008.
- [197] Lionel Amodeo, Christian Prins, and David Ricardo Sánchez. Comparison of Metaheuristic Approaches for Multi-objective Simulation-Based Optimization in Supply Chain Inventory Management. In Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alc’azar, Muddassar Farooq, Andreas Fink, and Penousal Machado, editors, *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pages 798–807. Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.
- [198] E. A. Amorim, S. H. M. Hashimoto, F. G. M. Lima, and J. R. S. Mantovani. Multi Objective Evolutionary Algorithm Applied to the Optimal Power Flow Problem. *IEEE Latin America Transactions*, 8(3):236–244, June 2010.
- [199] Weigang An and Weiji Li. Interactive multi-objective optimization design for the pylon structure of an airplane. *Chinese Journal of Aeronautics*, 20(6):524–528, December 2007.
- [200] António Gaspar-Cunha and José António Covas, Bruno Vergnes, and Françoise Berzin. Reactive Extrusion—Optimization of Representative Processes. In António Gaspar-Cunha and José António Covas, editors, *Optimization in Polymer Processing*, chapter 6, pages 115–143. Nova Science Publishers, New York, USA, 2011. ISBN 978-1-61122-818-2.
- [201] Wen an Yang, Yu Guo, and Wenhe Liao. Economic and statistical design of (X)over-bar and S control charts using an improved multi-objective particle swarm optimisation algorithm. *International Journal of Production Research*, 50(1):97–117, 2012.
- [202] K. P. Anagnostopoulos and G. Mamanis. A portfolio optimization model with three objectives and discrete variables. *Computers & Operations Research*, 37(7):1285–1297, July 2010.
- [203] K. P. Anagnostopoulos and G. Mamanis. The mean-variance cardinality constrained portfolio optimization problem: An experimental evaluation of five multiobjective evolutionary algorithms. *Expert Systems with Applications*, 38(11):14208–14217, October 2011.

- [204] K.P. Anagnostopoulos and G. Mamanis. Multiobjective evolutionary algorithms for complex portfolio optimization problems. *Computational Management Science*, 8(3):259–279, August 2011.
- [205] Ashish Anand, Nikhil Ranjan Pal, and Ponnuthurai Nagarathnam Suganthan. Integration of functional information of genes in fuzzy clustering of short time series gene expression data. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3002–3009, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [206] Ashish Anand, P. N. Suganthan, and Kalyanmoy Deb. A novel fuzzy and multiobjective evolutionary algorithm based gene assignment for clustering short time series expression data. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 297–304, Singapore, September 2007. IEEE Press.
- [207] Yogesh K. Anand, Sanjay Srivastava, and Kamal Srivastava. Optimizing the Risk of Occupational Health Hazard in a Multiobjective Decision Environment Using NSGA-II. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 476–484, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [208] Mark A. Anastasio, Matthew A. Kupinski, Robert M. Nishikawa, and Maryellen L. Giger. A Multiobjective Approach to Optimizing Computerized Detection Schemes. In *1998 IEEE Nuclear Science Symposium*, volume 3, pages 1879–1883. IEEE, 1998.
- [209] S. B. D. V. P. S. Anauth and Robert T. F. Ah King. Comparative Application of Multi-Objective Evolutionary Algorithms to the Voltage and Reactive Power optimization Problem in Power Systems. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 424–434, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [210] Kevin P. Anchor, Jesse B. Zydallis, Gregg H. Gunsch, and Gary B. Lamont. Extending the Computer Defense Immune System: Network Intrusion Detection with a Multiobjective Evolutionary Programming Approach. In Jonathan Timmis and Peter J. Bentley, editors, *First International Conference on Artificial Immune Systems (ICARIS'2002)*, pages 12–21. University of Kent at Canterbury, UK, September 2002. ISBN 1-902671-32-5.
- [211] Kevin P. Anchor, Jesse B. Zydallis, Gregg H. Gunsch, and Gary B. Lamont. Different Multi-objective Evolutionary Programming Approaches for Detecting Computer Network Attacks. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary*

Multi-Criterion Optimization. Second International Conference, EMO 2003, pages 707–721, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.

- [212] Jessica M. Anderson, Tessa M. Sayers, and M. G. H. Bell. Optimization of a Fuzzy Logic Traffic Signal Controller by a Multiobjective Genetic Algorithm. In *Proceedings of the Ninth International Conference on Road Transport Information and Control*, pages 186–190, London, April 1998. IEE.
- [213] M. B. Anderson and W. R. Lawrence. Launch Conditions and Aerodynamic Data Extraction By An Elitist Pareto Genetic Algorithm. In *AIAA Atmospheric Flight Mechanics Conference*, San Diego, California, July 1996. AIAA Paper 96-3361.
- [214] M. B. Anderson, W. R. Lawrence, and G. A. Gebert. Using an Elitist Pareto Genetic Algorithm for Aerodynamic Data Extraction. In *4th Aerospace Sciences Meeting and Exhibit*, Reno, Nevada, January 1996. AIAA Paper 96-0514.
- [215] M.B. Anderson, J.E. Burkhalter, and R.M. Jenkins. Missile Aerodynamic Shape Optimization Using Genetic Algorithms. *Journal of Spacecraft and Rockets*, 37(5):663–669, September-October 2000.
- [216] Murray B. Anderson. Using Pareto Genetic Algorithms for Preliminary Subsonic Wing Design. In *6th AIAA/NASA/USAF Multidisciplinary Analysis and Optimization Symposium*, Bellevue, Washington, September 1996. AIAA Paper 96-4023.
- [217] Murray B. Anderson, J. E. Burkhalter, and R. M. Jenkins. Missile Aerodynamic Shape Optimization Using Genetic Algorithms. In *AIAA Aerospace Sciences Meeting and Exhibit*, Reno, Nevada, January 1999. AIAA Paper 99-0261.
- [218] Murray B. Anderson and Glenn A. Gerbert. Using Pareto Genetic Algorithms for Preliminary Subsonic Wing Design. Technical Report AIAA-96-4023-CP, AIAA, Washington, D.C., 1996.
- [219] S.R. Anderson, V. Kadirkamanathan, A. Chipperfield, V. Sharifi, and J. Swinbank. Multi-objective optimization of operational variables in a waste incineration plant. *Computers & Chemical Engineering*, 29(5):1121–1130, April 2005.
- [220] Johan Andersson. A Survey of Multiobjective Optimization in Engineering Design. Technical Report LiTH-IKP-R-1097, Department of Mechanical Engineering, Linköping University, Linköping, Sweden, 2000.
- [221] Johan Andersson. *Multiobjective Optimization in Engineering Design—Applications to Fluid Power Systems*. PhD thesis, Division of Fluid and Mechanical Engineering Systems. Department of Mechanical Engineering. Linköping Universitet, Linköping, Sweden, 2001.

- [222] Johan Andersson. Sensitivity Analysis in Pareto Optimal Design. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 156–161, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [223] Johan Andersson. Applications of a Multi-objective Genetic Algorithm to Engineering Design Problems. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 737–751, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [224] Johan Andersson. Design of Fluid Power Systems using a Multi Objective Genetic Algorithm. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 483–503. World Scientific, Singapore, 2004.
- [225] Johan Andersson. Sensitivity Analysis in Multi-Objective Evolutionary Design. In Kay Chen Tan, Meng Hiot Lim, Xin Yao, and Lipo Wang, editors, *Recent Advances in Simulated Evolution and Learning*, pages 386–405. World Scientific, Singapore, 2004.
- [226] Johan Andersson and Peter Krus. Multiobjective Optimization of Mixed Variable Design Problems. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 624–638. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [227] Johan Andersson and Petter Krus. Metamodel Representations for Robustness Assessment in Multiobjective Optimization. In *Proceedings of the 13th International Conference on Engineering Design (ICED 01)*, Glasgow, UK, August 2001.
- [228] Johan Andersson, Petter Krus, and David Wallace. Multi-Objective Optimization of Hydraulic Actuation Systems. In *Proceedings of the 2000 ASME Design Automation Conference*, Baltimore, Maryland, September 2000. ASME Press.
- [229] Johan Andersson, Jochen Pohl, and Petter Krus. Design of Objective Functions for Optimization of Multi-domain Systems. In *Proceedings of the 1998 ASME Winter Meeting*, Anaheim, California, November 1998. ASME Press.
- [230] Johan Andersson and David Wallace. Pareto optimization using the struggle genetic crowding algorithm. *Engineering Optimization*, 34(6):623–643, December 2002.
- [231] Shin Ando and Shigenobu Kobayashi. Fitness-based Neighbor Selection for Multimodal Function Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1573–1574, New York, USA, June 2005. ACM Press.

- [232] Shin Ando, Jun Sakuma, and Shigenobu Kobayashi. Adaptive Isolation Model using Data Clustering for Multimodal Function Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1417–1424, New York, USA, June 2005. ACM Press.
- [233] Shin Ando and Einoshin Suzuki. Distributed Multi-objective GA for Generating Comprehensive Pareto Front in Deceptive Optimization Problems. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 5718–5725, Vancouver, BC, Canada, July 2006. IEEE.
- [234] B. Andrés-Toro, E. Besada-Portas, P. Fernández-Blanco, J.A. López-Orozco, and J.M. Girón-Sierra. Multiobjective Optimization of Dynamic Processes by Evolutionary Methods. In *Proceedings of the 15th IFAC World Congress on Automatic Control*, Barcelona, Spain, July 2002.
- [235] B. Andrés-Toro, J. M. Girón-Sierra, P. Fernández-Blanco, J. A. López-Orozco, and E. Besada-Portas. Multiobjective Optimization and Multivariable Control of The Beer Fermentation Process with the Use of Evolutionary Algorithms. *Journal of Zhejiang University SCIENCE*, 5(4):378–389, April 2004.
- [236] J. H. Ang, C. K. Goth, E. J. Teoh, and A. A. Mamun. Multi-objective Evolutionary Recurrent Neural Networks for System Identification. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1586–1592, Singapore, September 2007. IEEE Press.
- [237] J. H. Ang, K. C. Tan, and A. A. Mamun. An evolutionary memetic algorithm for rule extraction. *Expert Systems with Applications*, 37(2):1302–1315, March 2010.
- [238] Ji Hua Ang, Chi Keong Goh, Eu Jin Teoh, and Kay Chen Tan. Designing a Recurrent Neural Network-based Controller for Gyro-Mirror Line-of-Sight Stabilization System using an Artificial Immune Algorithm. In Lakhmi C. Jain, Vasile Palade, and Dipti Srinivasan, editors, *Advances in Evolutionary Computing for System Design*, pages 189–209. Springer. Studies in Computational Intelligence, Volume 66, Berlin, 2007.
- [239] Kiam Heong Ang, Gregory Chong, and Yun Li. Preliminary Statement on the Current Progress of Multi-Objective Evolutionary Algorithm Performance Measurement. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1139–1144, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [240] Kiam Heong Ang, Gregory Chong, and Yun Li. Visualization Technique for Analyzing Non-Dominated Set Comparison. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 36–40, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.

- [241] Kiam Heong Ang, Gregory Chong, and Yun Li. Visualization Technique for Analyzing Non-dominant Pareto Optimality. In Kay Chen Tan, Meng Hiot Lim, Xin Yao, and Lipo Wang, editors, *Recent Advances in Simulated Evolution and Learning*, pages 327–346. World Scientific, Singapore, 2004.
- [242] Kiam Heong Ang and Yun Li. Multi-Objective Benchmark Studies for Evolutionary Computation. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 393–396, San Francisco, California, July 2001.
- [243] Kiam Heong Ang, Yun Li, and Kay Chen Tan. Multi-Objective Benchmark Functions and Benchmark Studies for Evolutionary Computation. In *Proceedings of the International Conference on Computational Intelligence for Modelling and Automation (CIMCA'2001)*, pages 132–139, Las Vegas, Nevada, July 2001.
- [244] M.C. Ang and A.M.S. Zalzal. Application of Pareto-based multiobjectives genetic algorithm in minimum time motion planning. In A. Sen, A.I. Sivakuma, and R. Gay, editors, *The 4th International Conference on Computer Integrated Manufacturing, ICCIM '97*, volume 2, pages 1338–1347, Singapore, October 1997. Springer-Verlag.
- [245] Anders Angantyr. *Rotordynamic Optimization of Large Turbo Systems using Genetic Algorithms*. PhD thesis, The Polhelm Laboratory, Division of Computer Aided Design, Lulea, Sweden, March 2006.
- [246] Anders Angantyr and Jan-Olov Aidanpää. A Pareto-Based Genetic Algorithm Search Approach to Handle Damped Natural Frequency Constraints in Turbo Generator Rotor System Design. *Journal of Engineering for Gas Turbines and Power—Transactions of the ASME*, 126(3):619–625, July 2004.
- [247] Anders Angantyr, Johan Andersson, and Jan-Olov Aidanpää. Constrained Optimization based on a Multiobjective Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1560–1567, Canberra, Australia, December 2003. IEEE Press.
- [248] Eric Angel, Evripidis Bampis, and Laurent Gourvès. Approximating the Pareto curve with local search for the bicriteria TSP(1,2) problem. *Theoretical Computer Science*, 310(1-3):135 – 146, January 2004.
- [249] Eric Angel, Evripidis Bampis, and Laurent Gourvès. A Dynasearch Neighborhood for the Bicriteria Traveling Salesman Problem. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T'kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 153–176, Berlin, 2004. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535.
- [250] Daniel Angus. Crowding Population-based Ant Colony Optimization for the Multi-objective Travelling Salesman Problem. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision*

Making (MCDM'2007), pages 333–340, Honolulu, Hawaii, USA, April 2007. IEEE Press.

- [251] Daniel Angus. Population-Based Ant Colony Optimisation for Multi-objective Function Optimisation. In Marcus Randall, Hussein A. Abbass, and Janet Wiles, editors, *Progress in Artificial Life, Third Australian Conference (ACAL'2007)*, pages 232–244. Springer. Lecture Notes in Computer Science, Vol. 4828, Heidelberg, Germany, 2007.
- [252] Daniel Angus. Niching for Ant Colony Optimisation. In Andrew Lewis, Sanaz Mostaghim, and Marcus Randall, editors, *Biologically-Inspired Optimisation Methods*, pages 165–188. Springer, 2009. ISBN 978-3-642-01261-7.
- [253] Daniel Angus and Clinton Woodward. Multiple objective ant colony optimisation. *Swarm Intelligence*, 3(1):69–85, 2009.
- [254] Daniel John Angus. *Niching Ant Colony Optimisation*. PhD thesis, Faculty of Information & Communication Technologies, Swinburne University of Technology, Melbourne, Australia, July 2008.
- [255] Angelo Marcello anile, Vincenzo Cutello, Giuseppe Nicosia, Rosario Rasconà, and Salvatore Spinella. Comparison among Evolutionary Algorithms and Classical Optimization Methods for Circuit Design Problems. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 765–772, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [256] Kiran K. Annamdas and Singiresu S. Rao. Multi-objective optimization of engineering systems using game theory and particle swarm optimization. *Engineering Optimization*, 41(8):737–752, August 2009.
- [257] W. Annicchiarico and M. Cerrolaza. Identification of the dynamical properties of structures using free vibration data and distributed genetic algorithms. *Engineering Optimization*, 39(8):969–980, December 2007.
- [258] Danish Ansari, Afzal Husain, and Kwang-Yong Kim. Multiobjective Optimization of a Grooved Micro-Channel Heat Sink. *IEEE Transactions on Components and Packaging Technologies*, 33(4):767–776, December 2010.
- [259] Nicolas Eugene Antoine. *Aircraft Optimization for Minimal Environmental Impact*. PhD thesis, Department of Aeronautics and Astronautics, Stanford University, Stanford, California, USA, August 2004.
- [260] Michela Antonelli, Pietro Ducange, Beatrice Lazzerini, and Francesco Marcelloni. Learning concurrently partition granularities and rule bases of Mamdani fuzzy systems in a multi-objective evolutionary framework. *International Journal of Approximate Reasoning*, 50(7):1066–1080, July 2009.
- [261] Michela Antonelli, Pietro Ducange, Beatrice Lazzerini, and Francesco Marcelloni. Learning concurrently data and rule bases of Mamdani fuzzy rule-based systems by exploiting a novel interpretability index. *Soft Computing*, 15(10):1981–1998, October 2011.

- [262] Michela Antonelli, Pietro Ducange, Beatrice Lazzerini, and Francesco Marceloni. Learning knowledge bases of multi-objective evolutionary fuzzy systems by simultaneously optimizing accuracy, complexity and partition integrity. *Soft Computing*, 15(12):2335–2354, December 2011.
- [263] Claudia Guterrez Antonio, Abel Briones Ramirez, and Arturo Jimenez Gutierrez. Optimization of Petlyuk sequences using a multi objective genetic algorithm with constraints. *COMPUTERS & CHEMICAL ENGINEERING*, 35(2):236–244, February 9 2011.
- [264] Jose Antonio Parejo, Antonio Ruiz-Cortes, Sebastian Lozano, and Pablo Fernandez. Metaheuristic optimization frameworks: a survey and benchmarking. *Soft Computing*, 16(3):527–561, March 2012.
- [265] Carlos Henggeler Antunes, Paulo Lima, Eunice Oliveira, and Dulce F. Pires. A multi-objective simulated annealing approach to reactive power compensation. *Engineering Optimization*, 43(10):1063–1077, 2011.
- [266] Carlos Henggeler Antunes, Dulce Fernao Pires, Carlos Barrico, Alvaro Gomes, and Antonio Gomes Martins. A multi-objective evolutionary algorithm for reactive power compensation on distribution networks. *Applied Energy*, 86(7-8):977–984, July-August 2009.
- [267] Rui Dil ao, Daniele Muraro, Miguel Nicolau, and Marc Schoenauer. Validation of a Morphogenesis Model of Drosophila Early Development by a Multi-objective Evolutionary Optimization Algorithm. In Clara Pizzuti, Marylyn D. Ritchie, and Mario Giacobini, editors, *Evolutionary Computation, Machine Learning and Data Mining in Bioinformatics (EvoBIO'2009)*, pages 176–190. Springer, Lecture Notes in Computer Science, Vol. 5483, Tübingen, Germany, 2009. ISBN 978-3-642-01183-2.
- [268] Tiago Leit ao, Francisco B. Pereira, Jorge Tavares, and Ernesto Costa. Niching Techniques: a Study on the Cluster Geometry Optimization Problem. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, page 1524, London, UK, July 2007. ACM Press.
- [269] Wesley Klewerton Guez Assunç ao, Thelma Elita Colanzi, Aurora Trinidad Ramirez Pozo, and Silvia Regina Vergilio. Establishing integration Test Orders of Classes with Several Coupling Measures. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1867–1874, Dublin, Ireland, July 12-16 2011. ACM Press.
- [270] Jo ao A. Vasconcelos, Jo ao H.R.D. Maciel, and Roberta O. Parreiras. Scatter Search Techniques Applied to Electromagnetic Problems. *IEEE Transactions on Magnetics*, 41(5):1804–1807, May 2005.
- [271] M. Jo ao Alves and Jo ao Clímaco. An Interactive Method for 0-1 Multi-objective Problems Using Simulated Annealing and Tabu Search. *Journal of Heuristics*, 6(3):385–403, August 2000.

- [272] Maria Jo ao Alves and Jo ao Paulo Costa. An Evolutionary Algorithm to Estimate the Nadir Point in MOLP. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 540–553. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [273] Jo ao Batista Mendes and Jo ao Antonio de Vasconcelos. Using an Adaptation of a Binary Search Tree to Improve The NSGA-II Nondominated Sorting Procedure. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 558–562, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [274] Jo ao Claro and Jorge Pinho de Sousa. A multiobjective metaheuristic for a mean-risk multistage capacity investment problem. *Journal of Heuristics*, 16(1):85–115, February 2010.
- [275] Jo ao Claro and Jorge Pinho de Sousa. A multiobjective metaheuristic for a mean-risk static stochastic knapsack problem. *Computational Optimization And Applications*, 46(3):427–450, July 2010.
- [276] Jo ao P. Dias and Manuel S. Pereira. Multicriteria Optimization of Train Structures for Crashworthiness. In Jorge A. C. Ambrósio, editor, *Advances in Computational Multibody Systems*, pages 295–317. Springer, Computational Methods in Applied Sciences, Vol. 2, 2005. ISBN 978-1-4020-3392-6.
- [277] Dulce Fern ao Pires, António Gomes Martins, and Carlos Henggeler Antunes. A Multiobjective Model for VAR Planning in Radial Distribution Networks Based on Tabu Search. *IEEE Transactions on Power Systems*, 20(2):1089–1094, May 2005.
- [278] Francisco Aparisi and J. Carlos García-Díaz. A Multiobjective Optimization for the EWMA and MEWMA Quality Control Charts. In *Proceedings of Inverse Problems, Design and Optimization Symposium (IPDO'2004)*, Rio de Janeiro, Brazil, March 2004.
- [279] Daniel E. Salazar Aponte, Claudio M. Rocco S., and Blas Galván. On Uncertainty and Robustness in Evolutionary Optimization-Based MCDM. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 51–65. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [280] A. Boloori Arabani, M. Zandieh, and S. M. T. Fatemi Ghomi. A cross-docking scheduling problem with sub-population multi-objective algorithms. *International Journal of Advanced Manufacturing Technology*, 58(5-8):741–761, January 2012.

- [281] A. Boloori Arabani, M. Zandieh, and S.M.T. Fatemi Ghomi. Multi-objective genetic-based algorithms for a cross-docking scheduling problem. *Applied Soft Computing*, 11(8):4954–4970, December 2011.
- [282] A. R. Boloori Arabani, S. M. T. Fatemi Ghomi, and M. Zandieh. A multi-criteria cross-docking scheduling with just-in-time approach. *International Journal of Advanced Manufacturing Technology*, 49(5-8):741–756, July 2010.
- [283] Alejandro M. Aragon, Kyle J. Smith, Philippe H. Geubelle, and Scott R. White. Multi-physics design of microvascular materials for active cooling applications. *Journal of Computational Physics*, 230(13):5178–5198, June 10 2011.
- [284] M. Arakawa, K. Hasegawa, and K. Funatsu. QSAR study of anti-HIV HEPT analogues based on multi-objective genetic programming and counter-propagation neural network. *Chemometrics and Intelligent Laboratory Systems*, 83(2):91–98, September 2006.
- [285] Masao Arakawa, Hirotaka Nakayama, Ichiro Hagiwara, and Hiroshi Yamakawa. Multiobjective Optimization Using Adaptive Range Genetic Algorithms with Data Envelopment Analysis. In *A Collection of Technical Papers of the 7th Symposium on Multidisciplinary Analysis and Optimization, AIAA-98-4970*, volume 3, pages 2074–2082. American Institute of Aeronautics and Astronautics, 1998.
- [286] Mustafa M. Aral, Jiabao Guan, and Morris L. Maslia. Optimal Design of Sensor Placement in Water Distribution Networks. *Journal of Water Resources Planning and Management-ASCE*, 136(1):5–18, January-February 2010.
- [287] C. Aranha and H. Iba. Modelling Cost into a Genetic Algorithm-Based Portfolio Optimization System by Seeding an Objective Sharing. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 196–203, Singapore, September 2007. IEEE Press.
- [288] Claus Aranha. Portfolio management with cost model using multi objective genetic algorithms. Master's thesis, Department of Frontier Informatics, The University of Tokyo, Japan, August 2007.
- [289] A. L. Araujo, P. Martins, C. M. Mota Soares, C. A. Mota Soares, and J. Herskovits. Damping optimization of viscoelastic laminated sandwich composite structures. *Structural and Multidisciplinary Optimization*, 39(6):569–579, December 2009.
- [290] Aluizio Fausto Ribeiro Araujo and Cicero Garrozi. MulRoGA: A Multicast Routing Genetic Algorithm approach considering multiple objectives. *Applied Intelligence*, 32(3):330–345, June 2010.
- [291] L. Araujo. Multiobjective Genetic Programming for Natural Language Parsing and Tagging. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel*

Problem Solving from Nature - PPSN IX, 9th International Conference, pages 433–442. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.

- [292] Hamid Ansari Ardeh, Masoud Shariatpanahi, and Mansour Nikkhah Bahrami. Multiobjective shape optimization of speed humps. *Structural and Multidisciplinary Optimization*, 37(2):203–214, December 2008.
- [293] Alfredo Arias Montaño and Carlos A. Coello Coello. pMODE-LS+SS: An Effective and Efficient Parallel Differential Evolution Algorithm for Multi-Objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 21–30. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [294] Alfredo Arias Montaño, Carlos A. Coello Coello, and Efrén Mezura-Montes. Evolutionary Algorithms Applied to Multi-Objective Aerodynamic Shape Optimization. In Slawomir Koziel and Xin-She Yang, editors, *Computational Optimization, Methods and Algorithms*, chapter 10, pages 211–240. Springer, Berlin, Germany, 2011. ISBN 978-3-642-20858-4.
- [295] Aditya Arikere, Gurunathan Saravana Kumar, and Sandipan Bandyopadhyay. Optimisation of Double Wishbone Suspension System Using Multi-Objective Genetic Algorithm. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 445–454, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [296] Otto Aristeguieta. Multi-Objective Portfolio Optimisation of Upstream Petroleum Projects. Master’s thesis, Faculty of Engineering, Computer and Mathematical Science, Australian School of Petroleum, The University of Adelaide, Adelaide, Australia, April 2008.
- [297] B. Arkov, D.C. Evans, P.J. Fleming, D.C. Hill, J.P. Norton, I. Pratt, D. Rees, and K. Rodríguez Vázquez. System Identification Strategies Applied to Aircraft Gas-Turbine Engines. In *14th IFAC World Congress*, volume 1, pages 145–152, Beijing, China, July 1999.
- [298] Ruben Armananzas and Jose A. Lozano. A Multiobjective Approach to the Portfolio Optimization Problem. In *2005 IEEE Congress on Evolutionary Computation (CEC’2005)*, volume 2, pages 1388–1395, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [299] Roberto Armellin, Michele Lavagna, Ryan P. Starkey, and Mark J. Lewis. Aerogravity-assist maneuvers: Coupled trajectory and vehicle shape optimization. *Journal of Spacecraft and Rockets*, 44(5):1051–1059, September-October 2007.

- [300] Vinícius Amaral Armentano and José Elias Claudio. An Application of a Multi-Objective Tabu Search Algorithm to a Bicriteria Flowshop Problem. *Journal of Heuristics*, 10(5):463–481, September 2004.
- [301] M. P. Armstrong, N. C. Xiao, and D. A. Bennett. Using genetic algorithms to create multicriteria class intervals for choropleth maps. *Annals of the Association of American Geographers*, 93(3):595–623, September 2003.
- [302] Marc Torrens Arnal. *Scalable Intelligent Electronic Catalogs*. PhD thesis, Faculté Informatique et Communications Section d’Informatique, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, 2003.
- [303] Ragnar Arnason. Fisheries Management. In Andrés Weintraub, Carlos Romero, Trond Bjørndal, Rafael Epstein, and Jaime Miranda, editors, *Handbook Of Operations Research In Natural Resources*, pages 157–179. Springer. International Series in Operations Research & Management Science Vol. 99, Berlin, 2008.
- [304] S. Arnone, A. Loraschi, and A. Tettamanzi. A genetic approach to portfolio selection. *Neural Network World*, 3(6):597–604, 1993.
- [305] J.E.C. Arroyo and V.A. Armentano. Genetic local search for multi-objective flowshop scheduling problems. *European Journal of Operational Research*, 167(3):717–738, December 2005.
- [306] José E.C. Arroyo, André G. Santos, Paula M. dos Santos, and Wellington G. Ribeiro. A Bi-objective Iterated Local Search Heuristic with Path-Relinking for the p-Median Problem. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 492–504, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [307] Jose Elias Claudio Arroyo and Ana Amelia Souza Pereira. A GRASP heuristic for the multi-objective permutation flowshop scheduling problem. *International Journal of Advanced Manufacturing Technology*, 55(5-8):741–753, July 2011.
- [308] Jose Elias Claudio Arroyo, Pedro Sampaio Vieira, and Dalessandro Soares Vianna. A GRASP algorithm for the multi-criteria minimum spanning tree problem. *Annals of Operations Research*, 159(1):125–133, March 2008.
- [309] L.V.R. Arruda, M.C.S. Swiech, M.R.B. Delgado, and F. Neves Jr. PID control of MIMO process based on rank niching genetic algorithm. *Applied Intelligence*, 29(3):290–305, December 2008.
- [310] T. Arslan, D. H. Horrocks, and E. Ozdemir. Structural Synthesis of Cell-based VLSI Circuits using a Multi-Objective Genetic Algorithm. *IEE Electronic Letters*, 32(7):651–652, March 1996.

- [311] T. Arslan, E. Ozdemir, M. S. Bright, and D. H. Horrocks. Genetic Synthesis Techniques for Low-Power Digital Signal Processing Circuits. In *Proceedings Of The IEE Colloquium On Digital Synthesis*, pages 7/1–7/5, London, UK, February 1996. IEE.
- [312] Yilmaz Arslanoğlu. Genetic Algorithm for Personnel Assignment Problem with Multiple Objectives. Master’s thesis, The Graduate School of Natural and Applied Sciences of Middle East Technical University, Turkey, January 2006.
- [313] María Arsuaga-Ríos, Miguel A. Vega-Rodríguez, and Francisco Prieto-Castrillo. Multi-Objective Artificial Bee Colony for Scheduling in Grid Environments. In *2011 IEEE Symposium on Swarm Intelligence (SIS 2011)*, pages 206–212. IEEE Press, Paris, France, April 11-15 2011.
- [314] Masoud Asadzadeh and Bryan Tolson. Hybrid Pareto archived dynamically dimensioned search for multi-objective combinatorial optimization: application to water distribution network design. *Journal of Hydroinformatics*, 14(1):192–205, January 2012.
- [315] Giuseppe Ascia, Vincenzo Catania, Alessandro G. Di Nuovo, Maurizio Palesi, and Davide Patti. Computational Intelligence to Speed-Up Multi-Objective Design Space Exploration of Embedded Systems. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 265–299. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [316] Giuseppe Ascia, Vincenzo Catania, Alessandro G. Di Nuovo, Maurizio Palesi, and Davide Patti. A Multiobjective Genetic Fuzzy Approach for Intelligent System-level Exploration in Parameterized VLIW Processor Design. In *2006 IEEE Congress on Evolutionary Computation (CEC’2006)*, pages 6200–6207, Vancouver, BC, Canada, July 2006. IEEE.
- [317] Giuseppe Ascia, Vincenzo Catania, Alessandro G. Di Nuovo, Maurizio Palesi, and Davide Patti. Performance evaluation of efficient multi-objective evolutionary algorithms for design space exploration of embedded computer systems. *Applied Soft Computing*, 11(1):382–398, January 2011.
- [318] Giuseppe Ascia, Vincenzo Catania, and Maurizio Palesi. Design Space Exploration Methodologies for IP-Based System-on-a-Chip. In *IEEE International Symposium on Circuits and Systems*, volume 2, pages 364–367, 2002.
- [319] Giuseppe Ascia, Vincenzo Catania, and Maurizio Palesi. A Framework for Design Space Exploration of Parameterized VLSI Systems. In *Proceedings of the 7th Asia and South Pacific Design Automation Conference and the 15th International Conference on VLSI Design*, pages 245–250. IEEE, 2002.
- [320] Giuseppe Ascia, Vincenzo Catania, and Maurizio Palesi. A GA-Based Design Space Exploration Framework for Parameterized System-On-A-Chip Platforms. *IEEE Transactions on Evolutionary Computation*, 8(4):329–346, August 2004.

- [321] Giuseppe Ascia, Vincenzo Catania, and Maurizio Palesi. An Evolutionary Approach to Network-on-Chip Mapping Problem. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 112–119, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [322] Giuseppe Ascia, Vincenzo Catania, and Maurizio Palesi. Mapping Cores on Network-on-Chip. *International Journal of Computational Intelligence Research*, 1(2):109–126, 2005.
- [323] Giuseppe Ascia, Vincenzo Catania, and Maurizio Palesi. A multiobjective genetic approach for system-level exploration in parameterized systems-on-a-chip. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 24(4):635–645, April 2005.
- [324] Giuseppe Ascia, Vincenzo Catania, and Maurizio Palesi. A multi-objective genetic approach to mapping problem on Network-on-Chip. *Journal of Universal Computer Science*, 12(4):370–394, 2006.
- [325] Giuseppe Ascia, Vincenzo Catania, Maurizio Palesi, and Davide Patti. Multi-objective Optimization of a Parameterized VLIW Architecture. In Ricardo S. Zebulum, David Gwaltney, Gregory Hornby, Didier Keymeulen, Jason Lohn, and Adrian Stoica, editors, *Proceedings of the 2004 NASA/DoD Conference on Evolvable Hardware*, pages 191–198, Los Alamitos, California, USA, June 2004. IEEE Computer Society.
- [326] M. Ashabani and Y.A.-R.I. Mohamed. Multiobjective shape optimization of segmented pole permanent-magnet synchronous machines with improved torque characteristics. *IEEE Transactions on Magnetics*, 47(4):795–804, April 2011.
- [327] Payam Ashtari and Farshid Barzegar. Accelerating fuzzy genetic algorithm for the optimization of steel structures. *Structural and Multidisciplinary Optimization*, 45(2):275–285, February 2012.
- [328] Yaw Asiedu and Mark Rempel. A Multiobjective Coverage-Based Model for Civilian Search and Rescue. *Naval Research Logistics*, 58(3):167–179, 2011.
- [329] S. S. Askar and A. Tiwari. Finding Exact Solutions for Multi-Objective Optimisation Problems using a Symbolic Algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 24–30, Trondheim, Norway, May 2009. IEEE Press.
- [330] S.S. Askar and A. Tiwari. Multi-Objective Optimisation Problems: A Symbolic Algorithm for Performance Measurement of Evolutionary Computing Techniques. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 169–182. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.

- [331] Andi Asmara, Ubald Nienhuis, and Robert Hekkenberg. Approximate orthogonal simplification of 3D model. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1170–1173, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [332] Hishammuddin Asmuni. *Fuzzy Methodologies for Automated University Timetabling Solution Construction and Evaluation*. PhD thesis, University of Nottingham, UK, April 2008.
- [333] V. G. Asouti, I. C. Kampolis, and K. C. Giannakoglou. A grid-enabled asynchronous metamodel-assisted evolutionary algorithm for aerodynamic optimization. *Genetic Programming and Evolvable Machines*, 10(4):373–389, December 2009.
- [334] Varvara G. Asouti and Kyriakos C. Giannakoglou. Aerodynamic optimization using a parallel asynchronous evolutionary algorithm controlled by strongly interacting demes. *Engineering Optimization*, 41(3):241–257, March 2009.
- [335] Nima Assadian and Seid H. Pourtakdoust. Multiobjective genetic optimization of Earth-Moon trajectories in the restricted four-body problem. *Advances in Space Research*, 45(3):398–409, February 1 2010.
- [336] K. Atashkari, N. Nariman-Zadeh, M. Golcu, A. Khalkhali, and A. Jamali. Modelling and multi-objective optimization of a variable valve-timing spark-ignition engine using polynomial neural networks and evolutionary algorithms. *Energy Conversion and Management*, 48(3):1029–1041, March 2007.
- [337] K. Atashkari, N. Nariman-Zadeh, A. Pilechi, A. Jamali, and X. Yao. Thermodynamic Pareto optimization of turbojet engines using multi-objective genetic algorithms. *International Journal of Thermal Sciences*, 44(11):1061–1071, November 2005.
- [338] David Atienza, Christos Baloukas, Lazaros Papadopoulos, Christophe Poucet, Stylianos Mamagkakis, Jose I. Hidalgo, Francky Catthoor, Dimitrios Soudris, and Juan Lanchares. Optimization of Dynamic Data Structures in Multimedia Embedded Systems Using Evolutionary Computation. In *Proceedings of the 10th ACM International Workshop on Software & Compilers for Embedded Systems (SCOPES)*, pages 31–40, Nice, France, 2007. ACM Press.
- [339] M. Atiquzzaman, S.Y. Liong, and X.Y. Yu. Alternative decision making in water distribution network with NSGA-II. *Journal Of Water Resources Planning and Management-ASCE*, 132(2):122–126, March-April 2006.
- [340] John Atkinson-Abutridy, Chris Mellish, and Stuart Aitken. A Semantically Guided and Domain-Independent Evolutionary Model for Knowledge Discovery from Texts. *IEEE Transactions on Evolutionary Computation*, 7(6):546–560, December 2003.
- [341] Bara’a Ali Attea. A fuzzy multi-objective particle swarm optimization for effective data clustering. *Memetic Computing*, 2(4):305–312, December 2010.

- [342] Jean-Francois Aubry, Frederic Beaulieu, Caroline Sevigny, Luc Beaulieu, and Daniel Tremblay. Multiobjective optimization with a modified simulated annealing algorithm for external beam radiotherapy treatment planning. *Medical Physics*, 33(12):4718–4729, December 2006.
- [343] Anne Auger, Johannes Bader, and Dimo Brockhoff. Theoretically Investigating Optimal μ -Distributions for the Hypervolume Indicator: First Results for Three Objectives. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 586–596. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [344] Anne Auger, Johannes Bader, Dimo Brockhoff, and Eckart Zitzler. Articulating user preferences in many-objective problems by sampling the weighted hypervolume. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 555–562, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [345] Anne Auger, Johannes Bader, Dimo Brockhoff, and Eckart Zitzler. Investigating and exploiting the bias of the weighted hypervolume to articulate user preferences. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 563–570, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [346] Anne Auger, Johannes Bader, Dimo Brockhoff, and Eckart Zitzler. Theory of the Hypervolume Indicator: Optimal $\{\mu\}$ -Distributions and the Choice Of The Reference Point. In *FOGA '09: Proceedings of the tenth ACM SIGEVO workshop on Foundations of genetic algorithms*, pages 87–102, Orlando, Florida, USA, January 2009. ACM.
- [347] A. Augugliaro, L. Dusonchet, S. Favuzza, and E. Riva Sanseverino. A Fuzzy-Logic based Evolutionary Multiobjective Approach for Automated Distribution Networks Management. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 847–854, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [348] A. Augugliaro, L. Dusonchet, and E. Riva Sanseverino. Multiobjective service restoration in distribution networks using an evolutionary approach and fuzzy sets. *Electrical Power and Energy Systems*, 22(2):103–110, February 2000.
- [349] Antonino Augugliaro, Luigi Dusonchet, and Eleonora Riva Sanseverino. Evolving non-dominated solutions in multiobjective service restoration for automated distribution networks. *Electric Power Systems Research*, 59(3):185–195, October 2001.
- [350] O. B. Augusto, S. Rabeau, P. Depince, and F. Bennis. Multi-objective genetic algorithms: A way to improve the convergence rate. *Engineering Applications of Artificial Intelligence*, 19(5):501–510, August 2006.

- [351] Gideon Avigad. *Search and Selection of Concepts in Multi-objective Engineering Problems Using Evolutionary Algorithms*. PhD thesis, The Zandman-Slaner Graduate School of Engineering, Tel-Aviv University, Tel-Aviv, Israel, November 2006.
- [352] Gideon Avigad. multi-Multi-Objective Optimization Problem and Its Solution by a MOEA. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 847–861, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [353] Gideon Avigad. *Search and Selection of Concepts in Multi-objective Engineering Problems Using Evolutionary Algorithms*. PhD thesis, The Iby and Aladar Fleischman Faculty of Engineering, Tel Aviv University, Israel, March 2007.
- [354] Gideon Avigad. A Simultaneous EMO for the Solution of the multi-Multi-Objective Optimization Problem. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2117–2124, Singapore, September 2007. IEEE Press.
- [355] Gideon Avigad. Evolutionary Multi-Multi-Objective Optimization - EM-MOO. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 1, pages 3–26. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [356] Gideon Avigad and Jürgen Branke. Embedded Evolutionary Multi-Objective Optimization for Worst Case Robustness. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 617–624, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [357] Gideon Avigad and Carlos A. Coello Coello. Solving Constrained Multi-Objective Problems by Objective Space Analysis. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 753–754, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [358] Gideon Avigad and Carlos A. Coello Coello. Highly Reliable Optimal Solutions to Multi Objective Problems and their Evolution by Means of Worst-case Analysis. *Engineering Optimization*, 42(1):1095–1117, December 2010.
- [359] Gideon Avigad and Kalyanmoy Deb. The Sequential Optimization-Constraint Multi-objective Problem and its Applications for robust Planning of robot paths. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2101–2108, Singapore, September 2007. IEEE Press.
- [360] Gideon Avigad and Erella Eisenstadt. Robustness of Multi-Objective Optimal Solutions to Physical Deterioration Through Active Control. In Kalyanmoy

Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 394–403, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.

- [361] Gideon Avigad, Erella Eisenstadt, and Alexander Goldvard. Pareto layer: Its formulation and search by way of evolutionary multi-objective optimization. *Engineering Optimization*, 42(5):453–470, May 2010.
- [362] Gideon Avigad, Erella Eisenstadt, and Miri Weiss. The Optimization Versus Survival Problem and Its Solution by an Evolutionary Multi Evolutionary Algorithm. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 494–503, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [363] Gideon Avigad and Erella Eisenstadt Matalon. The multi-single-objective problem and its solution by way of evolutionary algorithms. *Research in Engineering Design*, 22(2):87–102, April 2011.
- [364] Gideon Avigad and Amiram Moshaiov. Interactive Evolutionary Multiobjective Search and Optimization of Set-Based Concepts. *IEEE Transactions on Systems Man and Cybernetics Part B–Cybernetics*, 39(4):1013–1027, August 2009.
- [365] Gideon Avigad and Amiram Moshaiov. Set-based concept selection in multi-objective problems: optimality versus variability approach. *Journal of Engineering Design*, 20(3):217–242, 2009.
- [366] Gideon Avigad and Amiram Moshaiov. Set-based concept selection in multi-objective problems involving delayed decisions. *Journal Of Engineering Design*, 21(6):619–646, 2010.
- [367] Gideon Avigad and Amiram Moshaiov. Simultaneous concept-based evolutionary multi-objective optimization. *Applied Soft Computing*, 11(1):193–207, January 2011.
- [368] Gideon Avigad, Amiram Moshaiov, and Neima Brauner. MOEA-Based Approach to Delayed Decisions for Robust Conceptual Design. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. Evoworkshops 2005: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 584–589. Springer. Lecture Notes in Computer Science Vol. 3449, Lausanne, Switzerland, March/April 2005.

- [369] S.L. Avila, A.C. Lisboa, L. Krahenbuhl, W.P. Carpes, J.A. Vasconcelos, R.R. Saldanha, and R.H.C. Takahashi. Sensitivity analysis applied to decision making in multiobjective evolutionary optimization. *IEEE Transactions on Magnetics*, 42(4):1103–1106, April 2006.
- [370] S. Avril, G. Arnaud, H. Colin, F. Montignac, C. Mansilla, and M. Vinard. Cost and surface optimization of a remote photovoltaic system for two kinds of panels’ technologies. *Journal of Power Sources*, 196(19):8166–8169, October 1 2011.
- [371] S. Avril, G. Arnaud, A. Florentin, and M. Vinard. Multi-Objective Optimization of Batteries and Hydrogen Storage Technologies for Remote Photovoltaic Systems. *Energy*, 35(12):5300–5308, December 2010.
- [372] H. Barzegar Avval, P. Ahmadi, A. R. Ghaffarizadeh, and M. H. Saidi. Thermo-economic-environmental multiobjective optimization of a gas turbine power plant with preheater using evolutionary algorithm. *International Journal of Energy Research*, 35(5):389–403, April 2011.
- [373] B. Awadh, N. Sepehri, and O. Hawaleshka. A Computer-Aided Process Planning Model Based on Genetic Algorithms. *Computers in Operations Research*, 22(8):651–652, 1995.
- [374] Ilhan Aydin, Mehmet Karakose, and Erhan Akin. A Multi-Objective Artificial Immune Algorithm for Parameter Optimization in Support Vector Machine. *Applied Soft Computing*, 11(1):120–129, January 2011.
- [375] Nasser Ayoub, Elsayed Elmoshi, Hiroya Seki, and Yuji Naka. Evolutionary algorithms approach for integrated bioenergy supply chains optimization. *Energy Conversion and Management*, 50(12):2944–2955, December 2009.
- [376] Haldun Aytug and Serpil Sayin. Using support vector machines to learn the efficient set in multiple objective discrete optimization. *European Journal of Operational Research*, 193(2):510–519, March 1 2009.
- [377] R. Muhammad Atif Azad and Conor Ryan. Variance Selection to Improve Test Set Performance in Genetic Programming. In *2011 Genetic and Evolutionary Computation Conference (GECCO’2011)*, pages 1315–1322, Dublin, Ireland, July 12-16 2011. ACM Press.
- [378] S. Azarm and S. Narayanan. A multiobjective interactive sequential hybrid optimization technique for design decision making. *Engineering Optimization*, 32(4):485–500, 2000.
- [379] Shapour Azarm, Brian J. Reynolds, and Sanjay Narayanan. Comparison of Two Multiobjective Optimization Techniques With and Within Genetic Algorithms. In *CD-ROM Proceedings of the 25th ASME Design Automation Conference*, volume Paper No. DETC99/DAC-8584, Las Vegas, Nevada, September 1999.

- [380] Amir Azaron, Cahit Perkgoz, Hideki Katagiri, and Masatoshi Sakawa. Multi-objective reliability optimization for dissimilar-unit cold-standby systems using a genetic algorithm. *Computares & Operations Research*, 36(5):1562–1571, May 2009.
- [381] C. Azzaro-Pantel, L. Bernal-Haro, P. Domenech S., and L. Pibouleau. A two-stage methodology for short-term batch plant scheduling: discrete-event simulation and genetic algorithm. *Computers & Chemical Engineering*, 22(10):1461–1481, 1998.
- [382] Catherine Azzaro-Pantel and Pascale Zarate. Mutual benefits of two multicriteria analysis methodologies: A case study for batch plant design. *Engineering Applications of Artificial Intelligence*, 22(4-5):546–556, June 2009.
- [383] Norio Baba and Hisashi Handa. COMMONS GAME Made More Exciting by an Intelligent Utilization of the Two Evolutionary Algorithms. In Norio Baba, Lakhmi C. Jain, and Hisashi Handa, editors, *Advanced Intelligent Paradigms in Computer Games*, pages 1–16. Springer. Studies in Computational Intelligence Vol. 71, 2007.
- [384] Meisam Babaie, Hoseyn Sayyaadi, and Mohammad Reza Farmani. Multi-Objective Particle Swarm Optimization and Fuzzy Decision Making in a benchmark cogeneration system. In *International Conference on Information Engineering and Computer Science, 2009 (ICIECS 2009)*, pages 1–4, Wuhan, China, December 19-20 2009. IEEE Computer Society.
- [385] Meghna Babbar, Ashvin Lakshmikantha, and David E. Goldberg. A Modified NSGA-II to Solve Noisy Multiobjective Problems. In James Foster, editor, *2003 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 21–27, Chicago, Illinois, USA, July 2003. AAAI.
- [386] B.V. Babu, P.G. Chakole, and J.H.S. Mubeen. Multiobjective differential evolution (MODE) for optimization of adiabatic styrene reactor. *Chemical Engineering Science*, 60(17):4822–4837, September 2005.
- [387] B.V. Babu and Ashish M Gujarathi. Multi-Objective Differential Evolution (MODE) Algorithm for Multi-Objective Optimization: Parametric Study on Benchmark Test Problems. *Journal on Future Engineering & Technology*, 3(1):47–59, August–October 2007.
- [388] B.V. Babu and Ashish M. Gujarathi. Multi-Objective Differential Evolution (MODE) for Optimization of Supply Chain Planning. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2732–2739, Singapore, September 2007. IEEE Press.
- [389] B.V. Babu and M. Mathew Leenus Jehan. Differential Evolution for Multi-Objective Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2696–2703, Canberra, Australia, December 2003. IEEE Press.

- [390] B.V. Babu, J.H. Syed Mubeen, and Pallavi G. Chakole. Simulation and Optimization of Wiped-Film Poly-Ethylene Terephthalate (PET) Reactor using Multiobjective Differential Evolution (MODE). *Materials and Manufacturing Processes*, 22(5):541–552, 2007.
- [391] K. Suresh Babu, M. V. Pavan Kumar, and Nitin Kaistha. Controllable optimized designs of an ideal reactive distillation system using genetic algorithm. *Chemical Engineering Science*, 64(23):4929–4942, December 1 2009.
- [392] M. Bachlaus, M.K. Tiwari, and F.T.S. Chan. Multi-Objective Resource Assignment Problem in a Product-Driven Supply Chain Using a Taguchi-Based DNA Algorithm. *International Journal of Production Research*, 47(9):2345–2371, 2009.
- [393] Thomas Bäck, David B. Fogel, and Zbigniew Michalewicz, editors. *Handbook of Evolutionary Computation*. Institute of Physics Publishing and Oxford University Press, 1997.
- [394] Tomas Bäck, Lars Willmes, and Peter Krause. Evolution Strategies: Bioinspired Optimization for Engineering. In Bogdan Filipič and Jurij Šilc, editors, *Bioinspired Optimization Methods and Their Applications. Proceedings of the International Conference on Bioinspired Optimization Methods and their Applications, BIOMA 2004*, pages 3–17. Jožef Stefan Institute, Ljubljana, Slovenia, October 2004.
- [395] Carlos Bacquet, Nur A. Zincir-Heywood, and Malcolm I. Heywood. An analysis of clustering objectives for feature selection applied to encrypted traffic identification. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 865–872, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [396] Johannes Bader, Dimo Brockhoff, Samuel Welten, and Eckart Zitzler. On Using Populations of Sets in Multiobjective Optimization. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 140–154. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [397] Johannes Bader, Kalyanmoy Deb, and Eckart Zitzler. Faster Hypervolume-Based Search Using Monte Carlo Sampling. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 313–326. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.
- [398] Johannes Bader and Eckart Zitzler. HypE: An Algorithm for Fast Hypervolume-Based Many-Objective Optimization. *Evolutionary Computation*, 19(1):45–76, Spring, 2011.

- [399] Johannes M. Bader. *Hypervolume-Based Search for Multiobjective Optimization: Theory and Methods*. PhD thesis, Computer Engineering and Networks Laboratory, Swiss Federal Institute of Technology Zürich, Zürich, Switzerland, 2009.
- [400] Khaled Badran and Peter Rockett. Multi-class pattern classification using single, multi-dimensional feature-space feature extraction evolved by multi-objective genetic programming and its application to network intrusion detection. *Genetic Programming and Evolvable Machines*, 13(1):33–63, March 2012.
- [401] Khaled Badran and Peter I. Rockett. The influence of mutation on population dynamics in multiobjective genetic programming. *Genetic Programming and Evolvable Machines*, 11(1):5–33, March 2010.
- [402] Khaled M. S. Badran and Peter Rockett. Integrating Categorical Variables with Multiobjective Genetic Programming for Classifier Construction. In Michael O’Neill, Leonardo Vanneschi, Steven Gustafson, Anna Isabel Esparcia Alcázar, Ivanoe De Falco, Antonio Della Cioppa, and Ernesto Tarantino, editors, *Genetic Programming, 11th European Conference, EuroGP 2008*, pages 301–311. Springer. Lecture Notes in Computer Science Vol. 4971, Naples, Italy, March 2008.
- [403] Khaled M.S. Badran and Peter I. Rockett. The Roles of Diversity Preservation and Mutation in Preventing Population Collapse in Multiobjective Genetic Programming. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO’2007)*, volume 2, pages 1551–1557, London, UK, July 2007. ACM Press.
- [404] Sherif Farouk Badran, Ashraf O. Nassef, and Sayed M. Metwalli. Y-stiffened panel multi-objective optimization using genetic algorithm. *Thin-Walled Structures*, 47(11):1331–1342, November 2009.
- [405] Celine Badufle, Christophe Blondel, Thierry Druot, Christian Bes, and Jean-Baptiste Hiriart-Urruty. A heuristic-based framework to solve a complex aircraft sizing problem. *Engineering Applications of Artificial Intelligence*, 23(5):704–714, August 2010.
- [406] Tapan P. Bagchi. *Multiobjective Scheduling by Genetic Algorithms*. Kluwer Academic Publishers, Boston, 1999.
- [407] Tapan P. Bagchi. Pareto-Optimal Solutions for Multi-objective Production Scheduling Problems. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 458–471. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [408] A. Baghernejad and M. Yaghoubi. Multi-objective exergoeconomic optimization of an Integrated Solar Combined Cycle System using evolutionary algorithms. *International Journal of Energy Research*, 35(7):601–615, June 2011.

- [409] Benoit Bagot. The Harmonic Decision Matrix: a Subtle Model of the Natural Neuron. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1539–1546, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [410] Benoit Bagot and Harmut Pohlheim. Complementary Selection and Variation for an Efficient Multiobjective Optimization of Complex Systems. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 751–757, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [411] Yakubu Suleiman Baguda, Norsheila Fisal, and Dahiru Sani Shuaibu. Multi-objective Particle Swarm Optimization for Wireless video Support. *International Journal of Recent Trends in Engineering*, 2(6):80–82, November 2009.
- [412] A. Rauf Baig and M. Rashid. Honey bee foraging algorithm for multimodal & dynamic optimization problems. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 169, London, UK, July 2007. ACM Press.
- [413] Breanna Bailey and Anne Raich. Interactive Multi-Objective Design of Long-Span Trusses. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 902, London, UK, July 2007. ACM Press.
- [414] Flavio Baita, Francesco Mason, Carlo Poloni, and Walter Ukovich. Genetic Algorithm with Redundancies for the Vehicle Scheduling Problem. In J. Bietahn and Volker Nissen, editors, *Evolutionary Algorithms in Management Applications*, pages 341–353. Springer-Verlag, Berlin, 1995.
- [415] J. Samuel Baixattli-Soler, Eva Alfaro-Cid, and Matilde O. Fernandez-Blanco. Several risk measures in portfolio selection: Is it worthwhile? *Revista Espanola De Financiacion Y Contabilidad-Spanish Journal Of Finance And Accounting*, 39(147):421–444, July-September 2010.
- [416] J. Samuel Baixauli-Soler, Eva Alfaro-Cid, and Matilde O. Fernandez-Blanco. Mean-var portfolio selection under real constraints. *Computational Economics*, 37(2):113–131, February 2011.
- [417] M. Aramoon Bajestani, M. Rabbani, A. R. Rahimi-Vahed, and G. Baharian Khoshkhou. A multi-objective scatter search for a dynamic cell formation problem. *Computers & Operations Research*, 36(3):777–794, March 2009.
- [418] A. Bajwa, T. Williams, and M.A. Stuchly. Design of Broadband Radar Absorbers with Genetic Algorithm. In *IEEE International Symposium of the Antennas and Propagation Society*, volume 4, pages 672–675. IEEE, 2001.
- [419] M.A. Bakir and B. Altunkaynak. The optimization with the genetic algorithm approach of the multi-objective, joint economical design of the (x)over-bar and R control charts. *Journal of Applied Statistic*, 31(7):753–772, August 2004.

- [420] J. Balicki. Negative selection with ranking procedure in tabu-based multi-criterion evolutionary algorithm for task assignment. In *Computational Science - ICCS 2006, Pt 3, Proceedings*, pages 863–870. Springer-Verlag, Lecture Notes in Computer Science Vol. 3993, 2006.
- [421] Jerzy Balicki. Evolutionary algorithms for multicriteria optimization of program module allocations. In M. Koksalan and S. Zionts, editors, *15th International Conference on Multiple Criteria Decision Making (MCDM)*, pages 273–281. Springer-Verlag, Lecture Notes in Economics and Mathematical Sciences. Volume 507, 2001.
- [422] Jerzy Balicki. Multi-criterion Optimisation of Distributed System Performance by Evolutionary Task Assignments. *Journal of Research and Practice in Information Technology*, 33(2):173–185, 2001.
- [423] Jerzy Balicki. Multi-criterion Evolutionary Algorithm with Model of the Immune System to Handle Constraints for Task Assignments. In Leszek Rutkowski, Jörg H. Siekmann, Ryszard Tadeusiewicz, and Lotfi A. Zadeh, editors, *Artificial Intelligence and Soft Computing - ICAISC 2004, 7th International Conference. Proceedings*, pages 394–399, Zakopane, Poland, June 2004. Springer. Lecture Notes in Computer Science. Volume 3070.
- [424] Jerzy Balicki. Immune systems in multi-criterion evolutionary algorithm for task assignments in distributed computer system. In *Advances in Web Intelligence*, pages 51–56. Springer. Lecture Notes in Computer Science Vol. 3528, 2005.
- [425] Jerzy Balicki. Multicriterion Evolutionary Algorithm for Workload Balancing of the Web Bank Servers. *International Journal of Computer Science and Networks Security*, 6(10):206–212, October 2006.
- [426] Jerzy Balicki and Zygmunt Kitowski. Multicriteria Evolutionary Algorithm with Tabu Search for Task Assignment. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 373–384. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [427] Jerzy Balicki and Zygmunt Kitowski. Evolutionary Algorithms for Navigation of Underwater Vehicle. In M. Galicki and K. Tchon, editors, *Proceedings of the Second International Workshop on Robot Motion and Control*, pages 103–108, 2001.
- [428] Jerzy Balicki and Zygmunt Kitowski. Model of the Immune System to Handle Constraints in Evolutionary Algorithm for Pareto Task Assignments. In Mieczysław A. Kłopotek, Sławomir T. Wierzchon, and Krzysztof Trojanowski, editors, *Intelligent Information Processing and Web Mining, Proceedings of the International IIS: IIPWM'03*, pages 3–12. Springer, 2003.

- [429] Pedro J. Ballester and Jonathan N. Carter. Real-Parameter Genetic Algorithms for Finding Multiple Optimal Solutions in Multi-modal Optimization. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 706–717. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [430] Francisco Ballestin and Rosa Blanco. Theoretical and practical fundamentals for multi-objective optimisation in resource-constrained project scheduling problems. *Computers & Operations Research*, 38(1):51–62, January 2011.
- [431] R. J. Balling, J. T. Taber, K. Day, and S. Wilson. City Planning with a Multiobjective Genetic Algorithm and a Pareto Set Scanner. In Ian C. Parmee, editor, *Proceedings of the Fourth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2000)*, pages 237–247. PEDC, University of Plymouth, UK, Springer London, 2000.
- [432] Richard Balling. Pareto sets in decision-based design. *Journal of Engineering Valuation and Cost Analysis*, 3:189–198, 2000.
- [433] Richard Balling. The Maximin Fitness Function; Multiobjective City and Regional Planning. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 1–15, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [434] Richard Balling. City and Regional Planning Via a MOEA: Lessons Learned. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 227–245. World Scientific, Singapore, 2004.
- [435] Richard Balling and Scott Wilson. The Maximin Fitness Function for Multi-objective Evolutionary Computation: Application to City Planning. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 1079–1084, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [436] Richard J. Balling, John T. Taber, Michael R. Brown, and Kirsten Day. Multi-objective Urban Planning Using a Genetic Algorithm. *ASCE Journal of Urban Planning and Development*, 125(2):86–99, June 1999.
- [437] Christos Baloukas, Jose L. Risco-Martin, David Atienza, Christophe Poucet, Lazaros Papadopoulos, Stylianos Mamagkakis, Dimitrios Soudris, J. Ignacio Hidalgo, Francky Catthoor, and Juan Lanchares. Optimization methodology of dynamic data structures based on genetic algorithms for multimedia embedded systems. *Journal of Systems and Software*, 82(4):590–602, April 2009.

- [438] Alexandre M. Baltar and Darrel G. Fontane. Use of multiobjective particle swarm optimization in water resources management. *Journal of Water Resources Planning and Management-ASCE*, 134(3):257–265, May-June 2008.
- [439] Alexandre M. Baltar and Darrell G. Fontane. A generalized multiobjective particle swarm optimization solver for spreadsheet models: application to water quality. In *Hydrology Days 2006*, Fort Collins, Colorado, USA, March 2006.
- [440] Sunith Bandaru and Kalyanmoy Deb. Automated discovery of vital knowledge from Pareto-optimal solutions: First results from engineering design. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1224–1231, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [441] Sunith Bandaru and Kalyanmoy Deb. Automated Innovization for Simultaneous Discovery of Multiple Rules in Bi-objective Problems . In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 1–15, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [442] Sunith Bandaru and Kalyanmoy Deb. Towards automating the discovery of certain innovative design principles through a clustering-based optimization technique. *Engineering Optimization*, 43(9):911–941, 2011.
- [443] Sunith Bandaru, Kalyanmoy Deb, Vineet Khare, and Rahul Chougule. Quantitative Modeling of Customer Perception From Service Data Using Evolutionary Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1763–1770, Dublin, Ireland, July 12-16 2011. ACM Press.
- [444] Sanghamitra Bandyopadhyay, Ujjwal Maulik, and Anirban Mukhopadhyay. Multiobjective Genetic Clustering for Pixel Classification in Remote Sensing Imagery. *IEEE Transactions on Geoscience and Remote Sensing*, 45(5):1506–1511, May 2007.
- [445] Sanghamitra Bandyopadhyay, Anirban Mukhopadhyay, and Ujjwal Maulik. An Improved Algorithm for Clustering Gene Expression Data. *Bioinformatics*, 23(21):2859–2865, 2007.
- [446] Sanghamitra Bandyopadhyay, Sankar K. Pal, and B. Aruna. Multiobjective GAs, Quantitative Indices, and Pattern Classification. *IEEE Transactions on Systems, Man, and Cybernetics—Part B: Cybernetics*, 34(5):2088–2099, October 2004.
- [447] Sanghamitra Bandyopadhyay, Sriparna Saha, Ujjwal Maulik, and Kalyanmoy Deb. A Simulated Annealing-Based Multiobjective Optimization Algorithm: AMOSA. *IEEE Transactions on Evolutionary Computation*, 12(3):269–283, June 2008.

- [448] Indranil Banerjee and Prasun Das. Evolutionary Multi-Objective Bacterial Swarm Optimization (MOBSO): A Hybrid Approach. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakroborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 568–572, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [449] Mohua Banerjee, Sushmita Mitra, and Ashish Anand. Feature Selection Using Rough Sets. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 3–20. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [450] Mohua Banerjee, Sushmita Mitra, and Haider Banka. Evolutionary Rough Feature Selection in Gene Expression Data. *IEEE Transactions on Systems, Man, and Cybernetics—Part C: Applications and Reviews*, 37(4):622–632, July 2007.
- [451] Nilanjan Banerjee and Rajeev Kumar. Multiobjective Network Design for Realistic Traffic Models. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO’2007)*, volume 2, pages 1904–1911, London, UK, July 2007. ACM Press.
- [452] Alec Banks, Jonathan Vincent, and Chukwudi Anyakoha. A review of particle swarm optimization. II: Hybridisation, combinatorial, multicriteria and constrained optimization, and indicative applications. *Natural Computing. Unconventional Computation 2006, Selected Papers*, 7(1):109–124, March 2008.
- [453] R. Banos, F. Manzano Agugliaro, F. G. Montoya, C. Gil, A. Alcayde, and J. Gomez. Optimization methods applied to renewable and sustainable energy: A review. *Renewable & Sustainable Energy Reviews*, 15(4):1753–1766, May 2011.
- [454] Yujun Bao, Hong Jiang, Yuqing Huang, and Rongchun Hu. Multi-objective Optimization of Power Control and Resource Allocation for Cognitive Wireless Networks. In *2009 Eighth IEEE/ACIS International Conference on Computer and Information Science (ICIS 2009)*, pages 70–74, Shanghai, China, June 2009. IEEE Computer Society.
- [455] De bao Chen, Feng Zou, and Jiang tao Wang. A multi-objective endocrine PSO algorithm and application. *Applied Soft Computing*, 11(8):4508–4520, December 2011.
- [456] P. Baraldi, N. Pedroni, and E. Zio. Application of a Niche Pareto Genetic Algorithm for Selecting Features for Nuclear Transients Classification. *International Journal of Intelligent Systems*, 24(2):118–151, February 2009.

- [457] B. Barán and M. Schaerer. A Multiobjective Ant Colony System for Vehicle Routing Problem with Time Windows. In *Proceedings of the 21st IASTED International Conference on Applied Informatics*, pages 97–102, Innsbruck, Austria, February 2003. IASTED.
- [458] B. Baran, C. von Lucken, and A. Sotelo. Multi-objective pump scheduling optimisation using evolutionary strategies. *Advances in Engineering Software*, 36(1):39–47, January 2005.
- [459] Benjamín Barán, José Vallejos, Rodrigo Ramos, and Ubaldo Fernández. Multi-objective Reactive Power Compensation. In *2001 IEEE/PES Transmission and Distribution Conference and Exposition*, volume 1, pages 97–101. IEEE, 2001.
- [460] Benjamín Barán, José Vallejos, Rodrigo Ramos, and Ubaldo Fernández. Reactive Power Compensation using A Multi-objective Evolutionary Algorithm. In *IEEE Porto Power Tech Proceedings*, volume 2, pages 6–11, Porto, Portugal, September 2001. IEEE.
- [461] P. Di Barba, M. Farina, and A. Savini. A Meta Optimization Approach to the Pareto Optimal Design of Multiple Windings Solenoids. In Kaisa Miettinen, Marko M. Mäkelä, Pekka Neittaanmäki, and Jacques Periaux, editors, *Proceedings of EUROGEN'99*, Jyväskylä, Finland, 1999. University of Jyväskylä.
- [462] P. Di Barba, M. Farina, and A. Savini. Multicriteria Optimization of Air-cored Solenoids with Multiple Windings. In *Proceedings of the International Symposium on Non-linear Electromagnetic Systems, ISEM'99*, Pavia, Italy, May 1999. IOS Press.
- [463] P. Di Barba, M. Farina, and A. Savini. Multicriteria strategy for the optimization of air-cored solenoid systems. In *Studies in Applied Electromagnetics and Mechanics*, volume 18, pages 475–478. IOS Press, 1999.
- [464] P. Di Barba, M. Farina, and A. Savini. Progress in automated design of small and micro-electromechanical devices. In *Studies in Applied Electromagnetics and Mechanics*, volume 18, pages 571–574. IOS Press, 1999.
- [465] P. Di Barba, M. Farina, and A. Savini. Vector Shape Optimization of an Electrostatic Micromotor using a Genetic Algorithm. In *Proceedings of the International Symposium on Electromagnetic Fields in Electrical Engineering, ISEF'99*, Pavia, Italy, September 1999.
- [466] Paolo Di Barba. Evolutionary Multiobjective Optimization Methods for the Shape Design of Industrial Electromagnetic Devices. *IEEE Transactions on Magnetism*, 45(3):1436–1441, March 2009.
- [467] Helio J. C. Barbosa. A coevolutionary genetic algorithm for a game approach to structural optimization. In Thomas Bäck, editor, *Proceedings of the Seventh International Conference on Genetic Algorithms*, pages 545–552, San Mateo, California, July 1997. Michigan State University, Morgan Kaufmann Publishers.

- [468] Helio J.C. Barbosa and André M.S. Barreto. An interactive genetic algorithm with co-evolution of weights for multiobjective problems. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 203–210, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [469] Vincent Barichard. *Approches Hybrides Pour Les Problèmes Multiobjectifs*. PhD thesis, Laboratoire d'Etude et de Recherche en Informatique d'Angers, Université d'Angers, France, November 2003. (In French).
- [470] Vincent Barichard and Jin-Kao Hao. A Population and Interval Constraint Propagation Algorithm. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 88–101, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [471] Gregory John Barlow. Design of Autonomous Navigation Controllers for Unmanned Aerial Vehicles using Multi-Objective Genetic Programming. Master's thesis, North Carolina State University, Raleigh, North Carolina, USA, March 2004.
- [472] Claude Baron, Samuel Rochet, and Daniel Esteve. GESOS: A Multi-Objective Genetic Tool for Project Management Considering Technical and Non-Technical Constraints. In Max Bramer and Vladan Devedzic, editors, *Artificial Intelligence Applications and Innovations*, pages 329–342. Kluwer Academic Publishers, Boston/Dordrecht/London, 2004.
- [473] L. Barone, L. While, and P. Hingston. Designing Crushers with a Multi-Objective Evolutionary Algorithm. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 995–1002, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [474] Luigi Barone, Lyndon While, Paul Hughes, and Phil Hingston. Fixture-scheduling for the Australian Football League using a Multi-Objective Evolutionary Algorithm. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3377–3384, Vancouver, BC, Canada, July 2006. IEEE.
- [475] Julio Barrera and Carlos A. Coello Coello. A Particle Swarm Optimization Method for Multimodal Optimization Based on Electrostatic Interaction. In Arturo Hernández Aguirre, Raúl Monroy Borja, and Carlos Alberto Reyes García, editors, *MICAI 2009: Advances in Artificial Intelligence. 8th Mexican*

International Conference on Artificial Intelligence, pages 622–632, Guanajuato, México, November 2009. Springer. Lecture Notes in Artificial Intelligence Vol. 5845.

- [476] Julio Barrera and Carlos A. Coello Coello. A review of particle swarm optimization methods used for multimodal optimization. In Chee-Peng Lim, Lakhmi C. Jain, and Satchidananda Dehuri, editors, *Innovations in Swarm Intelligence*, chapter 2, pages 9–37. Springer-Verlag, Berlin, Germany, 2009. ISBN 978-3-642-04225-6.
- [477] Julio Barrera and Carlos A. Coello Coello. Test Function Generators for Assessing the Performance of PSO Algorithms in Multimodal Optimization. In Bijaya Ketan Panigrahi, Yuhui Shi, and Meng-Hiot Lim, editors, *Handbook of Swarm Intelligence. Concepts, Principles and Applications*, pages 89–117. Springer-Verlag, Berlin, Germany, 2011. ISBN 978-3-642-17389-9.
- [478] Wilmer Barreto, Zoran Vojinovic, Roland Price, and Dimitri Solomatine. Multiobjective Evolutionary Approach to Rehabilitation of Urban Drainage Systems. *Journal Of Water Resources Planning And Management-ASCE*, 136(5):547–554, September-October 2010.
- [479] Carlos Barrico and Carlos Henggeler Antunes. A New Approach to Robustness Analysis in Multi-Objective Optimization. In *Proceedings of the 7th International Conference on Multi-Objective Programming and Goal Programming (MOPGP'06)*, Loire Valley (City of Tours), France, June 2006.
- [480] Carlos Barrico and Carlos Henggeler Antunes. Robustness Analysis in Multi-Objective Optimization Using a Degree of Robustness Concept. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6778–6783, Vancouver, BC, Canada, July 2006. IEEE.
- [481] Carlos Barrico and Carlos Henggeler Antunes. An Evolutionary Approach for Assessing the Degree of Robustness of Solutions to Multi-Objective Models. In Shengxiang Yang, Yew Soon Ong, and Yaochu Jin, editors, *Evolutionary Computation in Dynamic and Uncertain Environments*, pages 565–582. Springer, 2007. ISBN 978-3-540-49772-1.
- [482] Carlos Barrico, Carlos Henggeler Antunes, and Dulce Fern ao Pires. Robustness Analysis in Evolutionary Multi-Objective Optimization Applied to VAR Planning in Electrical Distribution Networks. In Carlos Cotta and Peter Cowl- ing, editors, *Evolutionary Computation in Combinatorial Optimization. 9th European Conference, EvoCOP 2009*, pages 216–227. Springer. Lecture Notes in Computer Science, Vol. 5482, Tübingen, Germany, April 2009.
- [483] Francisco Venícius Fernandes Barros, Eduardo Sávio Passos Rodrigues Martins, Luiz Sérgio Vasconcelos Nascimento, and Dirceu Silveira Reis Jr. Use of Multiobjective Evolutionary Algorithms in Water Resources Engineering. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*,

chapter 3, pages 45–82. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.

- [484] Manuel Barros, Jorge Guilherme, and Nuno Horta. Analog circuits optimization based on evolutionary computation techniques. *Integration-The VLSI Journal*, 43(1):136–155, January 2010.
- [485] Manuel F.M. Barros, Jorge M.C. Guilherme, and Nuno C.G. Horta. *Analog Circuits and Systems Optimization Based on Evolutionary Computation Techniques*. Springer, Berlin, Germany, 2010. ISBN 978-3-642-12345-0.
- [486] David D. Barth and Michelle D. Moore. A Genetic Algorithm for Multiobjective Multiconstrained Schedule Design. In James Foster, editor, *2003 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 28–30, Chicago, Illinois, USA, July 2003. AAAI.
- [487] Thomas Bartz-Beielstein, Annette Chmielewski, Michael Janas, Boris Naujoks, and Robert Scheffermann. Optimizing Door Assignment in LTL-Terminals by Evolutionary Multiobjective Algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 348–354, Vancouver, BC, Canada, July 2006. IEEE.
- [488] Thomas Bartz-Beielstein, Philipp Limbourg, Konstantinos E. Parsopoulos, Michael N. Vrahatis, Jörn Mehnen, and Karlheinz Schmitt. Particle Swarm Optimizers for Pareto Optimization with Enhanced Archiving Techniques. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1780–1787, Canberra, Australia, December 2003. IEEE Press.
- [489] Thomas Bartz-Beielstein, Karlheinz Schmitt, Jörn Mehnen, Boris Naujoks, and Dmytro Zibold. KEA – A software package for development, analysis, and application of multiple objective evolutionary algorithms. Interner Bericht des Sonderforschungsbereichs 531 *Computational Intelligence* CI–185/04, Universität Dortmund, November 2004.
- [490] Aniruddha Basak, Siddharth Pal, V. Ravikumar Pandi, B. K. Panigrahi, M. K. Mallick, and Ankita Mohapatra. A Novel Multi-Objective Formulation for Hydrothermal Power Scheduling Based on Reservoir End Volume Relaxation. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagarathnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pages 718–726. Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18 2010.
- [491] M. Basseur and E. K. Burke. Indicator-Based Multi-Objective Local Search. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3100–3107, Singapore, September 2007. IEEE Press.

- [492] M. Basseur, F. Seynhaeve, and E.-G. Talbi. Adaptive Mechanisms for Multi-Objective Evolutionary Algorithms. In *IMACS multiconference, Computational Engineering in Systems Applications (CESA'03)*, Piscataway, New Jersey, July 2003. paper S3-R-00-222, IEEE Service Center.
- [493] Matthieu Basseur. *Conception d'Algorithmes Coopératifs Pour L'Optimisation Multi-Objectif: Application aux Problèmes d'Ordonnancement de Type Flow-Shop*. PhD thesis, Université des Sciences et Technologies de Lille, France, 2005. (in French).
- [494] Matthieu Basseur. Design of cooperative algorithms for multi-objective optimization: application to the flow-shop scheduling problem. *4OR: A Quarterly Journal of Operations Research*, 4(5):255–258, September 2006.
- [495] Matthieu Basseur, Julien Lemesre, Clarisse Dhaenens, and El-Ghazali Talbi. Cooperation between Branch and Bound and Evolutionary Approaches to solve a Bi-objective Flow Shop Problem. In *Proceedings of the Third International Workshop on Experimental and Efficient Algorithms (WEA'04)*, pages 72–86, Angra dos Reis, Brazil, May 2004. Springer-Verlag.
- [496] Matthieu Basseur, Franck Seynhaeve, and El ghazali Talbi. Design of multi-objective evolutionary algorithms: Application to the flow-shop. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1151–1156, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [497] Matthieu Basseur, Franck Seynhaeve, and El-Ghazali Talbi. A Cooperative Metaheuristic Applied to Multi-Objective Flow-Shop Scheduling Problem. In Nadia Nedjah and Luiza de Macedo Mourelle, editors, *Real-World Multi-Objective System Engineering*, pages 139–162. Nova Science Publishers, New York, 2005.
- [498] Matthieu Basseur, Franck Seynhaeve, and El-Ghazali Talbi. Path Relinking in Pareto Multi-objective Genetic Algorithms. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 120–134, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [499] Matthieu Basseur and Eckart Zitzler. Handling Uncertainty in Indicator-Based Multiobjective Optimization. *International Journal of Computational Intelligence Research*, 2(3):255–272, 2006.
- [500] Matthieu Basseur and Eckart Zitzler. A Preliminary Study on Handling Uncertainty in Indicator-Based Multiobjective Optimization. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 727–739, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.

- [501] L. Bastidas, H. V. Gupta, S. Sorooshian, W. J. Shuttleworth, and Z. L. Yang. Parameter Estimation of a Land Surface Scheme using Multi-Criteria Methods. *Journal of Geophysical Research—Atmospheres*, 104(D16):19491, 1999.
- [502] Carmelo J.A. Bastos-Filho and Péricles B.C. Miranda. Multi-Objective Particle Swarm Optimization Using Speciation. In *2011 IEEE Symposium on Swarm Intelligence (SIS 2011)*, pages 164–169. IEEE Press, Paris, France, April 11-15 2011.
- [503] M. Basu. Dynamic economic emission dispatch using nondominated sorting genetic algorithm-II. *International Journal of Electrical Power & Energy Systems*, 30(2):140–149, February 2008.
- [504] M. Basu. Economic environmental dispatch of hydrothermal power system. *International Journal Of Electrical Power & Energy Systems*, 32(6):711–720, July 2010.
- [505] M. Basu. Economic Environmental Dispatch of Fixed Head Hydrothermal Power Systems Using Nondominated Sorting Genetic Algorithm-II. *Applied Soft Computing*, 11(3):3046–3055, April 2011.
- [506] I. Bate. Systematic approaches to understanding and evaluating design trade-offs. *Journal of Systems and Software*, 81(8):1253–1271, August 2008.
- [507] Iain Bate and Usman Khan. WCET analysis of modern processors using multi-criteria optimisation. *Empirical Software Engineering*, 16(1):5–28, February 2011.
- [508] R. A. Bates, R. Fontana, L. Pronzato, and H. P. Wynn. Multi-Domain Optimisation Using Computer Experiments for Concurrent Engineering. In Ian Parmee, editor, *The Integration of Evolutionary and Adaptive Computing Technologies with Product/System Design and Realisation*, pages 355–364, Plymouth, United Kingdom, April 1998. Plymouth Engineering Design Centre, Springer-Verlag.
- [509] R.A. Bates and H.P. Wynn. The Optimisation of Multivariate Robust Design Criteria. In I.C. Parmee, editor, *Proceedings of the Fifth International Conference on Adaptive Computing Design and Manufacture (ACDM 2002)*, volume 5, pages 285–294, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
- [510] R.A. Bates and H.P. Wynn. Robust Solutions in Engineering Design: stochastic simulation versus DACE. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture VI*, pages 75–86, London, 2004. Springer.
- [511] Lucas S. Batista, Frederico G. Guimar aes, and Jaime A. Ramírez. A Differential Mutation Operator for the Archive Population of Multi-Objective Evolutionary Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC’2009)*, pages 1108–1115, Trondheim, Norway, May 2009. IEEE Press.

- [512] Lucas S. Batista, Felipe Campelo, Frederico G. Guimarães, and Jaime A. Ramírez. A New Self-Adaptive Approach for Evolutionary Multiobjective Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 511–518, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [513] Lucas S. Batista, Felipe Campelo, Frederico G. Guimarães, and Jaime A. Ramírez. Pareto Cone ϵ -Dominance: Improving Convergence and Diversity in Multiobjective Evolutionary Algorithms. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 76–90, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [514] Lucas S. Batista, Diogo B. Oliveira, Frederico G. Guimarães, Elson J. Silva, and Jaime A. Ramirez. Dynamic Multiobjective Clonal Selection Algorithm for Engineering Design. *IEEE Transactions on Magnetics*, 46(8):3033–3036, August 2010.
- [515] Roberto Battiti and Andrea Passerini. Brain-Computer Evolutionary Multiobjective Optimization: A Genetic Algorithm Adapting to the Decision Maker. *IEEE Transactions on Evolutionary Computation*, 14(5):671–687, October 2010.
- [516] J.W. Baugh, G.K.R. Kakivaya, and J.R. Stone. Intractability of the dial-a-ride problem and a multiobjective solution using simulated annealing. *Engineering Optimization*, 30(2):91–123, 1998.
- [517] U. Baumgartner, Ch. Magele, and W. Renhart. Pareto Optimality and Particle Swarm Optimization. *IEEE Transactions on Magnetics*, 40(2):1172–1175, March 2004.
- [518] Joaquín Bautista and Jordi Pereira. Ant Algorithms for Assembly Line Balancing. In Marco Dorigo, Gianni Di Caro, and Michael Sampels, editors, *Ant Algorithms. Proceedings of the Third International Workshop, ANTS 2002*, pages 65–75, Brussels, Belgium, September 2002. Springer. Lecture Notes in Computer Science, Vol. 2463.
- [519] H. Bayat, M. R. Neyshabouri, K. Mohammadi, and N. Nariman-Zadeh. Estimating Water Retention with Pedotransfer Functions Using Multi-Objective Group Method of Data Handling and ANNs. *Pedosphere*, 21(1):107–114, February 2011.
- [520] Adil Baykasoglu and Tolunay Gocken. Multi-Objective Aggregate Production Planning with Fuzzy Parameters. *Advances in Engineering Software*, 41(9):1124–1131, September 2010.
- [521] A. Baykasoğlu. MOAPPS 1.0: Aggregate production planning using the multiple objective tabu search. *International Journal of Production Research*, 39(16):3685–3702, 2001.

- [522] A. Baykasoğlu and N. Gindy. MOCACEF 1.0: Capability based approach to form part-machine groups for cellular manufacturing applications. *International Journal of Production Research*, 38(5):1133–1161, March 2000.
- [523] Adil Baykasoğlu, Lale Özbakir, and Türkay Dereli. Multiple dispatching rule based heuristic for multi-objective scheduling of job shops using tabu search. In *Proceedings of MIM 2002: 5th International Conference on Managing Innovations in Manufacturing (MIM)*, pages 396–402, Milwaukee, Wisconsin, USA, September 2002.
- [524] Felipe Alexander Vargas Bazan, Edison Castro Prates de Lima, Marcos Queija de Siqueira, Elizabeth Frauches Netto Siqueira, and Carlos Alberto Duarte de Lemos. A methodology for structural analysis and optimization of riser connection joints. *Applied Ocean Research*, 33(4):344–365, October 2011.
- [525] Cristina Bazgan, Hadrien Hugot, and Daniel Vanderpooten. Solving efficiently the 0-1 multi-objective knapsack problem. *Computers & Operations Research*, 36(1):260–279, January 2009.
- [526] Yakoub Bazi and Farid Melgani. A Multiobjective PSO Inflation methodology for SVM Regression with Limited Training Samples. In *2007 IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2007)*, pages 4360–4363, Barcelona, Spain, July 2007. IEEE Computer Society.
- [527] Ricardo P. Beausoleil. “MOSS” multiobjective scatter search applied to non-linear multiple criteria optimization. *European Journal of Operational Research*, 169(2):426–449, March 2006.
- [528] Ricardo P. Beausoleil. “MOSS-II” Tabu/Scatter Search for Nonlinear Multiobjective Optimization. In Patrick Siarry and Zbigniew Michalewicz, editors, *Advances in Metaheuristic Methods for Hard Optimization*, pages 39–67. Springer, Berlin, 2008. ISBN 978-3-540-72959-4.
- [529] Ricardo P. Beausoleil Delgado. Multiple Criteria Scatter Search. In Jorge Pinho de Sousa, editor, *Proceedings of the 4th Metaheuristics International Conference (MIC’2001)*, pages 539–543. Program Operational Ciencia, Tecnologia, Inovação do Quadro Comunitário de Apoio III de Fundação para a Ciencia e Tecnologia, Porto, Portugal, July 16–20 2001.
- [530] Ricardo Landa Becerra and Luis Gerardo de la Fraga. Triangulation Using Differential Evolution. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC, and EvoTransLog*, pages 359–364. Springer. Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
- [531] Slim Bechikh, Nabil Belgasmi, Lamjed Ben Said, and Khaled Ghédira. PHC-NSGA-II: A novel multi-objective memetic algorithm for continuous optimization. In *Proceedings of the 20th IEEE International Conference on Tools with*

Artificial Intelligence (ICTAI'08), volume 1, pages 180–189, USA, 2008. IEEE Computer Society.

- [532] Slim Bechikh, Lamjed Ben Said, and Khaled Ghedira. Estimating Nadir Point in Multi-objective Optimization using Mobile Reference Points. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2129–2137, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [533] Slim Bechikh, Lamjed Ben Said, and Khaled Ghedira. Estimating nadir point in multi-objective optimization using mobile reference points. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2129–2137, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [534] Slim Bechikh, Lamjed Ben Said, and Khaled Ghédira. Searching for Knee Regions in Multi-objective Optimization using Mobile Reference Points. In *The 25th Annual ACM Symposium on Applied Computing (SAC'2010)*, pages 1118–1125, Sierre, Switzerland, March 22–26 2010. ACM Press.
- [535] Slim Bechikh, Lamjed Ben Said, and Khaled Ghédira. Negotiating decision makers' reference points for group preference-based Evolutionary Multi-objective Optimization. In *Proceedings of the 2011 11th International Conference on Hybrid Intelligent Systems (HIS)*, pages 377–382, Melacca, Malaysia, 5–8 December 2011. IEEE Press.
- [536] Slim Bechikh, Lamjed Ben Said, and Khaled Ghédira. Searching for knee regions of the Pareto front using mobile reference points. *Soft Computing*, 15(9):1807–1823, 2011.
- [537] Ying L. Becker, Harold Fox, and Peng Fei. An Empirical Study of Multi-Objective Algorithms for Stock Ranking. In Rick L. Riolo, Terence Soule, and Bill Worzel, editors, *Genetic Programming Theory and Practice V*, pages 241–262. Springer. Genetic and Evolutionary Computation Vol. 5, Ann Arbor, May 2007.
- [538] Saeed Behbahani and Clarence W. de Silva. A New Multi-Criteria Mechatronic Design Methodology Using Niching Genetic Algorithm. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 1031–1036, Vancouver, BC, Canada, July 2006. IEEE.
- [539] J. Behnamian, S. M. T. Fatemi Ghomi, and M. Zandieh. A multi-phase covering Pareto-Optimal front method to multi-objective scheduling in a realistic hybrid flowshop using a hybrid metaheuristic. *Expert Systems with Applications*, 36(8):11057–11069, October 2009.
- [540] J. Behnamian and S.M.T. Fatemi Ghomi. Hybrid Flowshop Scheduling with Machine and Resource-Dependent Processing Times. *Applied Mathematical Modelling*, 35(3):1107–1123, March 2011.

- [541] J. Behnamian, M. Zandieh, and S.M.T. Fatemi Ghomi. A Multi-Phase Covering Pareto-Optimal Front Method to Multi-Objective Parallel Machine Scheduling. *International Journal of Production Research*, 48(17):4949–4976, 2010.
- [542] J. Behnamian, M. Zandieh, and S.M.T. Fatemi Ghomi. Bi-objective parallel machines scheduling with sequence-dependent setup times using hybrid metaheuristics and weighted min-max technique. *Soft Computing*, 15(7):1313–1331, July 2011.
- [543] Alireza Behroozsarand, Hadi Ebrahimi, and Akbar Zamaniyan. Multiobjective Optimization of Industrial Autothermal Reformer for Syngas Production Using Nonsorting Genetic Algorithm II. *Industrial & Engineering Chemistry Research*, 48(16):7529–7539, August 19 2009.
- [544] Alireza Behroozsarand and Sirous Shafiei. Optimal control of distillation column using Non-Dominated Sorting Genetic Algorithm-II. *Journal of Loss Prevention in the Process Industries*, 24(1):25–33, January 2011.
- [545] Kourosh Behzadian, Zoran Kapelan, Dragan Savic, and Abdollah Ardeshtir. Stochastic sampling design using a multi-objective genetic algorithm and adaptive neural networks. *Environmental Modelling & Software*, 24(4):530–541, April 2009.
- [546] Ali Beirami and Mohammad Takhti. Particle swarm optimization on trade-off extraction of analog integrated circuits. *IEICE Electronics Express*, 6(23):1643–1648, December 10 2009.
- [547] Elias G. Bekele and John W. Nicklow. Multi-objective automatic calibration of SWAT using NSGA-II. *Journal of Hydrology*, 341(3-4):165–176, August 2007.
- [548] James Bekker and Chris Aldrich. The Cross-Entropy Method in Multi-Objective Optimisation: An Assessment. *European Journal of Operational Research*, 211(1):112–121, May 16 2011.
- [549] A. D. Belegundu, D. V. Murthy, R. R. Salagame, and E. W. Constants. Multiobjective Optimization of Laminated Ceramic Composites Using Genetic Algorithms. In *Fifth AIAA/USAF/NASA Symposium on Multidisciplinary Analysis and Optimization*, pages 1015–1022, Panama City, Florida, 1994. AIAA. Paper 84-4363-CP.
- [550] A. D. Belegundu and P. L. N. Murthy. A New Genetic Algorithm for Multiobjective Optimization. Technical Report AIAA-96-4180-CP, AIAA, Washington, D.C., 1996.
- [551] Lamia Belfares and Adel Guitouni. Multi-objective Genetic Algorithms for Courses of Action Planning. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1543–1551, Canberra, Australia, December 2003. IEEE Press.

- [552] Nabil Belgasmi, Lamjed Ben Said, and Khaled Ghédira. Evolutionary multiobjective optimization of the multi-location transshipment problem. *Operational Research*, 8(2):167–183, August 2008.
- [553] Nabil Belgasmi, Lamjed Ben Said, and khaled Ghedira. Greedy Local Improvement of SPEA2 Algorithm to Solve the Multiobjective Capacitated Transshipment Problems. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 364–378, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
- [554] Jeroen Belien, Erik Demeulemeester, and Brecht Cardoen. A Decision Support System for Cyclic Master Surgery Scheduling with Multiple Objectives. *Journal of Scheduling*, 12(2):147–161, April 2009.
- [555] Lucia Lo Bello, Giordano Antonio Kaczynski, and Orazio Mirabella. Improving the Real-Time Behavior of Ethernet Network Using Traffic Smoothing. *IEEE Transactions on Industrial Informatics*, 1(3):151–161, August 2005.
- [556] R. Benabid, M. Boudour, and M. A. Abido. Optimal location and setting of SVC and TCSC devices using non-dominated sorting particle swarm optimization. *Electric Power Systems Research*, 79(12):1668–1677, December 2009.
- [557] M. Benali, A. Hammache, F. Aube, J. Dipama, and R. Cantave. Dynamic multiobjective optimization of large-scale industrial production systems: An emerging strategy. *International Journal of Energy Research*, 31(12):1202–1225, October 10 2007.
- [558] L. Benameur, J. Alami, and A. El Imrani. A New Hybrid Particle Swarm Optimization Algorithm for Handling Multiobjective Problem Using Fuzzy Clustering Technique. In *2009 International Conference on Computational Intelligence, Modelling and Simulation*, pages 48–53, Brno, Czech Republic, September 2009. IEEE Computer Society Press.
- [559] Alessandro Benedetti, Marco Farina, and M. Gobbi. Evolutionary Multiobjective Industrial Design: The Case of a Racing Car Tire-Suspension System. *IEEE Transactions on Evolutionary Computation*, 10(3):230–244, June 2006.
- [560] E. Benini and M. Cenzon. Calibration of a meanline centrifugal pump model using evolutionary algorithms. *Proceedings of the Institution of Mechanical Engineers Part A-Journal of Power and Energy*, 223(A7):835–847, November 2009.
- [561] Ernesto Benini and Marco Cenzon. Development of a Multiobjective Optimization Method for Aerospace Turbopump Design. *International Journal of Turbo & Jet-Engines*, 27(3-4):219–250, 2010.
- [562] Ernesto Benini, Rita Ponza, and Andrea Massaro. High-Lift Multi-Element Airfoil Shape and Setting Optimization Using Multi-Objective Evolutionary Algorithms. *Journal of Aircraft*, 48(2):683–696, March - April 2011.

- [563] Ernesto Benini and Andrea Toffolo. Development of High-Performance Airfoils for Axial Flow Compressors Using Evolutionary Computation. *Journal of Propulsion and Power*, 18(3):544–554, May-June 2002.
- [564] Ernesto Benini and Andrea Toffolo. Optimal design of horizontal-axis wind turbines using blade-element theory and evolutionary computation. *Journal of Solar Energy Engineering–Transactions of the ASME*, 124(4):357–363, November 2002.
- [565] Xu Benlian and Wang Zhiquan. A multi-objective-ACO-based data association method for bearings-only multi-target tracking. *Communications in Nonlinear Science and Numerical Simulation*, 12(8):1360–1369, December 2007.
- [566] W.A. Bennage and A.K. Dhingra. Single and Multiobjective Structural Optimization in Discrete-Continuous Variables Using Simulated Annealing. *International Journal for Numerical Methods in Engineering*, 38(16):2753–2773, August 30 1995.
- [567] David A. Bennett, Ningchuan Xiao, and Marc P. Armstrong. Exploring the Geographic Consequences of Public Policies Using Evolutionary Algorithms. *Annals of the Association of American Geographers*, 94(4):827–847, 2004.
- [568] Xavier Gandibleux Benoît Guédas and Philippe Dépincé. Compromise Based Evolutionary Multiobjective Optimization Algorithm for Multidisciplinary Optimization. In Gang Kou Yong Shi, Shouyang Wang and Jyrki Wallenius, editors, *New State of MCDM in the 21st Century Selected Papers of the 20th International Conference on Multiple Criteria Decision Making 2009*, Lecture Notes in Economics and Mathematical Systems, pages 69–79. Springer, London, 2011. ISBN 978-3-642-19694-2.
- [569] P. J. Bentley, editor. *Evolutionary Design by Computers*. Academic Press Ltd., London, 1999.
- [570] P. J. Bentley and J. P. Wakefield. An Analysis of Multiobjective optimization within Genetic Algorithms. Technical Report ENGPJB96, University of Huddersfield, UK, 1996.
- [571] P. J. Bentley and J. P. Wakefield. Overview of Generic Evolutionary Design Systems. In *Proceedings of the 2nd On-Line World Conference on Evolutionary Computation (WEC2)*, pages 53–56, 1996.
- [572] P. J. Bentley and J. P. Wakefield. Finding Acceptable Solutions in the Pareto-Optimal Range using Multiobjective Genetic Algorithms. In P. K. Chawdhry, R. Roy, and R. K. Pant, editors, *Soft Computing in Engineering Design and Manufacturing*, Part 5, pages 231–240, London, June 1997. Springer Verlag London Limited. (Presented at the 2nd On-line World Conference on Soft Computing in Design and Manufacturing (WSC2)).

- [573] Djohara Benyamina, Abdelhakim Hafid, and Michel Gendreau. Throughput Gateways-Congestion Trade-Off in Designing Multi-Radio Wireless Networks. *Mobile Networks & Applications*, 16(1):109–121, February 2011.
- [574] L. Berardi, O. Giustolisi, D.A. Savic, and Z. Kapelan. An effective multi-objective approach to prioritisation of sewer pipe inspection. *Water Science and Technology*, 60(4):841–850, 2009.
- [575] Benoit Beraud, Cyrille Lemoine, and Jean-Philippe Steyer. Multiobjective Genetic Algorithms for the Optimisation of Wastewater Treatment Processes. In Maria do Carmo Nicoletti and Lakhmi C. Jain, editors, *Computational Intelligence Techniques for Bioprocess Modelling, Supervision and Control*, Studies in Computational Intelligence (SCI), pages 163–195. Springer, Berlin, 2009. ISBN 978-3-642-01887-9.
- [576] P. K. Bergey, C. T. Ragsdale, and M. Hoskote. A simulated annealing genetic algorithm for the electrical power districting problem. *Annals of Operations Research*, 121(1 - 4):33–55, July 2003.
- [577] P.K. Bergey. An agent enhanced intelligent spreadsheet solver for multi-criteria decision making. In *Proceedings of the Fifth Americas Conference on Information Systems (AMCIS'99)*, pages 966–968, Milwaukee, USA, August 1999.
- [578] Rudolf Berghammer, Tobias Friedrich, and Frank Neumann. Set-Based Multi-Objective Optimization, Indicators, and Deteriorative Cycles. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 495–502, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [579] Djamel Berkoune. *Optimisation de L'Ordonnancement Prenant en Compte Les Tâches Prévisionnelles*. PhD thesis, Université de Valenciennes et du Hainaut Cambrésis, France, December 2005. (In French).
- [580] Antonio Berlanga, Jesús García Herrero, and José Manuel Molina. Multi-objective Evolutionary Algorithms: Applications in Real Problems. In Joan Cabestany, Francisco Sandoval, Alberto Prieto, and Juan M. Corchado, editors, *Bio-Inspired Systems: Computational and Ambient Intelligence, 10th International Work-Conference on Artificial Neural Networks, IWANN 2009*, pages 714–719, Salamanca, Spain, June 10-12 2009. Springer. Lecture Notes in Computer Science Vol. 5517.
- [581] F. Berlanga, M.J. del Jesus, P. Gonzalez, F. Herrera, and M. Mesonero. Multiobjective evolutionary induction of subgroup discovery fuzzy rules: A case study in marketing. In *Advances in Data Mining*, pages 337–349. Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 4065, 2006.
- [582] F.J. Berlanga, A. J. Rivera, M. J. del Jesus, and F. Herrera. GP-COACH: Genetic Programming-based learning of COmpact and ACcurate fuzzy rule-based classification systems for High-dimensional problems. *Information Sciences*, 180(8):1183–1200, April 15 2010.

- [583] Ester Bernadó-Mansilla, Xavier Llorà, and Ivan Traus. Multi-objective Learning Classifier Systems. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 261–288. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [584] J.L. Bernal-Agustin, R. Dufo-Lopez, and D.M. Rivas-Ascaso. Design of isolated hybrid systems minimizing costs and pollutant emissions. *Renewable Energy*, 31(14):2227–2244, November 2006.
- [585] Jose L. Bernal-Agustin and Rodolfo Dufo-Lopez. Multi-Objective design and control of hybrid systems minimizing costs and unmet load. *Electric Power Systems Research*, 79(1):170–180, January 2009.
- [586] L. Bernal-Haro, C. Azzaro-Pantel, L. Pibouleau, and S. Domenech. Multi-objective batch plant design: A two-stage methodology. 2. Development of a genetic algorithm and result analysis. *Industrial & Engineering Chemistry Research*, 41(23):5743–5758, November 13 2002.
- [587] P. Bernardi, K. Christou, M. Grosso, M.K. Michael, E. Sánchez, and M. Sonza Reorda. Exploiting MOEA to Automatically Generate Test Programs for Path-Delay Faults in Microprocessors. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC, and EvoTransLog*, pages 224–234. Springer. Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
- [588] Heder S. Bernardino and Helio J. C. Barbosa. Artificial Immune Systems for Optimization. In Raymond Chiong, editor, *Nature-Inspired Algorithms for Optimisation*, pages 389–411. Springer, Berlin, 2009. ISBN 978-3-642-00266-3.
- [589] Ester Bernadó i Mansilla and Josep Maria Garrell i Guiu. MOLeCS: A Multiobjective Learning Classifier System. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, page 390, San Francisco, California, 2000. Morgan Kaufmann.
- [590] Knut Bernhardt. Finding alternatives and reduced formulations for process-based models. *Evolutionary Computation*, 16(1):63–88, Spring 2008.
- [591] Etienne Bernier, Francois Marechal, and Rejean Samson. Multi-objective design optimization of a natural gas-combined cycle with carbon dioxide capture in a life cycle perspective. *Energy*, 35(2):1121–1128, February 2010.
- [592] Yaniv Bernstein, Xiaodong Li, Vic Ciesielski, and Andy Song. Improving Generalisation Performance Through Multiobjective Parsimony Enforcement. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 702–703, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.

- [593] Yaniv Bernstein, Xiaodong Li, Vic Ciesielski, and Andy Song. Multiobjective Parsimony Enforcement for Superior Generalisation Performance. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 83–89, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [594] A. Berrichi, L. Amodeo, F. Yalaoui, E. Chatelet, and M. Mezghiche. Bi-objective optimization algorithms for joint production and maintenance scheduling: Application to the parallel machine problem. *Journal of Intelligent Manufacturing*, 20(4):389–400, August 2009.
- [595] Alain Berro. *Optimisation Multiobjectif et Stratégies d'Evolution en Environnement Dynamique*. PhD thesis, Université des Sciences Sociales Toulouse I, Toulouse, France, December 2001. (In French).
- [596] Alain Berro and Yves Duthen. Search for optimum in dynamic environment: a efficient agent-based method. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 51–54, San Francisco, California, July 2001.
- [597] Alain Berro and Stephane Sanchez. Autonomous Agent for Multi-objective Optimization. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 251–252, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [598] Adam Berry and David Cornforth. Designing Multiple Inverter Systems with Evolutionary Multiobjective Optimisation. In *Proceedings of the IEEE Energy Conversion Congress and Exposition*, San Jose, California, USA, September 2009. IEEE Press.
- [599] Adam Berry and Peter Vamplew. A Simplified Artificial Life Model for Multiobjective Optimisation: A Preliminary Report. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 1331–1339, Canberra, Australia, December 2003. IEEE Press.
- [600] Adam Berry and Peter Vamplew. The Combative Accretion Model—Multiobjective Optimisation Without Explicit Pareto Ranking. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 77–91, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [601] Adam Berry and Peter Vamplew. An Efficient Approach to Unbounded Bi-Objective Archives—Introducing the Mak_Tree Algorithm. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 619–626, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.

- [602] Adam Berry and Peter W. Vamplew. A Language for Platform Independent Communication and Storage in Multiobjective Optimization. In M. Negnevitsky, editor, *Proceedings of AISAT 2004: International Conference on Artificial Intelligence in Science and Technology*, pages 308–313, Hobart, Australia, November 2004. University of Tasmania, ISBN 1862952094.
- [603] Adam Michael Berry. *Escaping the Bounds of Generality—Unbounded Bi-Objective Optimisation*. PhD thesis, University of Tasmania, Australia, March 2008.
- [604] A.M. Berry, D.J. Cornforth, and G. Platt. An introduction to multiobjective optimisation methods for decentralised power planning. In *IEEE Power & Energy Society General Meeting, 2009 (PES'09)*, pages 2148–2156. IEEE Press, 26-30 July 2009.
- [605] Ilaria Bertini, Matteo De Felice, Fabio Moretti, and Stefano Pizzuti. Start-Up Optimisation of a Combined Cycle Power Plant with Multiobjective Evolutionary Algorithms. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Marc Ebner, Muddassar Farooq, Andreas Fink, Jörn Grahlf, Gary Greenfield, Penousal Machado, Michael O'Neill, Ernesto Tarantino, and Neil Urquhard, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMNET, EvoENVIRONMENT, EvoFIN, EvoMUSART and EvoTRANSLOG*, pages 151–160, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6025.
- [606] Eva Besada-Portas, Luis de la Torre, Jesus de la Cruz, and Bonifacio de Andres-Toro. Evolutionary Trajectory Planner for Multiple UAVs in Realistic Scenarios. *IEEE Transactions On Robotics*, 26(4):619–634, August 2010.
- [607] Christopher Best. Multi-Objective Cultural Algorithms. Master's thesis, Wayne State University, Detroit, Michigan, USA, 2009.
- [608] Christopher Best, Xiangdong Che, Robert G. Reynolds, and Dapeng Liu. Multi-objective Cultural Algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3330–3338, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [609] Nicola Beume. S-Metric Calculation by Considering Dominated Hypervolume as Klee's Measure Problem. *Evolutionary Computation*, 17(4):477–492, Winter 2009.
- [610] Nicola Beume, Carlos M. Fonseca, Manuel Lopez-Ibanez, Luis Paquete, and Jan Vahrenhold. On the Complexity of Computing the Hypervolume Indicator. *IEEE Transactions on Evolutionary Computation*, 13(5):1075–1082, October 2009.
- [611] Nicola Beume, Marco Laumanns, and Günter Rudolph. Convergence Rates of (1+1) Evolutionary Multiobjective Optimization Algorithms. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel*

Problem Solving from Nature-PPSN XI, 11th International Conference, Proceedings, Part I, pages 597–606. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.

- [612] Nicola Beume, Marco Laumanns, and Günter Rudolph. Convergence Rates of SMS-EMOA on Continuous Bi-objective Problem Classes. In Hans-Georg Beyer and William B. Langdon, editors, *Proceedings of the 2011 ACM/SIGEVO Foundations of Genetic Algorithms XI (FOGA'2011)*, pages 243–251. ACM Press, Schwarzenberg, Austria, January 5–9 2011.
- [613] Nicola Beume, Boris Naujoks, and Michael Emmerich. SMS-EMOA: Multiobjective selection based on dominated hypervolume. *European Journal of Operational Research*, 181(3):1653–1669, 16 September 2007.
- [614] Nicola Beume, Boris Naujoks, Mike Preuss, Günter Rudolph, and Tobias Wagner. Effects of 1-Greedy S-Metric-Selection on Innumerably Large Pareto Fronts. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 21–35. Springer, Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [615] Nicola Beume, Boris Naujoks, and Guenter Rudolph. SMS-EMOA - Effective Evolutionary Multiobjective Optimization. *AT-Automatisierungstechnik*, 56(7):357–364, 2008.
- [616] Hassan Bevrani and Pourya Ranjbar Daneshmand. Fuzzy Logic-Based Load-Frequency Control Concerning High Penetration of Wind Turbines. *IEEE Systems Journal*, 6(1):173–180, March 2012.
- [617] Leonardo C.T. Bezerra, Elizabeth F.G. Goldberg, Luciana S. Buriol, and Marco C. Goldberg. GRACE: A Generational Randomized ACO for the Multi-objective Shortest Path Problem. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 535–549, Ouro Preto, Brazil, April 2011. Springer, Lecture Notes in Computer Science Vol. 6576.
- [618] Bir Bhanu, Sungkee Lee, and Subhadev Das. Adapting Image Segmentation using Genetic and Hybrid Search Methods. *IEEE Transactions on Aerospace and Electronic Systems*, 31(4):1268–1291, October 1995.
- [619] Suvrat Bhargava, George S. Dulikravich, Gollapudi S. Murty, Arvind Agarwal, and Marcelo J. Colaco. Stress Corrosion Cracking Resistant Aluminum Alloys: Optimizing Concentrations of Alloying Elements and Tempering. *Materials and Manufacturing Processes*, 26(3):367–374, 2011.
- [620] V. Bhaskar, S.K. Gupta, and A.K. Ray. Applications of multiobjective optimization in chemical engineering. *Reviews in Chemical Engineering*, 16(1):1–54, 2000.

- [621] V. Bhaskar, S.K. Gupta, and A.K. Ray. Multiobjective optimization of an industrial wiped-film pet reactor. *AIChE Journal*, 46(5):1046–1058, May 2000.
- [622] V. Bhaskar, S.K. Gupta, and A.K. Ray. Multiobjective optimization of an industrial wiped film poly(ethylene terephthalate) reactor: some further insights. *Computers & Chemical Engineering*, 25(2–3):391–407, March 2001.
- [623] Aniruddha Bhattacharya and P. K. Chattopadhyay. Application of Biogeography-based Optimization for Solving Multi-objective Economic Emission Load Dispatch Problems. *Electric Power Components and Systems*, 38(3):340–365, 2010.
- [624] Aniruddha Bhattacharya and P. K. Chattopadhyay. Hybrid differential evolution with biogeography-based optimization algorithm for solution of economic emission load dispatch problems. *Expert Systems With Applications*, 38(11):14001–14010, October 2011.
- [625] Aniruddha Bhattacharya and Pranab Kumar Chattopadhyay. Solving Economic Emission Load Dispatch Problems Using Hybrid Differential Evolution. *Applied Soft Computing*, 11(2):2526–2537, March 2011.
- [626] Baidurya Bhattacharya, G. R. Dinesh Kumar, Akash Agarwal, Sakir Erkoc, Arunima Singh, and Nirupam Chakraborti. Analyzing Fe-Zn system using molecular dynamics, evolutionary neural nets and multi-objective genetic algorithms. *Computational Materials Science*, 46(4):821–827, October 2009.
- [627] Maumita Bhattacharya. Counter-Niching for Constructive Population Diversity. In *2008 Congress on Evolutionary Computation (CEC’2008)*, pages 4174–4179, Hong Kong, June 2008. IEEE Service Center.
- [628] Ranjan Bhattacharya and Susmita Bandyopadhyay. Solving conflicting bi-objective facility location problem by NSGA II evolutionary algorithm. *International Journal of Advanced Manufacturing Technology*, 51(1–4):397–414, November 2010.
- [629] Siddhartha Bhattacharyya. Evolutionary algorithms in data mining: multi-objective performance modeling for direct marketing. In *Proceedings of the sixth ACM SIGKDD international conference on Knowledge discovery and data mining*, pages 465–471, New York, 2000. ACM Press.
- [630] Urvesh Bhowan, Mark Johnston, and Mengjie Zhang. Ensemble Learning and Pruning in Multi-Objective Genetic Programming for Classification with Unbalanced Data. In Dianhui Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 192–202, Perth, Australia, December 5-8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [631] Urvesh Bhowan, Mark Johnston, and Menjie Zhang. Evolving Ensembles in Multi-Objective Genetic Programming for Classification with Unbalanced Data. In *2011 Genetic and Evolutionary Computation Conference*

- (*GECCO'2011*), pages 1331–1338, Dublin, Ireland, July 12-16 2011. ACM Press.
- [632] Urvesh Bhowan, Mengjie Zhang, and Mark Johnston. AUC Analysis of the Pareto-Front Using Multi-Objective GP for Classification with Unbalanced Data. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 845–852, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
 - [633] Urvesh Bhowan, Mengjie Zhang, and Mark Johnston. Genetic Programming for Classification with Unbalanced Data. In Anna Isabel Esparcia-Alcázar, Anikó Ekárt, Sara Silva, Stephen Dignum, and A. Şima Uyar, editors, *Genetic Programming, 13th European Conference, EuroGP 2010*, pages 1–13. Springer. Lecture Notes in Computer Science, Vol. 6021, Istanbul, Turkey, April 2010.
 - [634] N. Bhutani, G.P. Rangaiah, and A.K. Ray. First Principles, Data Based and Hybrid Modeling and Optimization of an Industrial Hydrocracking Unit. *Industrial and Engineering Chemistry Research*, 45:7807–7816, 2006.
 - [635] N. Bhutani, A.K. Ray, and G.P. Rangaiah. Modeling, Simulation and Multi-objective Optimization of an Industrial Hydrocracking Unit. *Industrial and Engineering Chemistry Research*, 45:1354–1372, 2006.
 - [636] J. Bhuvana and C. Aravindan. Design of Hybrid Genetic Algorithm with Preferential Local Search for Multiobjective Optimization Problems. In Vinu V. Das, Gylson Thomas, and Ford Lumban Gaol, editors, *Information Technology and Mobile Communication, International Conference, AIM 2011*, pages 312–316, Nagpur, Maharashtra, India, April 21-22 2011.
 - [637] ZM Bi and WJ Zhang. Concurrent optimal design of modular robotic configuration. *Journal Of Robotic Systems*, 18(2):77–87, February 2001.
 - [638] B. Bica, A.J. Chipperfield, P.J. Fleming, and Sheena MacKenzie. Enhancing the Performance of a Multivariable Fuzzy Controller by Means of a Multiobjective Genetic Programming and Statistical Analysis. In *26th Annual Conference of the IEEE Industrial Electronics Society*, volume 3, pages 1686–1691, 2000.
 - [639] Alexis Bienvenüe, Marc Joannides, Jean Bérard, Éric Fontenas, and Olivier François. Niching in Monte Carlo Filtering Algorithms. In Pierre Collet, Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution. Selected Papers from the 5th International Conference, Evolution Artificielle, EA 2001*, pages 19–30. Springer. Lecture Notes in Computer Science Vol. 2310, October 2001.
 - [640] S.A. Billings and G.L. Zheng. Radial Basis Function Network Configuration Using Genetic Algorithms. *Neural Networks*, 8(6):877–890, 1995.

- [641] Xu Bin, Chen Nan, and Che Huajun. An integrated method of multi-objective optimization for complex mechanical structure. *Advances in Engineering Software*, 41(2):277–285, February 2010.
- [642] Gui bing Gao, Guo jun Zhang, Gang Huang, Hai ping Zhu, and Pei hua Gu. Solving material distribution routing problem in mixed manufacturing systems with a hybrid multi-objective evolutionary algorithm. *Journal of Central South University of Technology*, 19(2):433–442, February 2012.
- [643] Deniz Bingol, Salih Aydogan, and S. Sinan Gultekin. Neural model for the leaching of celestite in sodium carbonate solution. *Chemical Engineering Journal*, 165(2):617–624, December 1 2010.
- [644] Zafer Bingul. Adaptive genetic algorithms applied to dynamic multiobjective problems. *Applied Soft Computing*, 7(3):791–799, June 2007.
- [645] Zafer Bingul, Ali Sekmen, and Saleh Zein-Sabatto. Adaptive Genetic Algorithms Applied to Dynamic Multi-Objective Problems. In Cihan H. Dagli, Anna L. Buczak, Joydeep Ghosh, Mark Embrechts, Okan Ersoy, and Stephen Kercel, editors, *Proceedings of the Artificial Neural Networks in Engineering Conference (ANNIE’2000)*, pages 273–278, New York, 2000. ASME Press.
- [646] Zafer Bingul, Ali Sekmen, and Saleh Zein-Sabatto. Genetic Algorithms Applied to Real Time Multi-Objective Optimization Problems. In *Proceedings of the 2000 IEEE SoutheastCon Conference (SoutheastCON’2000)*, pages 95–103, Nashville, Tennessee, April 2000. IEEE.
- [647] To Thanh Binh. *Eine Entwurfsstrategie für Mehrgrößensysteme zur Polgebietsvorgabe*. PhD thesis, Institute of Automation, University of Magdeburg, Germany, 1994.
- [648] To Thanh Binh. A Multiobjective Evolutionary Algorithm: The Study Cases. Technical report, Institute for Automation and Communication, Barleben, Germany, January 1999.
- [649] To Thanh Binh. A Multiobjective Evolutionary Algorithm: The Study Cases. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 127–128, Orlando, Florida, July 1999.
- [650] To Thanh Binh and Ulrich Korn. An evolution strategy for the multiobjective optimization. In *The Second International Conference on Genetic Algorithms (Mendel 96)*, pages 23–28, Brno, Czech Republic, 1996.
- [651] To Thanh Binh and Ulrich Korn. Ein multikriterielles Design-Tool für Mehrgrößensysteme mittels Evolutionsstrategien. *Fachtagung 1997: Moderne Methoden des Regelungs- und ungsentwurfes*, pages 35–42, 1997.

- [652] To Thanh Binh and Ulrich Korn. MOBES: A multiobjective evolution strategy for constrained optimization problems. In *The Third International Conference on Genetic Algorithms (Mendel 97)*, pages 176–182, Brno, Czech Republic, 1997.
- [653] To Thanh Binh and Ulrich Korn. Multicriteria control system design using an intelligent evolution strategy with dynamical constraints boundaries. In *Proceedings of the Conference for Control of Industrial Systems (CIS'97)*, volume 2, pages 242–247, Belfort, France, 1997.
- [654] To Thanh Binh and Ulrich Korn. Multiobjective Evolution Strategy for Constrained Optimization Problems. In *Proc. of the 15th IMACS World Congress on Scientific Computation, Modelling and Applied Mathematics*, pages 357–362, Berlin, Germany, 1997.
- [655] To Thanh Binh and Ulrich Korn. Scalar Optimization With Linear and Nonlinear Constraints Using Evolution Strategies. In Bernd Reusch, editor, *Lecture Notes in Computer Science*, pages 381–392. Springer-Verlag, April 1997.
- [656] To Thanh Binh and Ulrich Korn. A parallel multiobjective evolutionary algorithm. *Submission paper for Evolutionary Computing 1999*, 1999.
- [657] To Thanh Binh, Ulrich Korn, and J. Kliche. *Evolution Strategy Toolbox for use with MATLAB*. Technical report, Institute of Automation, University of Magdeburg, Germany, March 1996.
- [658] Alexandra Melike Bintrup, Jeremy Ramsden, Hideyuki Takagi, and Ashutosh Tiwari. Ergonomic Chair Design by Fusing Qualitative and Quantitative Criteria Using Interactive Genetic Algorithms. *IEEE Transactions on Evolutionary Computation*, 12(3):343–354, June 2008.
- [659] T. Biondi, A. Ciccazzo, V. Cutello, S. D'Antona, G. Nicosia, and S. Spinella. Multi-objective evolutionary algorithms and pattern search methods for circuit design problems. *Journal of Universal Computer Science*, 12(4):432–449, 2006.
- [660] Stefan Bird and Xiaodong Li. Adaptively Choosing Niching Parameters in a PSO. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 3–9, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [661] Arijir Biswas, N. Chakraborti, and P. K. Sen. A Genetic Algorithms Based Multi-Objective Optimization Approach Applied to Hydrometallurgical Circuit for Ocean Nodules. *Mineral Processing and Extractive Metallurgy Review*, 30(2):163–189, 2009.
- [662] Arijit Biswas, N. Chakraborti, and P.K. Sen. Multiobjective Optimization of Manganese Recovery from Sea Nodules Using Genetic Algorithms. *Materials and Manufacturing Processes*, 24(1):22–30, January 2009.

- [663] Arijit Biswas, Ogier Maitre, Debanga Nandan Mondal, Syamal Kanti Das, Prodip Kumar Sen, Pierre Collet, and Nirupam Chakraborti. Data-Driven Multiobjective Analysis of Manganese Leaching from Low Grade Sources Using Genetic Algorithms, Genetic Programming, and Other Allied Strategies. *Materials and Manufacturing Processes*, 26(3):415–430, 2011.
- [664] Pushpen Biswas, Purnendu Bose, and Vinod Tare. Optimal choice of wastewater treatment train by multi-objective optimization. *Engineering Optimization*, 39(2):125–145, March 2007.
- [665] Utpal Biswas, Ujjmal Maulik, Anirban Mukhopadhyay, and Mrinal Kanti Naskar. Multiobjective evolutionary approach to cost-effective traffic grooming in unidirectional SONET/WDM rings. *Photonic Network Communications*, 18(1):105–115, August 2009.
- [666] Utpal Biswas, Ujjwal Maulik, Anirban Mukhopadhyay, and Mrinal Naskar. Multiobjective genetic algorithm based approach to traffic grooming in unidirectional SONET/WDM rings. *Journal of Optics*, 39(3):136–142, July-September 2010.
- [667] Michael S. Bittermann, Özer Ciftcioglu, and I. Sevil Sariyildiz. A cognitive system based on fuzzy information processing and multi-objective evolutionary algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1271–1280, Trondheim, Norway, May 2009. IEEE Press.
- [668] X. Blasco, J. M. Herrero, J. Sanchis, and M. Martinez. A new graphical visualization of n-dimensional Pareto front for decision-making in multiobjective optimization. *Information Sciences*, 178(20):3908–3924, October 15 2008.
- [669] L. Blasi, L. Iuspa, and G. Del Core. Speed-sensitivity analysis by a genetic multiobjective optimization technique. *Journal of Aircraft*, 39(6):1076–1079, November-December 2002.
- [670] I. Blečić, A. Cecchini, and G.A. Trunfio. A decision support tool coupling a causal model and a multi-objective genetic algorithm. In *Innovations in Applied Intelligence*, pages 628–637. Springer. Lecture Notes in Artificial Intelligence Vol. 3533, 2005.
- [671] Ivan Blečić, Arnaldo Cecchini, and Giuseppe A. Trunfio. A decision support tool coupling a causal model and a multi-objective genetic algorithm. *Applied Intelligence*, 26(2):125–137, April 2007.
- [672] Matthias Blesken, Anouar Chebil, Ulrich Rückert, Xavier Esquivel, and Oliver Schütze. Integrated Circuit Optimization by Means of Evolutionary Multi-Objective Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 807–812, Dublin, Ireland, July 12-16 2011. ACM Press.

- [673] S. Bleuler, M. Laumanns, L. Thiele, and E. Zitzler. PISA — A Platform and Programming Language Independent Interface for Search Algorithms. TIK Report 154, Computer Engineering and Networks Laboratory (TIK), ETH Zurich, October 2002.
- [674] Stefan Bleuler. *Search Heuristics for Module Identification from Biological High-Throughput Data*. PhD thesis, ETH Zürich, Switzerland, 2007.
- [675] Stefan Bleuler, Johannes Bader, and Eckart Zitzler. Reducing Bloat in GP with Multiple Objectives. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 177–200. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [676] Stefan Bleuler, Martin Brack, Lothar Thiele, and Eckart Zitzler. Multiobjective Genetic Programming: Reducing Bloat Using SPEA2. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 536–543, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [677] Stefan Bleuler, Marco Laumanns, Lothar Thiele, and Eckart Zitzler. PISA—A Platform and Programming Language Independent Interface for Search Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 494–508, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [678] Tobias Blickle, Jürgen Teich, and Lothar Thiele. System-level synthesis using evolutionary algorithms. Technical Report TIK Report-Nr. 16, Computer Engineering and Communication Networks Lab (TIK), Swiss Federal Institute of Technology (ETH), Gloriastrasse 35, 8092 Zurich, April 1996.
- [679] Tobias Blickle, Jürgen Teich, and Lothar Thiele. An evolutionary approach to system-level synthesis. In *Proc. 5th International Workshop on Hardware/Software Codesign*, pages 167–172. IEEE Computer Society Press, 1997.
- [680] Anna Blumel and Brian White. Multiobjective Optimization of Fuzzy Logic Scheduled Controllers for Missile Autopilot Design. In *Joint 9th IFSA World Congress and 20th NAFIPS International Conference*, volume 3, pages 1758–1763. IEEE, 2001.
- [681] Anna L. Blumel, Evan J. Hughes, and Brian A. White. Fuzzy Autopilot Design using a Multiobjective Evolutionary Algorithm. In *2000 Congress on Evolutionary Computation*, volume 1, pages 54–61, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [682] Anna L. Blumel, Evan J. Hughes, and Brian A. White. Multi-objective Evolutionary Design of Fuzzy Autopilot Controller. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimiza-*

tion, pages 668–680. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.

- [683] Anna Lubomirova Blumel. *Robust Fuzzy Autopilot Design Using Multi-objective Optimisation for a Highly Non-linear Missile*. PhD thesis, Department of Aerospace, Power & Sensors, Cranfield University, UK, March 2001.
- [684] Daniel W. Boeringer and Douglas H. Werner. Bézier representations for the multiobjective, optimization of conformal array amplitude weights. *IEEE Transactions on Antennas and Propagation*, 54(7):1964–1970, July 2006.
- [685] J. J. Bogardi and L. Duckstein. Interactive Multiobjective Analysis Embedding the Decision Makers Implicit Preference Function. *Water Resources Bulletin*, 28(1):75–88, January-February 1992.
- [686] Marianne Boix, Ludovic Montastruc, Luc Pibouleau, Catherine Azzaro Pantel, and Serge Domenech. A multiobjective optimization framework for multicontaminant industrial water network design. *Journal of Environmental Management*, 92(7):1802–1808, July 2011.
- [687] Cristiana Bolchini, Pier Luca Lanzi, and Antonio Miele. A Multi-Objective Genetic Algorithm Framework for Design Space Exploration of Reliable FPGA-based Systems. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 419–426, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [688] Duccio Bonaiuti and Mehrdad Zangeneh. On the Coupling of Inverse Design and Optimization Techniques for the Multiobjective, Multipoint Design of Turbomachinery. *Journal of Turbomachinery-Transactions of the ASME*, 131(2), April 2009. Article Number: 021014.
- [689] C. W. Bong and M. Rajeswari. Multiobjective clustering with metaheuristic: current trends and methods in image segmentation. *IET Image Processing*, 6(1):1–10, February 2012.
- [690] Chin-Wei Bong and Mandava Rajeswari. Multi-objective nature-inspired clustering and classification techniques for image segmentation. *Applied Soft Computing*, 11(4):3271–3282, January 2011.
- [691] Josh Bongard. The Utility of Evolving Simulated Robot Morphology Increases with Task Complexity for Object Manipulation. *Artificial Life*, 16(3):201–223, Summer 2010.
- [692] Piero P. Bonissone, Raj Subbu, Neil Eklund, and Thomas R. Kiehl. Evolutionary Algorithms + Domain Knowledge = Real-World Evolutionary Computation. *IEEE Transactions on Evolutionary Computation*, 10(3):256–280, June 2006.
- [693] Piero P. Bonissone, Raj Subbu, and John Lizzi. Multicriteria Decision Making (MCDM): A Framework for Research and Applications. *IEEE Computational Intelligence Magazine*, 4(3):48–61, August 2009.

- [694] Pruet Boonma and Junichi Suzuki. MONSOON: A Coevolutionary Multiobjective Adaptation Framework for Dynamic Wireless Sensor Networks. In *Proceedings of the 41st Hawaii International Conference on System Sciences - 2008*, pages 1–10, Big Island, Hawaii, January 2008. IEEE Computer Society Press.
- [695] Teodoro C. Bora, Leandro dos S. Coelho, and Luiz Lebensztajn. Bat-Inspired Optimization Approach for the Brushless DC Wheel Motor Problem. *IEEE Transactions on Magnetics*, 48(2):947–950, February 2012.
- [696] Teodoro C. Bora, Luiz Lebensztajn, and Leandro Dos S. Coelho. Non-Dominated Sorting Genetic Algorithm Based on Reinforcement Learning to Optimization of Broad-Band Reflector Antennas Satellite. *IEEE Transactions on Magnetics*, 48(2):767–770, February 2012.
- [697] Carlos C.H. Borges and Helio J.C. Barbosa. A Non-generational Genetic Algorithm for Multiobjective Optimization. In *2000 Congress on Evolutionary Computation*, volume 1, pages 172–179, San Diego, California, July 2000. IEEE Service Center.
- [698] Carlos C.H. Borges and Helio J.C. Barbosa. Obtaining a Restricted Pareto Front in Evolutionary Multiobjective Optimization. *Foundations of Computing and Decision Sciences*, 26(1):5–21, 2001.
- [699] Pedro Castro Borges. CHESS-Changing Horizon Efficient Set Search: A Simple Principle for Multiobjective Optimization. *Journal of Heuristics*, 6(3):405–418, August 2000.
- [700] Pedro Castro Borges and Michael Pilegaard Hansen. A basis for future successes in multiobjective combinatorial optimization. Technical Report IMM-REP-1998-8, Institute of Mathematical Modelling, Technical University of Denmark, March 1998.
- [701] C. A. Borghi, D. Casadei, M. Fabbri, and G. Serra. Reduction of the torque ripple in permanent magnet actuators by a multiobjective minimization technique. *IEEE Transactions on Magnetics*, 34(5):2869–2872, September 1998.
- [702] István Borgulya. An EC-Memory based Method for the Multi-Objective TSP. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 903, London, UK, July 2007. ACM Press.
- [703] F. Boschetti, M. Dentith, and R. List. Genetic Algorithms Incorporating a Pseudo Subspace Method. In *Proceedings of the Second International Conference on Evolutionary Computation*, pages 557–560, November 1995.
- [704] Peter A. N. Bosman. The Anticipated Mean Shift and Cluster Registration in Mixture-Based EDAs for Multi-Objective Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 351–358, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.

- [705] Peter Alexander Nicolaas Bosman. *Design and Application of Iterated Density-Estimation Evolutionary Algorithms*. PhD thesis, Institute of Information and Computing Sciences, Universiteit Utrecht, Utrecht, The Netherlands, 2003.
- [706] Peter A.N. Bosman. On Gradients and Hybrid Evolutionary Algorithms for Real-Valued Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 16(1):51–69, February 2012.
- [707] Peter A.N. Bosman and Edwin D. de Jong. Exploiting Gradient Information in Numerical Multi-Objective Evolutionary Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 755–762, New York, USA, June 2005. ACM Press.
- [708] Peter A.N. Bosman and Edwin D. de Jong. Combining Gradient Techniques for Numerical Multi-Objective Evolutionary Optimization. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 627–634, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [709] Peter A.N. Bosman and Dirk Thierens. The Balance Between Proximity and Diversity in Multiobjective Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 7(2):174–188, April 2003.
- [710] Peter A.N. Bosman and Dirk Thierens. The Naive MIDEA: A Baseline Multi-objective EA. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 428–442, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [711] Peter A.N. Bosman and Dirk Thierens. Adaptive Variance Scaling in Continuous Multi-Objective Estimation-of-Distribution Algorithms. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 500–507, London, UK, July 2007. ACM Press.
- [712] Martijn C.J. Bot. Improving Induction of Linear Classification Trees with Genetic Programming. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 403–410, San Francisco, California, 2000. Morgan Kaufmann.
- [713] Alessio Botta, Beatrice Lazzerini, Francesco Marcelloni, and Dan C. Stefanescu. Context adaptation of fuzzy systems through a multi-objective evolutionary approach based on a novel interpretability index. *Soft Computing - A Fusion of Foundations, Methodologies and Applications*, 13(5):437–449, March 2009.

- [714] Celso P. Bottura and Jo ao V. da Fonseca Neto. Rule-based Decision-making Unit for Eigenstructure Assignment via Parallel Genetic Algorithm and LQR Designs. In *Proceedings of the 2000 American Control Conference*, volume 1, pages 467–471, 2000.
- [715] M. L. Bouazizi, S. Ghanmi, and N. Bouhaddi. Multi-objective optimization in dynamics of the structures with nonlinear behavior: Contributions of the metamodels. *Finite Elements in Analysis and Design*, 45(10):612–623, August 2009.
- [716] Emmanuel Boutillon, Christian Roland, and Marc Sevaux. Probability-Driven Simulated Annealing for Optimizing Digital FIR Filters. In Carlos Cotta, Marc Sevaux, and Kenneth Sörensen, editors, *Adaptive and Multilevel Metaheuristics*, pages 77–93. Springer. Studies in Computational Intelligence Vol. 136, Berlin, 2008.
- [717] Claude Bouvy, Christoph Kausch, Mike Preuss, and Frank Henrich. On the Potential of Multi-objective Optimization in the Design of Sustainable Energy Systems. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 3–12. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.
- [718] Lucas Bradstreet, Luigi Barone, and Lyndon While. Map-labelling with a Multi-objective Evolutionary Algorithm. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1937–1944, New York, USA, June 2005. ACM Press.
- [719] Lucas Bradstreet, Luigi Barone, and Lyndon While. Maximising Hypervolume for Selection in Multi-objective Evolutionary Algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6208–6215, Vancouver, BC, Canada, July 2006. IEEE.
- [720] Lucas Bradstreet, Luigi Barone, and Lyndon While. Updating Exclusive Hypervolume Contributions Cheaply. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 538–544, Trondheim, Norway, May 2009. IEEE Press.
- [721] Lucas Bradstreet, Luigi Barone, Lyndon While, Simon Huband, and Philip Hingston. Use of the WFG Toolkit and PISA for Comparison of MOEAs. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 382–389, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [722] Lucas Bradstreet, Lyndon While, and Luigi Barone. Incrementally Maximising Hypervolume for Selection in Multi-Objective Evolutionary Algorithms. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3203–3210, Singapore, September 2007. IEEE Press.

- [723] Lucas Bradstreet, Lyndon While, and Luigi Barone. A Fast Incremental Hypervolume Algorithm. *IEEE Transactions on Evolutionary Computation*, 12(6):714–723, December 2008.
- [724] Lucas Bradstreet, Lyndon While, and Luigi Barone. A Fast Many-objective Hypervolume Algorithm using Iterated Incremental Calculations. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 179–186, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [725] Antônio Pádua Braga, Ricardo H.C. Takahashi, Marcelo Azevedo Costa, and Roselito de Albuquerque Teixeira. Multi-Objective Algorithms for Neural Networks Learning. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 151–171. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [726] Marcello Braglia and Andrea Grassi. A new heuristic for the flowshop scheduling problem to minimize makespan and maximum tardiness. *International Journal of Production Research*, 47(1):273–288, 2009.
- [727] A. Bramanti, P. Di Barba, M. Farina, and A. Savini. Combining Response Surfaces and Evolutionary Strategies for Multiobjective Pareto-Optimization in Electromagnetics. *International Journal of Applied Electromagnetics and Mechanics*, 15(1-4):231–236, 2001.
- [728] Oliver Brandt and Sergey Malinchik. A Broad and Narrow Approach to Interactive Evolutionary Design - An Aircraft Design Example. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 883–895, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [729] J. Branke, S. Greco, R. Slowinski, and P. Zielniewicz. Interactive evolutionary multiobjective optimization driven by robust ordinal regression. *Bulletin Of The Polish Academy Of Sciences-Technical Sciences*, 58(3):347–358, September 2010.
- [730] J. Branke, B. Scheckenbach, M. Stein, and H. Schmeck. Portfolio optimization with an envelope-based multi-objective evolutionary algorithm. *European Journal of operational Research*, 199(3):684–693, December 16 2009.
- [731] Jürgen Branke. Consideration of Partial User Preferences in Evolutionary Multiobjective Optimization. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 157–178. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [732] Jürgen Branke and Kalyanmoy Deb. Integrating User Preferences into Evolutionary Multi-Objective Optimization. In Yaochu Jin, editor, *Knowledge Incorporation in Evolutionary Computation*, pages 461–477. Springer, Berlin Heidelberg, 2005. ISBN 3-540-22902-7.

- [733] Jürgen Branke, Kalyanmoy Deb, Henning Dierolf, and Matthias Osswald. Finding Knees in Multi-Objective Optimization. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 722–731, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [734] Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors. *Multiobjective Optimization. Interactive and Evolutionary Approaches*. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [735] Jürgen Branke, Salvatore Greco, Roman Slowinski, and Piotr Zielniewicz. Interactive Evolutionary Multiobjective Optimization Using Robust Ordinal Regression. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 554–568. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [736] Jürgen Branke, Thomas Kaußler, and Hartmut Schmeck. Guiding Multi Objective Evolutionary Algorithms Towards Interesting Regions. Technical Report 398, Institute für Angewandte Informatik und Formale Beschreibungsverfahren, Universität Karlsruhe, Karlsruhe, Germany, February 2000.
- [737] Jürgen Branke, Thomas Kaußler, and Hartmut Schmeck. Guiding Multi-Objective Evolutionary Algorithms Towards Interesting Regions. In Ian C. Parmee, editor, *Fourth International Conference on Adaptive Computing in Design and Manufacture (ACDM 2000), Poster Proceedings*, pages 1–4. Plymouth Engineering Design Centre, University of Plymouth, April 2000.
- [738] Jürgen Branke, Thomas Kaußler, and Hartmut Schmeck. Guidance in Evolutionary Multi-Objective Optimization. *Advances in Engineering Software*, 32:499–507, 2001.
- [739] Jürgen Branke and Sanaz Mostaghim. About Selecting the Personal Best in Multi-Objective Particle Swarm Optimization. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 523–532. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [740] Jürgen Branke, Hartmut Schmeck, Kalyanmoy Deb, and Maheshwar Reddy. Parallelizing Multi-Objective Evolutionary Algorithms: Cone Separation. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1952–1957, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [741] Y. S. Brar, J. S. Dhillon, and D. P. Kothari. Multiobjective load dispatch by fuzzy logic based searching weightage pattern. *Electric Power Systems Research*, 63(2):149–160, September 28 2002.

- [742] Christiane Regina Soares Brasil, Alexandre Cláudio Botazzo Delbem, and Daniel Rodrigo Ferraz. Investigating Relevant Aspects of MOEAs for Protein Structures Prediction. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 705–712, Dublin, Ireland, July 12–16 2011. ACM Press.
- [743] Jan Braun, Frank Hoffman, Johannes Krettek, and Torsten Bertram. Model Assisted Multiobjective Optimization with lambda-Control. *AT-Automatisierungstechnik*, 57(3):115–128, 2009.
- [744] Jan Braun, Johannes Krettek, Frank Hoffmann, and Torsten Bertram. Multi-Objective Optimization with Controlled Model Assisted Evolution Strategies. *Evolutionary Computation*, 17(4):577–593, Winter 2009.
- [745] Marlon Alexander Braun, Pradyumn Kumar Shukla, and Hartmut Schneck. Preference Ranking Schemes in Multi-Objective Evolutionary Algorithms. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 226–240, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [746] H. D. de Macedo Braz and B. A. de Souza. Distribution Network Reconfiguration Using Genetic Algorithms With Sequential Encoding: Subtractive and Additive Approaches. *IEEE Transactions on Power Systems*, 26(2):582–593, May 2011.
- [747] Mihaela Breaban and Henri Luchian. Unsupervised Feature Weighting with Multi Niche Crowding Genetic Algorithms . In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1163–1170, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [748] (Christian Breuer, Martin Lucas, Frank-Walter Schütze, and Peter Claus. Implementation of the multi-channel monolith reactor in an optimisation procedure for heterogeneous oxidation catalysts based on genetic algorithms. *Combinatorial Chemistry & High Throughput Screening*, 10(1):59–70, January 2007.
- [749] Miran Brezocnik, Borut Buchmeister, and Leo Gusel. Evolutionary Algorithm Approaches to Modeling of Flow Stress. *Materials and Manufacturing Processes*, 26(3):501–507, 2011.
- [750] Olivier Briant, Denis Naddef, and Grégory Mounié. Greedy approach and multi-criteria simulated annealing for the car sequencing problem. *European Journal of Operational Research*, 191(3):993–1003, December 2008.
- [751] M. S. Bright and T. Arslan. Effective Design Exploration through Multi-Objective High-Level DSP Synthesis. In *IEEE International ASIC/SOC Conference*, pages 115–118, Florida, USA, September 1999.

- [752] M. S. Bright and T. Arslan. Multi-Objective Design Strategy for High-Level Low-Power Design of DSP Systems. In *IEEE International Symposium on Circuits and Systems, ISCAS 99*, volume 1, pages 80–83, Florida, USA, May–June 1999.
- [753] M. S. Bright and T. Arslan. Optimal Supply Voltage Selection through a Multiobjective Design Strategy. In *IEEE 33rd Asilomar Conference on Signals, Systems, and Computers*, pages 374–377, Pacific Grove, California, October 1999.
- [754] Marc Stephen Bright. *Evolutionary Strategies for the High-Level Synthesis of VLSI-Based DSP Systems for Low Power*. PhD thesis, University of Wales Cardiff, School Of Engineering, Circuits And Systems Research Group, Cardiff, Wales, UK, October 1998.
- [755] Karl Bringmann and Tobias Friedrich. Approximating the Least Hypervolume Contributor: NP-Hard in General, But Fast in Practice. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 6–20. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [756] Karl Bringmann and Tobias Friedrich. Don’t be Greedy when Calculating Hypervolume Contributions. In *FOGA ’09: Proceedings of the tenth ACM SIGEVO workshop on Foundations of genetic algorithms*, pages 103–112, Orlando, Florida, USA, January 2009. ACM.
- [757] Karl Bringmann and Tobias Friedrich. An Efficient Algorithm for Computing Hypervolume Contributions. *Evolutionary Computation*, 18(3):383–402, Fall 2010.
- [758] Karl Bringmann and Tobias Friedrich. The Maximum Hypervolume Set Yields Near-Optimal Approximation. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO’2010)*, pages 511–518, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [759] Karl Bringmann and Tobias Friedrich. Tight Bounds for the Approximation Ratio of the Hypervolume Indicator. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part I*, pages 607–616. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [760] Karl Bringmann and Tobias Friedrich. Convergence of Hypervolume-Based Archiving Algorithms I: Effectiveness. In *2011 Genetic and Evolutionary Computation Conference (GECCO’2011)*, pages 745–752, Dublin, Ireland, July 12–16 2011. ACM Press.

- [761] Alexandra Brintrup. Behaviour adaptation in the multi-agent, multi-objective and multi-role supply chain. *Computers in Industry*, 61(7):636–645, September 2010.
- [762] Alexandra Brintrup, Jeremy Ramsden, and Ashutosh Tiwari. Integrated Qualitativeness in Design by Multi-Objective Optimization and Interactive Evolutionary Computation. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2154–2160, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [763] Alexandra Melike Brintrup, Hideyuki Takagi, and Jeremy Ramsden. Evaluation of Sequential, Multi-objective, and Parallel Interactive Genetic Algorithms for Multi-objective Floor Plan Optimisation. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 586–598, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.
- [764] M.-O. Bristeau, R. Glowinski, B. Mantel, J. Periaux, and M. Sefrioui. Genetic algorithms for RCS minimization of aerodynamic shapes by active reflectors. In Y. Rahmat-Samii and E. Michielssen, editors, *System Design Using Evolutionary Optimization: Genetic Algorithms*. John Wiley, 1998.
- [765] Marie-Odile Bristeau, Roland Glowinski, Bertrand Mantel, Jacques Périaux, and Mourad Sefrioui. Genetic Algorithms for Electromagnetic Backscattering: Multiobjective Optimization. In Yahya Rahmat-Samii and Eric Michielssen, editors, *Electromagnetic Optimization by Genetic Algorithms*, pages 399–434. John Wiley and Sons, Inc., New York, 1999.
- [766] Mário Brito and John May. Safety Critical Software Process Improvement by Multi-objective Optimization Algorithms. In Qing Wang, Dietmar Pfahl, and David M. Raffo, editors, *Software Process Dynamics and Agility, International Conference on Software Process, ICSP 2007*, pages 96–108. Springer, Lecture Notes in Computer Science, Vol. 4470, Minneapolis, MN, USA, May 19-20 2007. ISBN 978-3-540-72425-4.
- [767] R. Brits, A.P. Engelbrecht, and F. van den Bergh. A Niching Particle Swarm Optimizer. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 2, pages 692–696, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [768] R. Brits, A.P. Engelbrecht, and F. van den Bergh. Locating multiple optima using particle swarm optimization. *Applied Mathematics and Computation*, 189(2):1859–1883, June 15 2007.
- [769] Antonio C. Briza and Prospero C. Jr. Naval. Stock trading system based on the multi-objective particle swarm optimization of technical indicators on end-of-day market data. *Applied Soft Computing*, 11(1):1191–1201, January 2011.

- [770] C. Brizuela, N. Sannomiya, and Y. Zhao. Multi-Objective Flow-Shop: Preliminary Results. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 443–457. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [771] Carlos A. Brizuela and Rodrigo Aceves. Experimental Genetic Operators Analysis for the Multi-objective Permutation Flowshop. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 578–592, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [772] Carlos A. Brizuela and Everardo Gutiérrez. Multi-objective Go with the Winners Algorithm: A Preliminary Study. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 206–220, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [773] D. Brockhoff and E. Zitzler. Dimensionality Reduction in Multiobjective Optimization with (Partial) Dominance Structure Preservation: Generalized Minimum Objective Subset Problems. TIK Report 247, Institut für Technische Informatik und Kommunikationsnetze, ETH Zürich, April 2006.
- [774] D. Brockhoff and E. Zitzler. On Objective Conflicts and Objective Reduction in Multiple Criteria Optimization. TIK Report 243, Institut für Technische Informatik und Kommunikationsnetze, ETH Zürich, February 2006.
- [775] D. Brockhoff and E. Zitzler. Offline and Online Objective Reduction in Evolutionary Multiobjective Optimization Based on Objective Conflicts. TIK Report 269, Institut für Technische Informatik und Kommunikationsnetze, ETH Zürich, April 2007.
- [776] Dimo Brockhoff. Optimal μ -Distribution for the Hypervolume Indicator for Problems with Linear Bi-Objective Functions: Exact and Exhaustive results. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 24–34, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [777] Dimo Brockhoff, Tobias Friedrich, Nils Hebbinghaus, Christian Klein, Frank Neumann, and Eckart Zitzler. Do Additional Objectives Make a Problem Harder? In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 765–772, London, UK, July 2007. ACM Press.

- [778] Dimo Brockhoff, Tobias Friedrich, Nils Hebbinghaus, Christian Klein, Frank Neumann, and Eckart Zitzler. On the Effects of Adding Objectives to Plateau Functions. *IEEE Transactions on Evolutionary Computation*, 13(3):591–603, July 2009.
- [779] Dimo Brockhoff, Tobias Friedrich, and Frank Neumann. Analyzing Hypervolume Indicator Based Algorithms. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 651–660. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [780] Dimo Brockhoff, Dhish Kumar Saxena, Kalyanmoy Deb, and Eckart Zitzler. On Handling a Large Number of Objectives A Posteriori and During Optimization. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 377–403. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [781] Dimo Brockhoff and Eckart Zitzler. Are All Objectives Necessary? On Dimensionality Reduction in Evolutionary Multiobjective Optimization. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 533–542. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [782] Dimo Brockhoff and Eckart Zitzler. Dimensionality Reduction in Multiobjective Optimization: The Minimum Objective Subset Problem. In Karl Heinz Waldmann and Ulrike M. Stocker, editors, *Operations Research Proceedings 2006*, pages 423–429, Saarbücken, Germany, 2007. Springer.
- [783] Dimo Brockhoff and Eckart Zitzler. Improving Hypervolume-based Multiobjective Evolutionary Algorithms by Using Objective Reduction Methods. In *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pages 2086–2093, Singapore, September 2007. IEEE Press.
- [784] Dimo Brockhoff and Eckart Zitzler. Objective Reduction in Evolutionary Multiobjective Optimization: Theory and Applications. *Evolutionary Computation*, 17(2):135–166, Summer 2009.
- [785] Rob A. C. M. Broekmeulen. Facility Management of Distribution Centers for Vegetables and Fruits. In J. Biethahn and Volker Nissen, editors, *Evolutionary Algorithms in Management Applications*, pages 199–210. Springer-Verlag, Berlin, 1995.
- [786] A. J. Brown and M. Thomas. Reengineering the Naval Ship Design Process. In *Proceedings of From Research to Reality in Ship Systems Engineering Symposium*, page 277, University of Essex, United Kingdom, 1998. ASNE.

- [787] M. Brown and R. E. Smith. Directed Multi-Objective Optimisation. *International Journal of Computers, Systems and Signals*, 6(1):3–17, 2005.
- [788] Martin Brown and Nicky Hutaauruk. Multi-objective optimisation for process design and control. *Measurement & Control*, 40(6):182–187, July 2007.
- [789] Martin Brown and Nicky Hutaauruk. On the Convergence of Multi-Objective Descent Algorithms. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 253–260, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [790] Martin Brown and Robert E. Smith. Effective Use of Directional Information in Multi-objective Evolutionary Computation. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 778–789. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [791] Philip H. Brown, Desiree Tullos, Bryan Tilt, Darrin Magee, and Aaron T. Wolf. Modeling the costs and benefits of dam construction from a multidisciplinary perspective. *Journal of Environmental Management*, 90(3):S303–S311, July 2009.
- [792] Jason Brownlee. IIDLE: An Immunological Inspired Distributed Learning Environment for Multiple Objective and Hybrid Optimisation. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 1614–1620, Vancouver, BC, Canada, July 2006. IEEE.
- [793] Ricardo Brunelli and Christian von Lucken. Optimal Crop Selection Using Multiobjective Evolutionary Algorithms. *AI Magazine*, 30(2):96–105, Summer 2009.
- [794] Lorenzo Bruzzone and Claudio Persello. A Novel Approach to the Selection of Spatially Invariant Features for the Classification of Hyperspectral Images With Improved Generalization Capability. *IEEE Transactions on Geoscience and Remote Sensing*, 47(9):3180–3191, September 2009.
- [795] Anthony Bucci and Jordan Pollack. Order-theoretic Analysis of Coevolution Problems: Coevolutionary Statics. In Alwyn M. Barry, editor, *GECCO 2002: Proceedings of the Bird of a Feather Workshops, Genetic and Evolutionary Computation Conference*, pages 229–235, New York, July 2002. AAAI.
- [796] Anthony Bucci, Jordan B. Pollack, and Edwin de Jong. Automated Extraction of Problem Structure. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 501–512, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [797] Dirk Büche. *Multi-Objective Evolutionary Optimization of Gas Turbine Components*. PhD thesis, Swiss Federal Institute of Technology, Zürich, Switzerland, 2003.

- [798] Dirk Büche and Rolf Dornberger. New Evolutionary Algorithm for Multi-objective Optimization and the Application to Engineering Design Problems. In *Proceedings of the Fourth World Congress of Structural and Multidisciplinary Optimization*, Dalian, China, 2001.
- [799] Dirk Büche, Gianfranco Guidati, Peter Stoll, and Petros Kourmoursakos. Self-Organizing Maps for Pareto Optimization of Airfoils. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 122–131, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [800] Dirk Büche, Michele Milano, and Petros Koumoutsakos. Self-Organizing Maps for Multi-Objective Optimization. In Alwyn M. Barry, editor, *GECCO 2002: Proceedings of the Bird of a Feather Workshops, Genetic and Evolutionary Computation Conference*, pages 152–155, New York, July 2002. AAAI.
- [801] Dirk Büche, Sibylle Müller, and Petro Koumoutsakos. Self-Adaptation for Multi-objective Evolutionary Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 267–281, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [802] Dirk Büche, Peter Stoll, Rolf Dornberger, and Petros Kourmoursakos. Multi-objective Evolutionary Algorithm for the Optimization of Noisy Combustion Processes. *IEEE Transactions on Systems, Man, and Cybernetics Part C—Applications and Reviews*, 32(4):460–473, November 2002.
- [803] Dirk Büche, Peter Stoll, and Petros Koumoutsakos. An evolutionary algorithm for multi-objective optimization of combustion processes. In *Center for Turbulence Research. Annual Research Briefs*, pages 231–239, Stanford University, California, USA, 2001.
- [804] J. J. Buckley and T. Feuring. Evolutionary algorithm solution to fuzzy problems: Fuzzy linear programming. *Fuzzy Sets and Systems*, 109(1):35–53, January 1 2000.
- [805] J. J. Buckley, T. Feuring, and Y. Hayashi. Multi-objective fully fuzzified linear programming. *International Journal of Uncertainty Fuzziness and Knowledge-based Systems*, 9(5):605–621, October 2001.
- [806] Anna L. Buczak and V. R. Jamalabad. Self-organization of a Heterogeneous Sensor Network by Genetic Algorithms. In C. H. Dagli, M. Akay, A. L. Buczak, O. Ersoy, and B.R. Fernández, editors, *Intelligent Engineering Systems Through Artificial Neural Networks*, volume 8, pages 259–264, New York, 1998. ASME Press.

- [807] I. G. P. Asto Buditjahjanto and Hajime Miyauchi. An Intelligent Decision Support Based on a Subtractive Clustering and Fuzzy Inference System for Multiobjective Optimization Problem in Serious Game. *International Journal of Information Technology & Decision Making*, 10(5):793–810, September 2011.
- [808] I.G.P. Asto Buditjahjanto, Mochamad Hariadi, and Mauridhi Hery Purnomo. A Hybrid Intelligent System for Decision Making. *Journal of Applied Sciences Research*, 7(3):274–285, 2011.
- [809] Marcos L.P. Bueno and Gina M.B. Oliveira. Multicast flow routing: Evaluation of heuristics and multiobjective evolutionary algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3403–3410, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [810] L. T. Bui, S. Wesolkowski, A. Bender, H. A. Abbass, and M. Barlow. A Dominance-Based Stability Measure for Multi-Objective Evolutionary Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 749–756, Trondheim, Norway, May 2009. IEEE Press.
- [811] Lam T. Bui, Hussein A. Abbass, Michael Barlow, and Axel Bender. Robustness Against the Decision-Maker's Attitude to Risk in Problems With Conflicting Objectives. *IEEE Transactions on Evolutionary Computation*, 16(1):1–19, February 2012.
- [812] Lam T. Bui, Hussein A. Abbass, and Daryl Essam. Fitness Inheritance For Noisy Evolutionary Multi-Objective Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 779–785, New York, USA, June 2005. ACM Press.
- [813] Lam T. Bui, Hussein A. Abbass, and Daryl Essam. Local models—an approach to distributed multi-objective optimization. *Computational Optimization and Applications*, 42(1):105–139, January 2009.
- [814] Lam T. Bui, Hussein A. Abbass, and Daryl Essam. Localization for Solving Noisy Multi-Objective Optimization Problems. *Evolutionary Computation*, 17(3):379–409, Fall 2009.
- [815] Lam T. Bui, Jürgen Branke, and Hussein A. Abbass. Diversity as a Selection Pressure in Dynamic Environments. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1557–1558, New York, USA, June 2005. ACM Press.
- [816] Lam T. Bui, Kalyanmoy Deb, Hussein A. Abbass, and Daryl Essam. Dual Guidance in Evolutionary Multi-objective Optimization by Localization. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein A. Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006, Proceedings*, pages 384–391, Hefei, China, October 2006. Springer. Lecture Notes in Computer Science Vol. 4247.

- [817] Lam T. Bui, Daryl Essam, and Hussein A. Abbass. The Role of Explicit Niching and Communication Messages in Distributed Evolutionary Multi-objective Optimization. In Francisco Fernández de Vega and Erick Cantú-Paz, editors, *Parallel and Distributed Computational Intelligence*, pages 181–206. Springer, Berlin, Germany, 2010.
- [818] Lam T. Bui, Minh-Ha Nguyen, Jürgen Branke, and Hussein A. Abbass. Tackling Dynamic Problems with Multiobjective Evolutionary Algorithms. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 77–91. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [819] Lam T. Bui, James M. Whitacre, and Hussein A. Abbass. Performance Analysis of Elitism in Multi-Objective Ant Colony Optimization Algorithms. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1633–1640, Hong Kong, June 2008. IEEE Service Center.
- [820] Lam Thu Bui. *The Role of Communication Messages and Explicit Niching in Distributed Evolutionary Multi-Objective Optimization*. PhD thesis, School of Information Technology & Electrical Engineering, the University of New South Wales at the Australian Defence Force Academy, Australia, 2007.
- [821] Lam Thu Bui and Sameer Alam. An Introduction to Multi-Objective Optimization. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 1–19. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [822] Lam Thu Bui and Sameer Alam, editors. *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [823] Lam Thu Bui, Juergen Branke, and Hussein Abbass. Multiobjective optimization for dynamic environments. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2349–2356, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [824] Lam Thu Bui, Kalyanmoy Deb, Hussein A. Abbass, and Daryl Essam. Interleaving guidance in evolutionary multi-objective optimization. *Journal of Computer Science and Technology*, 23(1):44–63, January 2008.
- [825] Lam Thu Bui and Zbigniew Michalewicz. An evolutionary multi-objective approach for dynamic mission planning. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1019–1026, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [826] Larry Bull and Matt Studley. Considerations of Multiple Objectives in Neural Learning Classifier Systems. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages

549–557, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.

- [827] S. Bureerat and S. Srisomporn. Optimum plate-fin heat sinks by using a multi-objective evolutionary algorithm. *Engineering Optimization*, 42(4):305–323, 2010.
- [828] Sujin Bureerat and Krit Sriworamas. Population-Based Incremental Learning for Multiobjective Optimisation. In Janusz Kacprzyk, editor, *Soft Computing in Industrial Applications*, chapter 21, pages 223–232. Springer. Advances in Soft Computing, Vol. 39, Berlin, 2007.
- [829] Xavier P. Burgos-Artizzu, Angela Ribeiro, Alberto Tellaeche, and Gonzalo Pajares. Optimisation of Natural Images Processing Using Different Evolutionary Algorithms. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1268–1275, Hong Kong, June 2008. IEEE Service Center.
- [830] Edmund K. Burke, Patrick De Causmaecker, Sanja Petrovic, and Greet Vanden Berghe. A Multi Criteria Meta-heuristic Approach to Nurse Rostering. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1197–1202, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [831] Edmund K. Burke, J. Dario Landa Silva, and Eric Soubeiga. Multi-objective Hyper-heuristic Approaches for Space Allocation and Timetabling. In Toshihide Ibaraki, Koji Nonobe, and Matsunori Yagiura, editors, *Meta-heuristics: Progress as Real Problem Solvers, Selected Papers from the 5th Metaheuristics International Conference (MIC 2003)*, pages 129–158. Springer, 2005.
- [832] Edmund K. Burke, Jingpeng Li, and Rong Qu. A hybrid model of integer programming and variable neighbourhood search for highly-constrained nurse rostering problems. *European Journal of Operational Research*, 203(2):484–493, June 1 2010.
- [833] E.K. Burke, P. Cowling, J.D. Landa Silva, and S. Petrovic. Combining Hybrid Metaheuristics and Populations for the Multiobjective Optimisation of Space Allocation Problems. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 1252–1259, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [834] E.K. Burke, P. Cowling, J.D. Landa Silva, and S. Petrovic. On the Performance of Population-Based Metaheuristics for the Space Allocation Problem. In Jorge Pinho de Sousa, editor, *Proceedings of the 4th Metaheuristics International Conference (MIC'2001)*, pages 579–583, Porto, Portugal, July 16–20 2001. Program Operational Ciencia, Tecnologia, Inovação do Quadro Comunitário de Apoio III de Fundação para a Ciencia e Tecnologia.

- [835] E.K. Burke, J. D. Landa Silva, and E. Soubeiga. Hyperheuristic Approaches for Multiobjective Optimisation. In *Proceedings of the 5th Metaheuristics International Conference (MIC 2003)*, pages 11.1–11.6, Kyoto, Japan, August 2003.
- [836] E.K. Burke and J.D. Landa Silva. Improving the Performance of Trajectory-Based Multiobjective Optimisers by Using Relaxed Dominance. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 203–207, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [837] E.K. Burke and J.D. Landa Silva. The influence of the fitness evaluation method on the performance of multiobjective search algorithms. *European Journal of Operational Research*, 169(3):875–897, March 2006.
- [838] Donald H. Burn and Jeanne S. Yullanti. Waste-Load Allocation using Genetic Algorithms. *Journal of Water Resources Planning and Management*, 127(2):121–129, March-April 2001.
- [839] P.G. Busacca, M. Marseguerra, and E. Zio. Multiobjective optimization by genetic algorithms: application to safety systems. *Reliability Engineering & System Safety*, 72(1):59–74, April 2001.
- [840] Pietro Giuggioli Busacca, Marzio Marseguerra, and Enrico Zio. Application of Genetic Algorithms to the Multi-Objective Optimization of the Inspection Times of a Safety System of a Pressurized Water Reactor. In *Proceedings of the European Safety & Reliability International Conference (ESREL'2001)*, Torino, Italy, September 2001.
- [841] Alvaro Luis Bustamante, José M. Molina López, and Miguel A. Patricio. MIJ2K Optimization using evolutionary multiobjective optimization algorithms. *Expert Systems with Applications*, 38(9):10999–11010, September 2011.
- [842] Matthew Butler and Ali Daniyal. Multi-objective optimization with an evolutionary artificial neural network for financial forecasting. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1451–1458, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [843] Yuri Bykov. *Time-Predefined and Trajectory-Based Search: Single and Multi-objective Approaches to Exam Timetabling*. PhD thesis, University of Nottingham, UK, November 2003.
- [844] Jonathan Byrne, Michael Fenton, Erik Hemberg, James McDermott, Michael O'Neill, Elizabeth Shotton, and Ciaran Nally. Combining Structural Analysis

- and Multi-Objective Criteria for Evolutionary Architectural Design. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Rolf Drechsler, Muddassar Farooq, Jörn Grahlf, Gary Greenfield, Christian Prins, Juan Romero, Giovanni Squillero, Ernesto Tarantino, Andrea G.B. Tettamanzi, Neil Urquhart, and A. Şima Uyar, editors, *Applications of Evolutionary Computation, EvoApplications 2011: EvoCOMNET, EvoFIN, EvoHOT, EvoMUSART, EvoSTIM, and EvoTRANSLOG*, pages 204–213, Torino, Italy, April 27-29 2011. Springer. Lecture Notes in Computer Science Vol. 6625.
- [845] Juan Carlos Fernandez Caballero, Francisco Jose Martinez, Cesar Hervás, and Pedro Antonio Gutierrez. Sensitivity Versus Accuracy in Multiclass Problems Using Memetic Pareto Evolutionary Neural Networks. *IEEE Transactions On Neural Networks*, 21(5):750–770, May 2010.
 - [846] Rafael Caballero, Trinidad Gomez, Julian Molina, Osvaldo Fosado, Maria A. Leon, Madelen Garofal, and Beatriz Saavedra. Sawing Planning Using a Multicriteria Approach. *Journal of Industrial and Management Optimization*, 5(2):303–317, May 2009.
 - [847] Rafael Caballero, Julián Molina, Trinidad Gómez, Mariano Luque, and Angel Torrico. A genetic algorithm to solve an integer goal programming model for the higher education. In *EU/ME European Chapter On Metaheuristics*, Paris, France, November 2002.
 - [848] José M. Cabello, José M. Cejudo, Mariano Luque, Francisco Ruiz, Kalyanmoy Deb, and Rahul Tewari. Optimization of the Sizing of a Solar Thermal Electricity Plant: Mathematical Programming Versus Genetic Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1193–1200, Trondheim, Norway, May 2009. IEEE Press.
 - [849] Guillermo Cabrera, José Miguel Rubio, Daniela Díaz, Boris Fernández, Claudio Cubillos, and Ricardo Soto. A Cultural Algorithm Applied in a Bi-Objective Uncapacitated Facility Location Problem. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 477–491, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
 - [850] J.A. Cabrera, F. Nadal, J.P. Munoz, and A. Simon. Multiobjective constrained optimal synthesis of planar mechanisms using a new evolutionary algorithm. *Mechanism and Machine Theory*, 42(7):791–806, July 2007.
 - [851] Renan Cabrera, Ofer M. Shir, Rebing Wu, and Herschel Rabitz. Fidelity Between Unitary Operators and the Generation of Robust Gates Against Off-Resonance Perturbations. *Journal of Physics A-Mathematical and Theoretical*, 44(9), March 4 2011. Article Number 095302.

- [852] J. M. Cadenas and F. Jiménez. A genetic algorithm for the multiobjective solid transportation problem: a fuzzy approach. In *International Symposium on Automotive Technology and Automation, Proceedings for the dedicated conferences on Mechatronics and Supercomputing Applications in the Transportation Industries*, pages 327–334, Aachen, Germany, 1994.
- [853] F. Cadini, E. Zio, and C. A. Petrescu. Optimal expansion of an existing electrical power transmission network by multi-objective genetic algorithms. *Reliability Engineering & System Safety*, 95(3):173–181, March 2010.
- [854] Guobiao Cai, Jie Fang, Yuntao Zheng, Xiaoyan Tong, Jun Chen, and Jue Wang. Optimization of System Parameters for Liquid Rocket Engines with Gas-Generator Cycles. *Journal of Propulsion and Power*, 26(1):113–119, January-February 2010.
- [855] Jiejing Cai, Xiaoqian Ma, Qiong Li, Lixiang Li, and Haipeng Peng. A multi-objective chaotic particle swarm optimization for environmental/economic dispatch. *Energy Conversion and Management*, 50(5):1318–1325, May 2009.
- [856] Weiling Cai, Songcan Chen, and Daoqiang Zhang. A Multiobjective Simultaneous Learning Framework for Clustering and Classification. *IEEE Transactions On Neural Networks*, 21(2):185–200, February 2010.
- [857] X. Cai and K. N. Li. A genetic algorithm for scheduling staff of mixed skills under multi-criteria. *European Journal of Operational Research*, 125(2):359–369, September 1 2000.
- [858] Zhihua Cai, Wenyin Gong, and Yongqin Huang. A Novel Differential Evolution Algorithm Based on ϵ -Domination and Orthogonal Design Method for Multiobjective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 286–301, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [859] Zixing Cai and Yong Wang. A Multiobjective Optimization-Based Evolutionary Algorithm for Constrained Optimization. *IEEE Transactions on Evolutionary Computation*, 10(6):658–675, December 2006.
- [860] B. Cakir, F. Altiparmak, and B. Dengiz. Multi-objective optimization of a stochastic assembly line balancing: A hybrid simulated annealing algorithm. *Computers & Industrial Engineering*, 60(3):376–384, April 2011.
- [861] Daniele Calisi, Alessandro Farinelli, Luca Iocchi, Daniele Nardi, and Francesca Pucci. Multi-Objective Autonomous Exploration in a Rescue Environment. In *Third International Workshop on Synthetic Simulation and Robotics to Mitigate Earthquake Disaster (SRMED 2006)*, pages 36–41, Bremen, Germany, June 2006.

- [862] Michael Calonder, Stefan Bleuler, and Eckart Zitzler. Module Identification from Heterogeneous Biological Data Using Multiobjective Evolutionary Algorithms. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 573–582. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [863] Mario Camara, Julio Ortega, and Francisco de Toro. A single front genetic algorithm for parallel multi-objective optimization in dynamic environments. *Neurocomputing*, 72(16-18):3570–3579, October 2009.
- [864] Mario Cámara, Julio Ortega, and Francisco de Toro. Approaching Dynamic Multi-Objective Optimization Problems by Using Parallel Evolutionary Algorithms. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 4, pages 63–86. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.
- [865] Mauricio Camargo, Laure Morel, Christian Fonteix, Sandrine Hoppe, Guo-Hua Hu, and Jean Renaud. Development of New Concepts for the Control of Polymerization Processes: Multiobjective Optimization and Decision Engineering. II. Application of a Choquet Integral to an Emulsion Copolymerization Process. *Journal of Applied Polymer Science*, 120(6):3421–3434, June 15 2011.
- [866] F. Campelo, F.G. Guimar aes, R.R. Saldanha, H. Igarashi, S. Noguchi, D.A. Lowther, and J.A. Ramirez. A novel multiobjective immune algorithm using nondominated sorting. In *11th International IGTE Symposium on Numerical Field Calculation in Electrical Engineering*, Seggauberg, Austria, September 2004.
- [867] Felipe Campelo, Frederico G. Guimar aes, and Hajime Igarashi. Overview of Artificial Immune Systems for Multi-Objective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 937–951, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [868] Felipe Campelo, Frederico G. Guimar aes, and Hajime Igarashi. Multiobjective Optimization Using Compromise Programming and an Immune Algorithm. *IEEE Transactions on Magnetics*, 44(6):982–985, June 2008.
- [869] Eduardo Camponogara and Sarosh N. Talukdar. A Genetic Algorithm for Constrained and Multiobjective Optimization. In Jarmo T. Alander, editor, *3rd Nordic Workshop on Genetic Algorithms and Their Applications (3NWGA)*, pages 49–62, Vaasa, Finland, August 1997. University of Vaasa.
- [870] Waldo Cancino and Alexandre C. B. Delbem. A Multi-objective Evolutionary Approach for Phylogenetic Inference. In Shigeru Obayashi, Kalyanmoy Deb,

Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 428–442, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.

- [871] Waldo Gonzalo Cancino Ticona. Aplicação de Algoritmos Genéticos Multi-Objetivo para Alinhamento de Sequências Biológicas. Master's thesis, ICMC-USP, São Carlos, Brazil, February 2003. (In Portuguese).
- [872] José Ramón Cano de Amo. *Reducción de datos basada en Selección Evolutiva de Instancias para Minería de Datos*. PhD thesis, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad de Granada, Spain, July 2004. (In Spanish).
- [873] A. Canova, F. Freschi, M. Repetto, and V. Vusini. Eddy Current Coupler Optimization. In *Second International Conference on Power Electronics, Machines and Drives (PEMD 2004)*, volume 1, pages 436–441, Edinburgh, Scotland, 31 March–2 April 2004. IEEE Press.
- [874] A. Canova, G. Gruosso, and M. Repetto. Synthesis of linear actuators. *COMPEL-The International Journal For Computation And Mathematics In Electrical And Electronic Engineering*, 20(3):713–723, 2001.
- [875] Aldo Canova and Fabio Freschi. Multiobjective design optimization and Pareto front analysis of a radial eddy current coupler. *International Journal of Applied Electromagnetics and Mechanics*, 32(4):219–236, 2010.
- [876] Aldo Canova, Fabio Freschi, and Michele Tartaglia. Multiobjective Optimization of Parallel Cable Layout. *IEEE Transactions on Magnetics*, 43(10):3914–3920, October 2007.
- [877] Olcay Ersel Canyurt and Prabhat Hajela. Cellular genetic algorithm technique for the multicriterion design optimization. *Structural and Multidisciplinary Optimization*, 40(1-6):201–214, January 2010.
- [878] Hongqing Cao, Friedrich Recknagel, Lydia Cetin, and Byron Zhang. Process-based simulation library SALMO-OO for lake ecosystems. Part 2: Multi-Objective parameter optimization by evolutionary algorithms. *Ecological Informatics*, 3(2):181–190, April 1 2008.
- [879] Genci Capi. Multiobjective evolution of neural controllers and task complexity. *IEEE Transactions on Robotics*, 23(6):1225–1234, 2007.
- [880] Genci Capi and Shin ichiro Kaneko. Evolution of low-complexity neural controllers based on multiobjective evolution. *Artificial Life and Robotics*, 12(1-2):53–58, March 2008.
- [881] Genci Capi, Yasuo Nasu, Mitsuhiro Yamano, and Kazuhisa Mitobe. Multi-criteria Optimal Humanoid Robot Motion Generation. In Armando Carlos de Pina Filho, editor, *Humanoid Robots. New Developments*, pages 157–170.

Advanced Robotic Systems International and I-Tech, Vienna, Austria, 2007. ISBN 978-3-902613-00-4.

- [882] Andrea Caponio and Ferrante Neri. Integrating Cross-Dominance Adaptation in Multi-Objective Memetic Algorithms. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 15, pages 325–351. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [883] Zlatan Car, Branimir Barisic, and Mirloslaw Rucki. Emergent Synthesis Based Multi-Objective Design of the Manufacturing System Shop-Floor. *Strojniški Vestnik- Journal of Mechanical Engineering*, 55(9):521–528, September 2009.
- [884] Massimiliano Caramia and Paolo Dell’Olmo. *Multi-objective Management in Freight Logistics*. Springer, London, 2008. ISBN 978-1-84800-381-1.
- [885] A. F. Carazo, Trinidad Gomez, Julian Molina, Alfredo G. Hernandez-Diaz, Flor M. Guerrero, and Rafael Caballero. Solving a comprehensive model for multiobjective project portfolio selection. *Computers & Operations Research*, 37(4):630–639, April 2010.
- [886] Jessica A. Carballido, Ignacio Ponzoni, and Nelida B. Brignole. SID-GA: An evolutionary approach for improving observability and redundancy analysis in structural instrumentation design. *Computers & Industrial Engineering*, 56(4):1419–1428, May 2009.
- [887] Jessica Andrea Carballido, Ignacio Ponzoni, and Nélida Beatriz Brignole. A Novel Application of Evolutionary Computing in Process Systems Engineering. In Günther R. Raidl and Jens Gottlieb, editors, *Evolutionary Computation in Combinatorial Optimization. 5th European Conference, EvoCOP 2005*, pages 12–22, Lausanne, Switzerland, March/April 2005. Springer, Lecture Notes in Computer Science Vol. 3448.
- [888] Sara Carcangiu, Alessandra Fanni, and Augusto Montisci. Multiobjective Tabu Search Algorithms for Optimal Design of Electromagnetic Devices. *IEEE Transactions on Magnetics*, 44(6):970–973, June 2008.
- [889] Alain Cardon, Theiry Galinho, and Jean-Philippe Vacher. An Agent Based Architecture for Job-Shop Scheduling Problem Using the Spirit of Genetic Algorithm. In *Proceedings of Evolutionary Algorithms in Engineering and Computer Science, EUROGEN’99*, pages 12–19, Jyväskylä, Finland, May 1999.
- [890] Alain Cardon, Theiry Galinho, and Jean-Philippe Vacher. A Multi-Objective Genetic Algorithm in Job Shop Scheduling Problem to Refine an Agents’ Architecture. In Kaisa Miettinen, Marko M. Mäkelä, Pekka Neittaanmäki, and Jacques Periaux, editors, *Proceedings of EUROGEN’99*, Jyväskylä, Finland, May 1999. University of Jyväskylä.

- [891] Alain Cardon, Thierry Galinho, and Jean-Philippe Vacher. Using Genetic Algorithm in Job-Shop Scheduling Problem to Constraints Negotiators' Agents. In *Proceedings of Evolutionary Algorithms in Engineering and Computer Science, EUROGEN'99*, pages 20–27, Jyväskylä, Finland, May 1999.
- [892] Alain Cardon, Thierry Galinho, and Jean-Philippe Vacher. Genetic Algorithms using Multi-Objectives in a Multi-Agent System. *Robotics and Autonomous Systems*, 33(2–3):179–190, November 2000.
- [893] Alain Cardon and Jean-Philippe Vacher. Algorithmes Génétiques dans un Système Multi-Agents pour l'Ordonnancement. Technical report, Crihan, 1998. (In French).
- [894] Alain Cardon and Jean-Philippe Vacher. Rapport Technique pour Ouverture de Compte au Crihan sur Machine Parallèle Illiac8. Technical report, Crihan, 1998. <http://www.crihan.fr> (In French).
- [895] P. Cardoso, M. Jesus, and A. Márquez. MONACO - Multi-Objective Network Optimisation based on ACO. In *X Encuentros de Geometría Computacional*, Seville, Spain, June 2003.
- [896] P. Cardoso, M. Jesus, and A. Márquez. Multiple Objective TSP based on ACO. In *III Encuentro Andaluz de Matemáticas Discretas*, Almeria, Spain, 2003.
- [897] Pedro Cardoso, Mário Jesus, and Álvaro Márquez. Multiple Criteria Minimum Spanning Trees. In *XI Encuentros de Geometría Computacional*, Santander, Spain, 2005.
- [898] Pedro Cardoso, Mario Jesus, and Alberto Marquez. Epsilon-DANTE: an ant colony oriented depth search procedure. *Soft Computing*, 15(1):149–182, January 2011.
- [899] Rodrigo T. N. Cardoso, Andre R. da Cruz, Elizabeth F. Wanner, and Ricardo H. C. Takahashi. Multi-Objective Evolutionary Optimization of Biological Pest Control with Impulsive Dynamics in Soybean Crops. *Bulletin of Mathematical Biology*, 71(6):1463–1481, August 2009.
- [900] S. Carlos, A. Sanchez, and S. Martorell. Model to study the effect of workforce on a safety equipment and its optimization. *Mathematical and Computer Modelling*, 54(7 - 8):1808–1812, October 2011.
- [901] W. Matthew Carlyle, John W. Fowler, Esma S. Gel, and Bosun Kim. Quantitative Comparison of Approximate Solution Sets for Bi-criteria Optimization Problems. *Decision Sciences*, 34(1):63–82, February 2003.
- [902] W. Matthew Carlyle, Bosun Kim, John W. Fowler, and Esma S. Gel. Comparison of Multiple Objective Genetic Algorithms for Parallel Machine Scheduling Problems. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 472–485. Springer-Verlag, Lecture Notes in Computer Science No. 1993, 2001.

- [903] Cristobal Jose Carmona, Pedro Gonzalez, Maria Jose del Jesus, and Francisco Herrera. NMEEF-SD: Non-dominated Multiobjective Evolutionary Algorithm for Extracting Fuzzy Rules in Subgroup Discovery. *IEEE Transactions On Fuzzy Systems*, 18(5):958–970, October 2010.
- [904] M. Carnero, J. Hernandez, J. Sanchez, and A. Bandoni. An evolutionary approach for the design of nonredundant sensor networks. *Industrial & Engineering Chemistry Research*, 40(23):5578–5584, November 14 2001.
- [905] Grégoire Carpentier. *Approche computationnelle de l’orchestration musicale. Optimisation multicritère sous contraintes de combinaisons instrumentales dans de grandes banques de sons*. PhD thesis, University UPMC Paris-6, France, December 2008. (in French).
- [906] Gregoire Carpentier, Gerard Assayag, and Emmanuel Saint-James. Solving the musical orchestration problem using multiobjective constrained optimization with a genetic local search approach. *Journal Of Heuristics*, 16(5):681–714, October 2010.
- [907] Grégoire Carpentier, Damien Tardieu, Gérard Assayag, Xavier Rodet, and Emmanuel Saint-James. An Evolutionary Approach to Computer-Aided Orchestration. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2007: EvoCOMNET, EvoFIN, EvoIASP, EvoINTERACTION, EvoMUSART, EvoSTOC and EvoTRANSLOG*, pages 488–497, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4448.
- [908] G. Carpinelli, C. Noce, A. Russo, and P. Varilone. Trade-off methods for capacitor placement in unbalanced distribution systems. In *International Conference on Future Power Systems, 2005*, pages 1–6, Amsterdam, November 18 2005. IEEE Computer Society Press.
- [909] Eduardo G. Carrano, Livia A. Moreira, and Ricardo H.C. Takahashi. A New Memory Based Variable-Length Encoding Genetic Algorithm for Multiobjective Optimization. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 328–342, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [910] Eduardo G. Carrano, Ricardo H. C. Takahashi, Walimir M. Caminhas, and Oriane M. Neto. A Genetic Algorithm for Multiobjective Training of ANFIS Fuzzy Networks. In *2008 Congress on Evolutionary Computation (CEC’2008)*, pages 3258–3264, Hong Kong, June 2008. IEEE Service Center.
- [911] Eduardo G. Carrano, Ricardo H.C. Takahashi, Carlos M. Fonseca, and Oriane M. Neto. Bi-objective Combined Facility Location and Network Design. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th*

International Conference, EMO 2007, pages 486–500, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.

- [912] Eduardo G. Carrano, Elizabeth F. Wanner, and Ricardo H.C. Takahashi. A Multicriteria Statistical Based Comparison Methodology for Evaluating Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 15(6):848–870, December 2011.
- [913] E.G. Carrano, L.A.E. Soares, R.H.C. Takahashi, R.R. Saldanha, and O.M. Neto. Electric distribution network multiobjective design using a problem-specific genetic algorithm. *IEEE Transactions on Power Delivery*, 21(2):995–1005, April 2006.
- [914] Emiliano Carreno Jara. Long memory time series forecasting by using genetic programming. *Genetic Programming and Evolvable Machines*, 12(4):429–456, December 2011.
- [915] Robert Carrese, Andras Sobester, Hadi Winarto, and Xiaodong Li. Swarm Heuristic for Identifying Preferred Solutions in Surrogate-Based Multi-Objective Engineering Design. *AIAA Journal*, 49(7):1437–1449, July 2011.
- [916] Robert Carrese, Hadi Winarto, Jon Watmuff, and Upali K. Wickramasinghe. Benefits of Incorporating Designer Preferences Within a Multi-Objective Airfoil Design Framework. *Journal of Aircraft*, 48(3):832–844, May - June 2011.
- [917] Mark T. B. Carroll, John R. Josephson, and James L. Russell. Tradeoffs on the Efficient Frontier of Network Disruption Attacks. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 160–165, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [918] Davide Carta, Laura Villanova, Stefano Costacurta, Alessandro Patelli, Irene Poli, Simone Vezzu, Paolo Scopece, Fabio Lisi, Kate Smith-Miles, Rob J. Hyndman, Anita J. Hill, and Paolo Falcaro. Method for Optimizing Coating Properties Based on an Evolutionary Algorithm Approach. *Analytical Chemistry*, 83(16):6373–6380, August 15 2011.
- [919] Marta Carvalho, Jorge Ambrosio, and Peter Peter Eberhard. Identification of validated multibody vehicle models for crash analysis using a hybrid optimization procedure. *Structural and Multidisciplinary Optimization*, 44(1):85–97, July 2011.
- [920] Marcus Vincius Carvalho da Silva, Nadia Nedjah, and Luiza de Macedo Mourelle. Evolutionary IP Assignment for Efficient NoC-based System Design using Multi-objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2257–2264, Trondheim, Norway, May 2009. IEEE Press.

- [921] Marcus Vinícius Carvalho da Silva, Nadia Nedjah, and Luiza de Macedo Mourelle. Application Synthesis for MPSoCs Implementation Using Multiobjective Optimization. In Joan Cabestany, Francisco Sandoval, Alberto Prieto, and Juan M. Corchado, editors, *Bio-Inspired Systems: Computational and Ambient Intelligence, 10th International Work-Conference on Artificial Neural Networks (IWANN'2009)*, pages 736–743, Salamanca, Spain, June 10-12 2009. Springer, Lecture Notes in Computer Science, Vol. 5517.
- [922] Marcus Vinicius Carvalho da Silva, Nadia Nedjah, and Luiza de Macedo Mourelle. Optimal IP Assignment for Efficient NoC-based System Implementation using NSGA-II and MicroGA. *International Journal of Computational Intelligence Systems*, 2(2):115–123, June 2009.
- [923] Jorge Casillas, Pedro Martinez, and Alicia D. Benitez. Learning consistent, complete and compact sets of fuzzy rules in conjunctive normal form for regression problems. *Soft Computing*, 13(5):451–465, March 2009.
- [924] R. Cass and B. Radi. Adaptive process optimization using functional-link networks and evolutionary optimization. *Control Engineering Practice*, 4(11):1579–1584, November 1996.
- [925] Mauro Castelli, Luca Manzoni, Sara Silva, and Leonardo Vanneschi. A Comparison of the Generalization Ability of Different Genetic Programming Frameworks. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 94–101, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [926] Mauro Castelli, Luca Manzoni, and Leonardo Vanneschi. Multi Objective Genetic Programming for Feature Construction in Classification Problems. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 503–506, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
- [927] Francesco Castellini and Michele R. Lavagna. Comparative Analysis of Global Techniques for Performance and Design Optimization of Launchers. *Journal of Spacecraft and Rockets*, 49(2):274–285, March-April 2012.
- [928] Francesco Castellini, Andrea Simonetto, Roberto Martini, and Michele Lavagna. A mars communication constellation for human exploration and network science. *Advances in Space Research*, 45(1):183–199, January 4 2010.
- [929] Flor Castillo, Arthur Kordon, and Guido Smits. Robust Pareto Front Genetic Programming Parameter Selection Based on Design of Experiments and Industrial Data. In Rick L. Riolo, Terence Soule, and Bill Worzel, editors, *Genetic Programming Theory and Practice IV*, pages 149–166. Springer. Genetic and Evolutionary Computation Vol. 5, Ann Arbor, May 2007.
- [930] Flor Castillo, Arthur Kordon, Guido Smits, Ben Christenson, and Dee Dickerson. Pareto Front Genetic Programming Parameter Selection Based on Design

of Experiments and Industrial Data. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1613–1620, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.

- [931] O. Castillo, P. Melin, A. Alanis, O. Montiel, and R. Sepulveda. Optimization of interval type-2 fuzzy logic controllers using evolutionary algorithms. *Soft Computing*, 15(6):1145–1160, June 2011.
- [932] O. Castillo and L. Trujillo. Multiple objective optimization genetic algorithms for path planning in autonomous mobile robots. *International Journal of Computers, Systems and Signals*, 6(1):48–63, 2005.
- [933] Oscar Castillo, Leonardo Trujillo, and Patricia Melin. Multiple objective genetic algorithms for path-planning optimization in autonomous mobile robots. *Soft Computing*, 11(3):269–279, February 2007.
- [934] P.A. Castillo, M.G. Arenas, J.J. Merelo, V.M. Rivas, and G. Romero. Multiobjective Optimization of Ensembles of Multilayer Perceptrons for Pattern Classification. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 453–462. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [935] Ma. Guadalupe Castillo Tapia and Carlos A. Coello Coello. Applications of Multi-Objective Evolutionary Algorithms in Economics and Finance: A Survey. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 532–539, Singapore, September 2007. IEEE Press.
- [936] Carlos Castro, Broderick Crawford, and Eric Monfroy. A Genetic Local Search Algorithm for the Multiple Optimisation of the Balanced Academic Curriculum Problem. In Yong Shi, Shouyang Wang, Yi Peng, Jianping Li, and Yong Zeng, editors, *Cutting-Edge Research Topics on Multiple Criteria Decision Making (MCDM'2009)*, pages 824–832. Springer, Communications in Computer and Information Science, Vol. 35, Heidelberg, Germany, 2009.
- [937] Juan P. Castro, Dario Landa-Silva, and José A. Moreno Pérez. Exploring Feasible and Infeasible Regions in the Vehicle Routing Problem with Time Windows Using a Multi-objective Particle Swarm Optimization Approach. In Natalio Krasnogor, María Belén Melián-Batista, José Andrés Moreno-Pérez, J. Marcos Moreno-Vega, and David Alejandro Pelta, editors, *Nature Inspired Cooperative Strategies for Optimization (NICSO 2008)*, pages 103–114. Springer-Verlag, Berlin, 2009. ISBN 978-3-642-03210-3.
- [938] Pablo A.D. Castro and Fernando J. Von Zuben. MOBAIS: A Bayesian Artificial Immune System for Multi-Objective Optimization. In Peter J. Bentley,

- Doheon Lee, and Sungwon Jung, editors, *Artificial Immune Systems, 7th International Conference, ICARIS 2008*, pages 48–59. Springer. Lecture Notes in Computer Science Vol. 5132, Phuket, Thailand, August 2008.
- [939] Pablo A.D. Castro and Fernando J. Von Zuben. Multi-objective feature selection using a Bayesian artificial immune system. *International Journal of Intelligent Computing and Cybernetics*, 3(2):235–256, 2010.
 - [940] Juan Castro-Gutierrez, Dario Landa-Silva, and José Moreno Pérez. Improved Dynamic Lexicographic Ordering for Multi-Objective Optimisation. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 31–40. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
 - [941] David J. Caswell and Gary B. Lamont. Wire-Antenna Geometry Design with Multiobjective Genetic Algorithms. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 103–108, Piscataway, New Jersey, May 2002. IEEE Service Center.
 - [942] David J. Caswell and Gary B. Lamont. Distributed Processor Allocation for Discrete Event Simulation and Digital Signal Processing Using a Multiobjective Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1803–1810, Canberra, Australia, December 2003. IEEE Press.
 - [943] David J. Caswell and Gary B. Lamont. Multiobjective Meta Level Optimization of a Load Balancing Evolutionary Algorithm. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 177–191, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
 - [944] Vincenzo Catania, Maurizio Palesi, and Davide Patti. Analysis and tools for the design of VLIW embedded systems in a multi-objective scenario. *Journal of Circuits Systems and Computers*, 16(5):819–846, October 2007.
 - [945] N. Caterino, I. Iervolino, G. Manfredi, and E. Consenza. Comparative Analysis of Multi-Criteria Decision-Making Methods for Seismic Structural Retrofitting. *Computer-Aided Civil and Infrastructure Engineering*, 24(6):432–445, 2009.
 - [946] Vincenzo Cavaliere, Marco Cioffi, Alessandro Formisano, and Raffaele Martone. Pareto swarm optimisation of high temperature superconducting generators. *International Journal of Applied Electromagnetics and Mechanics*, 25(1–4):273–279, 2007.
 - [947] Sergio Cavalieri and Paolo Gaiardelli. Hybrid genetic algorithms for a multiple-objective scheduling problem. *Journal of Intelligent Manufacturing*, 9(4):361–367, August 1998.

- [948] L. Cavin, U. Fischer, F. Glover, and K. Hungerbuhler. Multi-Objective Process Design in Multi-Purpose Batch Plants Using a Tabu Search Optimization Algorithm. *Computers & Chemical Engineering*, 28(4):459–478, April 15 2004.
- [949] Renato Reder Cazangi and Fernando J. Von Zuben. Immune Learning Classifier Networks: Evolving Nodes and Connections. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 7994–8001, Vancouver, BC, Canada, July 2006. IEEE.
- [950] Rocio L. Cecchini, Carlos M. Lorenzetti, Ana G. Maguitman, and Nelida B. Brignole. Multiobjective Evolutionary Algorithms for Context-Based Search. *Journal of the American Society For Information Science and Technology*, 61(6):1258–1274, June 2010.
- [951] Rocio L. Cecchini, Ignacio Ponzoni, and Jessica A. Carballido. Multi-objective evolutionary approaches for intelligent design of sensor networks in the petrochemical industry. *Expert Systems with Applications*, 39(3):2643–2649, February 15 2012.
- [952] W. Cedeno and V. R. Vemuri. Genetic algorithms in aquifer management. *Journal of Network and Computer Applications*, 19(2):171–187, April 1996.
- [953] R. Cela, J.A. Martinez, C. Gonzalez-Barreiro, and M. Lores. Multi-objective optimisation using evolutionary algorithms: its application to HPLC separations. *Chemometrics and Intelligent Laboratory Systems*, 69(1–2):137–156, November 2003.
- [954] G. Celano and S. Fichera. Multiobjective economic design of an X control chart. *Computers & Industrial Engineering*, 37(1-2):129–132, October 1999.
- [955] G. Celano, S. Fichera, V. Grasso, U. La Commare, and G. Perrone. An evolutionary approach to multi-objective scheduling of mixed model assembly lines. *Computers and Industrial Engineering*, 37(1–2):69–73, 1999.
- [956] G. Celli, E. Ghiani, S. Mocci, and F. Pilo. A multiobjective evolutionary algorithm for the sizing and siting of distributed generation. *IEEE Transactions on Power Systems*, 20(2):750–757, May 2005.
- [957] Yavuz Cengiz and Eray Konar. Pareto-optimal synthesis of microwave amplifier to design the noise-constrained gain value. *Microwave and Optical Technology Letters*, 54(4):1079–1084, April 2012.
- [958] Selin Cerav-Erbas. *Traffic Engineering in MPLS Networks with Multiple Objectives: Modeling and Optimization*. PhD thesis, RWTH Aachen, Germany, 2004.
- [959] Marco Ceriani, Fabrizio Ferrandi, Pier Luca Lanzi, Donatella Sciuto, and Antonino Tumeo. Multiprocessor Systems-On-Chip Synthesis Using Multi-Objective Evolutionary Computation. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages

1267–1274, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.

- [960] Matteo Ceriotti and Massimiliano Vasile. An Ant System algorithm for automated trajectory planning. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 897–904, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [961] Antonella Certa, Giacomo Galante, Toni Lupo, and Gianfranco Passannanti. Determination of Pareto frontier in multi-objective maintenance optimization. *Reliability Engineering & System Safety*, 96(7):861–867, July 2011.
- [962] N. Cesario, M. Farina, E. Kovalev, and M. Markin. Multiobjective Optimization for Automotive Application. In G. Bueda, J.A. Desideri, J. Peiraux, M. Schoenauer, and G. Winter, editors, *Proceedings of the International Congress on Evolutionary Methods for Design, Optimization and Control with Applications to Industrial Problems, EUROGEN 2003*, pages 214–222, Barcelona, Spain, September 2003.
- [963] Onur L. Cetin. *Decomposition-Based Assembly Synthesis of Family of Structures*. PhD thesis, Department of Mechanical Engineering, The University of Michigan, Ann Arbor, Michigan, USA, December 2003.
- [964] Onur L. Cetin and Kazuhiro Saitou. Decomposition-based assembly synthesis of multiple structures for minimum production cost. In *Proceedings of IMECE'03 (ASME'2003 International Mechanical Engineering Congress and RD&D Expo*, Washington, DC, USA, November 2003. ASME Press.
- [965] Han Gil Chae. *A Possibilistic Approach to Rotorcraft Design through a Multi-Objective Evolutionary Algorithm*. PhD thesis, School of Aerospace Engineering, Georgia Institute of Technology, USA, December 2006.
- [966] Deepti Chafekar, Jiang Xuan, and Khaleed Rasheed. Constrained Multi-objective Optimization Using Steady State Genetic Algorithms. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 813–824. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [967] S. K. Chaharsooghi and Amir H. Meimand Kermani. An effective ant colony optimization algorithm (ACO) for multi-objective resource allocation problem (MORAP). *Applied Mathematics and Computation*, 200(1):167–177, June 15 2008.
- [968] S. K. Chaharsooghi and Amir H. Meimand Kermani. An Intelligent Multi-Colony Multi-Objective Ant Colony Optimization (ACO) for the 0-1 Knapsack Problem. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1195–1202, Hong Kong, June 2008. IEEE Service Center.

- [969] Nachol Chaiyaratana and Ali M.S. Zalzal. Hybridisation of Neural Networks and Genetic Algorithms for Time-Optimal Control. In *1999 Congress on Evolutionary Computation*, volume 1, pages 389–396, Washington, D.C., July 1999. IEEE Service Center.
- [970] N. Chakraborti, B. Siva Kumar, V. Satish Babu, S. Moitra, and A. Mukhopadhyay. Optimizing surface profiles during hot rolling: A genetic algorithms based multi-objective optimization. *Computational Materials Science*, 37(1-2):159–165, August 2006.
- [971] N. Chakraborti, B. Siva Kumar, V. Satish Babu, S. Moitra, and A. Mukhopadhyay. A new multi-objective genetic algorithm applied to hot-rolling process. *Applied Mathematical Modelling*, 32(9):1781–1789, September 2008.
- [972] N. Chakraborti, R. Kumar, and D. Jain. A study of the continuous casting mold using a pareto-converging genetic algorithm. *Applied Mathematical Modelling*, 25(4):287–297, March 2001.
- [973] N. Chakraborti, P. Mishra, A. Aggarwal, A. Banerjee, and S.S. Mukherjee. The Williams and Otto Chemical Plant re-evaluated using a Pareto-optimal formulation aided by Genetic Algorithms. *Applied Soft Computing*, 6(2):189–197, January 2006.
- [974] N. Chakraborti, S. Moitra, A. Mitra, and A. Mukhopadhyay. Evolutionary and genetic algorithms applied to hot rolling: A multi-objective rolling schedule studied using particle swarm algorithm. *Transactions of the Indian Institute of Metals*, 59(5):681–688, October 2006.
- [975] N. Chakraborti, A. Shekhar, A. Singhal, S. Chakraborty, S. Chowdhury, and R. Sripriya. Fluid flow in hydrocyclones optimized through multi-objective genetic algorithms. *Inverse Problems in Science and Engineering*, 16(8):1023–1046, December 2008.
- [976] N. Chakraborti, R. Sreevathsan, R. Jayakanth, and B. Bhattacharya. Tailor-made material design: An evolutionary approach using multi-objective genetic algorithms. *Computational Materials Science*, 45(1):1–7, March 2009.
- [977] N. Chakraborti, R. Steevathsan, R. Jayakanth, and B. Bhattacharya. Tailor-made material design: An evolutionary approach using multi-objective genetic algorithms. *Computational Materials Science*, 45(1):1–7, March 2009.
- [978] Nirupam Chakraborti. How Genetic Algorithms Handle Pareto-Optimality in Design and Manufacturing. In Jean-Philippe Rennard, editor, *Handbook of Research on Nature Inspired Computing for Economy and Management*, volume 2, pages 465–481, Hershey, UK, 2006. Idea Group Reference. ISBN 1-59140-984-5.
- [979] Jayasree Chakraborty, Amit Konar, Atulya Nagar, and Swagatam Das. Rotation and Translation Selective Pareto Optimal Solution to the Box-Pushing Problem

by Mobile Robots Using NSGA-II. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2120–2126, Trondheim, Norway, May 2009. IEEE Press.

- [980] Prithwish Chakraborty, Swagatam Das, Ajith Abraham, Václav Snasel, and Gourab Ghosh Roy. On convergence of multi-objective Particle Swarm Optimizers. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3507–3514, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [981] Prithwish Chakraborty, Swagatam Das, Gourab Ghosh Roy, and Ajith Abraham. On Convergence of the Multi-Objective Particle Swarm Optimizers. *Information Sciences*, 181(8):1411–1425, April 15 2011.
- [982] P. S. Chakravarthy and N. R. Babu. A new approach for selection of optimal process parameters in abrasive water jet cutting. *Materials and Manufacturing Processes*, 14(4):581–600, 1999.
- [983] S. Chamaani, S. A. Mirtaheeri, M. Teshnehlab, M. A. Shoorehdeli, and V. Seydi. Modified Multi-objective Particle Swarm Optimization for electromagnetic absorber design. *Progress In Electromagnetics Research, PIER*, 79:353–366, 2008.
- [984] Somayyeh Chamaani, Mohammad Sadegh Abrishamian, and Seyed Abdullah Mirtaheeri. Time-Domain Design of UWB Vivaldi Antenna Array Using Multiobjective Particle Swarm Optimization. *IEEE Antennas And Wireless Propagation Letters*, 9(1):666–669, 2010.
- [985] Somayyeh Chamaani, S. Abdullah Mirtaheeri, and Mohammad S. Abrishamian. Improvement of time and frequency domain performance of antipodal vivaldi antenna using multi-objective particle swarm optimization. *IEEE Transactions on Antennas and Propagation*, 59(5):1738–1742, May 2011.
- [986] Somayyeh Chamaani, Seyed Abdullah Mirtaheeri, Mohammad Teshnehlab, and Mahdi Aliyari Shooredeli. Modified Multi-objective particle swarm optimization for electromagnetic absorber design. In *Asia-Pacific Conference on Applied Electromagnetics (APACE 2007)*, Melaka, Malaysia, 4-6 December 2007. IEEE Press.
- [987] F. T. S. Chan and H. K. Chan. A comprehensive survey and future trend of simulation study on FMS scheduling. *Journal of Intelligent Manufacturing*, 15(1):87–102, February 2004.
- [988] F. T. S. Chan and S. H. Chung. A multi-criterion genetic algorithm for order distribution in a demand driven supply chain. *International Journal of Computer Integrated Manufacturing*, 17(4):339–351, June 2004.
- [989] F. T. S. Chan and S. H. Chung. Multi-criteria genetic optimization for distribution network problems. *International Journal of Advanced Manufacturing Technology*, 24(7 - 8):517–532, 2004.

- [990] F. T. S. Chan and S. H. Chung. Multicriterion genetic optimization for due date assigned distribution network problems. *Decision Support Systems*, 39(4):661–675, June 2005.
- [991] F. T. S. Chan, S. H. Chung, and S. Wadhwa. A heuristic methodology for order distribution in a demand driven collaborative supply chain. *International Journal of Production Research*, 42(1):1–19, January 2004.
- [992] F.T.S. Chan, S.H. Chung, and S. Wadhwa. A hybrid genetic algorithm for production and distribution. *Omega-International Journal of Management Science*, 33(4):345–355, August 2005.
- [993] Martin K. Chan. *Supersonic Aircraft Optimization for Minimizing Drag and Sonic Boom*. PhD thesis, Department of Aeronautics and Astronautics, Stanford University, August 2003.
- [994] Tak Ming Chan, Kit Sang Tang, Sam Kwong, and Kim Fung Man. Multiobjective Optimization Methods. In Bogdan M. Wilamowski and J. David Irwin, editors, *Industrial Electronics Handbook. Intelligent Systems*, chapter 24, pages 24–1–24–24. CRC Press, Boca Raton, Florida, USA, second edition, 2011. ISBN 978-1-4398-0283-0.
- [995] T.M. Chan, K.F. Man, S. Kwong, and K.S. Tang. A Jumping Gene Paradigm for Evolutionary Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 12(2):143–159, April 2008.
- [996] T.M. Chan, K.F. Man, K.S. Tang, and S. Kwong. A jumping gene algorithm for multiobjective resource management in wideband CDMA systems. *Computer Journal*, 48(6):749–768, November 2005.
- [997] T.M. Chan, K.F. Man, K.S. Tang, and S. Kwong. A jumping-genes paradigm for optimizing factory WLAN network. *IEEE Transactions on Industrial Informatics*, 3(1):33–43, February 2007.
- [998] Yung-Hsiang Chan, Tsung-Che Chiang, and Li-Chen Fu. A Two-phase Evolutionary Algorithm for Multiobjective Mining of Classification Rules. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 727–733, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [999] A. Chandra and X. Yao. Evolving hybrid ensembles of learning machines for better generalisation. *Neurocomputing*, 69(7-9):686–700, March 2006.
- [1000] Arjun Chandra, Huanhuan Chen, and Xin Yao. Trade-Off Between Diversity and Accuracy in Ensemble Generation. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 429–464. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [1001] S. Chandramohan, Naresh Atturulu, R.P. Kumudini Devi, and B. Venkatesh. Operating cost minimization of a radial distribution system in a deregulated electricity market through reconfiguration using NSGA method. *International Journal of Electrical Power & Energy Systems*, 32(2):126–132, February 2010.

- [1002] Magesh Chandramouli, Bo Huang, and Lulu Xue. Spatial Change Optimization: Integrating GA with Visualization for 3D Scenario Generation. *Photogrammetric Engineering and Remote Sensing*, 75(8):1015–1022, August 2009.
- [1003] B. Chandrasekaran and Mark Goldman. Exploring Robustness of Plants for Simulation-Based Course of Action Planning: A Framework and an Example. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 185–192, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [1004] S. Chandrasekaran, S. G. Ponnambalam, R. K. Suresh, and N. Vijayakumar. Multi-Objective Particle Swarm Optimization Algorithm for Scheduling in Flowshops to Minimize Makespan and Total Flowtime and Completion Time Variance. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4012–4018, Singapore, September 2007. IEEE Press.
- [1005] C. S. Chang, W. Wang, A. C. Liew, and F. S. Wen. Bicriterion optimisation for traction substations in DC railway system using genetic algorithm. *IEE Proceedings. B, Electric Power Applications*, 145(1):49–56, January 1998.
- [1006] C. S. Chang, W. Wang, A. C. Liew, F. S. Wen, and D. Srinivasan. Genetic Algorithm Based Bicriterion Optimization for Traction Sustations in DC Railway System. In *Proceedings of the Second IEEE International Conference on Evolutionary Computation*, pages 11–16, Piscataway, New Jersey, 1995. IEEE Press.
- [1007] C.S. Chang and C.M. Kwan. Evaluation of evolutionary algorithms for multi-objective train schedule optimization. In *AI 2004: Advances in Artificial Intelligence*, pages 803–815. Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 3339, 2004.
- [1008] C.S. Chang and S. S. Sim. Optimising train movements through coast control using genetic algorithms. *IEE Proceedings-Electric Power Applications*, 144(1):65–73, January 1997.
- [1009] C.S. Chang and L.F. Tian. Worst-case identification of touch voltage and stray current of DC railway system using genetic algorithm. *IEE Proceedings of Electric Power Applications*, 146(5):570–576, September 1999.
- [1010] C.S. Chang and D.Y. Xu. Differential Evolution Based Tuning of Fuzzy Automatic Train Operation for Mass Rapid Transit System. *IEE Proceedings of Electric Power Applications*, 147(3):206–212, May 2000.
- [1011] C.S. Chang, D.Y. Xu, and H.B. Quek. Pareto-optimal set based multiobjective tuning of fuzzy automatic train operation for mass transit system. *IEE Proceedings on Electric Power Applications*, 146(5):577–583, September 1999.

- [1012] Dongxia Chang, Yao Zhao, and Yanhui Xiao. A Robust Dynamic Niching Genetic Clustering Approach for Image Segmentation. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1077–1083, Dublin, Ireland, July 12–16 2011. ACM Press.
- [1013] Li-Chiu Chang and Fi-John Chang. Multi-objective evolutionary algorithm for operating parallel reservoir system. *Journal of Hydrology*, 377(1-2):12–20, October 20 2009.
- [1014] NB Chang and YL Wei. Strategic planning of recycling drop-off stations and collection network by multiobjective programming. *Environmental Management*, 24(2):247–263, August 1999.
- [1015] N.B. Chang and Y.L. Wei. Siting recycling drop-off stations in urban area by genetic algorithm-based fuzzy multiobjective nonlinear integer programming modeling. *Fuzzy Sets and Systems*, 114(1):133–149, August 16 2000.
- [1016] Ni-Bin Chang and H. W. Chen. The Use of Fuzzy Interval Genetic Algorithm for Solving Multiobjective Nonlinear Mixed Integer Programming Model. In *Proceedings of the First International Conference on Operations and Quantitative Management*, pages 76–82, 1997.
- [1017] P.C. Chang, S.H. Chen, and K.L. Lin. Two-phase sub population genetic algorithm for parallel machine-scheduling problem. *Expert Systems with Applications*, 29(3):705–712, October 2005.
- [1018] Pei-Chann Chang and Shih-Hsin Chen. The development of a sub-population genetic algorithm II (SPGA II) for multi-objective combinatorial problems. *Applied Soft Computing*, 9(1):173–181, January 2009.
- [1019] Pei-Chann Chang, Shih-Hsin Chen, Chin-Yuan Fan, and Chien-Lung Chan. Genetic algorithm integrated with artificial chromosomes for multi-objective flowshop scheduling problems. *Applied Mathematics and Computation*, 205(2):550–561, November 15 2008.
- [1020] Pei-Chann Chang, Shih-Hsin Chen, and Jih-Chang Hsieh. A global archive sub-population genetic algorithm with adaptive strategy in multi-objective parallel-machine scheduling problem. In *Advances in Natural Computation, Part 1*, pages 730–739. Springer. Lecture Notes in Computer Science Vol. 4221, 2006.
- [1021] Pei-Chann Chang, Shih-Hsin Chen, and Chen-Hao Liu. Sub-population genetic algorithm with mining gene structures for multiobjective flowshop scheduling problems. *Expert Systems with Applications*, 33(3):762–771, October 2007.
- [1022] Pei Chann Chang, Shih Hsin Chen, Qingfu Zhang, and Jun Lin Lin. MOEA/D for Flowshop Scheduling Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1433–1438, Hong Kong, June 2008. IEEE Service Center.

- [1023] T. J. Chang, N. Meade, and J. E. Beasley. Heuristics for Cardinality Constrained Portfolio Optimization. Technical report, The Management School, Imperial College, London SW7 2AZ, England, May 1998.
- [1024] T. J. Chang, N. Meade, and J. E. Beasley. Heuristics for Cardinality Constrained Portfolio Optimization. *Computers and Operations Research*, 27(13):1271–1302, 2000.
- [1025] Wei-Chun Chang, Alistair Sutcliffe, and Richard Neville. A Distance Function-Based Multi-Objective Evolutionary Algorithm. In James Foster, editor, *2003 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 47–53, Chicago, Illinois, USA, July 2003. AAAI.
- [1026] Y. P. Chang, J. S. H. Tsai, and L. S. Shieh. Optimal tracking design for sampled-data systems with input time delay under state and control constraints. *JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing*, 45(1):226–238, March 2002.
- [1027] Fanny Pernodet Chantrelle, Hicham Lahmidi, Werner Keilholz, Mohamed El Mankibi, and Pierre Michel. Development of a multicriteria tool for optimizing the renovation of buildings. *Applied Energy*, 88(4):1386–1394, April 2011.
- [1028] C. Chatelain, S. Adam, Y. Lecourtier, L. Heutte, and T. Paquet. Multi-Objective Optimization for SVM Model Selection. In *Ninth International Conference on Document Analysis and Recognition (ICDAR 2007)*, pages 427–431, Curitiba, Paraná, Brazil, 23-26 September 2007. IEEE Computer Society.
- [1029] Clement Chatelain, Sebastien Adam, Yves Lecourtier, Laurent Heutte, and Thierry Paquet. A multi-model selection framework for unknown and/or evolutive misclassification cost problems. *Pattern Recognition*, 43(3):815–823, March 2010.
- [1030] A. Chattopadhyay and C.E. Seeley. A simulated annealing technique for multiobjective optimization of intelligent structures. *Smart Materials and Structures*, 3(2):98–106, June 1994.
- [1031] Pranava Chaudhari and Santosh K. Gupta. Multiobjective Optimization of a Fixed Bed Maleic Anhydride Reactor Using an Improved Biomimetic Adaptation of NSGA-II. *Industrial & Engineering Chemistry Research*, 51(8):3279–3294, February 29 2012.
- [1032] Shafaq B. Chaudhry, Victor C. Hung, Ratan K. Guha, and Kenneth O. Stanley. Pareto-based evolutionary computational approach for wireless sensor placement. *Engineering Applications of Artificial Intelligence*, 24(3):409–425, April 2011.
- [1033] B. Chaudhuri, S. Ray, and R. Majumder. Robust low-order controller design for multi-modal power oscillation damping using flexible AC transmission systems devices. *IET Generation Transmission & Distribution*, 3(5):448–459, May 2009.

- [1034] Koyel Chaudhuri and Dipankar Dasgupta. Multi-Objective Evolutionary Algorithms to Solve Coverage and Lifetime Optimization Problem in Wireless Sensor Networks. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagarathnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pages 514–522. Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18 2010.
- [1035] Shamik Chaudhuri and Kalyanmoy Deb. An interactive evolutionary multi-objective optimization and decision making procedure. *Applied Soft Computing*, 10(2):496–511, March 2010.
- [1036] Narendra C. Chauhan, M. V. Kartikeyan, and Ankush Mittal. CAD of RF Windows Using Multiobjective Particle Swarm Optimization. *IEEE Transactions on Plasma Science*, 37(6):1104–1109, June 2009.
- [1037] Daniel A. Chaves, Carmelo J. Bastos-Filho, and Joaquim F. Martins-Filho. Multiobjective Physical Topology Design of All-Optical Networks Considering QoS and Capex. In *National Fiber Optic Engineers Conference (NFOEC)*, pages 1–3, San Diego, California, USA, March 21-25 2010. Optical Society of America.
- [1038] Daniel A. R. Chaves, Carmelo J. A. Bastos-Filho, and Joaquim F. Martins-Filho. Up-grading the Physical Topology of Transparent Optical Networks Using a Multiobjective Evolutionary Algorithm Considering Quality of Service and Capital Cost. In *2009 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference (IMOC)*, pages 51–56, Belem, November 3-6 2009. IEEE Press.
- [1039] Z. H. Che and C. J. Chiang. A modified Pareto genetic algorithm for multi-objective build-to-order supply chain planning with product assembly. *Advances in Engineering Software*, 41(7-8):1011–1022, July-August 2010.
- [1040] Z. H. Che and H. S. Wang. Supplier selection and supply quantity allocation of common and non-common parts with multiple criteria under multiple products. *Computers & Industrial Engineering*, 55(1):110–133, August 2008.
- [1041] Zhen-Hua Che. A Two-Phase Hybrid Approach to Supplier Selection Through Cluster Analysis With Multiple Dimensions. *International Journal of Innovative Computing Information and Control*, 6(9):4093–4111, September 2010.
- [1042] S. Chedly, A. Chettah, and M. N. Ichchou. Multiobjective Optimization of Molded LDPE Foams Characteristics Using Genetic Algorithm. *Journal of Applied Polymer Science*, 114(1):358–368, October 5 2009.
- [1043] Jayrani Cheeneebash, Jose Antonio Lozano, and Harry Coomar Shumsher Rughooputh. A Multi-Objective Approach to the Channel Assignment Problem. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3914–3917, Hong Kong, June 2008. IEEE Service Center.

- [1044] Anthony Chen, Juyoung Kim and Seunglae Lee, and Youngchan Kim. Stochastic multi-objective models for network design problem. *Expert Systems with Applications*, 37(2):1608–1619, March 2010.
- [1045] Anthony Chen, Piya Chootinan, and Surachet Pravinvongvuth. An Evolutionary Approach for Finding Optimal Automatic Vehicle Identification Reader Locations in Transportation Networks. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 181–187, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [1046] Anthony Chen, Kitti Subprasom, and Zhaowang Ji. A simulation-based multi-objective genetic algorithm (SMOGA) procedure for BOT network design problem. *Optimization and Engineering*, 7(3):225–247, September 2006.
- [1047] Chih-Ming Chen, Ying ping Chen, Tzu-Ching Shen, and John K. Zao. Optimizing degree distributions in LT codes by using the multiobjective evolutionary algorithm based on decomposition. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3635–3642, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1048] Chih-Ming Chen, Ying ping Chen, and Qingfu Zhang. Enhancing MOEA/D with Guided Mutation and Priority Update for Multi-Objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 209–216, Trondheim, Norway, May 2009. IEEE Press.
- [1049] Chiu-Hung Chen, Ta-Yuan Chou, Tung-Kuan Liu, Jyh-Horng Chou, and Chung-Nan Lee. Optimization of Short-Haul Airline Crew Pairing Problems Using a Multiobjective Genetic Algorithm. *International Journal of Innovative Computing Information and Control*, 6(9):3943–3959, September 2010.
- [1050] Chiu-Hung Chen, Tung-Kuan Liu, I-Ming Huang, and Jyh-Horng Chou. Multiobjective Synthesis of Six-bar Mechanisms Under Manufacturing and Collision-free Constraints. *IEEE Computational Intelligence Magazine*, 7(1):36–48, February 2012.
- [1051] Chun-Hao Chen, Tzung-Pei Hong, and V.S. Tseng. A SPEA2-based genetic-fuzzy mining algorithm. In *2010 IEEE International Conference on Fuzzy Systems*, pages 1–5, Barcelona, Spain, July 2010. IEEE Press.
- [1052] Chun-Hao Chen, Tzung-Pei Hong, V.S. Tseng, and Lien-Chin Chen. A multi-objective genetic-fuzzy mining algorithm. In *2008 IEEE International Conference on Granular Computing*, pages 115–120, Hangzhou, China, 26-28 August 2008. IEEE Press.
- [1053] Chun-Ta Chen and Pham Hoang-Vuong. Trajectory planning in parallel kinematic manipulators using a constrained multi-objective evolutionary algorithm. *Nonlinear Dynamics*, 67(2):1669–1681, January 2012.

- [1054] D. Chen, J.A. Quirein, H.D. Smith, S. Hamid, and J. Grable. Neural network ensemble selection using a multi-objective genetic algorithm in processing pulsed neutron data. *Petrophysics*, 46(5):323–334, October 2005.
- [1055] Enhong Chen and Feng Wang. Dynamic Clustering Using Multi-objective Evolutionary Algorithm. In Yue Hao et al., editor, *Computational Intelligence and Security. International Conference, CIS 2005*, pages 73–80, Xi'an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.
- [1056] H. W. Chen and Ni-Bin Chang. Water pollution control in the river basin by fuzzy genetic algorithm-based multiobjective programming modeling. *Water Science and Technology*, 37(8):55–63, 1998.
- [1057] Hao Chen, John A. Clark, Siraj A. Shaikh, Howard Chivers, and Philip Noble. Optimising IDS Sensor Placement. In *Fifth International Conference on Availability, Reliability and Security (ARES'2010)*, pages 315–320, Krakow, Poland, 15-18 February 2010. IEEE Computer Society Press.
- [1058] Ho-Wen Chen, Shu-Kuang Ning, Ruey-Fang Yu, and Ming-Sung Hung. Optimizing the monitoring strategy of wastewater treatment plants by multiobjective neural networks approach. *Environmental Monitoring and Assessment*, 125(1-3):325–332, February 2007.
- [1059] Huanhuan Chen. *Diversity and Regularization in Neural Network Ensembles*. PhD thesis, School of Computer Science, University of Birmingham, UK, October 2008.
- [1060] Huanhuan Chen and Xin Yao. Evolutionary Multiobjective Ensemble Learning Based on Bayesian Feature Selection. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 971–978, Vancouver, BC, Canada, July 2006. IEEE.
- [1061] H.W. Chen and N.B. Chang. Decision support for allocation of watershed pollution load using grey fuzzy multiobjective programming. *Journal of the American Water Resources Association*, 42(3):725–745, June 2006.
- [1062] J.H. Chen, H.M. Chen, and S.Y. Ho. Design of nearest neighbor classifiers: multi-objective approach. *International Journal of Approximate Reasoning*, 40(1-2):3–22, July 2005.
- [1063] Jian Chen, Jie Jia, Yingyou Wen, Dazhe Zhao, and Jiren Liu. A Genetic Approach to Channel Assignment for Multi-radio Multi-channel Wireless Mesh Networks. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 39–46, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [1064] Jian Chen, Jie Jia, Yingyou Wen, Dazhe Zhao, and Jiren Liu. Modeling and Extending Lifetime of Wireless Sensor Networks Using Genetic Algorithm. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation*

- (GEC'2009), pages 47–54, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [1065] Jian-Hung Chen. *Theory and Applications of Efficient Multi-Objective Evolutionary Algorithms*. PhD thesis, College of Information and Electrical Engineering of the Feng Chia University, Taichung, Taiwan, R.O.C., 2004.
 - [1066] Jian-Hung Chen. Simultaneous Optimization of Production Planning and Inspection Planning for Flexible Manufacturing Systems. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 1928–1935, London, UK, July 2007. ACM Press.
 - [1067] Jian-Hung Chen, David E. Goldberg, Shinn-Ying Ho, and Kumara Sastry. Fitness Inheritance in Multi-Objective Optimization. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 319–326, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
 - [1068] Jian-Hung Chen and Shinn-Ying Ho. Multi-Objective Optimization of Flexible Manufacturing Systems. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 1260–1267, San Francisco, California, 2001. Morgan Kaufmann Publishers.
 - [1069] Jian-Hung Chen, Shinn-Ying Ho, and David E. Goldberg. Quality-Time Analysis of Multi-Objective Evolutionary Algorithms. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1455–1462, New York, USA, June 2005. ACM Press.
 - [1070] Jianyong Chen, Qiuzhen Lin, and Qingbin Hu. A Novel Clonal Algorithm for Multiobjective Optimization. In *2008 International Workshop on Education Technology and Training & 2008 International Workshop on Geoscience and Remote Sensing*, pages 613–616, Shanghai, China, December 21-22 2008. IEEE Computer Society.
 - [1071] Jianyong Chen, Qiuzhen Lin, and Qingbin Hu. Application of Novel Clonal Algorithm in Multiobjective Optimization. *International Journal of Information Technology & Decision Making*, 9(2):239–266, March 2010.
 - [1072] Jianyong Chen, Qiuzhen Lin, and Zhen Ji. A hybrid immune multiobjective optimization algorithm. *European Journal of Operational Research*, 204(2):294–302, July 16 2010.
 - [1073] Jianyong Chen, Qiuzhen Lin, and Zhen Ji. Chaos-based multi-objective immune algorithm with a fine-grained selection mechanism. *Soft Computing*, 15(7):1273–1288, July 2011.

- [1074] Jie Chen, Bin Xin, Zhihong Peng, Lihua Dou, and Juan Zhang. Optimal Contraction Theorem for Exploration-Exploitation Tradeoff in Search and Optimization. *IEEE Transactions on Systems Man and Cybernetics Part A-Systems and Humans*, 39(3):680–691, May 2009.
- [1075] Jing Chen, Yan Lin, Jun Zhou Huo, Ming Xia Zhang, and Zhuo Shang Ji. Optimal ballast water exchange sequence design using symmetrical multitank strategy. *Journal of Marine Science and Technology*, 15(3):280–293, September 2010.
- [1076] Jing Chen, Yan Lin, Jun Zhou Huo, Ming Xia Zhang, and Zhuo Shang Ji. Optimization of ship’s subdivision arrangement for offshore sequential ballast water exchange using a non-dominated sorting genetic algorithm. *Ocean Engineering*, 37(11-12):978–988, August 2010.
- [1077] Jing Chen, Yan Lin, Junzhou Huo, Mingxia Zhang, and Zhuoshang Ji. Optimization of Ships’ Diagonal Ballast Water Exchange Sequence Using a Multiobjective Genetic Algorithm. *Journal of Ship Research*, 54(4):257–267, December 2010.
- [1078] Jinzhu Chen, Guolong Chen, and Wenzhong Guo. A Discrete PSO for Multi-objective Optimization in VLSI Floorplanning. In Zhihua Cai, Zhenhua Li, Zhuo Khang, and Yong Liu, editors, *Advances in Computation and Intelligence, 4th International Symposium, ISCA 2009*, pages 400–410. Springer, Lecture Notes in Computer Science Vol. 5821, Huangshi, China, October 2009.
- [1079] Juan Chen, Lihong Xu, and Changliang Yuan. IPGA Based Multi-Objective Compatible Control Algorithm and its Application in Oversaturated Adjacent Intersection Control. In *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pages 3187–3194, Singapore, September 2007. IEEE Press.
- [1080] Jun Chen and Mahdi Mahfouf. A population adaptive based immune algorithm for solving multi-objective optimization problems. In Hughes Bersini and Jorge Carneiro, editors, *Artificial Immune Systems, 5th International Conference, ICARIS 2006, Proceedings*, pages 280–293, Oeiras, Portugal, September 2006. Springer-Verlag, Lecture Notes in Computer Science Vol. 4163.
- [1081] Liang-Hsuan Chen and Cheng-Hsiung Chiang. Multi-Objective Optimization in Reliability System Using Genetic Algorithm and Neural Network. *Asia-Pacific Journal of Operational Research*, 25(5):649–672, October 2008.
- [1082] M. W. Chen and A. M. S. Zalzala. A genetic approach to motion planning of redundant mobile manipulator systems considering safety and configuration. *Journal of Robotic Systems*, 14(7):529–544, July 1997.
- [1083] Min-Rong Chen, Yong-Zai Lu, and Genke Yang. Multiobjective optimization using population-based extremal optimization. *Neural Computing and Applications*, 17(2):101–109, March 2008.

- [1084] Min-Rong Chen and Yong-Zal Lu. A novel elitist multiobjective optimization algorithm: Multiobjective extremal optimization. *European Journal of Operational Research*, 188(3):637–651, August 1 2008.
- [1085] Min-Rong Chen, Yong zai Lu, and Gen ke Yang. Multiobjective extremal optimization with applications to engineering design. *Journal of Zhejiang University SCIENCE A*, 8(12):1905–1911, November 2007.
- [1086] Qian Chen and Sheng-Uei Guan. Incremental Multiple Objective Genetic Algorithms. *IEEE Transactions on Systems, Man, and Cybernetics—Part B: Cybernetics*, 34(3):1325–1334, June 2004.
- [1087] Qiong Chen, Shengwu Xiong, and Hongbing Liu. Evolutionary Multi-objective Optimization Algorithm Based on Global Crowding Diversity Maintenance Strategy. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 803–806, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [1088] S. L. Chen, R. J. Jiao, and M. M. Tseng. Evolutionary product line design balancing customer needs and product commonality. *CIRP Annals-Manufacturing Technology*, 58(1):123–126, 2009.
- [1089] Shih-Pin Chen and Ming-Jiun Tsai. Time-cost trade-off analysis of project networks in fuzzy environments. *European Journal of Operational Research*, 212(2):386–397, July 16 2011.
- [1090] Stephen Chen. Locust Swarms – A New Multi-Optima Search Technique. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1745–1752, Trondheim, Norway, May 2009. IEEE Press.
- [1091] Stephen Chen and James Montgomery. A Simple Strategy to Maintain Diversity and Reduce Crowding in Particle Swarm Optimization. In Dianhui Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 281–290, Perth, Australia, December 5-8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [1092] Stephen Chen and James Montgomery. Selection Strategies for Initial Positions and Initial Velocities in Multi-Optima Particle Swarms. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 53–60, Dublin, Ireland, July 12-16 2011. ACM Press.
- [1093] T.Y. Chen and H.C. Chen. Mixed-discrete structural optimization using a rank-niche evolution strategy. *Engineering Optimization*, 41(1):39–58, January 2009.
- [1094] W. C. Chen, N. B. Chang, and W. K. Shieh. Advanced hybrid fuzzy-neural controller for industrial wastewater treatment. *Journal of Environmental Engineering-ASCE*, 127(11):1048–1059, November 2001.

- [1095] Wang Chen, Yan jun Shi, and Hong fei Teng. A Generalized Differential Evolution Combined with EDA for Multi-objective Optimization Problems. In De-Shuang Huang, Donald C. Wunsch II, Daniel S. Levine, and Kang-Hyun Jo, editors, *Advanced Intelligent Computing Theories and Applications. With Aspects of Artificial Intelligence, 4th International Conference on Intelligent Computing (ICIC'2008)*, pages 140–147. Springer, Lecture Notes in Computer Science, Vol. 5227, Shanghai, China, September 15-18 2008. ISBN 978-3-540-85983-3.
- [1096] Wei-Mei Chen, Hsien-Kuei Hwang, and Tsung-Hsi Tsai. Maxima-finding algorithms for multidimensional samples: A two-phase approach. *Computational Geometry-Theory and Applications*, 45(1-2):33–53, January-February 2012.
- [1097] Xianming Chen. Pareto Tree Searching Genetic Algorithm: Approaching Pareto Optimal Front by Searching Pareto Optimal Tree. Technical Report NK-CS-2001-002, Department of Computer Science, Nankai University, Tianjin, China, 2001.
- [1098] Yan Chen, Masakuni Narita, Masashi Tsuji, and Sangduk Sa. A Genetic Algorithm Approach to Optimization for the Radiological Worker Allocation Problem. *Health Physics*, 70(2):180–186, February 1996.
- [1099] Yee Ming Chen and Wen-Shiang Wang. Environmentally constrained economic dispatch using Pareto archive particle swarm. *International Journal of Systems Science*, 41(5):593–605, 2010.
- [1100] Yen-Liang Chen and Xiang-Han Chen. An evolutionary pagerank approach for journal ranking with expert judgements. *Journal of Information Science*, 37(3):254–272, June 2011.
- [1101] Yi Chen and Matthew P. Cartmell. Multi-Objective Optimisation on Motorised Momentum Exchange Tether for Payload Orbital Transfer. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 987–993, Singapore, September 2007. IEEE Press.
- [1102] Yi Chen, Yong Ma, Zheng Lu, Lixia Qiu, and Jin He. Terahertz spectroscopic uncertainty analysis for explosive mixture components determination using multi-objective micro-genetic algorithm. *Advances in Engineering Software*, 42(9):649–659, September 2011.
- [1103] Yidong Chen, Xiaodong Shi, Changle Zhou, and Qingyang Hong. A word alignment model based on multiobjective evolutionary algorithms. *Computers & Mathematics with Applications*, 57(11-12):1724–1729, June 2009.
- [1104] Yikai Chen, Shiwen Yang, and Zaiping Nie. Improving conflicting specifications of time-modulated antenna arrays by using a multiobjective evolutionary algorithm. *International Journal of Numerical Modelling-Electronic Networks Devices and Fields*, 25(3):205–215, May-June 2012.

- [1105] Yu Chen, Xiufen Zou, and Weicheng Xie. Convergence of multi-objective evolutionary algorithms to a uniformly distributed representation of the Pareto front. *Information Sciences*, 181(16):3336–3355, August 15 2011.
- [1106] Yun-Wen Chen and Gwo-Hshiung Tzeng. A Fuzzy Multi-objective Model for Reconstructing the Post-quake Road-network by Genetic Algorithm. *International Journal of Fuzzy Systems*, 1(2):85–95, December 1999.
- [1107] C. T. Cheng, M. Y. Zhao, K. W. Chau, and X. Y. Wu. Using genetic algorithm and TOPSIS for Xinanjiang model calibration with a single procedure. *Journal of Hydrology*, 316(1-4):129–140, January 10 2006.
- [1108] C.T. Cheng, C.P. Ou, and K.W. Chau. Combining a fuzzy optimal model with a genetic algorithm to solve multi-objective rainfall-runoff model calibration. *Journal of Hydrology*, 268(1-4):72–86, November 1 2002.
- [1109] Fangqi Cheng and Feifan Ye. A two objective optimisation model for order splitting among parallel suppliers. *International Journal of Production Research*, 49(10):2759–2769, 2011.
- [1110] Fangqi Cheng, Feifan Ye, and Jianguo Yang. Multi-objective optimization of collaborative manufacturing chain with time-sequence constraints. *International Journal of Advanced Manufacturing Technology*, 40(9-10):1024–1032, February 2009.
- [1111] Franklin Y. Cheng and Dan Li. Multiobjective Optimization Design with Pareto Genetic Algorithm. *Journal of Structural Engineering*, 123(9):1252–1261, September 1997.
- [1112] F.Y. Cheng and D. Li. Genetic algorithm development for multiobjective optimization of structures. *AIAA Journal*, 36(6):1105–1112, 1998.
- [1113] Hsueh-Chien Cheng, Tsung-Che Chiang, and Li-Chen Fu. Multiobjective Permutation Flowshop Scheduling by an Adaptive Genetic Local Search Algorithm. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1596–1602, Hong Kong, June 2008. IEEE Service Center.
- [1114] Hsueh-Chien Cheng, Tsung-Che Chiang, and Li-Chen Fu. Multiobjective Job Shop Scheduling using Memetic Algorithm and Shifting Bottleneck Procedure. In *IEEE Symposium on Computational Intelligence in Scheduling, 2009 (CI-Sched '09)*, pages 15–21, Nashville, TN, USA, March-April 2009. IEEE Computer Society.
- [1115] Hsueh-Chien Cheng, Tsung-Che Chiang, and Li-Chen Fu. A two-stage hybrid memetic algorithm for multiobjective job shop scheduling. *Expert Systems With Applications*, 38(9):10983–10998, September 2011.
- [1116] Hui Cheng, Jiannong Cao, Xingwei Wang, Sajal K. Das, and Shengxiang Yang. Stability-aware multi-metric clustering in mobile ad hoc networks with group mobility. *Wireless Communications & Mobile Computing*, 9(6):759–771, June 2009.

- [1117] Jian-Hung Cheng, Hung-Ming Chen, and Shinn-Ying Ho. Design of Nearest Neighbor Classifiers Using an Intelligent Multi-objective Evolutionary Algorithm. In Chengqi Zhang, Hans W. Guesgen, and Wai K. Yeap, editors, *PRICAI 2004: Trends in Artificial Intelligence. 8th Pacific Rim International Conference on Artificial Intelligence*, pages 262–271, Auckland, New Zealand, August 2004. Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 3157.
- [1118] Jixiang Cheng, Gexiang Zhang, Zhidan Li, and Yuquan Li. Multi-objective ant colony optimization based on decomposition for bi-objective traveling salesman problems. *Soft Computing*, 16(4):597–614, April 2012.
- [1119] Li-Hua Cheng, Ping-Chung Wu, and Junhui Chen. Numerical Simulation and Optimal Design of AGMD-Based Hollow Fiber Modules for Desalination. *Industrial & Engineering Chemistry Research*, 48(10):4948–4959, May 20 2009.
- [1120] Peng Cheng. A Tunable Constrained Test Problems Generator for Multi-objective Optimization. In *Proceedings of the 2008 Second International Conference on Genetic and Evolutionary Computing (WGEC'2008)*, pages 96–100, Washington, DC, USA, September 2008. IEEE Computer Society. ISBN 978-0-7695-3334-6.
- [1121] Runwei Cheng, Mitsuo Gen, and Shmuel S. Oren. An Adaptive Hyperplane Approach for Multiple Objective Optimization Problems with Complex Constraints. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 299–306, San Francisco, California, 2000. Morgan Kaufmann.
- [1122] Shueh-Hen Cheng, Hsi-Jen Chen, Hsuan Chang, Cheng-Kai Chang, and Yi-Ming Chen. Multi-objective optimization for two catalytic membrane reactors - Methanol synthesis and hydrogen production. *Chemical Engineering Science*, 63(6):1428–1437, March 2008.
- [1123] Ji cheng Liu, Su li Yan, and Jian xun Qi. A hybrid particle swarm optimization approach with neural network and set pair analysis for transmission network planning. *Journal of Central South University of Technology*, 15:321–326, December 2008.
- [1124] C. Y. Cheong, C. J. Lin, K. C. Tan, and D. K. Liu. A Multi-Objective Evolutionary Algorithm for Berth Allocation in a Container Port. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 927–934, Singapore, September 2007. IEEE Press.
- [1125] C. Y. Cheong, K. C. Tan, D. K. Liu, and C. J. Lin. Multi-objective and prioritized berth allocation in container ports. *Annals of Operations Research*, 180(1):63–103, November 2010.

- [1126] C. Y. Cheong, K. C. Tan, D. K. Liu, and J. X. Xu. A Multiobjective Evolutionary Algorithm for Solving Vehicle Routing Problem with Stochastic Demand. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 5519–5526, Vancouver, BC, Canada, July 2006. IEEE.
- [1127] C.Y. Cheong, K.C. Tan, and B. Veeravalli. A multi-objective evolutionary algorithm for examination timetabling. *Journal of Scheduling*, 12(3):121–145, April 2009.
- [1128] Peter B. Cheung, Luisa F.R. Reis, Klebber T.M. Formiga, Fazal H. Chaudhry, and Waldo G.C. Ticona. Multiobjective Evolutionary Algorithms Applied to the Rehabilitation of a Water Distribution System: A Comparative Study. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 662–676, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1129] S. C. Chiam, A. Al Mamun, and Y. L. Low. A Realistic Approach to Evolutionary Multiobjective Portfolio Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 204–211, Singapore, September 2007. IEEE Press.
- [1130] S. C. Chiam, K. C. Tan, C. K. Goh, and A. Al Mamun. Improving Locality in Binary Representation via Redundancy. *IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics*, 38(3):808–825, June 2008.
- [1131] S. C. Chiam, K. C. Tan, and A. Al Mamun. Evolutionary multi-objective portfolio optimization in practical context. *International Journal of Automation and Computing*, 5(1):67–80, January 2008.
- [1132] S. C. Chiam, K. C. Tan, and A. Al Mamun. Investigating technical trading strategy via an multi-objective evolutionary platform. *Expert Systems with applications*, 36(7):10408–10423, September 2009.
- [1133] S. C. Chiam, K. C. Tan, and A. M. Mamun. A memetic model of evolutionary PSO for computational finance applications. *Expert Systems with Applications*, 36(2):3695–3711, March 2009.
- [1134] Swee Chiang Chiam, Chi Keong Goh, and Kay Chen Tan. Adequacy of Empirical Performance Assessment for Multiobjective Evolutionary Optimizer. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 893–907, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1135] Swee Chiang Chiam, Kay Chen Tan, and Abdullah Al Mamun. Molecular Dynamics Optimizer. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion*

Optimization, 4th International Conference, EMO 2007, pages 302–316, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.

- [1136] Swee Chiang Chiam, Kay Chen Tan, and Abdullah Al Mamun. Multiobjective Evolutionary Neural Networks for Time Series Forecasting. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 346–360, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1137] M. Chiampi, G. Fuertratt, C. Magele, C. Ragusa, and M. Repetto. Multi-objective optimisation with stochastic algorithms and fuzzy definition of objective function. *International Journal of Applied Electromagnetics and Mechanics*, 9(4):381–389, October 1998.
- [1138] Chao-Lung Chiang. Efficient Trade-Off Algorithm for Hydrothermal Power Systems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2325–2330, Singapore, September 2007. IEEE Press.
- [1139] Tsung-Che Chiang, Hsueh-Chien Cheng, and Li-Chen Fu. Multiobjective Permutation Flow Shop Scheduling Using a Memetic Algorithm with an NEH-Based Local Search. In De-Shuang Huang, Kang-Hyun Jo, Hong-Hee Lee, Hee-Jun Kang, and Vitoantonio Bevilacqua, editors, *Emerging Intelligent Computing Technology and Applications, 5th International Conference on Intelligent Computing, ICIC 2009*, pages 813–825, Ulsan, South Korea, September 16-19 2009. Springer. Lecture Notes in Computer Science Vol. 5754.
- [1140] Tsung-Che Chiang, Hsueh-Chien Cheng, and Li-Chen Fu. NNMA: An effective memetic algorithm for solving multiobjective permutation flow shop scheduling problems. *Expert Systems With Applications*, 38(5):5986–5999, May 2011.
- [1141] Tsung-Che Chiang and Li-Chen Fu. Multiobjective Job Shop Scheduling using Genetic Algorithm with Cyclic Fitness Assignment. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 11035–11042, Vancouver, BC, Canada, July 2006. IEEE.
- [1142] Tsung-Che Chiang and Li-Chen Fu. An improved multiobjective memetic algorithm for permutation flow shop scheduling. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1057–1064, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1143] Kazuhisa Chiba, Shinkyu Jeong, Shigeru Obayashi, and Hiroyuki Morino. Data Mining for Multidisciplinary Design Space of Regional-Jet Wing. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2333–2340, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [1144] Kazuhisa Chiba, Shigeru Obayashi, and Hiroyuki Morino. Knowledge Discovery for Transonic Regional-Jet Wing through Multidisciplinary Design Exploration. *Journal of Advanced Mechanical Design Systems and Manufacturing*, 2(3):396–407, 2008.
- [1145] Kazuhisa Chiba, Shigeru Obayashi, Kazuhiro Nakahashi, and Hiroyuki Morino. High-Fidelity Multidisciplinary Design Optimization of Wing Shape for Regional Jet Aircraft. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 621–635, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [1146] Manuel Chica, Oscar Cordon, and Sergio Damas. An advanced multiobjective genetic algorithm design for the time and space assembly line balancing problem. *Computers & Industrial Engineering*, 61(1):103–117, August 2011.
- [1147] Manuel Chica, Oscar Cordon, Sergio Damas, and Joaquin Bautista. Multi-objective constructive heuristics for the 1/3 variant of the time and space assembly line balancing problem: ACO and random greedy search. *Information Sciences*, 180(18):3465–3487, September 15 2010.
- [1148] Manuel Chica, Oscar Cordon, Sergio Damas, and Joaquin Bautista. Including different kinds of preferences in a multi-objective ant algorithm for time and space assembly line balancing on different Nissan scenarios. *Expert Systems With Applications*, 38(1):709–720, January 2011.
- [1149] Manuel Chica, Óscar Cerdón, Sergio Damas, and Joaquín Bautista. Integration of an EMO-based Preference Elicitation Scheme into a Multi-objective ACO Algorithm for Time and Space Assembly Line Balancing. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 157–162, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [1150] Manuel Chica, Óscar Cerdón, Sergio Damas, Jordi Pereira, and Joaquín Bautista. Incorporating Preferences to a Multi-objective Ant Colony Algorithm for Time and Space Assembly Line Balancing. In Marco Dorigo, Mauro Birattari, Christian Blum, Maurice Clerc, Thomas Stützle, and Alan F.T. Winfield, editors, *Ant Colony Optimization and Swarm Intelligence. 6th International Conference, ANTS 2008. Proceedings*, pages 331–338. Springer, Brussels, Belgium, September 2008.
- [1151] Francisco Chicano, Francisco Luna, Antonio J. Nebro, and Enrique Alba. Using Multi-Objective Metaheuristics to Solve the Software Project Scheduling Problem. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1915–1922, Dublin, Ireland, July 12-16 2011. ACM Press.
- [1152] Oliver Chikumbo and Ian Nicholas. Efficient thinning regimes for *Eucalyptus fastigata*: Multi-objective stand-level optimisation using the island model genetic algorithm. *Ecological Modelling*, 222(10):1683–1695, May 24 2011.

- [1153] Bong Chin-Wei and Mandawa Rajeswari. Multiobjective Optimization Approaches in Image Segmentation—The Directions and Challenges. *International on Advances in Soft Computing and its Applications*, 2(1):40–65, March 2010.
- [1154] De-Yi Chiou and Mu-Yueh Chen. Electromechanical modeling, characterization, and optimization design of the postcomplementary metal-oxide-semiconductor capacitive microarrayed ultrasonic transducer. *Journal of Micro-Nanolithography MEMS and MOEMS*, 8(2), April-June 2009. Art. Number: 021190.
- [1155] A. J. Chipperfield, N. V. Dakev, P. J. Fleming, and J. F. Whidborne. Multi-objective robust control using evolutionary algorithms. In *IEEE International Conference on Industrial Technology*, Shanghai, China, December 1996.
- [1156] A. J. Chipperfield and C. M. Fonseca P. J. Fleming. Development of Genetic Optimization Tools for Multi-Objective Optimization Problems in CACSD. In *IEE Colloquium, Genetic Algorithms for Control and Systems Engineering*, Halifax Hall, University of Sheffield, UK, May 1995. Digest No. 1992/106.
- [1157] A. J. Chipperfield and P. J. Fleming. Gas Turbine Engine Controller Design using Multiobjective Genetic Algorithms. In A. M. S. Zalzal, editor, *Proceedings of the First IEE/IEEE International Conference on Genetic Algorithms in Engineering Systems : Innovations and Applications, GALEZIA'95*, pages 214–219, Halifax Hall, University of Sheffield, UK, September 1995. IEEE.
- [1158] A. J. Chipperfield and P. J. Fleming. Multiobjective Gas Turbine Engine Controller Design Using Genetic Algorithms. *IEEE Transactions on Industrial Electronics*, 43(5), October 1996.
- [1159] A. J. Chipperfield and P. J. Fleming. Evolutionary Design of Gas Turbine Aero-Engine Controllers. In Frank DiCesare and Mohsen Jafari, editors, *Proceedings of the 1998 IEEE International Conference on Systems, Man, and Cybernetics*, volume 3, pages 2401–2406. IEEE, 1998.
- [1160] A.J. Chipperfield, J.F. Whidborne, and P.J. Fleming. Evolutionary Algorithms and Simulated Annealing for MCDM. In T. Gal, T.J. Stewart, and T. Hanne, editors, *Multicriteria Decision Making—Advances in MCDM Models, Algorithms, Theory, and Applications*, pages 16.1–16.32. Kluwer Academic Publishing, Boston, Massachusetts, 1999.
- [1161] Andrew J. Chipperfield, Beatrice Bica, and Peter J. Fleming. Fuzzy Scheduling Control of a Gas Turbine Aero-Engine: A Multiobjective Approach. *IEEE Transactions on Industrial Electronics*, 49(3):536–548, June 2002.
- [1162] C. Chitra and P. Subbaraj. A nondominated sorting genetic algorithm solution for shortest path routing problem in computer networks. *Expert Systems With Applications*, 39(1):1518–1525, January 2012.

- [1163] P. Chitra, P. Venkatesh, and R. Rajaram. Comparison of evolutionary computation algorithms for solving bi-objective task scheduling problem on heterogeneous distributed computing systems. *Sadhana-Academy Proceedings in Engineering Sciences*, 36(2):167–180, April 2011.
- [1164] Darren M. Chitty and Marcel L. Hernandez. A Hybrid Ant Colony Optimisation Technique for Dynamic Vehicle Routing. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 48–59, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [1165] Shih-Yuan Chiu, Tsung-Ying Sun, Sheng-Ta Hsieh, and Cheng-Wei Lin. Cross-Serching Strategy for Multi-Objective Particle Swarm Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3135–3141, Singapore, September 2007. IEEE Press.
- [1166] Annette Chmielewski, Boris Naujorks, Michael Janas, and Uwe Clausen. Optimizing the Door Assignment in LTL-Terminals. *Transportation Science*, 43(2):198–210, May 2009.
- [1167] Dong-Hyeok Cho, Hyun-Kyo Jung, and Dong-Joon Sim. Multiobjective Optimal Design of Interior Permanent Magnet Synchronous Motors Considering Improved Core Loss Formula. *IEEE Transactions on Energy Conversion*, 14(4):1347–1352, December 1999.
- [1168] Hang-Min Cho, Suk-Joo Bae, Jungwuk Kim, and In-Jae Jeong. Bi-objective scheduling for reentrant hybrid flow shop using Pareto genetic algorithm. *Computers & Industrial Engineering*, 61(3):529–541, October 2011.
- [1169] K.-H. Cho, J.-Y. Park, S.-P. Ryu, J.-Y. Park, and S.-Y. Han. Reliability-based topology optimization based on bidirectional evolutionary structural optimization using multi-objective sensitivity numbers. *International Journal of Automotive Technology*, 12(6):849–856, December 2011.
- [1170] BK Choi and BS Yang. Multiobjective optimum design of rotor-bearing systems with dynamic constraints using immune-genetic algorithm. *Journal Of Engineering For Gas Turbines And Power-Transactions Of The ASME*, 123(1):78–81, January 2001.
- [1171] Jeoung-Nae Choi, Sung-Kwun Oh, and Hyun-Ki Kim. Design of Information Granulation-Based Fuzzy Radial Basis Function Neural Networks Using NSGA-II. In Bao-Liang Lu Liqing Zhang and James Kwok, editors, *Advances in Neural Networks - ISNN 2010, 7th International Symposium on Neural Networks, ISNN 2010*, pages 215–222, Shanghai, China, June 6-9 2010. Springer. Lecture Notes in Computer Science Vol. 6063.
- [1172] S. Choi, JW Oh, and C. Wu. Genetic algorithm-based approach to allocation of distributed objects using graph models. *Integrated Computer-Aided Engineering*, 8(2):135–150, 2001.

- [1173] Seongim Choi. Speedups for Efficient Genetic Algorithms: Design Optimization of Low-Boom Supersonic Jet Using Parallel GA and Micro-GA with External Memory. In John R. Koza, editor, *Genetic Algorithms and Genetic Programming at Stanford 2003*, pages 21–30. Stanford Bookstore, Stanford, California, USA, December 2003.
- [1174] Seunghoon Choi and Chisu Wu. Partitioning and Allocation of Objects in Heterogeneous Distributed Environments Using the Niched Pareto Genetic-Algorithm. In *Proceedings of 1998 Asia Pacific Software Engineering Conference (APSEC 98)*, pages 322–329, Taipei, Taiwan, December 1998.
- [1175] Sunny Choi and Blayne E. Mayfield. Particle swarm optimization in the presence of multiple global optima. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1743–1744, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [1176] Young-Keun Choi, Dong Myung Lee, and Yeong Bin Cho. An approach to multi-criteria assembly sequence planning using genetic algorithms. *International Journal of Advanced Manufacturing Technology*, 42(1-2):180–188, May 2009.
- [1177] Wang Chong, Jing Ning, Li Jun, Wang Jun, and Chen Hao. Cooperative co-evolutionary algorithm in satellite imaging scheduling of cooperative multiple centers. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1770–1777, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1178] Chwee Seng Choo, Ching Lian Chua, Kin Ming Spencer Low, and Wee Sze Darren Ong. A Co-Evolutionary Approach for Military Operational Analysis. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 67–74, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [1179] Chwee Seng Choo, Ching Lian Chua, and Su-Han Victor Tay. Automated Red Teaming: A Proposed Framework for Military Application. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 1936–1942, London, UK, July 2007. ACM Press.
- [1180] Hosung Choo. *Application of Genetic Algorithms to the Design of Microstrip Antennas, Wire Antennas and Microwave Absorbers*. PhD thesis, The University of Texas at Austin, Austin, Texas, USA, May 2003.
- [1181] Hosung Choo, Hao Ling, and Charles S. Liang. Shape Optimization of Corrugated Coatings Under Grazing Incidence Using a Genetic Algorithm. *IEEE Transactions on Antennas and Propagation*, 51(11):3080–3087, November 2003.
- [1182] F. Fred Choobineh, Esmail Mohebbi, and Hansen Khoo. A multi-objective tabu search for a single-machine scheduling problem with sequence-dependent

- setup times. *European Journal of Operational Research*, 175(1):318–337, November 16 2006.
- [1183] Jui-Sheng Chou and Thanh-Son Le. Reliability-based performance simulation for optimized pavement maintenance. *Reliability Engineering & System Safety*, 96(10):1402–1410, October 2011.
 - [1184] Ta-Yuan Chou, Tung-Kuan Liu, Chung-Nan Lee, and Chi-Ruey Jeng. Method of inequality-based multiobjective genetic algorithm for domestic daily aircraft routing. *IEEE Transactions on Systems, Man, and Cybernetics Part A–Systems and Humans*, 38(2):299–308, March 2008.
 - [1185] Muhammad Aamer Saleem Choudhry. *New Schemes of MUD for Synchronous DS-CDMA and its Overloaded Systems*. PhD thesis, Department of Electronics Engineering, Faculty of Engineering and Sciences, Mohammad Ali Jinnah University, Pakistan, 2007.
 - [1186] C. Rick Chow. An Evolutionary Approach to Search for NCR-Boards. In David B. Fogel, editor, *Proceedings of the 1998 International Conference on Evolutionary Computation*, pages 295–300, Piscataway, New Jersey, 1998. IEEE.
 - [1187] Chi Kin Chow and Shiu Yin Yuen. A Multiobjective Evolutionary Algorithm That Diversifies Population by Its Density. *IEEE Transactions on Evolutionary Computation*, 16(2):149–172, April 2012.
 - [1188] S. Chowdhury, R.J. Moral, and G.S. Dulikravich. Predator-prey evolutionary multi-objective optimization algorithm: performance and improvements. In V. Toropov, editor, *Proceedings of 7th ASMO-UK/ISSMO International Conference on Engineering Design Optimization*, pages 1–10, Bath, UK, July 7-8 2008.
 - [1189] Souma Chowdhury, George S. Dulikravich, and Ramon J. Moral. Modified predator-prey algorithm for constrained and unconstrained multi-objective optimisation. *International Journal of Mathematical Modelling and Numerical Optimisation*, 1(1-2):1–38, 2009.
 - [1190] Ching-Wu Chu, Gin-Shuh Liang, and Chien-Tseng Liao. Controlling inventory by combining ABC analysis and fuzzy classification. *Computers & Industrial Engineering*, 55(4):841–851, November 2008.
 - [1191] Tzung-Nan Chuang, Chia-Tzu Lin, Jung-Yuan Kung, and Ming-Da Lin. Planning the route of container ships: A fuzzy genetic approach. *Expert Systems With Applications*, 37(4):2948–2956, April 2010.
 - [1192] Chung-Huei Chueh. *An Immune Algorithm for Engineering Optimization*. PhD thesis, Department of Mechanical Engineering, Tatung University, Taipei, Taiwan, July 2004.

- [1193] Oscar Daniel Chuk and Benjamin R. Kuchen. Supervisory control of flotation columns using multi-objective optimization. *Minerals Engineering*, 24(14):1545–1555, November 2011.
- [1194] Hyoung Seog Chung. *Multidisciplinary Design Optimization of Supersonic Business Jets using Approximation Model-Based Genetic Algorithms*. PhD thesis, Department of Aeronautics and Astronautics, Stanford University, California, USA, March 2004.
- [1195] Hyoung-Seog Chung and Juan J. Alonso. Multiobjective Optimization Using Approximation Model-Based Genetic Algorithms. In *Proceedings of the 10th AIAA/ISSMO Symposium on Multidisciplinary Analysis and Optimization*, Albany, New York, USA, September 2004. Paper AIAA-2004-4325.
- [1196] Hyoung-Seog Chung, Seongim Choi, and Juan J. Alonso. Supersonic Business Jet Design using a Knowledge-Based Genetic Algorithm with an Adaptive, Unstructured Grid Methodology. In *21st AIAA Applied Aerodynamics Conference*, Orlando, Florida, June 2003. AIAA Paper AIAA-2003-3791.
- [1197] Parames Chutima and Palida Chimklai. Multi-objective two-sided mixed-model assembly line balancing using particle swarm optimisation with negative knowledge. *Computers & Industrial Engineering*, 62(1):39–55, February 2012.
- [1198] Parames Chutima and Penpak Pinkoompee. Multi-objective sequencing problems of mixed-model assembly systems using memetic algorithms. *Scienceasia*, 35(3):295–305, September 2009.
- [1199] Scott E. Cieniawski, J. W. Eheart, and S. Ranjithan. Using Genetic Algorithms to Solve a Multiobjective Groundwater Monitoring Problem. *Water Resources Research*, 31(2):399–409, February 1995.
- [1200] Eryk Ciepiela, Joanna Kocot, Leszek Siwik, and Rafal Dreżewski. Hierarchical Approach to Evolutionary Multi-Objective Optimization. In Marian Bubak and Geert Dick van Albada Jack Dongarra Peter M.A. Slood, editors, *Computational Science — ICCS 2008, 8th International Conference*, pages 740–749, Kraków, Poland, June 2008. Springer-Verlag. Lecture Notes in Computer Science Vol. 5103.
- [1201] M. Cioffi, P. Di Barba, A. Formisano, and R. Martone. Pareto optima and Nash equilibria: An effective approach to the shape design in electromagnetics. *COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 27(4):845–854, 2008.
- [1202] Marco Cioffi. *Model and Methods for the Optimal Design of Superconducting Power Devices*. PhD thesis, Department of Information Engineering, Second University of Napoli, Italy, 2002.

- [1203] Antonio Della Cioppa, Angelo Marcelli, and Prisco Napoli. Speciation in Evolutionary Algorithms: Adaptive Species Discovery. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1053–1060, Dublin, Ireland, July 12-16 2011. ACM Press.
- [1204] Antonio Della Cioppa, Claudio De Stefano, and Angelo Marcelli. Where are the Niches? Dynamic Fitness Sharing. *IEEE Transactions on Evolutionary Computation*, 11(4):453–465, August 2007.
- [1205] Mattia Ciprian, Valentino Pediroda, and Carlo Poloni. Multi Criteria Decision Aiding Techniques to Select Designs After Robust Design Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 619–632, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1206] Mattian Ciprian, Massimiliano Kaucic, Guilia Nogherotto, Valentino Pediroda, and Danilo DiStefano. Multiattribute Methodologies in Financial Decision Aid. In Jean-Philippe Rennard, editor, *Handbook of Research on Nature Inspired Computing for Economy and Management*, volume 2, pages 869–884, Hershey, UK, 2006. Idea Group Reference. ISBN 1-59140-984-5.
- [1207] J. Ciurana, G. Arias, and T. Ozel. Neural Network Modeling and Particle Swarm Optimization (PSO) of Process Parameters in Pulsed Laser Micromachining of Hardened AISI H13 Steel. *Materials And Manufacturing Processes*, 24(3):358–368, 2009.
- [1208] Alberto Clarich, Valentino Pediroda, Carlo Poloni, and Jacques Périaux. A Fast and Robust Adaptive Methodology for Design Under Uncertainties Based on DACE Response Surface and Game Theory. In William Annicchiarico, Jacques Périaux, Miguel Cerrolaza, and Gabriel Winter, editors, *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization*, pages 75–91. WIT Press, CIMNE Barcelona, Southampton, Boston, 2005. ISBN 1-84564-038-1.
- [1209] Robert D. Clark and Edmond Abrahamian. Using a staged multi-objective optimization approach to find selective pharmacophore models. *Journal of Computer-Aided Molecular Design*, 23(11):765–771, November 2009.
- [1210] T. Clarke and R. Davies. Robust eigenstructure assignment using the genetic algorithm and constrained state feedback. *Proceedings of the Institution of Mechanical Engineers Part I—Journal of Systems and Control Engineering*, 211(1):53–61, February 1997.
- [1211] Daniela Barreiro Claro. *SPOC - Un Canevas Pour la Composition Automatique de Services Web Dédiés à la Réalisation de Devis*. PhD thesis, Laboratoire d’Étude et de Recherche en Informatique d’Angers, Université d’Angers, France, October 2006. (In French).

- [1212] Joao Claro and Jorge Pinho de Sousa. A multiobjective metaheuristic for a mean-risk multistage capacity investment problem with process flexibility. *Computers & Operations Research*, 39(4):838–849, April 2012.
- [1213] John Morris Clayton. *Incorporation of Environmental, Economic and Product Quality Criteria in Multiobjective Engineering Design of Cl_2/ClO_2 Softwood Kraft Bleaching Processes*. PhD thesis, Georgia Institute of Technology, April 2003.
- [1214] M. Clergue and P. Collard. Dual Genetic Algorithms and Pareto Optimization. In George D. Smith, Nigel C. Steele, and Rudolf F. Albrecht, editors, *Artificial Neural Nets and Genetic Algorithms*, pages 188–197, Norwich, UK, April 1997. Springer-Verlag.
- [1215] M. Clergue, P. Collard, and A. Gaspar. DGA and Pareto Elitism : Improving Pareto Optimization. In *Second International ICSC Symposium on Soft Computing (SOCO'97) at the Ecole pour les Etudes et la Recherche en Informatique et Electronique (EERIE)*, Nîmes, France, September 1997.
- [1216] Lauren M. Clevenger and William E. Hart. Convergence Examples of a Filter-Based Evolutionary Algorithm. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 666–677, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [1217] Joao C. N. Climaco, M. Eugenia Captivo, and Marta M. B. Pascoal. On the bicriterion - minimal cost/minimal label - spanning tree problem. *European Journal of Operational Research*, 204(2):199–205, July 16 2010.
- [1218] B. Cobacho, R. Caballero, M. Gonzalez, and J. Molina. Planning federal public investment in Mexico using multiobjective decision making. *Journal Of The Operational Research Society*, 61(9):1328–1339, September 2010.
- [1219] Corie L. Cobb, Ying Zhang, Alice M. Agogino, and Jennifer Mangold. Knowledge-Based Evolutionary Linkage in MEMS Design Synthesis. In Ying ping Chen and Meng-Hiot Lim, editors, *Linkage in Evolutionary Computation*, pages 461–483. Springer-Verlag, Berlin Heidelberg, 2008.
- [1220] Carlos Cobos, Claudia Montealegre, María-Fernanda Mejía, Martha Mendoza, and Elizabeth León. Web document clustering based on a new niching Memetic Algorithm, Term-Document Matrix and Bayesian Information Criterion. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4629–4636, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1221] Grant Cochenour, Jerad Simon, Sanjoy Das, Anil Pahwa, and Surasish Nag. A Pareto Archive Evolutionary Strategy Based Radial Basis Function Neural Network Training Algorithm for Failure Rate Prediction in Overhead Feeders.

In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 2127–2132, New York, USA, June 2005. ACM Press.

- [1222] Jeffery K. Cochran, Shwu-Min Horng, and John W. Fowler. A Multi-Population Genetic Algorithm to Solve Multi-Objective Scheduling Problems for Parallel Machines. *Computers and Operations Research*, 30(7):1087–1102, 2003.
- [1223] M. Cococcioni, G. Corsini, B. Lazzerini, and F. Marcelloni. Solving the ocean color inverse problem by using evolutionary multi-objective optimization of neuro-fuzzy systems. *International Journal of Knowledge-Based and Intelligent Engineering Systems*, 12(5-6):39–55, 2008.
- [1224] M. Cococcioni, P. Ducange, B. Lazzerini, and F. Marcelloni. A comparison of multi-objective evolutionary algorithms in fuzzy rule-based systems generation. In *Proceedings of the North American Fuzzy Information Processing Society (NAFIPS'06)*, Montreal, Canada, June 2006.
- [1225] M. Cococcioni, P. Ducange, B. Lazzerini, F. Marcelloni, and M. Vecchio. Identification of mamdani fuzzy systems based on a multi-objective genetic algorithm. In *AI*IA 2005 Workshop on Evolutionary Computation*, volume 1, pages 1–10, Milan, Italy, 2005.
- [1226] M. Cococcioni, P. Guasqui, B. Lazzerini, and F. Marcelloni. Identification of Takagi-Sugeno Fuzzy Systems based on Multi-Objective Genetic Algorithms. In *International Workshop on Fuzzy Logic and Applications*, pages 172–177. Springer-Verlag. Lecture Notes on Artificial Intelligence Vol. 3849, 2005.
- [1227] Marco Cococcioni, Pietro Ducange, Beatrice Lazzerini, and Francesco Marcelloni. A New Multi-Objective Evolutionary Algorithm Based on Convex Hull for Binary Classifier Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3150–3156, Singapore, September 2007. IEEE Press.
- [1228] Marco Cococcioni, Pietro Ducange, Beatrice Lazzerini, and Francesco Marcelloni. A Pareto-based multi-objective evolutionary approach to the identification of Mamdani fuzzy systems. *Soft Computing*, 11(11):1013–1031, September 2007.
- [1229] Marco Cococcioni, Beatrice Lazzerini, and Francesco Marcelloni. Towards Efficient Multi-objective Genetic Takagi-Sugeno Fuzzy Systems for High Dimensional Problems. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 397–422. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [1230] Marco Cococcioni, Beatrice Lazzerini, and Francesco Marcelloni. On reducing computational overhead in multi-objective genetic Takagi-Sugeno fuzzy systems. *Applied Soft Computing*, 11(1):675–688, January 2011.

- [1231] Andre L.V. Coelho, Everlandio Fernandes, and Katti Faceli. Multi-objective design of hierarchical consensus functions for clustering ensembles via genetic programming. *Decision Support Systems*, 51(4):794–809, November 2011.
- [1232] Guilherme P. Coelho, Ana Estela A. da Silva, and Fernando J. Von Zuben. An immune-inspired multi-objective approach to the reconstruction of phylogenetic trees. *Neural Computing & Applications*, 19(8):1103–1132, November 2010.
- [1233] Guilherme P. Coelho and Fernando Von Zuben. Omni-ainet: An immune-inspired approach for omni optimization. In Hughes Bersini and Jorge Carneiro, editors, *Artificial Immune Systems, 5th International Conference, ICARIS 2006, Proceedings*, pages 294–308, Oeiras, Portugal, September 2006. Springer-Verlag, Lecture Notes in Computer Science Vol. 4163.
- [1234] Guilherme Palermo Coelho, Fabrício Olivetti de França, and Fernando J. Von Zuben. Improving a Multi-Objective Multipopulation Artificial Immune Network for Biclustering. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2748–2755, Trondheim, Norway, May 2009. IEEE Press.
- [1235] Guilherme Palermo Coelho, Fabrício Olivetti de França, and Fernando J. Von Zuben. A Multi-Objective Multipopulation Approach for Biclustering. In Peter J. Bentley, Doheon Lee, and Sungwon Jung, editors, *Artificial Immune Systems, 7th International Conference, ICARIS 2008*, pages 71–82, Phuket, Thailand, August 10-13 2008. Springer. Lecture Notes in Computer Science Volume 5132.
- [1236] Guilherme Palermo Coelho and Fernando J. Von Zuben. A Concentration-Based Artificial Immune Network for Multi-objective Optimization. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 343–357, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [1237] R. Filomeno Coelho, PH. Bouillard, and H. Bersini. PAMUC: A New Method to Handle Constraints and Multiobjectivity in Evolutionary Algorithms. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 91–100. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [1238] Rajan Filomeno Coelho. *Multicriteria Optimization with Expert Rules for Mechanical Design*. PhD thesis, Faculté des Sciences Appliquées, Université Libre de Bruxelles, Belgium, 2004.
- [1239] Rajan Filomeno Coelho, Hugues Bersini, and Philippe Bouillard. Parametrical Mechanical Design with Constraints and Preferences: Application to a Purge Valve. *Computer Methods in Applied Mechanics and Engineering*, 192(39-40):4355–4378, September 2003.

- [1240] Rajan Filomeno Coelho and Philippe Bouillard. PAMUC II for multicriteria optimization of mechanical designs with expert rules. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 17–22, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [1241] Rajan Filomeno Coelho and Philippe Bouillard. Multi-Objective Reliability-Based Optimization with Stochastic Metamodels. *Evolutionary Computation*, 19(4):525–560, Winter 2011.
- [1242] Rajan Filomeno Coelho, Jeremy Lebon, and Philippe Bouillard. Hierarchical stochastic metamodels based on moving least squares and polynomial chaos expansion. *Structural and Multidisciplinary Optimization*, 43(5):707–729, May 2011.
- [1243] R.F. Coelho and P. Bouillard. A multicriteria evolutionary algorithm for mechanical design optimization with expert rules. *International Journal for Numerical Methods in Engineering*, 62(4):516–536, January 2005.
- [1244] C. A. Coello Coello, G. Toscano Pulido, and A. Hernández Aguirre. Multi-Objective Evolutionary Algorithms for Structural Optimization. In K.J. Bathe, editor, *Computational Fluid and Solid Mechanics 2003. Proceedings of the Second MIT Conference on Computational Fluid and Solid Mechanics*, volume 2, pages 2244–2248, The Netherlands, June 2003. Elsevier.
- [1245] Carlos A. Coello Coello. An Updated Survey of GA-Based Multiobjective Optimization Techniques. Technical Report Lania-RD-98-08, Laboratorio Nacional de Informática Avanzada (LANIA), Xalapa, Veracruz, México, December 1998.
- [1246] Carlos A. Coello Coello. Using a Min-Max Method to solve Multiobjective Optimization Problems with Genetic Algorithms. In *IBERAMIA'98. Lecture Notes in Computer Science*, pages 303–314, Lisbon, Portugal, October 1998. Springer-Verlag.
- [1247] Carlos A. Coello Coello. A Comprehensive Survey of Evolutionary-Based Multiobjective Optimization Techniques. *Knowledge and Information Systems. An International Journal*, 1(3):269–308, August 1999.
- [1248] Carlos A. Coello Coello. Constraint handling through a multiobjective optimization technique. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 117–118, Orlando, Florida, July 1999.
- [1249] Carlos A. Coello Coello. An Updated Survey of Evolutionary Multiobjective Optimization Techniques : State of the Art and Future Trends. In *1999 Congress on Evolutionary Computation*, volume 1, pages 3–13, Washington, D.C., July 1999. IEEE Service Center.

- [1250] Carlos A. Coello Coello. Constraint-handling using an evolutionary multiobjective optimization technique. *Civil Engineering and Environmental Systems*, 17:319–346, 2000.
- [1251] Carlos A. Coello Coello. Handling Preferences in Evolutionary Multiobjective Optimization: A Survey. In *2000 Congress on Evolutionary Computation*, volume 1, pages 30–37, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [1252] Carlos A. Coello Coello. Treating Constraints as Objectives for Single-Objective Evolutionary Optimization. *Engineering Optimization*, 32(3):275–308, 2000.
- [1253] Carlos A. Coello Coello. An Updated Survey of GA-Based Multiobjective Optimization Techniques. *ACM Computing Surveys*, 32(2):109–143, June 2000.
- [1254] Carlos A. Coello Coello. A Short Tutorial on Evolutionary Multiobjective Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 21–40. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1255] Carlos A. Coello Coello. Evolutionary Multi-Objective Optimization: A Critical Review. In Ruhul Sarker, Masoud Mohammadian, and Xin Yao, editors, *Evolutionary Optimization*, pages 117–146. Kluwer Academic Publishers, New York, February 2002. ISBN 0-7923-7654-4.
- [1256] Carlos A. Coello Coello. Evolutionary Multiobjective Optimization: Current and Future Challenges. In Jose Benitez, Oscar Cordon, Frank Hoffmann, and Rajkumar Roy, editors, *Advances in Soft Computing—Engineering, Design and Manufacturing*, pages 243–256. Springer-Verlag, September 2003.
- [1257] Carlos A. Coello Coello. Recent Trends in Evolutionary Multiobjective Optimization. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 7–32. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [1258] Carlos A. Coello Coello. The EMOO repository: a resource for doing research in evolutionary multiobjective optimization. *IEEE Computational Intelligence Magazine*, 1(1):37–45, February 2006.
- [1259] Carlos A. Coello Coello. Evolutionary multi-objective optimization in finance. In Jean-Philippe Rennard, editor, *Handbook of Research on Nature Inspired Computing for Economy and Management*, volume 1, pages 74–88. Idea Group Reference, Hershey, UK, 2006. ISBN 1-59140-984-5.
- [1260] Carlos A. Coello Coello. Evolutionary multiobjective optimization: A historical view of the field. *IEEE Computational Intelligence Magazine*, 1(1):28–36, February 2006.

- [1261] Carlos A. Coello Coello. 20 Years of Evolutionary Multi-Objective Optimization: What Has Been Done and What Remains to be Done. In Gary Y. Yen and David B. Fogel, editors, *Computational Intelligence: Principles and Practice*, chapter 4, pages 73–88. IEEE Computational Intelligence Society, Vancouver, Canada, 2006, ISBN 0-9787135-0-8.
- [1262] Carlos A. Coello Coello. Evolutionary Multi-Objective Optimization: Some Current Research Trends and Topics that Remain to be Explored. *Frontiers of Computer Science in China*, 3(1):18–30, 2009.
- [1263] Carlos A. Coello Coello. A Tutorial on Multi-Objective Optimization using Metaheuristics. In L.M. Esteban, B. Lacruz, F.J. López, P.M. Mateo, A. Pérez-Palomares, G. Sanz, and C. Paroissin, editors, *The Pyrenees International Workshop and Summer School on Statistics, Probability and Operations Research SPO 2009*, Monografías Matemáticas “García de Galdeano” No. 36, pages 19–38. Universidad de Zaragoza, Spain, December 2010. ISBN 978-84-15031-92-5.
- [1264] Carlos A. Coello Coello. An Introduction to Multi-Objective Particle Swarm Optimizers. In António Gaspar-Cunha, Ricardo Takahashi, Gerald Schaefer, and Lino Costa, editors, *Soft Computing in Industrial Applications*, volume 96 of *Advances in Intelligent and Soft Computing Series*, pages 3–12, Berlin, 2011. Springer. ISBN 978-3-642-20504-0.
- [1265] Carlos A. Coello Coello. Evolutionary Multi-Objective Optimization. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 1(5):444–447, September/October 2011.
- [1266] Carlos A. Coello Coello. Evolutionary Multi-Objective Optimization: Basic Concepts and Some Applications in Pattern Recognition. In José Francisco Martínez-Trinidad, Jesús Ariel Carrasco-Ochoa, Cherif Ben-Youssef Brants, and Edwin Robert Hancock, editors, *Pattern Recognition, Third Mexican Conference, MCPR 2011*, pages 22–33. Springer, Lecture Notes in Computer Science Vol. 6718, Cancún, México, June/July 2011.
- [1267] Carlos A. Coello Coello. Fundamentals of Evolutionary Multi-Objective Optimization. In Bogdan M. Wilamowski and J. David Irwin, editors, *Industrial Electronics Handbook. Intelligent Systems*, chapter 25, pages 25–1–25–11. CRC Press, Boca Raton, Florida, USA, second edition, 2011. ISBN 978-1-4398-0283-0.
- [1268] Carlos A. Coello Coello and Alan D. Christiansen. An Approach to Multi-objective Optimization Using Genetic Algorithms. In Cihan H. Dagli, Metin Akay, C. L. Philip Chen, Benito R. Fernández, and Joydeep Ghosh, editors, *Intelligent Engineering Systems Through Artificial Neural Networks. Volume 5. Fuzzy Logic and Evolutionary Programming*, pages 411–416, St. Louis, Missouri, USA, November 1995. ASME Press.

- [1269] Carlos A. Coello Coello and Alan D. Christiansen. Two New GA-based methods for multiobjective optimization. *Civil Engineering Systems*, 15(3):207–243, 1998.
- [1270] Carlos A. Coello Coello and Alan D. Christiansen. MOSES : A Multiobjective Optimization Tool for Engineering Design. *Engineering Optimization*, 31(3):337–368, 1999.
- [1271] Carlos A. Coello Coello and Alan D. Christiansen. Multiobjective optimization of trusses using genetic algorithms. *Computers and Structures*, 75(6):647–660, May 2000.
- [1272] Carlos A. Coello Coello, Alan D. Christiansen, and A. Hernández Aguirre. Multiobjective Design Optimization of Counterweight Balancing of a Robot Arm using Genetic Algorithms. In *Proceedings of the Seventh International Conference on Tools with Artificial Intelligence*, pages 20–23, Herndon, Virginia, U.S.A., November 1995. IEEE Computer Society Press.
- [1273] Carlos A. Coello Coello, Alan D. Christiansen, and Arturo Hernández Aguirre. Use of Genetic Algorithms for Multiobjective Optimization of Counterweight Balancing of Robot Arms. In Jacob J. G. Chen, editor, *EXPERTSYS-95 Expert Systems Applications and Artificial Intelligence*, pages 243–248, San Francisco, California, November 1995. I. I. T. T. International, Technology Transfer Series.
- [1274] Carlos A. Coello Coello, Alan D. Christiansen, and Arturo Hernández Aguirre. Using a New GA-Based Multiobjective Optimization Technique for the Design of Robot Arms. *Robotica*, 16(4):401–414, July–August 1998.
- [1275] Carlos A. Coello Coello and Nareli Cruz Cortés. An Approach to Solve Multiobjective Optimization Problems Based on an Artificial Immune System. In Jonathan Timmis and Peter J. Bentley, editors, *First International Conference on Artificial Immune Systems (ICARIS'2002)*, pages 212–221. University of Kent at Canterbury, UK, September 2002. ISBN 1-902671-32-5.
- [1276] Carlos A. Coello Coello and Nareli Cruz Cortés. Solving Multiobjective Optimization Problems using an Artificial Immune System. *Genetic Programming and Evolvable Machines*, 6(2):163–190, June 2005.
- [1277] Carlos A. Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors. *Swarm Intelligence for Multi-objective Problems in Data Mining*. Springer, Berlin/Heidelberg, 2009. ISBN: 978-3-642-03624-8.
- [1278] Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors. *Advances in Multi-Objective Nature Inspired Computing*. Springer, Berlin/Heidelberg, 2010. ISBN 978-3-642-11217-1.
- [1279] Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan. Multi-Objective Combinatorial Optimization: Problematic and Context. In Carlos A.

- Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 1, pages 1–21. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.
- [1280] Carlos A. Coello Coello and Arturo Hernández Aguirre. Design of Combinational Logic Circuits through an Evolutionary Multiobjective Optimization Approach. *Artificial Intelligence for Engineering, Design, Analysis and Manufacture*, 16(1):39–53, January 2002.
 - [1281] Carlos A. Coello Coello, Arturo Hernández Aguirre, and Bill P. Buckles. Evolutionary Multiobjective Design of Combinational Logic Circuits. In Jason Lohn, Adrian Stoica, Didier Keymeulen, and Silvano Colombano, editors, *Proceedings of the Second NASA/DoD Workshop on Evolvable Hardware*, pages 161–170, Los Alamitos, California, July 2000. IEEE Computer Society.
 - [1282] Carlos A. Coello Coello and Gary B. Lamont, editors. *Applications of Multi-Objective Evolutionary Algorithms*. World Scientific, Singapore, 2004. ISBN 981-256-106-4.
 - [1283] Carlos A. Coello Coello and Gary B. Lamont. An Introduction to Multi-Objective Evolutionary Algorithms and Their Applications. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 1–28. World Scientific, Singapore, 2004.
 - [1284] Carlos A. Coello Coello, Gary B. Lamont, and David A. Van Veldhuizen. *Evolutionary Algorithms for Solving Multi-Objective Problems*. Springer, New York, second edition, September 2007. ISBN 978-0-387-33254-3.
 - [1285] Carlos A. Coello Coello and Ricardo Landa Becerra. Evolutionary Multiobjective Optimization using a Cultural Algorithm. In *2003 IEEE Swarm Intelligence Symposium Proceedings*, pages 6–13, Indianapolis, Indiana, USA, April 2003. IEEE Service Center.
 - [1286] Carlos A. Coello Coello and Ricardo Landa Becerra. Evolutionary multi-objective optimization in materials science and engineering. *Materials and Manufacturing Processes*, 24(2):119–129, February 2009.
 - [1287] Carlos A. Coello Coello and Carlos E. Mariano Romero. Evolutionary Algorithms and Multiple Objective Optimization. In Matthias Ehrgott and Xavier Gandibleux, editors, *Multiple Criteria Optimization: State of the Art Annotated Bibliographic Surveys*, pages 277–331. Kluwer Academic Publishers, Boston, 2002.
 - [1288] Carlos A. Coello Coello and Margarita Reyes Sierra. A Coevolutionary Multi-Objective Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC’2003)*, volume 1, pages 482–489, Canberra, Australia, December 2003. IEEE Press.

- [1289] Carlos A. Coello Coello and Margarita Reyes Sierra. A Study of the Parallelization of a Coevolutionary Multi-Objective Evolutionary Algorithm. In Raúl Monroy, Gustavo Arroyo-Figueroa, Luis Enrique Sucar, and Humberto Sossa, editors, *Proceedings of the Third Mexican International Conference on Artificial Intelligence (MICAI'2004)*, pages 688–697. Springer Verlag. Lecture Notes in Artificial Intelligence Vol. 2972, April 2004.
- [1290] Carlos A. Coello Coello and Maximino Salazar Lechuga. MOPSO: A Proposal for Multiple Objective Particle Swarm Optimization. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1051–1056, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [1291] Carlos A. Coello Coello and Gregorio Toscano Pulido. A Micro-Genetic Algorithm for Multiobjective Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 126–140. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1292] Carlos A. Coello Coello and Gregorio Toscano Pulido. Multiobjective Optimization using a Micro-Genetic Algorithm. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahrnam Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 274–282, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [1293] Carlos A. Coello Coello and Gregorio Toscano Pulido. Multiobjective Structural Optimization using a Micro-Genetic Algorithm. *Structural and Multidisciplinary Optimization*, 30(5):388–403, November 2005.
- [1294] Carlos A. Coello Coello, Gregorio Toscano Pulido, and Efrén Mezura Montes. Current and future research trends in evolutionary multiobjective optimization. In Manuel Graña, Richard Duro, Alicia d'Anjou, and Paul P. Wang, editors, *Information Processing with Evolutionary Algorithms: From Industrial Applications to Academic Speculations*, pages 213–231. Springer-Verlag, 2005. ISBN 1-8523-3866-0.
- [1295] Carlos A. Coello Coello, Gregorio Toscano Pulido, and Maximino Salazar Lechuga. Handling Multiple Objectives With Particle Swarm Optimization. *IEEE Transactions on Evolutionary Computation*, 8(3):256–279, June 2004.
- [1296] Carlos A. Coello Coello, David A. Van Veldhuizen, and Gary B. Lamont. *Evolutionary Algorithms for Solving Multi-Objective Problems*. Kluwer Academic Publishers, New York, May 2002. ISBN 0-3064-6762-3.
- [1297] Carlos Artemio Coello Coello. *An Empirical Study of Evolutionary Techniques for Multiobjective Optimization in Engineering Design*. PhD thesis, Department of Computer Science, Tulane University, New Orleans, LA, April 1996.

- [1298] David A. Coley. Evolving Green Buildings. In Erick Cantú-Paz, editor, *2002 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 62–68, New York, July 2002.
- [1299] Y. Collette and P. Siarry. Three new metrics to measure the convergence of metaheuristics towards the Pareto frontier and the aesthetic of a set of solutions in biobjective optimization. *Computers & Operations Research*, 32(4):773–792, April 2005.
- [1300] Y. Collette, P. Siarry, and H.-I. Wong. Multidimensional Data Representation Aimed at the Interpretation of Results from Multiobjective Optimization. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [1301] Y. Collette, P. Siarry, and H.-I. Wong. A Systematic Comparison of Performance of Various Multiple Objective Metaheuristics Using a Common Set of Analytical Test Functions. *Foundations of Computing and Decision Sciences*, 25(4):249–271, 2000.
- [1302] Yann Collette and Patrick Siarry. *Multiobjective Optimization. Principles and Case Studies*. Springer, August 2003.
- [1303] J. Manuel Colmenar, José L. Risco-Martín, David Atienza, and J. Ignacio Hidalgo. Multi-Objective Optimization of Dynamic Memory Managers Using Grammatical Evolution. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1819–1826, Dublin, Ireland, July 12-16 2011. ACM Press.
- [1304] Glauber R. Colnago and Paulo B. Correia. Multiobjective dispatch of hydrogenerating units using a two-step genetic algorithm method. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2554–2560, Trondheim, Norway, May 2009. IEEE Press.
- [1305] Gualtiero Colombo and Stuart M. Allen. A Decomposed Approach for the Minimum Interference Frequency Assignment. In Ying ping Chen and Meng-Hiot Lim, editors, *Linkage in Evolutionary Computation*, pages 389–417. Springer-Verlag, Berlin Heidelberg, 2008.
- [1306] Gualtiero Colombo and Christine Mumford. Comparing Algorithms, Representations and Operators for the Multi-Objective Knapsack Problem. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1268–1275, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [1307] David G. Conradie, Leilani E. Morison, and Johan W. Joubert. Scheduling at Coal Handling Facilities Using Simulated Annealing. *Mathematical Methods of Operations Research*, 68(2):277–293, October 2008.
- [1308] M. Conti, S. Orcioni, and C. Turchetti. Parametric Yield Optimization of Mos VLSI Circuits Based on Simulated Annealing and its Parallel Implementation. *IEE Proceedings-Circuits Devices and Systems*, 141(5):387–394, October 1994.

- [1309] Robert Cook, Arturo Molina-Cristobal, Geoff Parks, Cuitlahuac Osornio Correa, and P. John Clarkson. Multi-objective Optimisation of a Hybrid Electric Vehicle: Drive Train and Driving Strategy. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 330–345, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1310] Yann Cooren, Maurice Clerc, and Patrick Siarry. MO-TRIBES, an adaptive multiobjective particle swarm optimization algorithm. *Computational Optimization and Applications*, 49(2):379–400, June 2011.
- [1311] Angel Corberán, Elena Fernández, Manuel Laguna, and Rafael Martí. Heuristic Solutions to the Problem of Routing School Buses with Multiple Objectives. *Journal of the Operational Research Society*, 53(4):427–435, 2002.
- [1312] O. Cordon, F. Herrera, M.J. del Jesus, and P. Villar. A Multiobjective Genetic Algorithm for Feature Selection and Granularity Learning in Fuzzy-Rule Based Classification Systems. In *Joint 9th IFSA World Congress and 20th NAFIPS International Conference*, volume 3, pages 1253–1258. IEEE, 2001.
- [1313] O. Cordon, E. Herrera-Viedma, and M. Luque. Improving the learning of Boolean queries by means of a multiobjective IQBE evolutionary algorithm. *Information Processing & Management*, 42(3):615–632, May 2006.
- [1314] Oscar Cordon, Enrique Herrera-Viedma, and María Luque. Evolutionary Learning of Boolean Queries by Multiobjective Genetic Programming. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villaca nas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 710–719, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [1315] Oscar Cordon, Arnaud Quirin, and Rocío Romero-Zaliz. Multiple Ant Colony System for Substructure Discovery. In Marco Dorigo, Mauro Birattari, Gianni A. Di Caro, René Doursat, Andries P. Engelbrecht, Dario Floreano, Luca Maria Gambardella, Roderich Groß, Erol Şahin, Hiroki Sayama, and Thomas Stützle, editors, *Swarm Intelligence. 7th International Conference, ANTS 2010*, pages 472–479. Springer, Lecture Notes in Computer Science Vol. 6234, Brussels, Belgium, September 8-10 2010.
- [1316] David Corne and Joshua Knowles. Some Multiobjective Optimizers are Better than Others. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2506–2512, Canberra, Australia, December 2003. IEEE Press.
- [1317] David Corne and Joshua Knowles. Techniques for Highly Multiobjective Optimisation: Some Nondominated Points are Better than Others. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference*

- (*GECCO'2007*), volume 1, pages 773–780, London, UK, July 2007. ACM Press.
- [1318] David W. Corne, Kalyanmoy Deb, Peter J. Fleming, and Joshua D. Knowles. The Good of the Many Outweighs the Good of the One: Evolutionary Multi-Objective Optimization. *Connections. The Newsletter of the IEEE Neural Networks Society*, 1(1):9–13, February 2003.
 - [1319] David W. Corne, Nick R. Jerram, Joshua D. Knowles, and Martin J. Oates. PESA-II: Region-based Selection in Evolutionary Multiobjective Optimization. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 283–290, San Francisco, California, 2001. Morgan Kaufmann Publishers.
 - [1320] David W. Corne and Joshua D. Knowles. No Free Lunch and Free Leftovers Theorems for Multiobjective Optimisation Problems. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 327–341, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
 - [1321] David W. Corne, Joshua D. Knowles, and Martin J. Oates. The Pareto Envelope-based Selection Algorithm for Multiobjective Optimization. In Marc Schoenauer, Kalyanmoy Deb, Günter Rudolph, Xin Yao, Evelyne Lutton, Juan Julian Merelo, and Hans-Paul Schwefel, editors, *Proceedings of the Parallel Problem Solving from Nature VI Conference*, pages 839–848, Paris, France, 2000. Springer. Lecture Notes in Computer Science No. 1917.
 - [1322] G. Corral, A. Garcia-Piquer, A. Orriols-Puig, A. Fornells, and E. Golobardes. Multiobjective Evolutionary Clustering Approach to Security Vulnerability Assessments. In Emilio Corchado, Xindong Wu, Erkki Oja, Álvaro Herrero, and Bruno Baruaque, editors, *Hybrid Artificial Intelligence Systems, 4th International Conference, HAIS 2009*, pages 597–604, Salamanca, Spain, June 10-12 2009. Springer. Lecture Notes in Artificial Intelligence Vol. 5572.
 - [1323] G. Corral, A. Garcia-Piquer, A. Orriols-Puig, A. Fornells, and E. Golobardes. Analysis of vulnerability assessment results based on CAOS. *Applied Soft Computing*, 11(7):4321–4331, October 2011.
 - [1324] Cristian E. Cortes, Doris Saez, Freddy Milla, Alfredo Nunez, and Marcela Riquelme. Hybrid predictive control for real-time optimization of public transport systems' operations based on evolutionary multi-objective optimization. *Transportation Research Part C-Emerging Technologies*, 18(5):757–769, October 2010.
 - [1325] F. Cosmi and B. Reggiani. The optimization of parts within complex assemblies. *Proceedings Of The Institution Of Mechanical Engineers Part C-Journal Of Mechanical Engineering Science*, 224(C4):969–979, 2010.

- [1326] L. Costa, L. Fernandes, I. Figueiredo, J. Judice, R. Leal, and P. Oliveira. Multiple- and single-objective approaches to laminate optimization with genetic algorithms. *Structural and Multidisciplinary Optimization*, 27(1-2):55–65, May 2004.
- [1327] Lino Costa and Pedro Oliveira. An Elitist Genetic Algorithm for Multiobjective Optimization. In Jorge Pinho de Sousa, editor, *Proceedings of the 4th Metaheuristics International Conference—MIC 2001*, pages 205–209, Porto, Portugal, July 16–20 2001. Program Operational Ciencia, Tecnologia, Inovação do Quadro Comunitário de Apoio III de Fundação para a Ciencia e Tecnologia.
- [1328] Lino Costa and Pedro Oliveira. Evolutionary Algorithms Approach to the Solution of Mixed Integer Non-Linear Programming Problems. *Computers and Chemical Engineering*, 25:257–266, 2001.
- [1329] Lino Costa and Pedro Oliveira. An Evolution Strategy for Multiobjective Optimization. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 97–102, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [1330] Lino Costa and Pedro Oliveira. An Adaptive Sharing Elitist Evolution Strategy for Multiobjective Optimization. *Evolutionary Computation*, 11(4):417–438, Winter 2003.
- [1331] Lino Costa and Pedro Oliveira. Multiobjective Optimization: Redundant and Informative Objectives. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2008–2015, Trondheim, Norway, May 2009. IEEE Press.
- [1332] Lino Costa and Pedro Oliveira. Biplots in offline multiobjective reduction. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1347–1354, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1333] Lino A. Costa, Pedro Oliveira, Isabel N. Figueiredo, and Rogério P. Leal. Compliance Minimization of a Composite Laminated Plate by Genetic Algorithms. In *Proceedings of the European Conference on Computational Mechanics—ECCM'99*, pages 740–741, Munich, Germany, 1999.
- [1334] Lino A. Costa, Pedro Oliveira, Isabel N. Figueiredo, Luís F. Roseiro, and Rogério P. Leal. Structural Optimization of Laminated Plates with Genetic Algorithms. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 621–627, San Francisco, California, 2000. Morgan Kaufmann.
- [1335] Mario Costa and Edmondo Minisci. MOPED: A Multi-objective Parzen-Based Estimation of Distribution Algorithm for Continuous Problems. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 282–294, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.

- [1336] Mario Costa, Edmondo Minisci, and Eros Pasero. An Hybrid Neural/Genetic Approach to Continuous Multi-objective Optimization Problems. In Bruno Apolloni, Maria Marinaro, and Roberto Tagliaferri, editors, *Neural Nets, 14th Italian Workshop on Neural Nets, WIRN VIETRI 2003*, pages 61–69. Springer, Lecture Notes in Computer Science, Vol. 2859, Vietri sul Mare, Italy, June 4-7 2003.
- [1337] Dan Costelloe, Peter Mooney, and Adam Winstanley. Multi-Objective Optimisation and Dynamic Routing Algorithms in Transportation Networks. In *First International Conference on Geographic Information Science*, Savannah, Georgia, October 2000.
- [1338] Dan Costelloe, Peter Mooney, and Adam Winstanley. Multi-Objective Optimisation on Transportation Networks. In *Proceedings of the 4th AGILE Conference*, Brno, Czech Republic, April 2001.
- [1339] Pascal Cote, Lael Parrott, and Robert Sabourin. Multi-objective optimization of an ecological assembly model. *Ecological Informatics*, 2(1):23–31, January 1 2007.
- [1340] Pascal Coté, Tony Wong, and Robert Sabourin. A Hybrid Multi-objective Evolutionary Algorithm for the Uncapacitated Exam Proximity Problem. In Edmund Burke and Michael Trick, editors, *Practice and Theory of Automated Timetabling V. PATAT 2004*, pages 294–312. Springer. Lecture Notes in Computer Science. Vol. 3616, Berlin, Germany, 2005.
- [1341] S.J. Cottrell, V.J. Gillet, R. Taylor, and D.J. Wilton. Generation of multiple pharmacophore hypotheses using multiobjective optimisation techniques. *Journal of Computer-Aided Molecular Design*, 18(11):665–682, November 2004.
- [1342] David Coulot, Arnaud Pollet, Xavier Collilieux, and Philippe Berio. Global optimization of core station networks for space geodesy: application to the referencing of the SLR EOP with respect to ITRF. *Journal of Geodesy*, 84(1):31–50, January 2010.
- [1343] J. A. Covas and A. Gaspar-Cunha. Extrusion Scale-up: An Optimization-based Methodology. *International Polymer Processing*, 24(1):67–82, March 2009.
- [1344] J.A. Covas, A.G. Cunha, and P. Oliveira. An Optimization Approach to Practical Problems in Plasticating Single Screw Extrusion. *Polymer Engineering and Science*, 39(3):443–456, March 1999.
- [1345] José Covas, A. Gaspar Cunha, and Pedro Oliveira. Optimisation of single screw extrusion. Theoretical and experimental results. *International Journal of Forming Processes*, 1(3):323–343, September 1998.
- [1346] José António Covas and António Gaspar-Cunha. Polymer Extrusion—Setting the Operating Conditions and Defining the Screw Geometry. In António

- Gaspar-Cunha and José António Covas, editors, *Optimization in Polymer Processing*, chapter 5, pages 87–113. Nova Science Publishers, New York, USA, 2011. ISBN 978-1-61122-818-2.
- [1347] V. Coverstone-Caroll, J.W. Hartmann, and W.M. Mason. Optimal Multi-Objective Low-Thrust Spacecraft Trajectories. *Computer Methods in Applied Mechanics and Engineering*, 186:387–402, 2000.
 - [1348] Peter Cowling, Nic Colledge, Keshav Dahal, and Stephen Remde. The Trade Off Between Diversity and Quality for Multi-objective Workforce Scheduling. In Jens Gottlieb and Günther R. Raidl, editors, *Evolutionary Computation in Combinatorial Optimization, 6th European Conference, EvoCOP 2006*, pages 13–24, Budapest, Hungary, April 2006. Springer. Lecture Notes in Computer Science Vol. 3906.
 - [1349] Bogdan Cranganu-Cretu, Michael Jaindl, Alice Koestinger, Christian Magele, and Werner Renhart Jasmin Smajic. Multi-objective optimization of shielding devices for eddy-currents using niching evolution strategies. *International Journal of Applied Electromagnetics and Mechanics*, 30(3-4):135–149, 2009.
 - [1350] Enrico Creaco, Marco Franchini, and Stefano Alvisi. Optimal Placement of isolation Valves in Water Distribution Systems Based on Valve Cost and Weighted Average Demand Shortfall. *Water Resources Management*, 24(15):4317–4338, December 2010.
 - [1351] Jean-Charles Créput and Abderrafiaa Koukam. Local search study of honeycomb clustering problem for cellular planning. *International Journal of Mobile Network Design and Innovation*, 1(2):153–160, 2006.
 - [1352] Jorge Crichigno and Benjamín Barán. Multiobjective Multicast Routing Algorithm. In José Neuman de Souza, Petre Dini, and Pascal Lorenz, editors, *Telecommunications and Networking. 11th International Conference on Telecommunications (ICT'2004)*, pages 1029–1034. Springer, Lecture Notes in Computer Science, Vol. 3124, Fortaleza, Brazil, August 1-6 2004. ISBN 978-3-540-22571-3.
 - [1353] Jose Antonio Crispim and Jorge Pinho de Sousa. Partner selection in virtual enterprises: a multi-criteria decision support approach. *International Journal of Production Research*, 47(17):4791–4812, 2009.
 - [1354] N. Croisard and M. Vasile. System Engineering Design Optimisation Under Uncertainty for Preliminary Space Mission. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 324–331, Trondheim, Norway, May 2009. IEEE Press.
 - [1355] Nicolas Croisard, Massimiliano Vasile, Stephen Kemble, and Gianmarco Radice. Preliminary space mission designer under uncertainty. *Acta Astronautica*, 66(5-6):654–664, March-April 2010.

- [1356] WA Crossley, AM Cook, DW Fanjoy, and VB Venkayya. Using the two-branch tournament genetic algorithm for multiobjective design. *AIAA Journal*, 37(2):261–267, February 1999.
- [1357] William A. Crossley. Genetic Algorithm Approaches for Multiobjective Design of Rotor Systems. In *Proceedings of the 6th AIAA/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization*, pages 384–394, Bellevue, Washington, September 1996. AIAA Paper 96-4025.
- [1358] William A. Crossley. Genetic Algorithm with the Kreisselmeier-Steinhauser Function for Multiobjective Constrained Optimization of Rotor Systems. In *AIAA 35th Aerospace Sciences Meeting and Exhibit*, Reno, Nevada, January 1997. AIAA Paper 97-0080.
- [1359] William A. Crossley, A. M. Cook, D. W. Fanjoy, and V. B. Venkayya. Using the Two-Branch Tournament Genetic Algorithm for Multiobjective Design. In *AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Long Beach, California, April 1998. AIAA Paper 98-1914.
- [1360] Carlos Cruz, Juan R. Gonzalez, and David A. Pelta. Optimization in dynamic environments: a survey on problems, methods and measures. *Soft Computing*, 15(7):1427–1448, July 2011.
- [1361] F. R. B. Cruz, T. Van Woensel, and J. MacGregor Smith. Buffer and throughput trade-offs in M/G/1/K queueing networks: A bi-criteria approach. *International Journal Of Production Economics*, 125(2):224–234, June 2010.
- [1362] Nareli Cruz Cortés and Carlos A. Coello Coello. Multiobjective Optimization Using Ideas from the Clonal Selection Principle. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 158–170. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [1363] Nareli Cruz Cortés and Carlos A. Coello Coello. Using Artificial Immune Systems to Solve Optimization Problems. In Alwyn Barry, editor, *2003 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 312–315, Chicago, Illinois, USA, July 2003. AAAI.
- [1364] M. P. Cuellar, S. Capel Cuevas, M. C. Pegalajar, I. de Orbe Paya, and L.F. Capitan Vallvey. Minimization of sensing elements for full-range optical pH device formulation. *New Journal of Chemistry*, 35(5):1042–1053, 2011.
- [1365] M. P. Cuéllar, M. Delgado, and M. C. Pegalajar. Topology optimization and training of recurrent neural networks with pareto-based multi-objective algorithms: A experimental study. In Francisco Sandoval Hernández, Alberto Prieto, Joan Cabestany, and Manuel Graña, editors, *Computational and Ambient Intelligence, 9th International Work-Conference on Artificial Neural Networks (IWANN 2007)*, pages 359–366. Springer. Lecture Notes in Computer Science, Vol. 4507, Heidelberg, Germany, 2007.

- [1366] Hao Cui and Osman Turan. Application of a new multi-agent Hybrid Co-evolution based Particle Swarm Optimisation methodology in ship design. *Computer-Aided Design*, 42(11):1013–1027, November 2010.
- [1367] S.M. Cui, A. Mohan, and D.S. Weile. Pareto optimal design of absorbers using a parallel elitist nondominate sorting genetic algorithm and the finite element-boundary integral method. *IEEE Transactions on Antennas and Propagation*, 53(6):2099–2107, June 2005.
- [1368] Xunxue Cui, Miao Li, and Tingjian Fang. Study of Population Diversity of Multiobjective Evolutionary Algorithm Based on Immune and Entropy Principles. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 1316–1321, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [1369] Xunxue Cui, Qin Li, and Qing Tao. Genetic algorithm for Pareto optimum-based route selection. *Journal of Systems Engineering and Electronics*, 18(2):360–368, June 2007.
- [1370] A. Gaspar Cunha, Pedro Oliveira, and José A. Covas. Use of Genetic Algorithms in Multicriteria Optimization to Solve Industrial Problems. In Thomas Bäck, editor, *Proceedings of the Seventh International Conference on Genetic Algorithms*, pages 682–688, San Mateo, California, July 1997. Michigan State University, Morgan Kaufmann Publishers.
- [1371] A. Gaspar Cunha, Pedro Oliveira, and José A. Covas. Genetic Algorithms in Multiobjective Optimization Problems: An Application to Polymer Extrusion. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 129–130, Orlando, Florida, July 1999.
- [1372] A.G. Cunha, J.A. Covas, and P. Oliveira. Optimization of polymer extrusion with genetic algorithms. *IMA Journal of Mathematics Applied in Business and Industry*, 9:267–277, 1998.
- [1373] Mehmet Cunkas and Tahir Sag. Efficiency determination of induction motors using multi-objective evolutionary algorithms. *Advances in Engineering Software*, 41(2):255–261, February 2010.
- [1374] Mehmet Cunkas and Abdullah Urkmez. Design Optimization of Submersible Induction Motors by Multiobjective Fuzzy Genetic Algorithm. *Journal of The Faculty of Engineering and Architecture of Gazi University*, 23(3):645–653, September 2008.
- [1375] Francesco Cupertino, Ernesto Mininno, David Naso, Biagio Turchiano, and Luigi Salvatore. On-Line Genetic Design of Anti-Windup Unstructured Controllers for Electric Drives With Variable Load. *IEEE Transactions on Evolutionary Computation*, 8(4):347–364, August 2004.

- [1376] Silvia Curteanu and Maria Cazacu. Neural networks and genetic algorithms used for modeling and optimization of the siloxane-siloxane copolymers synthesis. *Journal Of Macromolecular Science Part A-Pure And Applied Chemistry*, 45(1):23–36, 2008.
- [1377] Silvia Curteanu and Maria Cazacu. Optimization of a Polysiloxane Synthesis Process Using Artificial Intelligence Methods. *Revue Roumaine de Chimie*, 53(12):1141–1148, December 2008.
- [1378] V. Cutello, G. Narzisi, and G. Nicosia. A multi-objective evolutionary approach to the protein structure prediction problem. *Journal of the Royal Society Interface*, 3(6):139–151, February 22 2006.
- [1379] Vincenzo Cutello, Giuseppe Narzisi, and Giuseppe Nicosia. A Class of Pareto Archived Evolution Strategy Algorithms Using Immune Inspired Operators for Ab-Initio Protein Structure Prediction. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. Evoworkshops 2005: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 54–63. Springer. Lecture Notes in Computer Science Vol. 3449, Lausanne, Switzerland, March/April 2005.
- [1380] Vincenzo Cutello, Giuseppe Narzisi, and Giuseppe Nicosia. Computational Studies of Protein Structure Prediction Problems via Multiobjective Evolutionary Algorithms. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 93–114. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [1381] Dragan Cvetković. *Evolutionary Multi-Objective Decision Support Systems for Conceptual Design*. PhD thesis, School of Computing, University of Plymouth, Plymouth, UK, November 2000.
- [1382] Dragan Cvetković and Carlos A. Coello Coello. Human Preferences and Their Applications in Evolutionary Multi-Objective Optimization. In Yaochu Jin, editor, *Knowledge Incorporation in Evolutionary Computation*, pages 479–502. Springer, Berlin Heidelberg, 2005. ISBN 3-540-22902-7.
- [1383] Dragan Cvetković, Ian Parmee, and Eric Webb. Multi-objective Optimisation and Preliminary Airframe Design. In Ian Parmee, editor, *The Integration of Evolutionary and Adaptive Computing Technologies with Product/System Design and Realisation*, pages 255–267, Plymouth, United Kingdom, April 1998. Plymouth Engineering Design Centre, Springer-Verlag.
- [1384] Dragan Cvetković and Ian C. Parmee. Evolutionary design and multi-objective optimisation. In *6th European Congress on Intelligent Techniques and Soft Computing EUFIT'98*, pages 397–401, Aachen, Germany, September 1998.
- [1385] Dragan Cvetković and Ian C. Parmee. Genetic Algorithm-based Multi-objective Optimisation and Conceptual Engineering Design. In *Congress on Evolutionary Computation – CEC99*, volume 1, pages 29–36, Washington D.C., USA, 1999. IEEE.

- [1386] Dragan Cvetković and Ian C. Parmee. Genetic Algorithms Based Systems for Conceptual Engineering Design. In U. Lindemann, H. Birkhofer, H. Meerkamm, and S. Vajna, editors, *Proceedings of the 12th International Conference on Engineering Design ICED'99*, volume 2, pages 1035–1038, München, Germany, August 1999. TU München.
- [1387] Dragan Cvetković and Ian C. Parmee. Use of Preferences for GA-based Multi-objective Optimisation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *GECCO-99: Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1504–1509, Orlando, Florida, USA, 1999. Morgan Kaufmann Publishers.
- [1388] Dragan Cvetković and Ian C. Parmee. Designer's preferences and multi-objective preliminary design processes. In Ian C. Parmee, editor, *Proceedings of the Fourth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2000)*, pages 249–260. PEDC, University of Plymouth, UK, Springer London, 2000.
- [1389] Dragan Cvetković and Ian C. Parmee. Agent-based Support within an Interactive Evolutionary Design System. *Artificial Intelligence for Engineering Design, Analysis and Manufacturing (AIEDAM)*, 16(5):331–342, November 2002.
- [1390] Dragan Cvetković and Ian C. Parmee. Agent-based Support within an Interactive Evolutionary Design System. In I.C. Parmee, editor, *Proceedings of the Fifth International Conference on Adaptive Computing Design and Manufacture (ACDM 2002)*, volume 5, pages 355–367, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
- [1391] Dragan Cvetković and Ian C. Parmee. Preferences and their Application in Evolutionary Multiobjective Optimisation. *IEEE Transactions on Evolutionary Computation*, 6(1):42–57, February 2002.
- [1392] P. Czyzak and A. Jaskiewicz. A multiobjective metaheuristic approach to the localization of a chain of petrol stations by the capital budgeting model. *Control and Cybernetics*, 25(1):177–187, 1996.
- [1393] P. Czyzak and A. Jaskiewicz. The Multiobjective Metaheuristic Approach for Optimization of Complex Manufacturing Systems. In G. Fandel and T. Gal, editors, *Multiple Criteria Decision Making. Proceedings of the XIIth International Conference*, pages 591–592, Hagen, Germany, 1997. Springer-Verlag.
- [1394] P. Czyzak and A. Jaskiewicz. Pareto Simulated Annealing. In G. Fandel and T. Gal, editors, *Multiple Criteria Decision Making. Proceedings of the XIIth International Conference*, pages 297–307, Hagen, Germany, 1997. Springer-Verlag.

- [1395] P. Czyzak and A. Jaskiewicz. Pareto simulated annealing—a metaheuristic technique for multiple-objective combinatorial optimization. *Journal of Multi-Criteria Decision Analysis*, 7:34–47, 1998.
- [1396] Kuang Da and Zheng Jinhua. Strategies Based on Polar Coordinates to Keep Diversity in Multi-Objective Genetic Algorithm. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1276–1281, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [1397] Lino António Antunes Fernandes da Costa. *Algoritmos Evolucionários em Optimização Uni e Multi-objectivo*. PhD thesis, Universidade do Minho, Portugal, March 2003. (In Portuguese).
- [1398] André R. da Cruz, Rodrigo T. N. Cardoso, Elizabeth F. Wanner, and Ricardo H. C. Takahashi. A Multiobjective Non-Linear Dynamic Programming Approach for Optimal Biological Control in Soy Farming via NSGA-II. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3093–3099, Singapore, September 2007. IEEE Press.
- [1399] André R. da Cruz, Rodrigo T.N. Cardoso, and Ricardo H.C. Takahashi. Multiobjective Dynamic Optimization of Vaccination Campaigns Using Convex Quadratic Approximation Local Search. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 404–417, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [1400] João V. da Fonseca Neto and Celso P. Bottura. Parallel Genetic Algorithm Fitness Function Team for Eigenstructure Assignment via LQR. In *1999 Congress on Evolutionary Computation*, volume 21, pages 1035–1042, Washington, D.C., July 1999. IEEE Service Center.
- [1401] Carlos Gomes da Silva, Joao Climaco, and Adiel Almeida Filho. The small world of efficient solutions: empirical evidence from the bi-objective $\{0,1\}$ -knapsack problem. *4OR-A Quarterly Journal of Operations Research*, 8(2):195–211, June 2010.
- [1402] Maira Martins da Silva, Olivier Bruels, Wim Desmet, and Hendrik Van Brussel. Integrated structure and control design for mechatronic systems with configuration-dependent dynamics. *Mechatronics*, 19(6):1016–1025, September 2009.
- [1403] Maira Martins da Silva, Olivier Bruels, Wim Desmet, and Hendrik Van Brussel. Integrated structure and control design for mechatronic systems with configuration-dependent dynamics. *Mechatronics*, 19(6):1016–1025, September 2009.

- [1404] Marisa da Silva Maximiano, Miguel A. Vega-Rodríguez, Juan A. Gómez-Pulido, and Juan M. Sánchez-Pérez. Parameter Analysis for Differential Evolution with Pareto Tournaments in a Multiobjective Frequency Assignment Problem. In Emilio Corchado and Hujun Yin, editors, *Intelligent Data Engineering and Automated Learning - IDEAL 2009, 10th International Conference*, pages 799–806, Burgos, Spain, September 23–26 2009. Springer. Lecture Notes in Computer Science Vol. 5788.
- [1405] F. Daeyaert, M. de Jonge, J. Heeres, J. Heeres, L. Koymans, P. Lewi, W. van den Broeck, and M. Vinkers. Pareto optimal flexible alignment of molecules using a non-dominated sorting genetic algorithm. *Chemometrics and Intelligent Laboratory Systems*, 77(1-2):232–237, May 28 2005.
- [1406] C. H. Dagli, Sittisathanchai, and S. Sittisathanchai. Genetic Neuro-Scheduler for Job-Shop Scheduling. *Computers & Industrial Engineering*, 25(1 - 4):267–270, September 1993.
- [1407] C. H. Dagli and S. Sittisathanchai. Genetic neuro-scheduler: A new approach for job shop scheduling. *International Journal Of Production Economics*, 41(1-3):135–145, October 1995.
- [1408] Chaohua Dai, Weirong Chen, Yunfang Zhu, and Xuexia Zhang. Reactive power dispatch considering voltage stability with seeker optimization algorithm. *Electric Power Systems Research*, 79(10):1462–1471, October 2009.
- [1409] Guangming Dai, Yanzhi Li, and Wei Zheng. Research on an Orthogonal and Model Based Multi-objective Genetic Algorithm. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 815–818, Shanghai, China, June 12–14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [1410] N. V. Dakev, A. J. Chipperfield, J. F. Whidborne, and P. J. Fleming. An evolutionary algorithm approach for solving optimal control problems. In *Proceedings of the 13th International Federation of Automatic Control (IFAC) World Congress*, San Francisco, California, 1996.
- [1411] N. V. Dakev, J. F. Whidborne, and A. J. Chipperfield. H_∞ design of an EMS control system for a maglev vehicle using evolutionary algorithms. In *Proceedings of the First IEE/IEEE International Conference on Genetic Algorithms in Engineering Systems : Innovations and Applications, GALESIA'95*, pages 226–231, Sheffield, U.K., 1995.
- [1412] N. V. Dakev, J. F. Whidborne, A. J. Chipperfield, and P. J. Fleming. Evolutionary H-infinity design of an electromagnetic suspension control system for a maglev vehicle. *Proceedings of the Institution of Mechanical Engineers Part I—Journal of Systems and Control Engineering*, 211(5):345–355, 1997.
- [1413] N.V. Dakev, A.J. Chipperfield, and P.J. Fleming. A General Approach for Solving Optimal Control Problems using Optimization Techniques. In *IEEE International Conference on Systems, Man, and Cybernetics*, volume 5, pages 4503–4508. IEEE, 1995.

- [1414] G. Dal Moro and M. Pipan. Joint inversion of surface wave dispersion curves and reflection travel times via multi-objective evolutionary algorithms. *Journal of Applied Geophysics*, 61(1):56–81, January 2007.
- [1415] Giancarlo Dal Moro. V-S and V-P vertical profiling via joint inversion of Rayleigh waves and refraction travel times by means of bi-objective evolutionary algorithm. *Journal of Applied Geophysics*, 66(1-2):15–24, October 15 2008.
- [1416] Giancarlo Dal Moro. Insights on surface wave dispersion and HVSR: Joint analysis via Pareto optimality. *Journal of Applied Geophysics*, 72(2):129–140, October 2010.
- [1417] Doraid M. Dalalah. Piecewise parametric polynomial fuzzy sets. *International Journal of Approximate Reasoning*, 50(7):1081–1096, July 2009.
- [1418] BM Dale, JS Lewin, and JL Duerk. Optimal design of k-space trajectories using a multi-objective genetic algorithm. *Magnetic Resonance in Medicine*, 52(4):831–841, October 2004.
- [1419] Brian Marshall Dale. *Optimal Design of MR Image Acquisition Techniques*. PhD thesis, Department of Biomedical Engineering, Case Western Reserve University, USA, May 2004.
- [1420] Céline Dandois, Federico Divina, and Wim Vanhoof. A Multi-Objective Evolutionary Concept Learner. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 411–418, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1421] Moayed Daneshyari and Gary G. Yen. Cultural MOPSO: A Cultural Framework to Adapt Parameters of Multiobjective Particle Swarm Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1325–1332, Hong Kong, June 2008. IEEE Service Center.
- [1422] Moayed Daneshyari and Gary G. Yen. Cultural-Based Multiobjective Particle Swarm Optimization. *IEEE Transactions on Systems, Man, and Cybernetics Part B–Cybernetics*, 41(2):553–567, April 2011.
- [1423] S. D’Angelo, M. Fantetti, and E. Minisci. Hang-Glider Wing Design by Genetic Optimization. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 47–58. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [1424] Salvatore D’Angelo and Edmondo Minisci. Multi-Objective Evolutionary Optimization of Subsonic Airfoils by Kriging Approximation and Evolution Control. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1262–1267, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [1425] Salvatore D'Angelo, Edmondo Minisci, and Marco Dutto. Evolutionary Optimization of a Robust Controller for Flight Maneuvers. In Bogdan Filipič and Jurij Šilc, editors, *Bioinspired Optimization Methods and Their Applications. Proceedings of the International Conference on Bioinspired Optimization Methods and their Applications, BIOMA 2004*, pages 137–146. Jožef Stefan Institute, Ljubljana, Slovenia, October 2004.
- [1426] P. J. Darwen and X. Yao. A Dilemma for Fitness Sharing with a Scaling Function. In *Proceedings of the Second IEEE International Conference on Evolutionary Computation*, Piscataway, New Jersey, 1995. IEEE Press.
- [1427] D.B. Das and C. Patvardhan. New multi-objective stochastic search technique for economic load dispatch. *IEE Proceedings on Generation, Transmission and Distribution*, 145(6):747–752, November 1998.
- [1428] Madhabananda Das and Satchidanandra Dehuri. Some Studies on Particle Swarm Optimization for Single and Multi-Objective Problems. In Satchidananda Dehuri, Susmita Ghosh, and Sung Bae Cho, editors, *Integration of Swarm Intelligence and Artificial Neural Network*, chapter 10, pages 239–304. World Scientific, Singapore, 2011. ISBN 978-981-4280-14-3.
- [1429] Ranajit Das, Sushmita Mitra, Haider Banka, and Subhasis Mukhopadhyay. Evolutionary Biclustering with Correlation for Gene Interaction Networks. In Ashish Ghosh, Rajat K. De, and Sankar K. Pal, editors, *Pattern Recognition and Machine Intelligence. Second International Conference (PReMI'2007)*, pages 416–424. Springer, Lecture Notes in Computer Science, Vol. 4815, Kolkata, India, December 18–22 2007. ISBN 978-3-540-77045-9.
- [1430] Sanjoy Das, Balasubramaniam Natarajan, Daniel Stevens, and Praveen Koduru. Multi-objective and constrained optimization for ds-cdma code design based on the clonal selection principle. *Applied Soft Computing*, 8(1):788–797, January 2008.
- [1431] Swagatam Das, Ajith Abraham, and Amit Konar. *Metaheuristic Clustering*. Springer, Berlin, 2009. ISBN 978-3-540-92172-1.
- [1432] Swagatam Das and Ponnuthurai Nagaratnam Suganthan. Differential Evolution: A Survey of the State-of-the-Art. *IEEE Transactions on Evolutionary Computation*, 15(1):27–54, February 2011.
- [1433] Dipankar Dasgupta, David Bécerra, Alex Banceanu, Fernando Nino, and James Simien. A Parallel Framework for Multi-objective Evolutionary Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 585–592, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1434] Dipankar Dasgupta, Deon Garrett, Fernando Nino, Alex Banceanu, and David Bécerra. A Genetic-Based Solution to the Task-Based Sailor Assignment Problem. In Raymond Chiong, Thomas Weise, and Zbigniew Michalewicz, editors, *Variants of Evolutionary Algorithms for Real-World Applications*, pages 167–203, Berlin, 2012.

- [1435] Dipankar Dasgupta and Fabio A. González. Evolving Complex Fuzzy Classifier Rules Using a Linear Tree Genetic Representation. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 299–305, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [1436] Dipankar Dasgupta, German Hernandez, Andres Romero, Deon Garrett, Aishwarya Kaushal, and James Simien. On The Use of Informed Initialization and Extreme Solutions Sub-population in Multiobjective Evolutionary Algorithms. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 58–65, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [1437] Dipankar Dasgupta, Fernando Ni no, Deon Garrett, Koyel Chaudhuri, Soujanya Medapati, Aishwarya Kaushal, and James Simien. A multiobjective evolutionary algorithm for the task based sailor assignment problem. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1475–1482, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [1438] Dilip Datta. *Multi-Objective Evolutionary Algorithms for Resource Allocation Problems*. PhD thesis, Department of Mechanical Engineering, Indian Institute of Technology Kanpur, India, July 2006.
- [1439] Dilip Datta and Akan Kumar Das. Tuning Process Parameters of Electrochemical Machining Using a Multi-Objective Genetic Algorithm: A Preliminary Study. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 485–493, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [1440] Dilip Datta and Kalyanmoy Deb. Design of optimum cross-sections for load-carrying members using multi-objective evolutionary algorithms. In *Proceedings of the International Conference on Systemics, Cybernetics and Informatics (ICSCI)*, pages 571–577, Hyderabad, India, 2005.
- [1441] Dilip Datta and Kalyanmoy Deb. Design of optimum cross-sections for load carrying members using multi-objective evolutionary algorithms. *Journal of Systemics, Cybernetics and Informatics*, 1:57–63, January 2006.
- [1442] Dilip Datta, Kalyanmoy Deb, and Carlos M. Fonseca. Multi-Objective Evolutionary Algorithm for University Class Timetabling Problem. In Keshav P. Dahal, Kay Chen Tan, and Peter I Cowling, editors, *Evolutionary Scheduling, Studies in Computational Intelligence (SCI)*, pages 197–236. Springer, Berlin, 2007. ISBN 3-540-48582-1.

- [1443] Dilip Datta, Kalyanmoy Deb, and Carlos M. Fonseca. Multi-objective Evolutionary Algorithms for Resource Allocation Problems. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 401–416, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1444] Dilip Datta, Kalyanmoy Deb, Carlos M. Fonseca, Fernando G. Lobo, Paulo A. Condado, and Júlia Seixas. Multi-Objective Evolutionary Algorithm for Land-Use Management Problem. *International Journal of Computational Intelligence Research*, 3(4):371–384, 2007.
- [1445] Dilip Datta and Jose Rui Figueira. Graph partitioning by multi-objective real-valued metaheuristics: A comparative study. *Applied Soft Computing*, 11(5):3976–3987, July 2011.
- [1446] Dilip Datta and Jose Rui Figueira. Some convergence-based M-ary cardinal metrics for comparing performances of multi-objective optimizers. *Computers & Operations Research*, 39(7):1754–1762, July 2012.
- [1447] Dilip Datta, José Rui Figueira, Carlos M. Fonseca, and Fernando Tavares-Pereira. Graph Partitioning Through a Multi-Objective Evolutionary Algorithm: A Preliminary Study. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 625–632, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [1448] Dilip Datta, Carlos M. Fonseca, and Kalyanmoy Deb. A Multi-Objective Evolutionary Algorithm to Exploit the Similarities of Resource Allocation Problems. *Journal of Scheduling*, 11(6):405–419, December 2008.
- [1449] Rituparna Datta. Constrained Engineering Design Optimization Using a Hybrid Bi-Objective Evolutionary-Classical Methodology. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 633–637, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [1450] Rituparna Datta and Kalyanmoy Deb. A Bi-objective Based Hybrid Evolutionary-Classical Algorithm for Handling Equality Constraints. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 313–327, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [1451] Rituparna Datta and Kalyanmoy Deb. Multi-Objective Design and Analysis of Robot Gripper Configurations Using an Evolutionary-Classical Approach.

- In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1843–1850, Dublin, Ireland, July 12–16 2011. ACM Press.
- [1452] Rituparna Datta and Anima Majumder. Optimization of turning process parameters using Multi-objective Evolutionary algorithm. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3629–3634, Barcelona, Spain, July 18–23 2010. IEEE Press.
 - [1453] Shubhabrata Datta, Frank Pettersson, Subhas Ganguly, Henrik Saxén, and Niruopam Chakraborti. Designing high strength multi-phase steel for improved strength-ductility balance using neural networks and multi-objective genetic algorithms. *ISIJ International*, 47(8):1195–1203, 2007.
 - [1454] Shubhabrata Datta, Frank Pettersson, Subhas Ganguly, Henrik Saxen, and Nirupam Chakraborti. Identification of factors governing mechanical properties of TRIP-aided steel using genetic algorithms and neural networks. *Materials and Manufacturing Processes*, 23(2):131–138, 2008.
 - [1455] David Daum and Nicolas Morel. Assessing the saving potential of blind controller via multi-objective optimization. *Building Simulation*, 2(3):175–185, September 2009.
 - [1456] David Daum and Nicolas Morel. Identifying important state variables for a blind controller. *Building and Environment*, 45(4):887–900, April 2010.
 - [1457] Mohsen Davarynejad, Jafar Rezaei, Jos Vrancken, Jan van den Berg, and Carlos A. Coello Coello. Accelerating Convergence Towards the Optimal Pareto Front. In *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pages 2107–2114, New Orleans, Louisiana, USA, 5–8 June 2011. IEEE Service Center.
 - [1458] Madeleine Davis-Moradkhan and Will Browne. Evolutionary Algorithms for the Multi Criterion Minimum Spanning Tree Problem. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 423–452. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
 - [1459] Madeleine Davis-Moradkhan, Will N. Browne, and Peter Grindrod. Extending evolutionary algorithms to discover tri-criterion and non-supported solutions for the minimum spanning tree problem. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1829–1830, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
 - [1460] Hamid Davoudpour and Maryam Ashrafi. Solving multi-objective SDST flexible flow shop using GRASP algorithm. *International Journal of Advanced Manufacturing Technology*, 44(7-8):737–747, October 2009.
 - [1461] Peter Dawson, Geoff Parks, Daniel Jaeggi, Arturo Molina-Cristobal, and P. John Clarkson. The Development of a Multi-threaded Multi-objective Tabu

- Search Algorithm. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 242–256, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1462] R. O. Day, J. B. Zydallis, and G. B. Lamont. Solving the Protein structure Prediction Problem through a Multi-Objective Genetic Algorithm. In *Proceedings of IEEE/DARPA International Conference on Computational Nanoscience (ICCN'02)*, pages 32–35, 2002.
 - [1463] Richard O. Day. *Explicit Building Block Multiobjective Evolutionary Computation: Methods and Application*. PhD thesis, Air Force Institute of Technology, AFIT/ENG, BLDG 642, 2950 HOBSON WAY, WPAFB (Dayton) OH 45433-7765, USA, June 2005.
 - [1464] Richard O. Day, Mark P. Kleeman, and Gary B. Lamont. Solving the Multi-objective Quadratic Assignment Problem using a fast messy Genetic Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2277–2283, Canberra, Australia, December 2003. IEEE Press.
 - [1465] Richard O. Day, Mark P. Kleeman, and Gary B. Lamont. Multi-Objective fast messy Genetic Algorithm Solving Deception Problems. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1502–1509, Portland, Oregon, USA, June 2004. IEEE Service Center.
 - [1466] Richard O. Day and Gary B. Lamont. An Effective Explicit Building Block MOEA, the MOMGA-IIa. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 17–24, Edinburgh, Scotland, September 2005. IEEE Service Center.
 - [1467] Richard O. Day and Gary B. Lamont. Extended Multi-objective fast messy Genetic Algorithm Solving Deception Problems. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 296–310, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
 - [1468] Richard O. Day and Gary B. Lamont. MOEA Design of Robust Digital Symbol Sets. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 2213–2214, New York, USA, June 2005. ACM Press.
 - [1469] Richard O. Day and Gary B. Lamont. Multiobjective Quadratic Assignment Problem Solved by an Explicit Building Block Search Algorithm - MOMGA-IIa. In Günther R. Raidl and Jens Gottlieb, editors, *Evolutionary Computation in Combinatorial Optimization. 5th European Conference, EvoCOP 2005*,

pages 91–100, Lausanne, Switzerland, March/April 2005. Springer, Lecture Notes in Computer Science Vol. 3448.

- [1470] Liu Dayou, Yan Pu, and Yu Ji. Development of a multiobjective GA for Advanced planning and scheduling problem. *International Journal of Advanced Manufacturing Technology*, 42(9-10):974–992, June 2009.
- [1471] Marsil de A. Costa e Silva, Leandro dos S. Coelho, and Luiz Lebensztajn. Multiobjective Biogeography-Based Optimization Based on Predator-Prey Approach. *IEEE Transactions on Magnetics*, 48(2):951–954, February 2012.
- [1472] Augusto de Almeida Prado G. Torácio. Multiobjective Particle Swarm Optimization in Classification-Rule Learning. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 3, pages 37–64. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [1473] Augusto de Almeida Prado G. Torácio and Aurora Trinidad Ramírez Pozo. Multiple Objective Particle Swarm for Classification-Rule Discovery. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 684–691, Singapore, September 2007. IEEE Press.
- [1474] Jesica de Armas, Gara Miranda, and Coromoto León. Hyperheuristic Encoding Scheme for Multi-Objective Guillotine Cutting Problems. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1683–1690, Dublin, Ireland, July 12-16 2011. ACM Press.
- [1475] Jessica de Armas, Coromoto Leon, Gara Miranda, and Carlos Segura. Optimisation of a multi-objective two-dimensional strip packing problem based on evolutionary algorithms. *International Journal of Production Research*, 48(7):2011–2028, 2010.
- [1476] A. B. de Carvalho and A. T. R. Pozo. A Rule Learning Multiobjective Particle Swarm Optimization. *IEEE Latin America Transactions*, 7(4):478–486, August 2009.
- [1477] André B. de Carvalho and Aurora Pozo. Mining Rules: A Parallel Multiobjective Particle Swarm Optimization Approach. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 8, pages 179–198. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [1478] Andre B. de Carvalho and Aurora Pozo. The Control of Dominance Area in Particle Swarm Optimization Algorithms for Many-Objective Problems. In *2010 Eleventh Brazilian Symposium on Neural Networks (SBRN 2010)*, pages 140–145, Sao Paulo, Brazil, 23-28 October 2010. IEEE Computer Society Press.

- [1479] Andre B. de Carvalho and Aurora Pozo. Measuring the convergence and diversity of CDAS Multi-Objective Particle Swarm Optimization Algorithms: A study of many-objective problems. *Neurocomputing*, 75(1):43–51, January 1 2012.
- [1480] André B. de Carvalho, Aurora Pozo, and Silvia Vergilio. A Non-ordered Rule Induction Algorithm through Multi-Objective Particle Swarm Optimization: Issues and Applications. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*, chapter 2, pages 17–44. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.
- [1481] Andre B. de Carvalho, Aurora Pozo, and Silvia Regina Vergilio. A symbolic fault-prediction model based on multiobjective particle swarm optimization. *Journal Of Systems and Software*, 83(5):868–882, May 2010.
- [1482] Andre Britto de Carvalho and Aurora Pozo. Analyzing the Control of Dominance Area of Solutions in Particle Swarm Optimization for Many-Objective. In *2010 10th International Conference on Hybrid Intelligent Systems (HIS'2010)*, pages 103–108, Atlanta, Georgia, USA, 23-25 August 2010. IEEE Press.
- [1483] Rodrigo Evangelista de Castro. *Otimização de Estruturas Com Multi-Objetivos via Algoritmos Genéticos*. PhD thesis, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, August 2001. (In Portuguese).
- [1484] Ivanoe De Falco, Antonio Della Cioppa, Umberto Scafuri, and Ernesto Tarantino. A Multiobjective Evolutionary Approach for Multisite Mapping on Grids. In Roman Wyrzykowski, Jack Dongarra, Konrad Karczewski, and Jerzy Wasniewski, editors, *Parallel Processing and Applied Mathematics, 7th International Conference, PPAM 2007*, pages 991–1000, Gdansk, Poland, September 9-12 2008. Springer. Lecture Notes in Computer Science Vol. 4967.
- [1485] Ivanoe De Falco, Umberto Scafuri, and Ernesto Tarantino. An Adaptive Multisite Mapping for Computationally Intensive Grid Applications. *Future Generation Computer Systems - The International Journal of Grid Computing - Theory Methods and Applications*, 26(6):857–867, June 2010.
- [1486] Alfredo R. de Faria. Compliance and Buckling Optimization of Structures under Multiple Load Cases. In Nadia Nedjah and Luiza de Macedo Mourelle, editors, *Real-World Multi-Objective System Engineering*, pages 101–138. Nova Science Publishers, New York, 2005.
- [1487] Carlos Manuel Mira de Fonseca. *Multiobjective Genetic Algorithms with Applications to Control Engineering Problems*. PhD thesis, Department of Automatic Control and Systems Engineering, University of Sheffield, Sheffield, UK, September 1995.

- [1488] Fabrício de França, Guilherme P. Coelho, and Fernando J. Von Zuben. On the diversity mechanisms of opt-aiNet: A comparative study with fitness sharing. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3523–3530, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1489] Edwin D. de Jong. Representation Development from Pareto-Coevolution. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 262–273. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [1490] Edwin D. de Jong. The Incremental Pareto-Coevolution Archive. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 525–536, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [1491] Edwin D. de Jong. Intransitivity in Coevolution. In Xin Yao et al., editor, *Parallel Problem Solving from Nature - PPSN VIII*, pages 843–851, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [1492] Edwin D. de Jong. Towards a Bounded Pareto-Coevolution Archive. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 2341–2348, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [1493] Edwin D. de Jong. A Monotonic Archive for Pareto-Coevolution. *Evolutionary Computation*, 15(1):61–93, Spring 2007.
- [1494] Edwin D. de Jong and Anthony Bucci. Objective Set Compression. Test-Based Problems and Multiobjective Optimization. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 357–376. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [1495] Edwin D. de Jong and Jordan B. Pollack. Learning the Ideal Evaluation Function. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 274–285. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [1496] Edwin D. De Jong and Jordan B. Pollack. Multi-Objective Methods for Tree Size Control. *Genetic Programming and Evolvable Machines*, 4(3):211–233, September 2003.
- [1497] Edwin D. de Jong and Jordan B. Pollack. Ideal Evaluation from Coevolution. *Evolutionary Computation*, 12(2):159–192, Summer 2004.
- [1498] Edwin D. de Jong, Richard A. Watson, and Jordan B. Pollack. Reducing Bloat and Promoting Diversity using Multi-Objective Methods. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and

Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 11–18, San Francisco, California, 2001. Morgan Kaufmann Publishers.

- [1499] J.M. de la Cruz, B. de Andres-Toro, A. Herrán, E. Besada Porta, and P. Fernandez Blanco. Multiobjective optimization of the transport in oil pipelines. In *Proceedings of the 9th IEEE International Conference on Emerging Technologies and Factory Automation*, volume 1, pages 566–573, Lisbon, Portugal, September 2003. IEEE.
- [1500] B. de la Iglesia, G. Richards, M.S. Philpott, and V.J. Rayward-Smith. The application and effectiveness of a multi-objective metaheuristic algorithm for partial classification. *European Journal of Operational Research*, 169(3):898–917, March 16 2006.
- [1501] Beatriz de la Iglesia, Mark S. Philpott, Anthony J. Bagnall, and Vic J. Rayward-Smith. Data Mining Using Multi-Objective Evolutionary Algorithms. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1552–1559, Canberra, Australia, December 2003. IEEE Press.
- [1502] Beatriz de la Iglesia, Alan Reynolds, and Vic J Rayward-Smith. Developments on a Multi-objective Metaheuristic (MOMH) Algorithm for Finding Interesting Sets of Classification Rules. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 826–840, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [1503] Pierre De Lit, Patrice Latinne, Brahim Rekiek, and Alain Delchambre. Assembly planning with an ordering genetic algorithm. *International Journal of Production Research*, 39(16):3623–3640, November 2001.
- [1504] J. de Lope and D. Maravall. Multi-objective dynamic optimization for automatic parallel parking. In *Computer Aided Systems Theory – Eurocast 2005*, pages 513–518. Springer-Verlag. Lecture Notes in Computer Science Vol. 3643, 2005.
- [1505] P. B. de Moura Oliveira, E. J. Solteiro Pires, J. Boaventura Cunha, and Damir Vrančić. Multi-Objective Particle Swarm Optimization Design of PID Controllers. In Sigeru Omatu, Miguel Rocha, José Bravo, Florentino Fernández Riverola, Emilio Corchado, Andrés Bustillo, and Juan M. Corchado, editors, *Distributed Computing, Artificial Intelligence, Bioinformatics, Soft Computing, and Ambient Assisted Living*, pages 1222–1230. Springer, Lecture Notes in Computer Science, Vol. 5518, Salamanca, Spain, 2009. ISBN 978-3-642-02480-1.
- [1506] Diego F. de Oliveira, Anne M. P. Canuto, and Marcilio C. P. de Souto. The Diversity/Accuracy Dilemma: An Empirical Analysis in the Context of Heterogeneous Ensembles. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 939–946, Trondheim, Norway, May 2009. IEEE Press.

- [1507] Michael de Paly, Niels Schütze, and Andreas Zell. Determining crop-production functions using multi-objective evolutionary algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1870–1877, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1508] Dirk De Pauw. *Optimal Experimental Design for Calibration of Bioprocess Models: A Validated Software Toolbox*. PhD thesis, Faculteit Bio-Ingenieurswetenschappen, Universiteit Gent, Belgium, 2005.
- [1509] Carlos Henrique N. de Resende Barbosa, Walmir Matos Caminhas, and Joao Antonio de Vasconcelos. Adaptive Technique to Solve Multi-objective Feeder Reconfiguration Problem in Real Time Context. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 418–432, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [1510] Lucas de S. Batista, Jaime A. Ramirez, and Federico G. Guimaraes. New operators for multi-objective clonal selection algorithms. *COMPEL - The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 28(4):833–850, 2009.
- [1511] Lokuge Nadisha de Silva. Search algorithms for ideal optimal mobile phone feature sets. Master’s thesis, Department of Computer Science, King’s College London, UK, August 2006.
- [1512] B. De Smedt and G.C.E. Gielen. WATSON: Design space boundary exploration and model generation for analog and RF IC design. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 22(2):213–224, February 2003.
- [1513] Bart De Smedt and Georges Gielen. HOLMES: Capturing the Yield-Optimized Design Space Boundaries of Analog and RF Integrated Circuits. In Norbert Wehn and Diederik Verkest, editors, *Proceedings of Design, Automation and Test in Europe (DATE'03)*, pages 256–261, Munich, Germany, March 2003. IEEE.
- [1514] Yves De Smet and Stefan Eppe. Multicriteria Relational Clustering: The Case of Binary Outranking Matrices. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 380–392. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [1515] Benemar Alencar de Souza and Angelo Marcio Formiga de Almeida. Multi-objective Optimization and Fuzzy Logic Applied to Planning of the Volt/Var Problem in Distributions Systems. *IEEE Transactions on Power Systems*, 25(3):1274–1281, August 2010.

- [1516] Thatiana C.N. de Souza, Elizabeth F.G. Goldberg, and Marco C. Goldberg. Comparing PSO and NSGA II for the biobjective Oil Derivatives Distribution Problem. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1572–1578, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1517] F. de Toro, J. Ortega, and B. Paechter. Parallel Single Front Genetic Algorithm: Performance Analysis in a cluster system. In *Proceedings of the International Parallel and Distributed Processing Symposium (IPDPS'03)*. IEEE Computer Society, April 2003.
- [1518] F. de Toro, E. Ros, S. Mota, and J. Ortega. Evolutionary algorithms for multiobjective and multimodal optimization of diagnostic schemes. *IEEE Transactions on Biomedical Engineering*, 53(2):178–189, February 2006.
- [1519] Francisco de Toro, Julio Ortega, Javier Fernández, and A. Díaz. PSFGA: A Parallel Genetic Algorithm for Multiobjective Optimization. In F. Vajda and N. Podhorszki, editors, *10th Euromicro Workshop on Parallel, Distributed and Network-Based Processing*, pages 384–391. IEEE, 2002.
- [1520] Francisco de Toro, Eduardo Ros, Sonia Mota, and Julio Ortega. Multi-Objective Optimization Evolutionary Algorithms Applied to Paroxysmal Atrial Fibrillation Diagnosis Based on the k-Nearest Neighbours Classifier. In Francisco J. Garijo, José C. Riquelme, and Miguel Toro, editors, *Advances in Artificial Intelligence–IBERAMIA 2002 Proceedings. 8th Ibero-American Conference on AI*, pages 313–318, Seville, Spain, 2002. Springer. Lecture Notes in Artificial Intelligence Vol. 2527.
- [1521] Francisco de Toro, Eduardo Ros, Sonia Mota, and Julio Ortega. Non-invasive Atrial Disease Diagnosis Using Decision Rules: A Multi-objective Optimization Approach. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 638–647, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1522] R. de Toro, R. Jimenez, M. Sanchez, and J. Ortega. Synthesis of hybrid CBL/CMOS cell using multiobjective evolutionary algorithms. In *Integrated Circuit and System Design*, pages 629–637. Springer-Verlag. Lecture Notes in Computer Science Vol. 3728, 2005.
- [1523] F. de Toro Negro, J. Ortega, E. Ros, S. Mota, B. Paechter, and J.M. Martín. PSFGA: Parallel Processing and Evolutionary Computation for Multiobjective Optimisation. *Parallel Computing*, 30(5–6):721–739, May–June 2004.
- [1524] K. Deb. An introduction to genetic algorithms. *Sadhana-Academy Proceedings In Engineering Sciences*, 24:293–315, August–October 1999.
- [1525] K. Deb, P. Jain, NK. Gupta, and HK. Maji. Multiobjective placement of electronic components using evolutionary algorithms. *IEEE Transactions on Components and Packaging Technologies*, 27(3):480–492, September 2004.

- [1526] K. Deb, K. Mitra, R. Dewri, and S. Majumdar. Towards a Better Understanding of the Epoxy Polymerization Process Using Multi-objective Evolutionary Computation. *Chemical Engineering Science*, 59(20):4261–4277, 2004.
- [1527] Kalyanmoy Deb. Multi-Objective Genetic Algorithms: Problem Difficulties and Construction of Test Problems. Technical Report CI-49/98, Dortmund: Department of Computer Science/LS11, University of Dortmund, Germany, 1998.
- [1528] Kalyanmoy Deb. Evolutionary Algorithms for Multi-Criterion Optimization in Engineering Design. In Kaisa Miettinen, Marko M. Mäkelä, Pekka Neittaanmäki, and Jacques Periaux, editors, *Evolutionary Algorithms in Engineering and Computer Science*, chapter 8, pages 135–161. John Wiley & Sons, Ltd, Chichester, UK, 1999.
- [1529] Kalyanmoy Deb. Multi-Objective Evolutionary Algorithms: Introducing Bias Among Pareto-Optimal Solutions. KanGAL report 99002, Indian Institute of Technology, Kanpur, India, 1999.
- [1530] Kalyanmoy Deb. Multi-Objective Genetic Algorithms: Problem Difficulties and Construction of Test Problems. *Evolutionary Computation*, 7(3):205–230, Fall 1999.
- [1531] Kalyanmoy Deb. Non-Linear Goal Programming using Multi-Objective Genetic Algorithms. Technical Report CI-60/98, Dortmund: Department of Computer Science/LS11, University of Dortmund, Germany, 1999.
- [1532] Kalyanmoy Deb. Solving Goal Programming Problems Using Multi-Objective Genetic Algorithms. In *1999 Congress on Evolutionary Computation*, pages 77–84, Washington, D.C., July 1999. IEEE Service Center.
- [1533] Kalyanmoy Deb. Multi-objective Evolutionary Optimization: Past, Present and Future. In Ian C. Parmee, editor, *Proceedings of the Fourth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2000)*, pages 225–236. PEDC, University of Plymouth, UK, Springer London, 2000.
- [1534] Kalyanmoy Deb. *Multi-Objective Optimization using Evolutionary Algorithms*. John Wiley & Sons, Chichester, UK, 2001. ISBN 0-471-87339-X.
- [1535] Kalyanmoy Deb. Nonlinear goal programming using multi-objective genetic algorithms. *Journal of the Operational Research Society*, 52(3):291–302, 2001.
- [1536] Kalyanmoy Deb. Multi-objective Evolutionary Algorithms: Introducing Bias Among Pareto-optimal Solutions. In Ashish Ghosh and Shigeyoshi Tsutsui, editors, *Advances in Evolutionary Computing. Theory and Applications*, pages 263–292. Springer, Berlin, 2003.
- [1537] Kalyanmoy Deb. Unveiling innovative design principles by means of multiple conflicting objectives. *Engineering Optimization*, 35(5):445–470, October 2003.

- [1538] Kalyanmoy Deb. An Ideal Evolutionary Multi-Objective Optimization Procedure. *IPSJ Transactions on Mathematical Modeling and Its Applications*, 45(SIG 2 (TOM 10)):1–11, February 2004.
- [1539] Kalyanmoy Deb. Multi-Objective Optimization. In Edmund K. Burke and Graham Kendall, editors, *Search Methodologies. Introductory Tutorials in Optimization and Decision Support Techniques*, pages 273–316. Springer, 2005.
- [1540] Kalyanmoy Deb. Current trends in evolutionary multi-objective optimization. *International Journal for Simulation and Multidisciplinary Design Optimization*, 1(1):1–8, October 2007.
- [1541] Kalyanmoy Deb. Evolutionary Multi-Objective Optimization Without Additional Parameters. In Fernando G. Lobo, Cláudio F. Lima, and Zbigniew Michalewicz, editors, *Parameter Setting in Evolutionary Algorithms*, pages 241–257. Springer-Verlag, Berlin, 2007.
- [1542] Kalyanmoy Deb. A Robust Evolutionary Framework for Multi-Objective Optimization. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 633–647, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [1543] Kalyanmoy Deb. Evolutionary Multi-Objective Optimization and Decision Making. In Bogan Filipic and Jurij Silc, editors, *Third International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2008)*, pages 3–15, Ljubljana, Slovenia, October 2008. Jozef Stefan Institute. ISBN 978-961-264-002-6.
- [1544] Kalyanmoy Deb. Introduction to Evolutionary Multiobjective Optimization. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 59–96. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [1545] Kalyanmoy Deb. Scope of stationary multi-objective evolutionary optimization: a case study on a hydro-thermal power dispatch problem. *Journal of Global Optimization*, 41(4):479–515, August 2008.
- [1546] Kalyanmoy Deb. Evolutions Niche in Multi-Criterion Problem Solving. In Andrew Lewis, Sanaz Mostaghim, and Marcus Randall, editors, *Biologically-Inspired Optimisation Methods*, pages 1–21. Springer, 2009. ISBN 978-3-642-01261-7.
- [1547] Kalyanmoy Deb. Recent Developments in Evolutionary Multi-Objective Optimization. In Matthias Ehrgott, José Rui Figueira, and Salvatore Greco, editors, *Trends in Multiple Criteria Decision Analysis*, chapter 12, pages 339–368. Springer, International Series in Operations Research and Management Science, 2010. ISBN 978-1-4419-5903-4.

- [1548] Kalyanmoy Deb, Samir Agrawal, Amrit Pratap, and T. Meyarivan. A Fast Elitist Non-Dominated Sorting Genetic Algorithm for Multi-Objective Optimization: NSGA-II. KanGAL report 200001, Indian Institute of Technology, Kanpur, India, 2000.
- [1549] Kalyanmoy Deb, Samir Agrawal, Amrit Pratap, and T. Meyarivan. A Fast Elitist Non-Dominated Sorting Genetic Algorithm for Multi-Objective Optimization: NSGA-II. In Marc Schoenauer, Kalyanmoy Deb, Günter Rudolph, Xin Yao, Evelyne Lutton, Juan Julian Merelo, and Hans-Paul Schwefel, editors, *Proceedings of the Parallel Problem Solving from Nature VI Conference*, pages 849–858, Paris, France, 2000. Springer. Lecture Notes in Computer Science No. 1917.
- [1550] Kalyanmoy Deb and Shamik Chaudhuri. I-MODE: An Interactive Multi-objective Optimization and Decision-Making Using Evolutionary Methods. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 788–802, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1551] Kalyanmoy Deb, Shamik Chaudhuri, and Kaisa Miettinen. Towards Estimating Nadir Objective Vector Using Evolutionary Approaches. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 643–650, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [1552] Kalyanmoy Deb and Rituparna Datta. A Fast and Accurate Solution of Constrained Optimization Problems Using a Hybrid Bi-Objective and Penalty Function Approach. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 165–172, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1553] Kalyanmoy Deb and Tushar Goel. Controlled Elitist Non-dominated Sorting Genetic Algorithms for Better Convergence. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 67–81. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1554] Kalyanmoy Deb and Tushar Goel. A Hybrid Multi-Objective Evolutionary Approach to Engineering Shape Design. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 385–399. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1555] Kalyanmoy Deb and Tushar Goel. Multi-Objective Evolutionary Algorithms for Engineering Shape Design. In Ruhul Sarker, Masoud Mohammadian, and Xin Yao, editors, *Evolutionary Optimization*, pages 146–175. Kluwer Academic Publishers, New York, February 2002. ISBN 0-7923-7654-4.

- [1556] Kalyanmoy Deb and Tushar Goyal. Controlled Elitist Non-dominated Sorting Genetic Algorithms for Better Convergence. KanGAL report 200004, Indian Institute of Technology, Kanpur, India, 2000.
- [1557] Kalyanmoy Deb and Tushar Goyal. Multi-Objective Evolutionary Algorithms for Engineering Shape Design. KanGAL report 200003, Indian Institute of Technology, Kanpur, India, 2000.
- [1558] Kalyanmoy Deb and Himanshu Gupta. Searching for Robust Pareto-Optimal Solutions in Multi-objective Optimization. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 150–164, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [1559] Kalyanmoy Deb and Himanshu Gupta. Introducing robustness in multi-objective optimization. *Evolutionary Computation*, 14(4):463–494, Winter 2006.
- [1560] Kalyanmoy Deb and Naveen Kumar Gupta. Optimal Operating Conditions for Overhead Crane Maneuvering Using Multi-objective Evolutionary Algorithms. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 1042–1053, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [1561] Kalyanmoy Deb and Shivam Gupta. Towards a Link Between Knee Solutions and Preferred Solution Methodologies. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pages 182–189. Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16–18 2010.
- [1562] Kalyanmoy Deb, Shubham Gupta, David Daum, Juergen Branke, Abhishek Kumar Mall, and Dhanesh Padmanabhan. Reliability-Based Optimization Using Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 13(5):1054–1074, October 2009.
- [1563] Kalyanmoy Deb, Shubham Gupta, David Daum, Juergen Branke, Abhishek Kumar Mall, and Dhanesh Padmanabhan. Reliability-Based Optimization Using Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 13(5):1054–1074, October 2009.
- [1564] Kalyanmoy Deb and Sachin Jain. Running Performance Metrics for Evolutionary Multi-Objective Optimization. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1,

pages 13–20, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.

- [1565] Kalyanmoy Deb and Sachin Jain. Evaluating Evolutionary Multi-Objective Optimization Algorithms using Running Performance Metrics. In Kay Chen Tan, Meng Hiot Lim, Xin Yao, and Lipo Wang, editors, *Recent Advances in Simulated Evolution and Learning*, pages 307–326. World Scientific, Singapore, 2004.
- [1566] Kalyanmoy Deb and Sachin Kain. Multi-Speed Gearbox Design Using Multi-Objective Evolutionary Algorithms. *Journal of Mechanical Design*, 125(3):609–619, September 2003.
- [1567] Kalyanmoy Deb, S. Karthik, and Tatsuya Okabe. Self-Adaptive Simulated Binary Crossover for Real-Parameter Optimization. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 1187–1194, London, UK, July 2007. ACM Press.
- [1568] Kalyanmoy Deb and Abhay Kumar. Light Beam Search Based Multi-objective Optimization using Evolutionary Algorithms. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2125–2132, Singapore, September 2007. IEEE Press.
- [1569] Kalyanmoy Deb and Abhishek Kumar. Interactive Evolutionary Multi-Objective Optimization and Decision-Making using Reference Direction Method. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 781–788, London, UK, July 2007. ACM Press.
- [1570] Kalyanmoy Deb and Amarendra Kumar. Real-coded Genetic Algorithms with Simulated Binary Crossover: Studies on Multimodal and Multiobjective Problems. *Complex Systems*, 9:431–454, 1995.
- [1571] Kalyanmoy Deb, Swanand Lele, and Rituparna Datta. A Hybrid Evolutionary Multi-objective and SQP Based Procedure for Constrained Optimization. In Lishan Kang, Yong Liu, and Sanyou Zeng, editors, *Advances in Computation and Intelligence, Second International Symposium, ISICA 2007*, pages 36–45, Wuhan, China, September 21-23 2007. Springer. Lecture Notes in Computer Science Vol. 4683.
- [1572] Kalyanmoy Deb and T. Meyarivan. Constrained Test Problems for Multi-Objective Evolutionary Optimization. KanGAL report 200005, Indian Institute of Technology, Kanpur, India, 2000.
- [1573] Kalyanmoy Deb and Kaisa Miettinen. Nadir Point Estimation Using Evolutionary Approaches: Better Accuracy and Computational Speed Through Focused Search. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 339–354. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.

- [1574] Kalyanmoy Deb, Kaisa Miettinen, and Shamik Chaudhuri. Toward an Estimation of Nadir Objective Vector Using a Hybrid of Evolutionary and Local Search Approaches. *IEEE Transactions On Evolutionary Computation*, 14(6):821–841, December 2010.
- [1575] Kalyanmoy Deb, Kaisa Miettinen, and Deepak Sharma. A Hybrid Integrated Multi-Objective Optimization Procedure for Estimating Nadir Point. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 569–583. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [1576] Kalyanmoy Deb, Kishalay Mitra, Rinku Dewri, and Saptarshi Majumdar. Unveiling Optimal Operating Conditions for an Epoxy Polymerization Process Using Multi-objective Evolutionary Computation. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 920–931, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [1577] Kalyanmoy Deb, Manikanth Mohan, and Shikhar Mishra. Towards a Quick Computation of Well-Spread Pareto-Optimal Solutions. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 222–236, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1578] Kalyanmoy Deb, Manikanth Mohan, and Shikhar Mishra. Evaluating the ϵ -Domination Based Multi-Objective Evolutionary Algorithm for a Quick Computation of Pareto-Optimal Solutions. *Evolutionary Computation*, 13(4):501–525, Winter 2005.
- [1579] Kalyanmoy Deb and Pawan K.S. Nain. An Evolutionary Multi-objective Adaptive Meta-modeling Procedure Using Artificial Neural Networks. In Shengxiang Yang, Yew Soon Ong, and Yaochu Jin, editors, *Evolutionary Computation in Dynamic and Uncertain Environments*, pages 297–322. Springer, 2007. ISBN 978-3-540-49772-1.
- [1580] Kalyanmoy Deb, Dhanesh Padmanabhan, Sulabh Gupta, and Abhishek Kumar Mall. Reliability-Based Multi-objective Optimization Using Evolutionary Algorithms. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 66–80, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1581] Kalyanmoy Deb, A. Patrap, and S. Moitra. Mechanical Component Design for multi-objective using Elitist non-dominated sorting GA. KanGAL report 200002, Indian Institute of Technology, Kanpur, India, 2000.

- [1582] Kalyanmoy Deb, Amrit Pratab, and Subrajyoti Moitra. Mechanical Component Design for Multiple Objectives Using Elitist Non-dominated Sorting GA. In Marc Schoenauer, Kalyanmoy Deb, Günter Rudolph, Xin Yao, Evelyne Lutton, Juan Julian Merelo, and Hans-Paul Schwefel, editors, *Proceedings of the Parallel Problem Solving from Nature VI Conference*, pages 859–868, Paris, France, 2000. Springer. Lecture Notes in Computer Science No. 1917.
- [1583] Kalyanmoy Deb, Amrit Pratap, Sameer Agarwal, and T. Meyarivan. A Fast and Elitist Multiobjective Genetic Algorithm: NSGA-II. *IEEE Transactions on Evolutionary Computation*, 6(2):182–197, April 2002.
- [1584] Kalyanmoy Deb, Amrit Pratap, and T. Meyarivan. Constrained Test Problems for Multi-objective Evolutionary Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 284–298. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1585] Kalyanmoy Deb, Udaya Bhaskara N. Rao, and S. Karthik. Dynamic Multi-objective Optimization and Decision-Making Using Modified NSGA-II: A Case Study on Hydro-thermal Power Scheduling. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 803–817, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1586] Kalyanmoy Deb and Amit Saha. Finding Multiple Solutions for Multimodal Optimization Problems Using a Multi-Objective Evolutionary Approach. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 447–454, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [1587] Kalyanmoy Deb and Amit Saha. Multimodal Optimization Using a Bi-Objective Evolutionary Algorithm. *Evolutionary Computation*, 20(1):27–62, Spring 2012.
- [1588] Kalyanmoy Deb and Dhish Kumar Saxena. Searching for Pareto-optimal solutions through dimensionality reduction for certain large-dimensional multi-objective optimization problems. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3353–3360, Vancouver, BC, Canada, July 2006. IEEE.
- [1589] Kalyanmoy Deb and Karthik Sindhya. Deciphering Innovative Principles for Optimal Electric Brushless D.C. Permanent Magnet Motor Design. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2283–2290, Hong Kong, June 2008. IEEE Service Center.
- [1590] Kalyanmoy Deb and Ankur Sinha. An Evolutionary Approach for Bilevel Multi-objective Problems. In Yong Shi, Shouyang Wang, Yi Peng, Jianping

- Li, and Yong Zeng, editors, *Cutting-Edge Research Topics on Multiple Criteria Decision Making (MCDM'2009)*, pages 17–24. Springer, Communications in Computer and Information Science, Vol. 35, Heidelberg, Germany, 2009.
- [1591] Kalyanmoy Deb and Ankur Sinha. Constructing Test Problems for Bilevel Evolutionary Multi-Objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1153–1160, Trondheim, Norway, May 2009. IEEE Press.
 - [1592] Kalyanmoy Deb and Ankur Sinha. Solving Bilevel Multi-Objective Optimization Problems Using Evolutionary Algorithms. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 110–124. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
 - [1593] Kalyanmoy Deb and Ankur Sinha. An Efficient and Accurate Solution Methodology for Bilevel Multi-Objective Programming Problems Using a Hybrid Evolutionary-Local-Search Algorithm. *Evolutionary Computation*, 18(3):403–449, Fall 2010.
 - [1594] Kalyanmoy Deb, Ankur Sinha, Pekka J. Korhonen, and Jyrki Wallenius. An Interactive Evolutionary Multiobjective Optimization Method Based on Progressively Approximated Value Functions. *IEEE Transactions on Evolutionary Computation*, 14(5):723–739, October 2010.
 - [1595] Kalyanmoy Deb, Ankur Sinha, and Saku Kukkonen. Multi-Objective Test Problems, Linkages, and Evolutionary Methodologies. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1141–1148, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
 - [1596] Kalyanmoy Deb and Aravind Srinivasan. Innovization: Innovating Design Principles Through Optimization. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1629–1636, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
 - [1597] Kalyanmoy Deb and Aravind Srinivasan. Innovization: Discovery of Innovative Design Principles Through Multiobjective Evolutionary Optimization. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 243–262. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
 - [1598] Kalyanmoy Deb, Ralph E. Steuer, Rajat Tewari, and Rahul Tewari. Bi-objective Portfolio Optimization Using a Customized Hybrid NSGA-II Procedure. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and

Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 358–373, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.

- [1599] Kalyanmoy Deb and J. Sundar. Reference Point Based Multi-Objective Optimization Using Evolutionary Algorithms. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 635–642, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [1600] Kalyanmoy Deb, J. Sundar, Udaya Bhaskara Rao N., and Shamik Chaudhuri. Reference Point Based Multi-Objective Optimization Using Evolutionary Algorithms. *International Journal of Computational Intelligence Research*, 2(3):273–286, 2006.
- [1601] Kalyanmoy Deb, Rahul Tewari, Mayur Dixit, and Joydeep Dutta. Finding Trade-off Solutions Close to KKT Points Using Evolutionary Multi-Objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2109–2116, Singapore, September 2007. IEEE Press.
- [1602] Kalyanmoy Deb, Lothar Thiele, Marco Laumanns, and Eckart Zitzler. Scalable Test Problems for Evolutionary Multi-Objective Optimization. Technical Report 112, Computer Engineering and Networks Laboratory (TIK), Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, 2001.
- [1603] Kalyanmoy Deb, Lothar Thiele, Marco Laumanns, and Eckart Zitzler. Scalable Multi-Objective Optimization Test Problems. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 825–830, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [1604] Kalyanmoy Deb, Lothar Thiele, Marco Laumanns, and Eckart Zitzler. Scalable Test Problems for Evolutionary Multiobjective Optimization. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization. Theoretical Advances and Applications*, pages 105–145. Springer, USA, 2005.
- [1605] Kalyanmoy Deb and Santosh Tiwar. Omni-optimizer: A generic evolutionary algorithm for single and multi-objective optimization. *European Journal of Operational Research*, 185(3):1062–1087, 16 March 2008.
- [1606] Kalyanmoy Deb and Santosh Tiwari. Multi-objective optimization of a leg mechanism using genetic algorithms. *Engineering Optimization*, 37(4):325–350, June 2005.
- [1607] Kalyanmoy Deb and Santosh Tiwari. Omni-optimizer: A Procedure for Single and Multi-objective Optimization. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 47–61, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [1608] Kalyanmoy Deb, Pawan Zope, and Abhishek Jain. Distributed Computing of Pareto-Optimal Solutions with Evolutionary Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 534–549, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1609] Kousik Deb and Anirban Dhar. Optimum Design of Stone Column-improved Soft Soil Using Multiobjective Optimization Technique. *Computers and Geotechnics*, 38(1):50–57, January 2011.
- [1610] S. Dedieu, L. Pibouleau, C. Azzaro-Pantel, and S. Domenech. Design and retrofit of multiobjective batch plants via a multicriteria genetic algorithm. *Computers & Chemical Engineering*, 27(12):1723–1740, December 2003.
- [1611] K. Deep, Krishna Pratap Singh, M. L. Kansal, and C. Mohan. Management of Multipurpose Multireservoir Using Fuzzy Interactive Method. *Water Resources Management*, 23(14):2987–3003, November 2009.
- [1612] Ehsan Dehghan-Niri, Seyed M. Zahrai, and Arash Mohtat. Effectiveness-robustness objectives in MTMD system design: An evolutionary optimal design methodology. *Structural Control & Health Monitoring*, 17(2):218–236, March 2010.
- [1613] Farzad Dehghanian and Saeed Mansour. Designing sustainable recovery network of end-of-life products using genetic algorithm. *Resources Conservation and Recycling*, 53(10):559–570, August 2009.
- [1614] Akram Dehnokhalaji, Pekka J. Korhonen, Murat Koksalan, Nasim Nasrabadi, and Jyrki Wallenius. Convex cone-based partial order for multiple criteria alternatives. *Decision Support Systems*, 51(2):256–261, May 2011.
- [1615] S. Dehuri and S.-B. Cho. Multi-criterion Pareto based particle swarm optimized polynomial neural network for classification: A review and state-of-the-art. *Computer Science Review*, 3(1):19–40, February 2009.
- [1616] S. Dehuri and R. Mall. Predictive and comprehensible rule discovery using a multi-objective genetic algorithm. *Knowledge-Based Systems*, 19(6):413–421, October 2006.
- [1617] S. Dehuri, S. Patnaik, A. Ghosh, and R. Mall. Application of elitist multi-objective genetic algorithm for classification rule generation. *Applied Soft Computing*, 8(1):477–487, January 2008.
- [1618] Satchidananda Dehuri, Carlos A. Coello Coello, Sung-Bae Cho, and Ashish Ghosh. A Discrete Particle Swarm for Multi-objective Problems in Polynomial Neural Networks Used for Classification: A Data Mining Perspective. In

- Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 6, pages 115–155. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [1619] Satchidananda Dehuri, Ashish Ghosh, and Rajib Mall. Genetic Algorithms for Multi-Criterion Classification and Clustering in Data Mining. *International Journal of Computing & Information Sciences*, 4(3):143–154, December 2006.
 - [1620] Satchidananda Dehuri, Susmita Ghosh, and Carlos A. Coello Coello. An Introduction to Swarm Intelligence for Multi-objective Problems in Data Mining. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 1, pages 1–17. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
 - [1621] Satchidananda Dehuri, Susmita Ghosh, and Ashish Ghosh. Genetic Algorithm for Optimization of Multiple Objectives in Knowledge Discovery from Large Databases. In Ashish Ghosh, Satchidananda Dehuri, and Susmita Ghosh, editors, *Multi-objective Evolutionary Algorithms for Knowledge Discovery from Data Bases*, pages 1–22. Springer, Berlin, 2008.
 - [1622] A. Deihimi and H. Javaheri. A Fuzzy Multi-Objective Multi-Case Genetic-Based Optimization for Allocation of FACTS Devices to Improve System Static Security, Power Loss and Transmission Line Voltage Profiles. *International Review of Electrical Engineering-IREE*, 5(4):1616–1626, July-August 2010.
 - [1623] Dhyan Jyoti Deka, G. Sandeep, D. Chakraborty, and A. Dutta. Multiobjective optimization of laminated composites using finite element method and genetic algorithm. *Journal of Reinforced Plastics and Composites*, 24(3):273–285, February 1 2005.
 - [1624] Pedro E. J. Rivera Diaz del Castillo and W. Xu. Heat Treatment and Composition Optimization of Nanoprecipitation Hardened Alloys. *Materials and Manufacturing Processes*, 26(3):375–381, 2011.
 - [1625] C. del Grosso, G. Antoniol, E. Merlo, and P. Galinier. Detecting buffer overflow via automatic test input data generation. *Computers & Operations Research*, 35(10):3125–3143, October 2008.
 - [1626] María José del Jesus, Pedro González, and Francisco Herrera. Multiobjective Genetic Algorithm for Extracting Subgroup Discovery Fuzzy Rules. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 50–57, Honolulu, Hawaii, USA, April 2007. IEEE Press.
 - [1627] María José del Jesus, Pedro González, and Francisco Herrera. Subgroup Discovery with Linguistic Rules. In Humberto Bustince Sola, Francisco Herrera,

and Javier Montero, editors, *Fuzzy Sets and Their Extensions: Representation, Aggregation and Models*, pages 411–430. Springer. Studies in Fuzziness and Soft Computing, Vol. 220, 2008.

- [1628] I.M. Delamer and J.L.M. Lastra. Evolutionary multi-objective optimization of QoS-Aware Publish/Subscribe Middleware in electronics production. *Engineering Applications of Artificial Intelligence*, 19(6):593–607, September 2006.
- [1629] Miguel Delgado, Manuel P. Cuéllar, and Maria Carmen Pegalajar. Multiobjective hybrid optimization and training of recurrent neural networks. *IEEE Transactions on Systems, Man, and Cybernetics–Part B: Cybernetics*, 38(2):381–403, April 2008.
- [1630] Konstantinos Delibasis, Pantelis A. Asvestas, and George K. Matsopoulos. Multimodal genetic algorithms-based algorithm for automatic point correspondence. *Pattern Recognition*, 43(12):4011–4027, December 2010.
- [1631] G. Dellino, P. Lino, C. Meloni, and A. Rizzo. Enhanced Evolutionary Algorithms for Multidisciplinary Design Optimization: A Control Engineering Perspective. In Crina Grosan, Ajith Abraham, and Hisao Ishibuchi, editors, *Hybrid Evolutionary Algorithms*, pages 39–76. Springer, Heidelberg, 2007.
- [1632] G. Dellino, P. Lino, C. Meloni, and A. Rizzo. Kriging metamodel management in the design optimization of a CNG injection system. *Mathematics and Computers in Simulation*, 79(8):2345–2360, April 2009.
- [1633] Xavier Delorme, Xavier Gandibleux, and Fabien Degoutin. Evolutionary, constructive and hybrid procedures for the bi-objective set packing problem. *European Journal of Operational Research*, 204(2):206–217, July 16 2010.
- [1634] G. Nildem Demir, A. Şima Uyar, and Şule Gündüz-Öğüdücü. Multiobjective evolutionary clustering of Web user sessions: a case study in Web page recommendation. *Soft Computing*, 14(6):579–597, April 2010.
- [1635] Gul Nildem Demir, A. Sima Uyar, and Sule Oguducu. Graph-based Sequence Clustering through Multiobjective Evolutionary Algorithms for Web Recommender System. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO’2007)*, volume 2, pages 1943–1950, London, UK, July 2007. ACM Press.
- [1636] E. den Heijer and A.E. Eiben. Evolving Art Using Multiple Aesthetic Measures. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Rolf Drechsler, Muddassar Farooq, Jörn Grahl, Gary Greenfield, Christian Prins, Juan Romero, Giovanni Squillero, Ernesto Tarantino, Andrea G.B. Tettamanzi, Neil Urquhart, and A. Şima Uyar, editors, *Applications of Evolutionary Computation, EvoApplications 2011: EvoCOMNET, EvoFIN, EvoHOT, EvoMUSART, EvoSTIM, and EvoTRANSLOG*, pages 234–243, Torino, Italy, April 27–29 2011. Springer. Lecture Notes in Computer Science Vol. 6625.

- [1637] Elad Denenberg and Amiram Moshaiov. Evolutionary Search of Optimal Concepts Using a Relaxed-Pareto-optimality Approach. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2524–2531, Trondheim, Norway, May 2009. IEEE Press.
- [1638] Jian Hua Deng, Wing Shing Chan, Bing-Zhong Wang, Shao Yong Zheng, and Kim Fung Man. An RFID multicriteria coarse- and fine-space tag antenna design. *IEEE Transactions on Industrial Electronics*, 58(6):2522–2530, June 2011.
- [1639] Matjaž Depolli, Erkki Laitinen, and Bogdan Filipič. Parallel Differential Evolution for Simulation-Based Multiobjective Optimization of a Production Process. In Bogdan Filipič and Jurij Silč, editors, *Proceedings of the 4th International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2010)*, pages 141–152, Ljubljana, Slovenia, May 20–21 2010. Jozef Stefan Institute Press.
- [1640] G. D’Errico, T. Cerri, and G. Pertusi. Multi-objective optimization of internal combustion engine by means of 1D fluid-dynamic models. *Applied Energy*, 88(3):767–777, March 2011.
- [1641] B. Descamps, R. Filomeno Coelho, L. Ney, and Ph. Bouillard. Multicriteria optimization of lightweight bridge structures with a constrained force density method. *Computers & Structures*, 89(3-4):277–284, February 2011.
- [1642] Venkat Devireddy and Patrick Reed. An Efficient Design Methodology for the Nondominated Sorted Genetic Algorithm-II. In James Foster, editor, *2003 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 67–71, Chicago, Illinois, USA, July 2003. AAAI.
- [1643] Venkat Devireddy and Patrick Reed. Efficient and Reliable Evolutionary Multiobjective Optimization Using ε -Dominance Archiving and Adaptive Population Sizing. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 390–391, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [1644] Dirk Devogelaere and Marcel Rijckaert. Scalars, A Way to Improve the Multi-Objective Prediction of the GAdC-Method. In *Proceedings of the Sixth Brazilian Symposium on Neural Networks*, pages 56–60, 2000.
- [1645] Rinku Dewri, Nayot Poolsappasit, Indrajit Ray, and Darrell Whitley. Optimal Security Hardening using Multi-objective Optimization on Attack Tree Models of Networks. In Peng Ning, Sabrina De Capitani di Vimercati, and Paul F. Syverson, editors, *2007 ACM Conference on Computer and Communications Security (CCS’07)*, pages 204–213, Alexandria, Virginia, USA, October 28–31 2007. ACM. ISBN 978-1-59593-703-2.

- [1646] Rinku Dewri, Indrajit Ray, Indrakshi Ray, and Darrell Whitley. κ -Anonymization in the Presence of Publisher Preferences. *IEEE Transactions on Knowledge and Data Engineering*, 23(11):1678–1690, November 2011.
- [1647] Rinku Dewri, Darrell Whitley, Indrajit Ray, and Indrakshi Ray. A Multi-Objective Approach to Data Sharing with Privacy Constraints and Preference Based Objectives. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1499–1506, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [1648] Fabian Dey and Amedeo Caflisch. Fragment-based de Novo ligand design by multiobjective evolutionary optimization. *Journal of Chemical Information and Modeling*, 48(3):679–690, March 2009.
- [1649] Clarisse Dhaenens-Flipo. *Optimisation Combinatoire Multi-Objectif: Apport des Méthodes Coopératives et Contribution 'a L'Extraction de Connaissances*. PhD thesis, Université des Sciences et Technologies de Lille, Lille, France, October 2005. (In French).
- [1650] S. Dhanalakshmi, S. Kannan, K. Mahadevan, and S. Baskar. Application of modified NSGA-II algorithm to Combined Economic and Emission Dispatch problem. *International Journal of Electrical Power & Energy Systems*, 33(4):992–1002, May 2011.
- [1651] Anirban Dhar and Bithin Datta. Saltwater Intrusion Management of Coastal Aquifers. I: Linked Simulation-Optimization. *Journal of Hydrologic Engineering*, 14(12):1263–1272, December 2009.
- [1652] Jarnail S. Dhillon, J.S. Dhillon, and D.P. Kothari. Real Coded Genetic Algorithm for Stochastic Hydrothermal Generation Scheduling. *Journal of Systems Science and Systems Engineering*, 20(1):87–109, March 2011.
- [1653] A. K. Dhingra and B. H. Lee. A Genetic Algorithm Approach to Single and Multiobjective Structural Optimization with Discrete-Continuous Variables. *International Journal for Numerical Methods in Engineering*, 37:4059–4080, 1994.
- [1654] A. K. Dhingra and B. H. Lee. Multiobjective Design of Actively Controlled Structures Using a Hybrid Optimization Method. *International Journal for Numerical Methods in Engineering*, 38(20):3383–3401, October 30 1995.
- [1655] S. Dhouib, A. Kharrat, and H. Chabchoub. Goal programming using multiple objective hybrid metaheuristic algorithm. *Journal of the Operational Research Society*, 62(4):677–689, April 2011.
- [1656] Souhail Dhouib, Aida Kharrat, and Habib Chabchoub. A multi-start threshold accepting algorithm for multiple objective continuous optimization problems. *International Journal for Numerical Methods in Engineering*, 83(11):1498–1517, September 10 2010.

- [1657] K. D. Dhuri and P. Seshu. Multiobjective optimization of piezo actuator placement and sizing using genetic algorithm. *Journal of Sound and Vibration*, 323(3-5):495–514, June 19 2009.
- [1658] P. Di Barba. Multiobjective design optimisation: A microeconomics-inspired strategy applied to electromagnetics. *International Journal of Applied Electromagnetics and Mechanics*, 21(2):101–117, 2005.
- [1659] P. Di Barba. Strategies of game theory for the automated optimal design in electromechanics. *International Journal of Applied Electromagnetics and Mechanics*, 27(4):275–295, 2008.
- [1660] P. Di Barba and M. Farina. Multiobjective Shape Optimisation of Air Cored Solenoids. *COMPEL International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 21(1):45–57, 2002.
- [1661] P. Di Barba, M. Farina, and A. Savini. Vector Shape Optimisation of an Electrostatic Micromotor using a Genetic Algorithm. *COMPEL International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 19(2):576–581, 2000.
- [1662] P. Di Barba, M. Farina, and A. Savini. An improved technique for enhancing diversity in pareto evolutionary optimization of electromagnetic devices. *COMPEL International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 20(2):482–496, 2001.
- [1663] P. Di Barba, M. Farina, and A. Savini. Multiobjective Design Optimization of Real-Life Devices in Electrical Engineering: A Cost-Effective Evolutionary Approach. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 560–573. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1664] P. Di Barba and M. E. Mognaschi. Sorting Pareto solutions: a principle of optimal design for electrical machines. *Compel-The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 28(5):1227–1235, 2009.
- [1665] Paolo Di Barba. Dynamic multiobjective optimization: A way to the shape design with transient magnetic fields. *IEEE Transactions on Magnetics*, 44(6):962–965, June 2008.
- [1666] Paolo Di Barba. *Multiobjective Shape Design in Electricity and Magnetism*. Springer, Berlin, Germany, 2010. ISBN 978-90-481-3079-5.
- [1667] Paolo Di Barba, Maria Evelina Mognaschi, and Antonio Savini. Synthesizing a field source for magnetic stimulation of peripheral nerves. *IEEE Transactions on Magnetics*, 43(11):4023–4029, November 2007.

- [1668] Paolo Di Barba and Maria Evelina Mognashci. Industrial Design With Multiple Criteria: Shape Optimization of a Permanent-Magnet Generator. *IEEE Transactions on Magnetics*, 45(3):1482–1485, March 2009.
- [1669] Giovanni Di Nicola, Matteo Moglie, Marco Pacetti, and Giulio Santori. Bioenergy II: Modeling and Multi-Objective Optimization of Different Biodiesel Production Processes. *International Journal of Chemical Reactor Engineering*, 8, 2010. Article Number: A16.
- [1670] Francesco di Pierro. *Many-Objective Evolutionary Algorithms and Applications to Water Resources Engineering*. PhD thesis, School of Engineering, Computer Science and Mathematics, UK, August 2006.
- [1671] Francesco di Pierro, Shoon-Thiam Khu, and Dragan A. Savić. An Investigation on Preference Order Ranking Scheme for Multiobjective Evolutionary Optimization. *IEEE Transactions on Evolutionary Computation*, 11(1):17–45, February 2007.
- [1672] Francesco di Pierro, Soon-Thiam Khu, Dragan Savić, and Luigi Berardi. Efficient multi-objective optimal design of water distribution networks on a budget of simulations using hybrid algorithms. *Environmental Modelling & Software*, 24(2):202–213, February 2009.
- [1673] Alexandre H.F. Dias and João A. de Vasconcelos. Multiobjective genetic algorithms applied to solve optimization problems. *IEEE Transactions on Magnetics*, 38(2):1133–1136, March 2002.
- [1674] Joana Dias, M. Eugenia Captivo, and Joao Climaco. A memetic algorithm for multi-objective dynamic location problems. *Journal of Global Optimization*, 42(2):221–253, October 2008.
- [1675] Diego Sal Díaz and Manuel Gra na Romay. Introducing a Watermarking with a Multi-Objective Genetic Algorithm. In Hans-Georg Beyer et al., editor, *Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 2219–2220, Washington DC, USA, June 2005. ACM Press.
- [1676] Renio Díaz and Alejandro Rosete Suárez. A Study of the Capacity of the Stochastic Hill Climbing to Solve Multi-Objective Problems. In *Proceedings of the Third International Symposium on Adaptive Systems—Evolutionary Computation and Probabilistic Graphical Models*, pages 37–40, Havana, Cuba, March 19–23 2001. Institute of Cybernetics, Mathematics and Physics.
- [1677] Grant Dick. Automatic identification of the niche radius using spatially-structured clearing methods. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1264–1271, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1678] Grant Dick and Peter A. Whigham. Weighted local sharing and local clearing for multimodal optimisation. *Soft Computing*, 15(9):1707–1721, September 2011.

- [1679] Grant Dick and Peter A. Wingham. Multimodal Optimisation with Structured Populations and Local Environments. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 505–512. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [1680] Grant Dick and Peter A. Wingham. Spatially-Structured Evolutionary Algorithms and Sharing: Do They Mix? In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 457–464. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [1681] Robert P. Dick. *Multiobjective Synthesis of Low-Power Real-Time Distributed Embedded Systems*. PhD thesis, Electrical Engineering Department. Princeton University, November 2002.
- [1682] Robert P. Dick and Niraj K. Jha. MOGAC: A Multiobjective Genetic Algorithm for the Co-Synthesis of Hardware-Software Embedded Systems. In *IEEE/ACM Conference on Computer Aided Design*, pages 522–529, Los Alamitos, California, 1997. IEEE Computer Society Press.
- [1683] Robert P. Dick and Niraj K. Jha. CORDS: Hardware-Software Co-Synthesis of Reconfigurable Real-Time Distributed Embedded Systems. In *Proceedings of the International Conference on Computer-Aided Design*, pages 62–68, November 1998.
- [1684] Robert P. Dick and Niraj K. Jha. MOGAC: A Multiobjective Genetic Algorithm for Hardware-Software Co-synthesis of Hierarchical Heterogeneous Distributed Embedded Systems. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 17(10):920–935, October 1998.
- [1685] Robert P. Dick and Niraj K. Jha. MOCSYN: Multiobjective Core-Based Single-Chip System Synthesis. In *Proc. Design, Automation and Test in Europe*, pages 263–270, March 1999.
- [1686] J. A. Diego-Mas, S. Asencio-Cuesta, M. A. Sanchez-Romero, and M. A. Artacho-Ramirez. A multi-criteria genetic algorithm for the generation of job rotation schedules. *International Journal of Industrial Ergonomics*, 39(1):23–33, January 2009.
- [1687] A. Dietz, A. Aguilar-Lasserre, C. Azzaro-Pantel, L. Pibouleau, and S. Domenech. A fuzzy multiobjective algorithm for multiproduct batch plant: Application to protein production. *Computers & Chemical Engineering*, 32(1-2):292–306, January-February 2008.

- [1688] A. Dietz, C. Azzaro-Pantel, L. Pibouleau, and S. Domenech. Multiobjective optimization for multiproduct batch plant design under economic and environmental considerations. *Computers & Chemical Engineering*, 30(4):599–613, February 2006.
- [1689] A. Dietz, C. Azzaro-Pantel, L. Pibouleau, and S. Domenech. Optimal design of batch plants under economic and ecological considerations: Application to a biochemical batch plant. *Mathematical and Computer Modelling*, 46(1–2):109–123, July 2007.
- [1690] A. Dietz, C. Azzaro-Pantel, L. Pibouleau, and S. Domenech. Strategies for multiobjective genetic algorithm development: Application to optimal batch plant design in process systems engineering. *Computers & Industrial Engineering*, 54(3):539–569, April 2008.
- [1691] Adrian Dietz, Catherine Azzaro Pantel, Luc Guy Pibouleau, and Serge Domenech. Ecodesign of batch processes: Optimal design strategies for economic and ecological bioprocesses. *International Journal of Chemical Reactor Engineering*, 5, Art. No. A34, September 4 2007.
- [1692] C. Dimopoulos. A genetic programming methodology for the solution of the multi-objective cell-formation problem. In *Proceedings of the Joint Conference in Information Systems (JCIS '05)*, pages 1487–1494, Salt Lake City, Utah, USA, July 2005.
- [1693] C. Dimopoulos. A novel approach for the solution of the multiobjective cell-formation problem. In *Proceedings of the International Conference of Production Research (ICPR '05)*, Salerno, Italy, August 2005.
- [1694] C. Dimopoulos. Multiple Objectives in Cellular Manufacturing: An Evolutionary Approach. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture 2006. Proceedings of the Seventh International Conference*, pages 91–95, Bristol, UK, April 2006. The Institute for People-centred Computing.
- [1695] C. Dimopoulos. Explicit consideration of multiple objective in cellular manufacturing. *Engineering Optimization*, 39(5):551–565, July 2007.
- [1696] C. Dimopoulos and A. M. S. Zalzal. Evolutionary Computation Approaches to Cell Optimisation. In Ian Parmee, editor, *The Integration of Evolutionary and Adaptive Computing Technologies with Product/System Design and Realisation*, pages 69–83, Plymouth, United Kingdom, April 1998. Plymouth Engineering Design Centre, Springer-Verlag.
- [1697] C. Dimopoulos and A. M. S. Zalzal. Optimization of Cell Configuration and Comparisons using Evolutionary Computation Approaches. In David B. Fogel, editor, *Proceedings of the 1998 International Conference on Evolutionary Computation*, pages 148–153, Piscataway, New Jersey, 1998. IEEE.

- [1698] Christos Dimopoulos. A Review of Evolutionary Multiobjective Optimization Applications in the Area of Production Research. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1487–1494, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [1699] H.W. Ding, L. Benyoucef, and X.L. Xie. A simulation-based multi-objective genetic algorithm approach for networked enterprises optimization. *Engineering Applications of Artificial Intelligence*, 19(6):609–623, September 2006.
- [1700] Li-Ping Ding, Yi-Xiong Feng, Jian-Rong Tan, and Yi-Cong Gao. A new multi-objective ant colony algorithm for solving the disassembly line balancing problem. *International Journal of Advanced Manufacturing Technology*, 48(5 - 8):761–771, May 2011.
- [1701] Lixin Ding, Sanyou Zheng, and Lishan Kang. A Fast Algorithm on Finding the Non-dominated Set in Multi-objective Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2565–2571, Canberra, Australia, December 2003. IEEE Press.
- [1702] Yong-Sheng Ding, Zhi-Hua Hu, and Wen-Bin Zhang. Multi-criteria decision making approach based on immune co-evolutionary algorithm with application to garment matching problem. *Expert Systems with Applications*, 38(8):10377–10383, August 2011.
- [1703] Laura Dioşan. A multi-objective evolutionary approach to the portfolio optimization problem. In *CIMCA'05: Proceedings of the International Conference on Computational Intelligence for Modelling, Control and Automation and International Conference on Intelligent Agents, Web Technologies and Internet Commerce (CIMCA-IAWTIC'05)*, volume 2, pages 183–187, Vienna, Austria, November 28-30 2005. IEEE Computer Society. ISBN 0-7695-2504-0.
- [1704] R. P. Dionisio, G. Parca, C. Reis, and A. L. Teixeira. Operational parameter optimisation of MZI-SOA using multi-objective genetic algorithms. *Electronics Letters*, 47(9):561–562, April 28 2011.
- [1705] J. Dipama, A. Teyssedou, F. Aube, and L. Lizon-A-Lugrin. A grid based multi-objective evolutionary algorithm for the optimization of power plants. *Applied Thermal Engineering*, 30(8-9):807–816, June 2010.
- [1706] Federico Divina and Jesus S. Aguilar Ruiz. A Multi-Objective Approach to Discover Biclusters in Microarray Data. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 385–392, London, UK, July 2007. ACM Press.
- [1707] Urmila Diwekar and Yogendra Shastri. Design for environment: a state-of-the-art review. *Clean Technologies and Environmental Policy*, 13(2):227–240, April 2011.

- [1708] F. Djeflal and T. Bendib. Multi-objective genetic algorithms based approach to optimize the electrical performances of the gate stack double gate (gsdg) mosfet. *Microelectronics Journal*, 42(5):661–666, May 2011.
- [1709] Vladimir N. Dobrokhodov and Roman B. Statnikov. Multi-Criteria Identification of a Controllable Descending System. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 212–219, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [1710] Grzegorz Dobrowolski and Marek Kisiel-Dorhinicki. Management of Evolutionary MAS for Multiobjective Optimisation. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 81–90. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [1711] Grzegorz Dobrowolski and Marek Kisiel-Dorohinicki. Management of evolutionary MAS for multiobjective optimization. In *International Union of Theoretical and Applied Mechanics Symposium on Evolutionary Methods in Mechanics*, pages 17–18, Cracow, Poland, September 2002.
- [1712] T.A. Doby, D.H. Loughlin, F.L. de los Reyes, and J.J. Ducoste. Optimization of activated sludge designs using genetic algorithms. *Water Science and Technology*, 45(6):187–198, 2002.
- [1713] K. F. Doerner, W. J. Gutjahr, R. F. Hartl, C. Strauss, and C. Stummer. Nature-inspired metaheuristics for multiobjective activity crashing. *Omega-International Journal of Management Science*, 36(6):1019–1037, December 2008.
- [1714] Karl Doerner, Axel Focke, and Walter J. Gutjahr. Multicriteria tour planning for mobile healthcare facilities in a developing country. *European Journal of Operational Research*, 179(3):1078–1096, June 16 2007.
- [1715] Karl Doerner, Walter J. Gutjahr, Richard F. Hartl, Christine Strauss, and Christian Stummer. Ant Colony Optimization in Multiobjective Portfolio Selection. In *Proceedings of the 4th Metaheuristics International Conference (MIC'2001)*, pages 243–248, Porto, Portugal, July 2001.
- [1716] Karl Doerner, Walter J. Gutjahr, Richard F. Hartl, Christine Strauss, and Christian Stummer. Pareto Ant Colony Optimization: A Metaheuristic Approach to Multiobjective Portfolio Selection. *Annals of Operations Research*, 131(1–4):79–99, October 2004.
- [1717] Karl Doerner, Richard F. Hartl, and Marc Reimann. Are COMPETants more competent for problem solving? - The Case of Full Truckload Transportation. *Central European Journal of Operations Research*, 11(2):115–141, 2003.

- [1718] K.F. Doerner, W.J. Gutjahr, R.F. Hartl, C. Strauss, and C. Stummer. Pareto ant colony optimization with ILP preprocessing in multiobjective portfolio selection. *European Journal of Operational Research*, 171(3):830–841, June 2006.
- [1719] Benjamin Doerr and Daniel Johannsen. Edge-Based Representation Beats Vertex-Based Representation in Shortest Path Problems. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 759–766, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [1720] A. Dogan and F. Ozguner. Biobjective scheduling algorithms for execution time-reliability trade-off in heterogeneous computing systems. *Computer Journal*, 48(3):300–314, 2005.
- [1721] Lukáš Dolívka and Jiří Hospodka. Using the Differential Evolution Algorithm for the Multi-Objective Optimization of a Switched-Current Circuit. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1351–1358, Singapore, September 2007. IEEE Press.
- [1722] T. Donato, D. Laforgia, G. Aloisio, and S. Mocavero. An Evolutionary Algorithm to design Diesel Engines. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 802–809, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [1723] Teresa Donato. Optimal Design of a Common Rail Diesel Engine Piston. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 513–541. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [1724] Stéphane Doncieux and Jean-Baptiste Mouret. Single Step Evolution of Robot Controllers for Sequential Tasks. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1771–1772, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [1725] Hong Dong, Paolo Guarneri, and Georges Fadel. Bi-level Approach to Vehicle Component Layout with Shape Morphing. *Journal of Mechanical Design*, 133(4), April 2011. Article Number 041008.
- [1726] Hongyu Dong, Min Huang, and Xingwei Wang Ip. On the integrated charge planning with flexible jobs in primary steelmaking processes. *International Journal of Production Research*, 48(21):6499–6535, 2010.
- [1727] Weishan Dong and Xin Yao. NichingEDA: Utilizing the Diversity Inside a Population of EDAs for Continuous Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1260–1267, Hong Kong, June 2008. IEEE Service Center.
- [1728] D. C. Donha, D. S. Desanj, and M. R. Katebi. Genetic Algorithm for Weight Selection in h_∞ Control Design. In Thomas Bäck, editor, *Proceedings of the*

Seventh International Conference on Genetic Algorithms, pages 599–606, San Mateo, California, July 1997. Michigan State University, Morgan Kaufmann Publishers.

- [1729] Yezid Donoso, Carolina Alvarado, Alfredo Perez, and Ivan Herazo. A Multi-Objective Solution Applying MOEA in Optical Networks. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 360–367, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [1730] Yezid Donoso and Ramon Fabregat. *Multi-Objective Optimization in Computer Networks Using Metaheuristics*. Auerbach Publications, Boca Raton, Florida, 2007. ISBN 0-8493-8084-7.
- [1731] Yezid Donoso Meisel, Ramon Fabregat, and Lluís Fàbrega. Multi-Objective Scheme over Multi-Tree Routing in Multicast MPLS Networks. In *Proceedings of the IFIP/ACM Latin America Networking Conference 2003 (LANC03)*, La Paz, Bolivia, October 2003. ACM Press.
- [1732] Yezid Donoso Meisel. *Multi-Objective Optimization Scheme for Static and Dynamic Multicast Flows*. PhD thesis, Department of Electronics, Computer Science and Automatic Control, Universitat de Girona, Girona, Spain, April 2005.
- [1733] Jason L. Dorn and S. Ranji Ranjithan. Evolutionary Multiobjective Optimization in Watershed Water Quality Management. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 692–706, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1734] Jason Liam Dorn. *Evolutionary Algorithms to Aid Watershed Management*. PhD thesis, North Carolina State University, Raleigh, North Carolina, 2004.
- [1735] Rolf Dornberger, Lukas Frey, and Thomas Hanne. Single and Multiobjective Optimization of the Train Staff Planning Problem Using Genetic Algorithms. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 970–977, Hong Kong, June 2008. IEEE Service Center.
- [1736] Bernabé Dorronsoro, Pascal Bouvry, J. Alberto Cañero, Anthony A. Maciejewsky, and Howard Jay Siegel. Multi-objective robust static mapping of independent tasks on grids. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3389–3396, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1737] Leandro dos S. Coelho, Fabio A. Guerra, and Jean V. Leite. Multiobjective Exponential Particle Swarm Optimization Approach Applied to Hysteresis Parameters Estimation. *IEEE Transactions on Magnetics*, 48(2):283–286, February 2012.

- [1738] Eulanda M. Dos Santos, Robert Sabourin, and Patrick Maupin. Overfitting cautious selection of classifier ensembles with genetic algorithms. *Information Fusion*, 10(2):150–162, April 2009.
- [1739] Leandro dos Santos Coelho and Piergiorgio Alotto. Loney’s solenoid design using an artificial immune network with local search based on the simplex method. *IEEE Transactions on Magnetics*, 44(6):1070–1073, June 2008.
- [1740] Leandro dos Santos Coelho and Piergiorgio Alotto. Multiobjective electromagnetic optimization based on a nondominated sorting genetic approach with a chaotic crossover operator. *IEEE Transactions on Magnetics*, 44(6):1078–1081, June 2008.
- [1741] Leandro dos Santos Coelho, Helon Vicente Hultmann Ayala, and Piergiorgio Alotto. A Multiobjective Gaussian Particle Swarm Approach Applied to Electromagnetic Optimization. *IEEE Transactions on Magnetics*, 46(8):3289–3292, August 2010.
- [1742] Leandro dos Santos Coelho, Helon Vicente Hultmann Ayala, Nadia Nedjah, and Luiza de Macedo Mourelle. Multiobjective Gaussian Particle Swarm Approach Applied to Multi-loop PI Controller Tuning of a Quadruple-Tank System. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*, chapter 1, pages 1–16. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.
- [1743] Leandro dos Santos Coelho, Leandro Zavarez Barbosa, and Luiz Lebensztajn. Multiobjective Particle Swarm Approach for the Design of a Brushless DC Wheel Motor. *IEEE Transactions on Magnetics*, 46(8):2994–2997, August 2010.
- [1744] Leandro dos Santos Coelho, Marcelo Wicthoff Pessoa, Rodrigo Rodrigues Sumar, and Antonio Augusto Rodrigues Coelho. Model-free adaptive control design using evolutionary-neural compensator. *Expert Systems with Applications*, 37(1):499–508, January 2010.
- [1745] I. J. Dotu, J. Garcia, A. Berlanga, and J. M. Molina. A meta-level evolutionary strategy for many-criteria design: Application to improving tracking filters. *Advanced Engineering Informatics*, 23(3):243–252, July 2009.
- [1746] Gerry V. Dozier, Shaun McCullough, Abdollah Homaifar, and Loretta Moore. Multiobjective Evolutionary Path Planning via Fuzzy Tournament Selection. In *IEEE International Conference on Evolutionary Computation (ICEC’98)*, pages 684–689, Piscataway, New Jersey, May 1998. IEEE Press.
- [1747] Nicole Drechsler, Rolf Drechsler, and Bernd Becker. Multi-Objected Optimization in Evolutionary Algorithms Using Satisfiability Classes. In Bernd Reusch, editor, *International Conference on Computational Intelligence, Theory and Applications, 6th Fuzzy Days*, pages 108–117, Dortmund, Germany, 1999. Springer-Verlag. Lecture Notes in Computer Science Vol. 1625.

- [1748] Nicole Drechsler, Rolf Drechsler, and Bernd Becker. Multi-objective Optimisation Based on Relation *favour*. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 154–166. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1749] Rolf Drechsler, Nicole Göckel, and Bernd Becker. Learning Heuristics for OBDD Minimization by Evolutionary Algorithms. In *Parallel Problem Solving from Nature (PPSN'96)*, volume LNCS 1141, pages 730–739, Berlin, Germany, 1996. Springer-Verlag.
- [1750] Johann Dréo, Alain Pérowski, Patrick Siarry, and Eric Taillard. *Metaheuristics for Hard Optimization. Methods and Case Studies*. Springer, December 2005. ISBN 3-540-23022-X.
- [1751] Rafał Dreżewski, Krystian Obrocki, and Leszek Siwik. Comparison of Multi-agent Co-operative Co-evolutionary and Evolutionary Algorithms for Multi-objective Portfolio Optimization. In Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alcázar, Muddassar Farooq, Andreas Fink, and Penousal Machado, editors, *Applications of Evolutionary Computing*, pages 223–232. Springer. Lecture Notes in Computer Science Vol. 5484, 2009.
- [1752] Rafał Dreżewski, Jan Sepielak, and Leszek Siwik. Generating Robust Investment Strategies with Agent-Based Co-evolutionary System. In Marian Bubak and Geert Dick van Albada Jack Dongarra Peter M.A. Sloot, editors, *Computational Science — ICCS 2008, 8th International Conference*, pages 664–673, Kraków, Poland, June 2008. Springer-Verlag. Lecture Notes in Computer Science Vol. 5103.
- [1753] Rafał Dreżewski, Jan Sepielak, and Leszek Siwik. Classical and Agent-Based Evolutionary Algorithms for Investment Strategies Generation. In Anthony Brabazon and Michael O'Neill, editors, *Computational Intelligence in Finance*, volume 2, pages 181–205. Springer-Verlag, Berlin, Heidelberg, 2009. ISBN 978-3-540-95973-1.
- [1754] Rafał Dreżewski and Leszek Siwik. Co-Evolutionary Multi-Agent System with Sexual Selection Mechanism for Multi-Objective Optimization. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 2784–2791, Vancouver, BC, Canada, July 2006. IEEE.
- [1755] Rafał Dreżewski and Leszek Siwik. Multi-objective Optimization Using Co-evolutionary Multi-agent System with Host-Parasite Mechanism. In Vassil N. Alexandrov, G. Dick van Albada, Peter M. A. Sloot, and Jack Dongarra, editors, *International Conference on Computational Science — ICCS 2006*, pages 871–878, Berlin, Heidelberg, 2006. Springer-Verlag. Lecture Notes in Computer Science Vol. 3993.

- [1756] Rafał Dreżewski and Leszek Siwik. The Application of Agent-Based Co-Evolutionary System with Predator-Prey Interactions to Solving Multi-Objective Optimization Problems. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 294–301, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [1757] Rafał Dreżewski and Leszek Siwik. Co-evolutionary Multi-agent System with Predator-Prey Mechanism for Multi-objective Optimization. In Bartłomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA 2007, Part I*, pages 67–76, Warsaw, Poland, April 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4431.
- [1758] Rafał Dreżewski and Leszek Siwik. Multi-objective Optimization Technique Based on Co-evolutionary Interactions in Multi-agent System. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2007: EvoCOMNET, EvoFIN, EvoIASP, EvoINTERACTION, EvoMUSART, EvoSTOC and EvoTRANSLOG*, pages 179–188, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4448.
- [1759] Rafał Dreżewski and Leszek Siwik. Techniques for Maintaining Population Diversity in Classical and Agent-Based Multi-objective Evolutionary Algorithms. In Yong Shi, Geert Dick van Albada, Jack Dongarra, and Peter M.A. Sloot, editors, *Computational Science – ICCS 2007*, pages 904–911, Berlin, Heidelberg, May 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4488.
- [1760] Rafał Dreżewski and Leszek Siwik. Agent-based co-evolutionary techniques for solving multi-objective optimization problems. In Witold Kosinski, editor, *Advances in Evolutionary Algorithms*, chapter 12, pages 231–260. I-Tech Education and Publishing, Vienna, Austria, November 2008. ISBN 978-953-7619-11-4.
- [1761] Rafał Dreżewski and Leszek Siwik. Agent-Based Co-Operative Co-Evolutionary Algorithm for Multi-Objective Optimization. In L. Rutkowski, R. Tadeusiewicz, Lofti Zadeh, and Jacek M. Zurada, editors, *Artificial Intelligence and Soft Computing — ICAISC 2008*, pages 388–397, Berlin, Heidelberg, 2008. Springer-Verlag. Lecture Notes in Computer Science Vol. 5097.
- [1762] Rafał Dreżewski and Leszek Siwik. Agent-Based Multi-Objective Evolutionary Algorithm with Sexual Selection. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3680–3685, Hong Kong, June 2008. IEEE Service Center.
- [1763] Rafał Dreżewski and Leszek Siwik. Co-evolutionary Multi-Agent System for Portfolio Optimization. In Anthony Brabazon and Michael O'Neill, editors, *Natural Computation in Computational Finance*, pages 271–299. Springer-Verlag, Berlin, Heidelberg, 2008.

- [1764] Leila Dridi, Alain Mailhot, Marc Parizeau, and Jean-Pierre Villeneuve. Multiobjective Approach for Pipe Replacement Based on Bayesian Inference of Break Model Parameters. *Journal of Water Resources Planning and Management-ASCE*, 135(5):344–354, September-October 2009.
- [1765] Leila Dridi, Marc Parizeau, Alain Mailhot, and Jean-Pierre Villeneuve. Using evolutionary optimization techniques for scheduling water pipe renewal considering a short planning horizon. *Computer-Aided Civil and Infrastructure Engineering*, 23(8):625–635, November 2008.
- [1766] Moshe Dror and Melvin F. Shakun. Bifurcation and adaptation in evolutionary interactive multiobjective linear programming. *European Journal of Operational Research*, 93(3):602–610, September 20 1996.
- [1767] Madalina M. Drugan and Dirk Thierens. Path-Guided Mutation for Stochastic Pareto Local Search Algorithms. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature-PPSN XI, 11th International Conference, Proceedings, Part I*, pages 485–497. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [1768] Mădălina M. Drugan and Dirk Thierens. Generalized Adaptive Pursuit Algorithm for Genetic Pareto Local Search Algorithms. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1963–1970, Dublin, Ireland, July 12-16 2011. ACM Press.
- [1769] Grzegorz Drzadzewski and Mark Wineberg. The Importance of Scalability When Comparing Dynamic Weighted Aggregation and Pareto Front Techniques. In El-Ghazali Talbi, Pierre Liardet, Pierre Collet, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution, 7th International Conference, Evolution Artificielle, EA 2005*, pages 143–154. Springer, Lecture Notes in Computer Science Vol. 3871, Lille, France, October 2005.
- [1770] Feng Du and Gerald W. Evans. A bi-objective reverse logistics network analysis for post-sale service. *Computers & Operations Research*, 35(8):2617–2634, August 2008.
- [1771] Xinrui Duan, Jing Liu, Ruochen Liu, and Licheng Jiao. A Preference Oriented Two-Layered Multiagent Evolutionary Algorithm for Multi-Objective Job Shop Problems. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 553–557, Kanpur, India, December 1-4 2010. Springer, Lecture Notes in Computer Science Vol. 6457.
- [1772] Xinrui Duan, Jing Liu, Li Zhang, and Licheng Jiao. Multi-Objective Job Shop Scheduling Based on Multiagent Evolutionary Algorithm. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam

- Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 543–552, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [1773] Yao Duan, R.G. Harley, and T.G. Habetler. Multi-objective Design Optimization of Surface Mount Permanent Magnet Machine with Particle Swarm Intelligence. In *IEEE Swarm Intelligence Symposium 2008*, St. Louis, Missouri, USA, September 2008. IEEE Press.
 - [1774] Yao Duan and Ronald G. Harley. A Novel Method for Multiobjective Design and Optimization of Three Phase Induction Machines. *IEEE Transactions on Industry Applications*, 47(4):1707–1715, July - August 2011.
 - [1775] N.M. Duarte, A. E. Ruano, C.M. Fonseca, and P.J. Fleming. Accelerating Multi-Objective Control System Design Using a Neuro-Genetic Approach. In *2000 Congress on Evolutionary Computation*, volume 1, pages 392–397, Piscataway, New Jersey, July 2000. IEEE Service Center.
 - [1776] Susana Duarte Flores and Benjamín Barán Cegla. Multiobjective Network Design Optimisation Using Parallel Evolutionary Algorithms. In *XXVII Conferencia Latinoamericana de Informática (CLEI'2001)*, Mérida, Venezuela, 2001.
 - [1777] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. Automatic Configuration of State-of-the-art Multi-Objective Optimizers Using the TP+PLS Framework. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 2019–2026, Dublin, Ireland, July 12-16 2011. ACM Press.
 - [1778] Pietro Ducange, Rafael Alcalá, Francisco Herrera, Beatrice Lazzerini, and Francesco Marcelloni. Knowledge Base Learning of Linguistic Fuzzy Rule-Based Systems in a Multi-objective Evolutionary Framework. In Emilio Corchado, Ajith Abraham, and Witold Pedrycz, editors, *Hybrid Artificial Intelligence Systems. Third International Workshop (HAIS'2008)*, pages 747–754. Springer, Lecture Notes in Computer Science, Vol. 5271, Burgos, Spain, September 24-26 2008. ISBN 978-3-540-87655-7.
 - [1779] Pietro Ducange, Beatrice Lazzerini, and Francesco Marcelloni. Multi-objective genetic fuzzy classifiers for imbalanced and cost-sensitive datasets. *Soft Computing*, 14(7):713–728, May 2010.
 - [1780] F. Duchaine, T. Morel, and L.Y.M. Gicquel. Computational-Fluid-Dynamics-Based Kriging Optimization Tool for Aeronautical Combustion Chambers. *AIAA Journal*, 47(3):631–645, March 2009.
 - [1781] Florent Duchaine. *Optimisation de Forme Multi-Objectif sur Machines Parallèles avec Méta-Modèles et Coupleurs. Application aux Chambres de Combustion Aéronautiques*. PhD thesis, Institut National Polytechnique de Toulouse, France, 2007.

- [1782] E.I. Ducheyne, B. De Baets, and R.R. De Wulf. Even Flow Scheduling Problems in Forest Management. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 701–726. World Scientific, Singapore, 2004.
- [1783] E.I. Ducheyne, B. De Baets, and R.R. De Wulf. Fitness Inheritance in Multiple Objective Evolutionary Algorithms: A Test Bench and Real-World Evaluation. *Applied Soft Computing*, 8(1):337–349, January 2008.
- [1784] Els Ducheyne. *Multiple objective forest management using GIS and genetic optimisation techniques*. PhD thesis, Faculty of Agricultural and Applied Biological Sciences, University of Ghent, Belgium, September 2003.
- [1785] Els I. Ducheyne, Bernard De Baets, and Robert De Wulf. Is Fitness Inheritance Useful for Real-World Applications? In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 31–42, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1786] Els I. Ducheyne, Robert R. De Wulf, and Bernard De Baets. Bi-objective genetic algorithm for forest management: a comparative study. In *Proceedings of the 2001 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 63–66, San Francisco, California, July 2001.
- [1787] Pablo R. Duchowicz and Eduardo A. Castro. Partial Order Theory Applied to QSPR-QSAR Studies. *Combinatorial Chemistry & High Throughput Screening*, 11(10):783–793, December 2008.
- [1788] Jerzy Duda and Andrzej Osyczka. Multiple Criteria Lot-Sizing in a Foundry Using Evolutionary Algorithms. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 651–663, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [1789] Fabian Duddeck. Multidisciplinary optimization of car bodies. *Structural and Multidisciplinary Optimization*, 35(4):375–389, April 2008.
- [1790] James Dudley, Luigi Barone, and Lyndon While. Multi-Objective Spam Filtering Using an Evolutionary Algorithm. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 123–130, Hong Kong, June 2008. IEEE Service Center.
- [1791] A. Duenas, K. Best, and N. Mort. Solving Multiple Criteria Decision-Making Problem Under Uncertainty Using Protrade and @RISK 4.0. In *Advances in Fuzzy Systems and Evolutionary Computation*. WSEAS Press, 2002.
- [1792] A. Duenas and N. Mort. A Genetic Algorithm for Multiobjective Optimisation using the interactive Sequential Multiobjective Problem Solving Method.

In *Proceedings of the International Conference on Artificial Intelligence (IC-AI'2001)*, pages 633–639, Las Vegas, Nevada, June 2001. CSREA Press.

- [1793] A. Duenas and N. Mort. A Multiobjective Optimiser with a Fuzzy Genetic Algorithm. In *IASTED International Conference on Artificial Intelligence and Applications (AIA'2001)*, pages 191–197, Marbella, Spain, September 2001. ACTA Press.
- [1794] Alejandra Duenas, G. Yazgi Tutuncu, and James B. Chilcott. A genetic algorithm approach to the nurse scheduling problem with fuzzy preferences. *IMA Journal Of Management Mathematics*, 20(4):369–383, October 2009.
- [1795] Rodolfo Dufo-Lopez and Jose L. Bernal-Agustin. Multi-Objective design of PV-wind-diesel-hydrogen-battery Systems. *Renewable Energy*, 33(12):2559–2572, December 2008.
- [1796] Rodolfo Dufo Lopez, Jose L. Bernal Agustin, Jose M. Yusta Loyo, Jose A. Dominguez Navarro, Ignacio J. Ramirez Rosado, Juan Lujano, and Ismael Aso. Multi-objective optimization minimizing cost and life cycle emissions of stand-alone PV-wind-diesel systems with batteries storage. *Applied Energy*, 88(11):4033–4041, November 2011.
- [1797] J. Duggan, J. Byrne, and G.J. Lyons. A task allocation optimizer for software construction. *IEEE Software*, 21(3):76–82, May-June 2004.
- [1798] Jim Duggan. Using System Dynamics and Multiple Objective Optimization to Support Policy Analysis for Complex Systems. In H. Qudrat-Ullah, J.M. Spector, and P.I. Davidsen, editors, *Complex Decision Making. Theory and Practice*, pages 59–81. Springer, Berlin/Heidelberg/New York, 2008.
- [1799] Jiunn-Der Duh. Knowledge-Informed Simulated Annealing for Spatial Allocation Problems. In Cher Ming Tan, editor, *Simulated Annealing*, chapter 6, pages 105–118. In-Teh, Croatia, September 2008. ISBN 978-953-7619-07-7.
- [1800] Gift Dumedah, Aaron A. Berg, Mark Wineberg, and Robert Collier. Selecting Model Parameter Sets from a Trade-off Surface Generated from the Non-Dominated Sorting Genetic Algorithm-II. *Water Resources Management*, 24(15):4469–4489, December 2010.
- [1801] D. Dumitrescu, Crina Groşan, and Mihai Oltean. A New Evolutionary Approach for Multiobjective Optimization. *Studia Universitatis Babeş-Bolyai, Informatica*, XLV(1):51–68, 2000.
- [1802] D. Dumitrescu, Crina Groşan, and Mihai Oltean. Genetic Chromodynamics for Obtaining Continuous Representation of Pareto Regions. *Studia Universitatis Babeş-Bolyai, Informatica*, XLVI(1):15–30, 2001.
- [1803] D. Dumitrescu, Crina Groşan, and Mihai Oltean. Evolving Continuous Pareto Regions. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 167–199. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.

- [1804] D. Dumitrescu, Rodica Ioana Lung, Noémi Gaskó, and Tudor Mihoc Dan. Evolutionary Detection of Aumann Equilibrium. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 827–828, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [1805] D. Dumitrescu, Rodica Ioana Lung, and Tudor Dan Mihoc. Evolutionary Equilibria Detection in Non-cooperative Games. In Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alc'azar, Muddassar Farooq, Andreas Fink, and Penousal Machado, editors, *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pages 253–262. Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.
- [1806] D. Dumitrescu, Rodica Ioana Lung, Réka Nagy, Daniela Zaharie, and Attila Bartha. Exploring Evolutionary Detected Fuzzy Equilibria: A Link Between Normative Theory and Real Life. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 539–540, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [1807] Dumitru Dumitrescu, Rodica Ioana Lung, Tudor Dan Mihoc, and Reka Nagy. Fuzzy Nash-Pareto Equilibrium: Concepts and Evolutionary Detection. In Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcazar, Chi-Keong Goh, Juan J. Merelo, Ferrante Neri, Mike Preuss, Julian Togelius, and Georgios N. Yannakakis, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM and EvoSTOC*, pages 71–79, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6024.
- [1808] Dumitru Dumitrescu, Rodica Ioana Lung, Réka Nagy, Daniela Zaharie, Attila Bartha, and Doina Logofătu. Evolutionary Detection of New Classes of Equilibria: Application in Behavioral Games. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 432–441. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [1809] Hugo Duncan, Gerard Leconte, and Peter Utiger. Using Genetic Algorithms in Industry – Art or Science? In Alwyn M. Barry, editor, *GECCO 2002: Proceedings of the Bird of a Feather Workshops, Genetic and Evolutionary Computation Conference*, pages 211–214, New York, July 2002. AAAI.
- [1810] Enrique Dunn and Gustavo Olague. Multi-objective Sensor Planning for Efficient and Accurate Object Reconstruction. In Günther R. Raidl et al., editor, *Applications of Evolutionary Computing. Proceedings of Evoworkshops*

2004: *EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 312–321, Coimbra, Portugal, April 2004. Springer. Lecture Notes in Computer Science Vol. 3005.

- [1811] Enrique Dunn, Gustavo Olague, Evelyn Lutton, and Marc Schoenauer. Pareto Optimal Sensing Strategies for an Active Vision System. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 457–463, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [1812] Nguyen Binh Ta Duong, Suiping Zhou, Wentong Cai, Xueyan Tang, and Rassul Ayani. Multi-objective Zone Mapping in Large-scale Distributed Virtual Environments. *Journal of Network and Computer Applications*, 34(2):551–561, March 2011.
- [1813] O. Duque, D. Morinigo, and J. L. del Alamo. Tabu search based algorithm for the multi-criteria optimisation of service restoration in electrical distribution networks. *International Review of Electrical Engineering-IREE*, 2(1):5–13, January-February 2007.
- [1814] Juan Manuel Herrero Durá, Xavier Blasco Ferragud, M. Martínez, and Javier Sanchis. Multiobjective Tuning of Robust PID Controllers Using Evolutionary Algorithms. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC, and EvoTransLog*, pages 515–524. Springer. Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
- [1815] Feijoo Colomine Duran, Carlos Cotta, and Antonio J. Fernández. Evolutionary Optimization for Multiobjective Portfolio Selection under Markowitzs Model with Application to the Caracas Stock Exchange. In Raymond Chiong, editor, *Nature-Inspired Algorithms for Optimisation*, pages 489–509. Springer, Berlin, 2009. ISBN 978-3-642-00266-3.
- [1816] Orlando Duran, Roberto Barrientos, and Luiz Airtton Consalter. Multi Objective Optimization in Machining Operations. In Patricia Melin, Oscar Castillo, Eduardo Gómez-Ramírez, Janusz Kacprzyk, and Witold Pedrycz, editors, *Analysis and Design of Intelligent Systems using Soft Computing Techniques*, pages 455–462. Springer, Advances in Soft Computing, Vol. 41, 2007. ISBN 978-3-540-72431-5.
- [1817] J.J. Durillo, A.J. Nebro, C.A. Coello Coello, J. Garcia-Nieto, F. Luna, and E. Alba. A Study of Multiobjective Metaheuristics When Solving Parameter Scalable Problems. *IEEE Transactions on Evolutionary Computation*, 14(4):618–635, August 2010.
- [1818] J.J. Durillo, A.J. Nebro, F. Luna, C.A. Coello Coello, and E. Alba. Convergence Speed in Multi-Objective Metaheuristics: Efficiency Criteria and Empirical Study. *International Journal for Numerical Methods in Engineering*, 84(11):1344–1375, December 10 2010.

- [1819] Juan J. Durillo, José García-Nieto, Antonio J. Nebro, Carlos A. Coello Coello, Francisco Luna, and Enrique Alba. Multi-Objective Particle Swarm Optimizers: An Experimental Comparison. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 495–509. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [1820] Juan J. Durillo and Antonio J. Nebro. jMetal: A Java framework for multi-objective optimization. *Advances in Engineering Software*, 42(10):760–771, October 2011.
- [1821] Juan J. Durillo, Antonio J. Nebro, and Enrique Alba. The jMetal framework for multi-objective optimization: Design and architecture. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4318–4325, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1822] Juan J. Durillo, Antonio J. Nebro, Carlos A. Coello Coello, Francisco Luna, and Enrique Alba. A Comparative Study of the Effect of Parameter Scalability in Multi-Objective Metaheuristics. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1893–1900, Hong Kong, June 2008. IEEE Service Center.
- [1823] Juan J. Durillo, Antonio J. Nebro, José García-Nieto, and Enrique Alba. On the Velocity Update in Multi-Objective Particle Swarm Optimizers. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 3, pages 45–62. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.
- [1824] Juan J. Durillo, Antonio J. Nebro, Francisco Luna, and Enrique Alba. On the Effect of the Steady-State Selection Scheme in Multi-Objective Genetic Algorithms. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 183–197. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [1825] Juan J. Durillo, Qingfu Zhang, Antonio J. Nebro, and Enrique Alba. Distribution of Computational Effort in Parallel MOEA/D. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 488–502, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
- [1826] Juan José Durillo, Antonio J. Nebro, Francisco Luna, and Enrique Alba. Solving Three-Objective Optimization Problems Using a New Hybrid Cellular Genetic Algorithm. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 661–670. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.

- [1827] Juan José Durillo Barrionuevo. *Metaheuristics for Multi-objective Optimization: Design, Analysis, and Applications*. PhD thesis, Departamento de Lenguajes y Ciencias de la Computación, Universidad de Málaga, Spain, March 2011.
- [1828] Antoine Dymond. Multiple objective optimization of an airfoil shape. Master's thesis, Department of Mechanical and Aeronautical Engineering, Faculty of Engineering, the Built Environment and Information Technology, University of Pretoria, Pretoria, South Africa, February 15 2011.
- [1829] Marc Ebner, Patrick Stalph, Martin Michel, and Roland Benz. Evolutionary parameter optimization of a fuzzy controller which is used to control a sewage treatment plant. *Water Science and Technology*, 61(1):53–66, 2010.
- [1830] Marc Ebner and Andreas Zell. Evolving a Task Specific Image Operator. In Riccardo Poli, Hans-Michael Voigt, Stefano Cagnoni, David Corne, George D. Smith, and Terence C. Fogarty, editors, *Evolutionary Image Analysis, Signal Processing and Telecommunications*, pages 74–89. Springer. Lecture Notes in Computer Science Volume 1596, Berlin, May 1999.
- [1831] R. Mohammad Ebrahim, J. Razmi, and H. Haleh. Scatter search algorithm for supplier selection and order lot sizing under multiple price discount environment. *Advances in Engineering Software*, 40(9):766–776, 2009.
- [1832] Mauricio Granada Echeverri, Jesus Maria Lopez Lezama, and Ruben Romero. An efficient constraint handling methodology for multi-objective evolutionary algorithms. *Revista Facultad de Ingenieria-Universidad de Antioquia*, 49:141–150, September 2009.
- [1833] R.M. Edwards and G.G. Cook. 3G Tri Band Probe Fed Printed Eccentric Spiral Antenna for Nomadic Wireless Devices Using Optimal Convergence for Pareto Ranked Genetic Algorithm. In *Eleven International Conference on Antennas and Propagation*, volume 2, pages 537–541. IEEE, 2001.
- [1834] R.M. Edwards, G.G. Cook, S.K. Kharmas, R.J. Aidley, and B. Chambers. Design of circularly polarised printed spiral antenna using dual objective genetic algorithm. *Electronics Letters*, 34(7):608–609, April 1998.
- [1835] Andreas Efstratiadis and Demetris Koutsoyiannis. One decade of multi-objective calibration approaches in hydrological modelling: a review. *Hydrological Sciences Journal-Journal Des Sciences Hydrologiques*, 55(1):58–78, 2010.
- [1836] G.A. Efthimeros, D.I. Photeinos, I.G. Katsipou, Z.G. Diamantis, and D.T. Tsalhalis. Optimisation of an Industrial Cogeneration System by means of a Multi-Objective Genetic Algorithm. In *Proceedings of the 10th European Symposium on Computer Aided Process Engineering*, pages 25–29, Florence, Italy, 2000.

- [1837] Medhi Eghbal, Naoto Yorino, Yoshifumi Zoka, and E. E. El-Araby. Application of Multi-Objective Evolutionary Optimization Algorithms to Reactive Power Planning Problem. *IEEE Transactions on Electrical And Electronic Engineering*, 4(5):625–632, September 2009.
- [1838] Igor N. Egorov-Yegorov and George S. Dulikravich. Chemical composition design of superalloys for maximum stress, temperature, and time-to-rupture using self-adaptive surface optimization. *Materials and Manufacturing Processes*, 20(3):569–590, 2005.
- [1839] Toru Eguchi, Kotaro Hirasawa, and Jinglu Hu. Symbiotic Evolutional Models in Multiagent Systems. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC’2003)*, volume 2, pages 739–746, Canberra, Australia, December 2003. IEEE Press.
- [1840] Matthias Ehrgott. Approximation algorithms for combinatorial multicriteria optimization problems. *International Transactions in Operational Research*, 7:5–31, 2000.
- [1841] Matthias Ehrgott and Xavier Gandibleux. An Annotated Bibliography of Multi-objective Combinatorial Optimization. Technical Report 62/2000, Fachbereich Mathematik, Universitat Kaiserslautern, Kaiserslautern, Germany, 2000.
- [1842] Matthias Ehrgott and Xavier Gandibleux. A Survey and Annotated Bibliography of Multiobjective Combinatorial Optimization. *OR Spektrum*, 22:425–460, 2000.
- [1843] Matthias Ehrgott and Xavier Gandibleux. Multiobjective Combinatorial Optimization—Theory, Methodology, and Applications. In Matthias Ehrgott and Xavier Gandibleux, editors, *Multiple Criteria Optimization: State of the Art Annotated Bibliographic Surveys*, pages 369–444. Kluwer Academic Publishers, Boston, 2002.
- [1844] Matthias Ehrgott and Xavier Gandibleux, editors. *Multiple Criteria Optimization: State of the Art Annotated Bibliographic Surveys*. Kluwer Academic Publishers, Boston, 2002. ISBN 1-4020-7128-0.
- [1845] Matthias Ehrgott and Xavier Gandibleux. Approximative Solution Methods for Multiobjective Combinatorial Optimization. *Top*, 12(1):1–89, June 2004.
- [1846] Matthias Ehrgott and Xavier Gandibleux. Hybrid Metaheuristics for Multi-objective Combinatorial Optimization. In Christian Blum, María J. Blesa Aguilera, Andrea Roli, and Michael Sampels, editors, *Hybrid Metaheuristics*, pages 221–259. Springer. Studies in Computational Intelligence Vol. 114, 2008.
- [1847] Matthias Ehrgott, Kathrin Klamroth, and Christian Schwehm. An MCDM approach to portfolio optimization. *European Journal of Operational Research*, 155(3):752–770, June 2004.

- [1848] M. Eisenring, L. Thiele, and E. Zitzler. Conflicting Criteria in Embedded System Design. *IEEE Design and Test*, 17(2):51–59, April–June 2000.
- [1849] Anikó Ekárt and S.Z. Németh. Selection Based on the Pareto Nondomination Criterion for Controlling Code Growth in Genetic Programming. *Genetic Programming and Evolvable Machines*, 2(1):61–73, March 2001.
- [1850] Asif Ekbal, Sriparna Saha, and Christoph S. Garbe. Multiobjective Optimization Approach for Named Entity Recognition. In Byoung-Tak Zhang and Mehmet A. Orgun, editors, *PRICAI 2010: Trends in Artificial Intelligence, 11th Pacific Rim International Conference on Artificial Intelligence*, pages 52–63, Daegu, Korea, August 30 - September 2 2010. Springer. Lecture Notes in Artificial Intelligence Vol. 6230.
- [1851] Neil H. Eklund and Mark J. Embrechts. GA-Based Multi-Objective Optimization of Visible Spectra for Lamp Design. In Cihan H. Dagli, Anna L. Buczak, Joydeep Ghosh, Mark J. Embrechts, and Okan Ersoy, editors, *Smart Engineering System Design: Neural Networks, Fuzzy Logic, Evolutionary Programming, Data Mining and Complex Systems*, pages 451–456, New York, November 1999. ASME Press.
- [1852] Neil H. Eklund and Mark J. Embrechts. Determining the Color-Efficiency Pareto Optimal Surface for Filtered Light Sources. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 603–611. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1853] Neil H. Eklund and Mark J. Embrechts. Multi-Objective Optimization of Spectra Using Genetic Algorithms. *Journal of Illuminating Engineering Society*, 30:65–72, 2001.
- [1854] Neil Holger White Eklund. *Multiobjective Visible Spectrum Optimization: A Genetic Algorithm Approach*. PhD thesis, Rensselaer Polytechnic Institute, Troy, New York, USA, September 2002.
- [1855] El-Sayed M. El-Alfy, Shokri Z. Selim, and Syed N. Mujahid. Solving the Minimum-Cost Constrained Multipath Routing with Load Balancing in MPLS Networks Using an Evolutionary Method. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4433–4438, Singapore, September 2007. IEEE Press.
- [1856] T.M. El-Hossainy, A.A. El-Zoghby, M.A. Badr, K.Y. Maalawi, and M.F. Nasr. Cutting Parameter Optimization when Machining Different Materials. *Materials and Manufacturing Processes*, 25(10):1101–1114, 2010.
- [1857] K. El-Rayes and K. Hyari. Optimal lighting arrangements for nighttime highway construction projects. *Journal of Construction Engineering and Management–ASCE*, 131(12):1292–1300, December 2005.

- [1858] Khaled El-Rayes and Khalied Hyari. Automated DSS for Lighting Design of Nighttime Operations in Highway Construction Projects. In *Proceedings of the 19th International Symposium on Automation and Robotics in Construction (ISARC)*, pages 135–140, Gaithersburg, Maryland, September 2002. National Institute of Standards and Technology.
- [1859] M. El Semelawy, A.O. Nassef, and A.A. El Damatty. Design of prestressed concrete flat slab using modern heuristic optimization techniques. *Expert Systems with Applications*, 39(5):5758–5766, April 2012.
- [1860] Nasser El-Sherbeny. *Resolution of a Vehicle Routing Problem with Multiobjective Simulated Annealing Method*. PhD thesis, Faculté Polytechnique de Mons, Belgium, 2001.
- [1861] A.M. El-Zonkoly. Optimal placement of multi-distributed generation units including different load models using particle swarm optimisation. *IET Generation Transmission & Distribution*, 5(7):760–771, July 2011.
- [1862] Samya Elaoud, Taicir Loukil, and Jacques Teghem. The Pareto fitness genetic algorithm: Test function study. *European Journal of Operational Research*, 177(3):1703–1719, March 16 2007.
- [1863] Samya Elaoud, Jacques Teghem, and Bassem Bouaziz. Genetic algorithms to solve the cover printing problem. *Computers & Operations Research*, 34(11):3346–3361, November 2007.
- [1864] Ashraf Elazouni and Mohammad Abido. Multiobjective evolutionary finance-based scheduling: Individual projects within a portfolio. *Automation in Construction*, 20(7):755–766, November 2011.
- [1865] C. Elegbede and K. Adjallah. Availability allocation to repairable systems with genetic algorithms: a multi-objective formulation. *Reliability Engineering & Systems Safety*, 82(3):319–330, December 2003.
- [1866] Ahmed Elhossini, Shawki Areibi, and Robert Dony. Strength Pareto Particle Swarm Optimization and Hybrid EA-PSO for Multi-Objective Optimization. *Evolutionary Computation*, 18(1):127–156, Spring 2010.
- [1867] Lionel Elliot, Derek B. Ingham, Adrian G. Kyne, Nicolae S. Mera, Mohamed Purkashanian, and Christopher W. Wilson. Optimisation of Reaction Mechanisms for Aviation Fuels Using a Multi-objective Genetic Algorithm. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 2046–2057. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [1868] Sonda Elloumi and Philippe Fortemps. A hybrid rank-based evolutionary algorithm applied to multi-mode resource-constrained project scheduling problem. *European Journal Of Operational Research*, 205(1):31–41, August 16 2010.

- [1869] Mohammed Elmsrati, Hassan El-Sallabi, and Heikki Koivo. Applications of multi-objective optimization techniques in radio resource scheduling of cellular communication systems. *IEEE Transactions on Wireless Communications*, 7(1):343–353, January 2008.
- [1870] Khairy Elsayed and Chris Lacor. Modeling and Pareto optimization of gas cyclone separator performance using RBF type artificial neural networks and genetic algorithms. *Powder Technology*, 217:84–99, February 2012.
- [1871] M. A. Elsays, M. Naguib Aly, and A. A. Badawi. Design optimization of shell-and-tube heat exchangers using single objective and multiobjective particle swarm optimization. *Kerntechnik*, 75(1-2):38–46, March 2010.
- [1872] M.A. Elsays, M. Naguib Aly, and A.A. Badawi. Optimizing the dynamic response of the H. B. Robinson nuclear plant using multiobjective particle swarm optimization. *Kerntechnik*, 74(1-2):70–78, April 2009.
- [1873] T. A. Ely, W. A. Crossley, and E. A. Williams. Satellite Constellation Design for Zonal Coverage using Genetic Algorithms. In *8th AAS/AIAA Space Flight Mechanics Meeting*, Monterey, California, February 1998.
- [1874] T.A. Ely, W.A. Crossley, and E.A. Williams. Satellite constellation design for zonal coverage using genetic algorithms. *Journal Of The Astronautical Sciences*, 47(3-4):207–228, July-December 1999.
- [1875] C. Emmanouilidis, A. Hunter, and J. MacIntyre. A Multiobjective Evolutionary Setting for Feature Selection and a Commonality-Based Crossover Operator. In *2000 Congress on Evolutionary Computation*, volume 1, pages 309–316, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [1876] C. Emmanouilidis, A. Hunter, J. MacIntyre, and C. Cox. Multiple Criteria Genetic Algorithms for Feature Selection in Neurofuzzy Modeling. In *1999 International Joint Conference on Neural Networks*, volume 6, pages 4387–4392, Washington, D.C., July 1999.
- [1877] C. Emmanouilidis, A. Hunter, J. MacIntyre, and C. Cox. Selecting Features in Neurofuzzy Modelling by Multiobjective Genetic Algorithms. In *9th International Conference on Artificial Neural Networks*, volume 2, pages 749–754, Edinburgh, UK, September 1999. IEEE.
- [1878] Christos Emmanouilidis and Andrew Hunter. A Comparison of Crossover Operators in Neural Network Feature Selection with Multiobjective Evolutionary algorithms. In *GECCO-2000 Workshop on Evolutionary Computation in the Development of Artificial Neural Networks*, pages 58–60, Las Vegas, Nevada, July 2000.
- [1879] L. R. Emmendorfer and A. T. R. Pozo. An Empirical Evaluation of Linkage Learning Strategies for Multimodal Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 326–333, Singapore, September 2007. IEEE Press.

- [1880] Leonardo Emmendorfer and Aurora Pozo. A Clustering-Based Approach for Linkage Learning Applied to Multimodal Optimization. In Ying ping Chen and Meng-Hiot Lim, editors, *Linkage in Evolutionary Computation*, pages 225–248. Springer-Verlag, Berlin Heidelberg, 2008.
- [1881] Michael Emmerich, Nicola Beume, and Boris Naujoks. An EMO Algorithm Using the Hypervolume Measure as Selection Criterion. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 62–76, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [1882] Michael Emmerich, André Deutz, and Nicola Beume. Gradient-Based/Evolutionary Relay Hybrid for Computing Pareto Front Approximations Maximizing the S-Metric. In Thomas Bartz-Beielstein, María José Blesa Aguilera, Christian Blum, Boris Naujoks, Andrea Roli, Günter Rudolph, and Michael Sampels, editors, *Hybrid Metaheuristics, 4th International Workshop, HM 2007*, pages 140–156, Dortmund, Germany, October 2007. Springer. Lecture Notes in Computer Science Vol. 4771.
- [1883] Michael Emmerich and Boris Naujoks. Metamodel Assisted Multiobjective Optimisation Strategies and their Application in Airfoil Design. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture VI*, pages 249–260, London, 2004. Springer.
- [1884] Michael T.M. Emmerich. *Single- and Multi-objective Evolutionary Design Optimization Assisted by Gaussian Random Field Metamodels*. PhD thesis, University of Dortmund, Germany, October 2005.
- [1885] Michael T.M. Emmerich and André H. Deutz. Test Problems Based on Lamé Superspheres. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 922–936, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1886] Michael T.M. Emmerich and Carlos M. Fonseca. Computing Hypervolume Contributions in Low Dimensions: Asymptotically Optimal Algorithm and Complexity Results. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 121–135, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [1887] Michael T.M. Emmerich, Kyriakos C. Giannakoglou, and Boris Naujoks. Single- and Multiobjective Evolutionary Optimization Assisted by Gaussian Random Field Metamodels. *IEEE Transactions on Evolutionary Computation*, 10(4):421–439, August 2006.

- [1888] A. P. Engelbrecht and L.N.H. van Loggerenberg. Enhancing the NichePSO. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2297–2302, Singapore, September 2007. IEEE Press.
- [1889] Orhan Engin, Cengiz Kahraman, and Mustafa Kerim Yilmaz. A Scatter Search Method for Multiobjective Fuzzy Permutation Flow Shop Scheduling Problem: A Real World Application. In Uday K. Chakraborty, editor, *Computational Intelligence in Flow Shop and Job Shop Scheduling*, Studies in Computational Intelligence (SCI), pages 169–189. Springer, Berlin, 2009. ISBN 978-3-642-02835-9.
- [1890] P. Engrand. A multi-objective optimization approach based on simulated annealing and its application to nuclear fuel management. In *Proceedings of the Fifth International Conference on Nuclear Engineering*, pages 416–423, Nice, France, May 1997. American Society of Mechanical Engineering.
- [1891] Jason W. Enslin. An Evolutionary Algorithm Approach to Simultaneous Multi-Mission Radar Waveform Design. Master’s thesis, Department of Electrical Engineering, Rochester Institute of Technology, Rochester, New York, August 2007.
- [1892] Cagkan Erbas, Selin Cerac-Erbas, and Andy D. Pimentel. Multiobjective Optimization and Evolutionary Algorithms for the Application Mapping Problem in Multiprocessor System-on-Chip Design. *IEEE Transactions on Evolutionary Computation*, 10(3):358–374, June 2006.
- [1893] Cagkan Erbas, Selin C. Erbas, and Andy D. Pimentel. A Multiobjective Optimization Model for Exploring Multiprocessor Mappings of Process Networks. In *First IEEE/ACM/IFIP International Conference on Hardware/Software Codesign and System Synthesis (CODES+ISSS'03)*, pages 182–187, Newport Beach, California, USA, October 2003. IEEE.
- [1894] Fatih Safa Erenay, Ihsan Sabuncuoglu, Ayseguel Toptal, and Manoj Kumar Tiwari. New solution methods for single machine bicriteria scheduling problem: Minimization of average flowtime and number of tardy jobs. *European Journal of Operational Research*, 201(1):89–98, February 16 2010.
- [1895] Mark Erickson, Alex Mayer, and Jeffrey Horn. The Niched Pareto Genetic Algorithm 2 Applied to the Design of Groundwater Remediation Systems. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 681–695. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [1896] Mark Erickson, Alex Mayer, and Jeffrey Horn. Multi-objective optimal design of groundwater remediation systems: application of the niched Pareto genetic algorithm (NPGA). *Advances in Water Resources*, 25(1):51–65, January 2002.

- [1897] Mark Erickson, Alex S. Mayer, and Jeffrey Horn. Development of a Multi-Objective Optimization Framework for Groundwater Remediation Design Using the Niched-Pareto Genetic Algorithm. In *EOS: Transactions of American Geophysical Union*, pages F840–F843. Am. Geophys. Union, 1999.
- [1898] Henrik Esbensen and Ernest S. Kuh. Design space exploration using the genetic algorithm. In *IEEE International Symposium on Circuits and Systems (ISCAS'96)*, pages 500–503, Piscataway, NJ, 1996. IEEE.
- [1899] Henrik Esbensen and Ernest S. Kuh. EXPLORER: An Interactive Floorplaner for Design Space Exploration. In *Proceedings of the European Design Automation Conference*, pages 356–361, 1996.
- [1900] Hamidreza Eskandari and Christopher D. Geiger. A fast pareto genetic algorithm approach for solving expensive multiobjective optimization problems. *Journal of Heuristics*, 14(3):203–241, June 2008.
- [1901] Hamidreza Eskandari and Christopher D. Geiger. Evolutionary multiobjective optimization in noisy problem environments. *Journal of Heuristics*, 15(6):559–595, December 2009.
- [1902] Hamidreza Eskandari, Christopher D. Geiger, and Robert Bird. Handling Uncertainty in Evolutionary Multiobjective Optimization: SPGA. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4130–4137, Singapore, September 2007. IEEE Press.
- [1903] Hamidreza Eskandari, Christopher D. Geiger, and Gary B. Lamont. FastPGA: A Dynamic Population Sizing Approach for Solving Expensive Multiobjective Optimization Problems. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 141–155, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1904] Hamidreza Eskandari, Luis Rabelo, and Mansooreh Mollaghasemi. Multiobjective Simulation Optimization Using an Enhanced Genetic Algorithm. In M.E. Kuhl, N.M. Steiger, F.B. Armstrong, and J.A. Joines, editors, *Proceedings of 2005 Winter Simulation Conference*, pages 833–841, Orlando, Florida, USA, December 2005.
- [1905] Mahdiyeh Eslami, Hussain Shareef, Azah Mohamed, and S.P. Ghoshal. Tuning of Power System Stabilizers Using Particle Swarm Optimization with Passive Congregation. *International Journal of the Physical Sciences*, 5(17):2574–2589, December 18 2010.
- [1906] Mandiyeh Eslami, Hussein Shareef, Azah Mohamed, and Mohammad Khajezadeh. Damping of Power System Oscillations Using Genetic Algorithm and Particle Swarm Optimization. *International Review of Electrical Engineering-IREE, Part B*, 5(6):2745–2753, November–December 2010.

- [1907] Afshin Esmaeili and Christian Jacob. A multi-objective differential evolutionary approach toward more stable gene regulatory networks. *Biosystems*, 98(3):127–136, December 2009.
- [1908] Anna Esparcia-Alcázar, Ana I. Martínez-García, José Miguel Albarracín-Guillem, Marta E. Palmer-Gato, Juan Julián Merelo Guervós, Ken Sharman, and Eva Alfaro-Cid. A Multiobjective Evolutionary Algorithm for the Linear Shelf Space Allocation Problem. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 1001–1010. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [1909] Anna I. Esparcia-Alcázar, Anaís Martínez-García, Antonio M. Mora, J. J. Merelo, and Pablo García-Sánchez. Genetic Evolution of Fuzzy Finite State Machines to Control Bots in a First-Person Shooter Game. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 829–830, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [1910] S. Esquivel, S. Ferrero, and R. Gallard. Parameter settings and representations in pareto-based optimization for job shop scheduling. *Cybernetics and Systems*, 33(6):559–578, September 2002.
- [1911] S. Esquivel, S. Ferrero, R. Gallard, C. Salto, H. Alfonso, and M. Schütz. Enhanced evolutionary algorithms for single and multiobjective optimization in the job scheduling problem. *Knowledge-Based Systems*, 15(1–2):13–25, January 2002.
- [1912] Susana C. Esquivel, Héctor A. Leiva, and Raúl H. Gallard. Multiplicity in Genetic Algorithms to face Multicriteria Optimization. In *1999 Congress on Evolutionary Computation*, pages 85–90, Washington, D.C., July 1999. IEEE Service Center.
- [1913] James Ethridge, Gregory Ditzler, and Robi Polikar. Optimal ν -SVM parameter estimation using multi objective evolutionary algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3570–3577, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1914] C Evans, PJ Fleming, DC Hill, JP Norton, I Pratt, D Rees, and K Rodriguez-Vazquez. Application of system identification techniques to aircraft gas turbine engines. *Control Engineering Practice*, 9(2):135–148, February 2001.
- [1915] Richard M. Everson and Jonathan E. Fieldsend. Multi-class ROC analysis from a multi-objective optimisation perspective. Technical Report 421, Department of Computer Science, University of Exeter, Exeter, UK, April 2005.
- [1916] Richard M. Everson and Jonathan E. Fieldsend. Multi-class ROC analysis from a multi-objective optimisation perspective. *Pattern Recognition Letters*, 27(8):918–927, June 2006.

- [1917] Richard M. Everson and Jonathan E. Fieldsend. Multi-Objective Optimisation for Receiver Operating Characteristic Analysis. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 533–556. Springer. Studies in Computational Intelligence, Volume 16, 2006.
- [1918] Richard M. Everson and Jonathan E. Fieldsend. Multiobjective Optimization of Safety Related Systems: An Application to Short-Term Conflict Alert. *IEEE Transactions on Evolutionary Computation*, 10(2):187–198, April 2006.
- [1919] Richard M. Everson, Jonathan E. Fieldsend, and Sameer Singh. Full Elite Sets for Multi-Objective Optimisation. In I.C. Parmee, editor, *Proceedings of the Fifth International Conference on Adaptive Computing Design and Manufacture (ACDM 2002)*, volume 5, pages 343–354, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
- [1920] Ralph Evins, Philip Pointer, and Ravi Vaidyanathan. Configuration of a Genetic Algorithm for Multi-Objective Optimisation of Solar Gain to Buildings. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1327–1328, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [1921] Ralph Evins, Philip Pointer, Ravi Vaidyanathan, and Stuart Burgess. A case study exploring regulated energy use in domestic buildings using design-of-experiments and multi-objective optimisation. *Building and Environment*, 54:126–136, August 2012.
- [1922] Mario Garza Fabre, Gregorio Toscano Pulido, and Carlos A. Coello Coello. Two Novel Approaches for Many-Objective Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4480–4487, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1923] Katti Faceli, Marcilio C. R. de Souto, Daniel S. A. de Araujo, and Andre C. P. L. F. de Carvalho. Multi-objective clustering ensemble for gene expression data analysis. *Neurocomputing*, 72(13-15):2763–2774, August 2009.
- [1924] Ehsan Majd Faghihi and Amir H. Shamekhi. Development of a neural network model for selective catalytic reduction (SCR) catalytic converter and ammonia dosing optimization using multi objective genetic algorithm. *Chemical Engineering Journal*, 165(2):508–516, December 1 2010.
- [1925] Mourad Fakhfakh, Yann Cooren, Amin Sallem, Mourad Loulou, and Patrick Siarry. Analog circuit design optimization through the particle swarm optimization technique. *Analog Integrated Circuits and Signal Processing*, 63(1):71–82, April 2010.
- [1926] Mourad Fakhfakh, Mourad Loulou, and Nouri Masmoudi. A novel heuristic for multi-objective optimization of analog circuit performances. *Analog Integrated Circuits and Signal Processing*, 61(1):47–64, October 2009.

- [1927] Hamid Falaghi, Mahmood-Reza Haghifam, and Chanan Singh. Ant Colony Optimization-Based Method for Placement of Sectionalizing Switches in Distribution Networks Using a Fuzzy Multiobjective Approach. *IEEE Transactions on Power Delivery*, 24(1):268–276, January 2009.
- [1928] Saeid Fallah-Jamshidi, Maghsoud Amiri, and Neda Karimi. Nonlinear continuous multi-response problems: a novel two-phase hybrid genetic based meta-heuristic. *Applied Soft Computing*, 10(4):1274–1283, September 2010.
- [1929] E. Fallah-Mehdipour, O. Bozorg Haddad, and M.A. Marino. MOPSO algorithm and its application in multipurpose multireservoir operations. *Journal of Hydroinformatics*, 13(4):794–811, 2011.
- [1930] Elahe Fallah-Mehdipour, Omid Bozorg Haddad, Mahmoud M. Rezapour Tabari, and Miguel A. Marino. Extraction of decision alternatives in construction management projects: Application and adaptation of NSGA-II and MOPSO. *Expert Systems with Applications*, 39(3):2794–2803, February 15 2012.
- [1931] Hui-Yan Fan, Jouni Lampinen, and Yeshayahou Levy. An easy-to-implement differential evolution approach for multi-objective optimizations. *Engineering Computations: International Journal for Computer-Aided Engineering*, 23(2):124–138, 2006.
- [1932] HY Fan, G. Xi, and SJ Wang. Multi-point optimal design for diffuser cascades of centrifugal compressors. *Proceedings Of The Institution Of Mechanical Engineers Part A-Journal Of Power And Energy*, 214(A2):187–190, 2000.
- [1933] Lang Fan, Christine L. Mumford, and Dafydd Evans. A Simple Multi-Objective Optimization Algorithm for the Urban Transit Routing Problem. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1–7, Trondheim, Norway, May 2009. IEEE Press.
- [1934] Shu-Kai Fan and Ju-Ming Chang. A parallel particle swarm optimization algorithm for multi-objective optimization problems. *Engineering Optimization*, 41(7):673–697, July 2009.
- [1935] Weiguo Fan, Praveen Pathak, and Linda Wallace. Nonlinear ranking function representations in genetic programming-based ranking discovery for personalized search. *Decision Support Systems*, 42(3):1338–1349, December 2006.
- [1936] Xiao-Qin Fan, Xian-Wen Fang, and Chang-Jun Jiang. Research on Web service selection based on cooperative evolution. *Expert Systems With Applications*, 38(8):9736–9743, August 2011.
- [1937] Zhun Fan, Jinchao Liu, Torben Sorensen, and Pan Wang. Improved Differential Evolution Based on Stochastic Ranking for Robust Layout Synthesis of MEMS Components. *IEEE Transactions on Industrial Electronics*, 56(4):937–948, April 2009.

- [1938] Hongbing Fang and Qian Wang. Multiobjective design of a vehicular structure using metamodeling and an efficient genetic algorithm. *International Journal of Design Engineering*, 1(1):41–55, 2007.
- [1939] Hongbing Fang, Qian Wang, Yi-Cheng Tu, and Mark F. Horstemeyer. An Efficient Non-dominated Sorting Method for Evolutionary Algorithms. *Evolutionary Computation*, 16(3):355–384, Fall 2008.
- [1940] Zhixiang Fang, Xinlu Zong, Qingquan Li, Qiuping Li, and Shengwu Xiong. Hierarchical multi-objective evacuation routing in stadium using ant colony optimization approach. *Journal of Transport Geography*, 19(3):443–451, May 2011.
- [1941] Han Fangyu, Jia Xiaoping, and Tan Xinsun. Two Key Support Tools for Environmentally Friendly Process Optimal Synthesis. In *Proceedings of PSE 2003, The 8th International Symposium on Process Systems Engineering*, Computer Aided Process Engineering Book Series 15, pages 1274–1279. Elsevier, Kunming, China, 2003.
- [1942] D.W. Fanjoy and W.A. Crossley. Topology design of planar cross-sections with a genetic algorithm: Part 2 - Bending, torsion and combined loading applications. *Engineering Optimization*, 34(1):49–64, January 2002.
- [1943] M. P. Fanti, B. Maione, D. Naso, and B. Turchiano. Genetic multi-criteria approach to flexible line scheduling. *International Journal of Approximate Reasoning*, 19(1 - 2):5–21, July - August 1998.
- [1944] Sepehr Meshkinfam Fard, Ali Hamzeh, and Koorush Ziarati. A New Cooperative Co-Evolutionary Multi-Objective Algorithm for Function Optimization. *International Journal of Innovative Computing Information and Control*, 7(5A):2529–2542, May 2011.
- [1945] A. Farhang-Mehr and S. Azarm. Minimal Sets of Quality Metrics. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 405–417, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1946] Ali Farhang-Mehr. *Entropy Approach to Meta-Modeling, Multi-Objective Genetic Algorithm, and Quality Assessment of Solution Sets for Design Optimization*. PhD thesis, Department of Mechanical Engineering, University of Maryland, College Park, Maryland, USA, 2003.
- [1947] Ali Farhang-Mehr and Shapour Azarm. Multi-Objective Genetic Algorithms With Concepts from Statistical Thermodynamics. In Lee Spector, Erik D. Goodman, Annie Wu, William B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max. H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, page 1075. Morgan Kaufmann Publishers, San Francisco, California, July 2001.

- [1948] Ali Farhang-Mehr and Shapour Azarm. Diversity Assessment of Pareto Optimal Solution Sets: An Entropy Approach. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 723–728, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [1949] Ali Farhang-Mehr and Shapour Azarm. Entropy-based multi-objective genetic algorithm for design optimization. *Structural and Multidisciplinary Optimization*, 24(5):351–361, November 2002.
- [1950] M. Farina. A Neural Network Based Generalized Response Surface Multi-objective Evolutionary Algorithm. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 956–961, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [1951] M. Farina and P. Amato. On the Optimal Solution Definition for Many-criteria Optimization Problems. In *Proceedings of the NAFIPS-FLINT International Conference'2002*, pages 233–238, Piscataway, New Jersey, June 2002. IEEE Service Center.
- [1952] M. Farina and P. Amato. Fuzzy Optimality and Evolutionary Multiobjective Optimization. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 58–72, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [1953] M. Farina and P. Amato. A fuzzy definition of “optimality” for many-criteria optimization problems. *IEEE Transactions on Systems, Man, and Cybernetics Part A—Systems and Humans*, 34(3):315–326, May 2004.
- [1954] M. Farina and P. Amato. Linked interpolation-optimization strategies for multicriteria optimization problems. *Soft Computing—A Fusion of Foundations, Methodologies and Applications*, 9(1):54–65, January 2005.
- [1955] M. Farina, A. Bramanti, and P. Di Barba. Combining Global and Local Search of Non-dominated Solutions in Inverse Electromagnetism. In K.C. Giannakoglou, D.T. Tsahalis, J. Periaux, K.D. Papailiou, and T. Fogarty, editors, *Proceedings of the EUROGEN'2001 Conference*, pages 196–201, Barcelona, Spain, March 2001. International Center for Numerical Methods in Engineering (CIMNE).
- [1956] M. Farina, K. Deb, and P. Amato. Dynamic Multiobjective Optimization Problems: Test Cases, Approximation, and Applications. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 311–326, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.

- [1957] Marco Farina. *Cost-effective Evolutionary Strategies for Pareto Optimal Front Approximation in Multiobjective Shape Design Optimization of Electromagnetic Devices*. PhD thesis, Department of Electrical Engineering. University of Pavia, Italy, 2001.
- [1958] Marco Farina. A Minimal Cost Hybrid Strategy for Pareto optimal front Approximation. *Evolutionary Optimization*, 3(1):41–52, 2001.
- [1959] Marco Farina, Alessandro Bramanti, and Paolo Di Barba. A GRS Method for Pareto-Optimal Front Identification in Electromagnetic Synthesis. *IEE Proceedings—Science, Measurement and Technology*, 149(5):207–213, September 2002.
- [1960] Marco Farina, Kalyanmoy Deb, and Paolo Amato. Dynamic Multiobjective Optimization Problems: Test Cases, Approximations, and Applications. *IEEE Transactions on Evolutionary Computation*, 8(5):425–442, October 2004.
- [1961] Marco Farina and Paolo Di Barba. Optimal Design of Industrial Electromagnetic Devices: A Multiobjective Evolutionary Approach. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 53–78. World Scientific, Singapore, 2004.
- [1962] Marco Farina and Massimiliano Gobbi. A fuzzy-optima definition based Multiobjective optimization of a racing car type-suspension system. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 9–16, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [1963] R. Farmani, D.A. Savic, and G.A. Walters. Evolutionary multi-objective optimization in water distribution network design. *Engineering Optimization*, 37(2):167–183, March 2005.
- [1964] Raziye Farmani, Hans Jorgen Henriksen, and Dragan Savic. An Evolutionary Bayesian belief network methodology for optimum management of groundwater contamination. *Environmental Modelling & Software*, 24(3):303–310, March 2009.
- [1965] Raziye Farmani, Dragan A. Savic, and Godfrey A. Walters. On Convergence of Multi-objective Pareto Front: Perturbation Method. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 443–456, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [1966] Michael Farnsworth, Elhadj Benkhelifa, Ashutosh Tiwari, and Meiling Zhu. A Novel Approach to Multi-level Evolutionary Design Optimization of a MEMS Device. In Gianluca Tempesti, Andy M. Tyrrell, and Julian F. Miller, editors, *Evolvable Systems: From Biology to Hardware, 9th International Conference, ICES 2010*, pages 322–334. Springer-Verlag. Lecture Notes in Computer Science Vol. 6274, York, UK, September 2010.

- [1967] Usman Farooq and C. P. Lam. A Max-Min Multiobjective Technique to Optimize Model Based Test Suite. In *2009 10th ACIS International Conference on Software Engineering, Artificial Intelligences, Networking and Parallel/Distributed Computing*, pages 569–574, May 27-29, Daegu, Korea 2009. IEEE Computer Society Press.
- [1968] Masood Fathi, M.K.A. Ariffin, and Napsiah Ismail. A note on “A multi-objective genetic algorithm for solving assembly line balancing problem”. *International Journal of Advanced Manufacturing Technology*, 50(5-8):771–773, September 2010.
- [1969] S. Favuzza, M.G. Ippolito, and E.R. Sanseverino. Crowded comparison operators for constraints handling in NSGA-II for optimal design of the compensation system in electrical distribution networks. *Advances Engineering Informatics*, 20(2):201–211, April 2006.
- [1970] Salvatore Favuzza, Mariano Giuseppe Ippolito, and Eleonora Riva Sanseverino. A New Crowded Comparison Operator in Constrained Multiobjective Optimization for Capacitors Sizing and Siting in Electrical Distribution Systems. In Moonis Ali and Floriana Esposito, editors, *Innovations in Applied Artificial Intelligence, 18th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, IEA/AIE 2005*, pages 678–680, Bari, Italy, June 22-24 2005. Springer. Lecture Notes in Artificial Intelligence Vol. 3533.
- [1971] Hala Fayad. *Application of Neural Networks and Genetic Algorithms for Solving Conjunctive Water Use Problems*. PhD thesis, Department of Biological and Irrigation Engineering, Utah State University, Logan, Utah, 2001.
- [1972] Paulo Fazendeiro, Jose Valente de Oliveira, and Witold Pedrycz. A multiobjective design of a patient and anaesthetist-friendly neuromuscular blockade controller. *IEEE Transactions on Biomedical Engineering*, 54(9):1667–1678, September 2007.
- [1973] Bo Feng, Zhong-Zhong Jiang, Zhi-Ping Fan, and Na Fu. A method for member selection of cross-functional teams using the individual and collaborative performances. *European Journal of Operational Research*, 203(3):652–661, June 16 2010.
- [1974] C.-M. Feng and J.-J. Lin. Using a genetic algorithm to generate alternative sketch maps for urban planning. *Computers, Environment and Urban Systems*, 23(2):91–108, March 1999.
- [1975] Chung-Wei Feng, Liang Liu, and Scott A. Burns. Using Genetic Algorithms to Solve Construction Time-Cost Trade-Off Problems. *Journal of Computing in Civil Engineering*, 10(3):184–189, 1999.
- [1976] Li Feng, Jianjun He, Qingyun Kong, and Lin Guo. Application of multi-objective algorithm based on particle swarm optimization in electrical short-term load forecasting. In J.D. McDonald, editor, *International Conference*

on Power System Technology, 2006. *PowerCon 2006.*, pages 1–5, Chongqing, China, October 22-26 2006. IEEE.

- [1977] Li Feng, Ziyang Liu, and Chao Ma. Outlier Identification and Justification Using Multi-Objective PSO based Clustering Algorithm in Power System. In *5th IEEE International Conference on Industrial Informatics, 2007*, pages 365–369, Vienna, Austria, June 23-27 2007. IEEE Computer Society.
- [1978] Li Feng, Ziyang Liu, Chao Ma, Lin Huang, Li Zhao, and Tao Chen. Multi-objective vector evaluated PSO with time variant coefficients for outlier identification in power systems. In *43rd International Universities Power Engineering Conference, 2008. (UPEC 2008)*, pages 1–6, Padova, Italy, September 2008.
- [1979] Xiang Feng and Francis C. M. Lau. A Parallel Evolutionary Approach to Multi-objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1199–1206, Singapore, September 2007. IEEE Press.
- [1980] Xiang Feng and Francis C. M. Lau. Nature-Inspired Particle Mechanics Algorithm for Multi-Objective Optimization. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 12, pages 255–277. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [1981] Yixiong Feng, Bing Zheng, and Zhongkai Li. Exploratory study of sorting particle swarm optimizer for multiobjective design optimization. *Mathematical and Computer Modelling*, 52(11-12):1966–1975, December 2010.
- [1982] Hui feng Wang, Xiong hui Zhou, and Yanjie Qiu. Feature-based multi-objective optimization algorithm for model partitioning. *International Journal of Advanced Manufacturing Technology*, 43(7-8):830–840, August 2009.
- [1983] Lavinia Ferariu and Alina Patelli. Multiobjective Genetic Programming for Nonlinear System Identification. In Mikko Kolehmainen, Pekka Toivanen, and Bartłomiej Beliczynski, editors, *Adaptive and Natural Computing Algorithms, 9th International Conference, ICANNGA 2009*, pages 233–242, Kuopio, Finland, April 23-25 2009. Springer. Lecture Notes in Computer Science Vol. 5495.
- [1984] Bram V. A. Ferket, Bruno Samain, and Valentijn R. N. Pauwels. Internal validation of conceptual rainfall-runoff models using baseflow separation. *Journal of Hydrology*, 381(1-2):158–173, February 5 2010.
- [1985] C. Fernandes, A. J. Pontes, J. C. Viana, and A. Gaspar-Cunha. Using Multiobjective Evolutionary Algorithms in the Optimization of Operating Conditions of Polymer Injection Molding. *Polymer Engineering And Science*, 50(8):1667–1678, August 2010.

- [1986] Luis Fernandes, Isabel Figueiredo, Joaquin Júdice, Lino Costa, and Pedro Oliveira. Application of Genetic Algorithms to Plate Optimization. In S. R. Idelshon, E. O nate, and E. Dvorkin, editors, *Computational Mechanics, New Trends and Aplications*, Barcelona, Spain, 1998.
- [1987] Eduardo Fernandez, Nora Cancela, and Rafael Olmedo. Deriving a final ranking from fuzzy preferences: An approach compatible with the Principle of Correspondence. *Mathematical and Computer Modelling*, 47(1-2):218–234, January 2008.
- [1988] Eduardo Fernández and Juan Carlos Leyva. A method based on multiobjective optimization for deriving a ranking from a fuzzy preference relation. *European Journal of Operational Research*, 154(1):110–124, April 2004.
- [1989] Eduardo Fernández, Edy López, Sergio Bernal, Carlos Coello, and Jorge Navarro. Evolutionary Multiobjective Optimization using a Fuzzy-Based Dominance Concept. In *International Conference on Engineering Optimization (EngOpt 2008)*, Rio de Janeiro, Brazil, June 1–5 2008.
- [1990] Eduardo Fernández, Edy López, Sergio Bernal, Carlos A. Coello Coello, and Jorge Navarro. Evolutionary multiobjective optimization using an outranking-based dominance generalization. *Computers & Operations Research*, 37(2):390–395, February 2010.
- [1991] Eduardo Fernandez, Edy Lopez, Fernando Lopez, and Carlos A. Coello Coello. Increasing selective pressure towards the best compromise in evolutionary multiobjective optimization: The extended NOSGA method. *Information Sciences*, 181(1):44–56, January 1 2011.
- [1992] Eduardo Fernandez, Jorge Navarro, and Sergio Bernal. Multicriteria sorting using a valued indifference relation under a preference disaggregation paradigm. *European Journal of Operational Research*, 198(2):602–609, October 16 2009.
- [1993] Eduardo Fernandez, Jorge Navarro, and Sergio Bernal. Handling multicriteria preferences in cluster analysis. *European Journal of Operational Research*, 202(3):819–827, May 1 2010.
- [1994] Eduardo Fernández and Rafael Olmedo. An improved method for deriving final ranking from a fuzzy preference relation via multiobjective optimization. *Foundations of Computing and Decision Sciences*, 28(3):143–157, 2003.
- [1995] Francisco V. Fernández, J. Esteban-Muller, Elisenda Roca, and Rafael Castro-López. Stopping criteria in evolutionary algorithms for multi-objective performance optimization of integrated inductors. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4172–4179, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [1996] J.C. Fernandez, C. Hervas, F.J. Martinez-Estudillo, and P.A. Gutierrez. Memetic Pareto Evolutionary Artificial Neural Networks to determine growth/no-growth in predictive microbiology. *Applied Soft Computing*, 11(1):534–550, January 2011.

- [1997] Eduardo Fernandez Gonzalez, Edy Lopez Cervantes, Jorge Navarro Castillo, and Ines Vega Lopez. Application of Multi-Objective Metaheuristics to Public Portfolio Selection Through Multidimensional Modelling of Social Return. *Gestión y Política Pública*, 20(2):381–432, 2011.
- [1998] Jose Luis Fernandez-Marquez and Josep Lluís Arcos. An evaporation mechanism for dynamic and noisy multimodal optimization. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 17–24, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [1999] Gustavo C.M. Ferreira, S.P.N. Cani, M.J. Pontes, and M.E.V. Segatto. Optimization of Distributed Raman Amplifiers Using a Hybrid Genetic Algorithm with Geometric Compensation Technique. *IEEE Photonics Journal*, 3(3):390–399, June 2011.
- [2000] J.C. Ferreira, C.M. Fonseca, and A. Gaspar-Cunha. Methodology to Select Solutions from the Pareto-Optimal Set: A Comparative Study. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 789–796, London, UK, July 2007. ACM Press.
- [2001] José C. Ferreira, Carlos M. Fonseca, and António Gaspar-Cunha. Assessing the quality of the relation between scalarizing function parameters and solutions in multiobjective optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1131–1136, Trondheim, Norway, May 2009. IEEE Press.
- [2002] Matthew. P. Ferringer, David B. Spencer, and Patrick Reed. Many-Objective Reconfiguration of Operational Satellite Constellations with the Large-Cluster Epsilon Non-Dominated Sorting Genetic Algorithm-II. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 340–349, Trondheim, Norway, May 2009. IEEE Press.
- [2003] O. Feyzioglu and H. Pierreval. Hybrid organization of functional departments and manufacturing cells in the presence of imprecise data. *International Journal of Production Research*, 47(2):343–368, 2009.
- [2004] O. Feyzioglu and H. Pierreval. Hybrid organization of functional departments and manufacturing cells in the presence of imprecise data. *International Journal of Production Research*, 47(2):343–368, 2009.
- [2005] Giovanna Fiandaca, Eric S. Fraga, and Stefano Brandani. A multi-objective genetic algorithm for the design of pressure swing adsorption. *Engineering Optimization*, 41(9):833–854, September 2009.
- [2006] Sevan Gregory Ficici. Multiobjective Optimization and Coevolution. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 31–52. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.

- [2007] Jason Fiege, Boyd McCurdy, Peter Potrebko, Heather Champion, and Andrew Cull. PARETO: A novel evolutionary optimization approach to multiobjective IMRT planning. *Medical Physics*, 38(9):5217–5229, September 2011.
- [2008] J.E. Fieldsend. Multi-Objective Particle Swarm Optimisation Methods. Technical Report 419, Department of Computer Science, University of Exeter, Exeter, UK, March 2004.
- [2009] J.E. Fieldsend and R.M. Everson. Formulation and Comparison of Multi-Class ROC Surfaces. In *Proceedings of the 2nd ROC Analysis in Machine Learning Workshop, part of the 22nd International Conference on Machine Learning (ICML 2005)*, pages 41–48, Bonn, Germany, 2005.
- [2010] J.E. Fieldsend, J. Matatko, and M. Peng. Cardinality constrained portfolio optimisation. In Z.R. Yang, R. Everson, and H. Yin, editors, *Proceedings of the Fifth International Conference on Intelligent Data Engineering and Automated Learning (IDEAL'04)*, pages 788–793. Springer-Verlag. Lecture Notes in Computer Science Vol. 3177, August 2004.
- [2011] Jonathan E. Fieldsend. Regression Error Characteristic Optimisation of Non-Linear Models. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 103–123. Springer. Studies in Computational Intelligence, Volume 16, 2006.
- [2012] Jonathan E. Fieldsend. Optimizing Decision Trees Using Multi-objective Particle Swarm Optimization. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 5, pages 93–114. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [2013] Jonathan E. Fieldsend and Richard M. Everson. ROC Optimisation of Safety Related Systems. In *Proceedings of the First Workshop on ROC Analysis in AI*, pages 37–44, Valencia, Spain, August 2004.
- [2014] Jonathan E. Fieldsend and Richard M. Everson. Multi-objective Optimisation in the Presence of Uncertainty. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 243–250, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2015] Jonathan E. Fieldsend and Richard M. Everson. Multiobjective Supervised Learning. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 155–176. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [2016] Jonathan E. Fieldsend and Richard M. Everson. On the Efficient Use of Uncertainty when Performing Expensive ROC Optimisation. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3985–3992, Hong Kong, June 2008. IEEE Service Center.

- [2017] Jonathan E. Fieldsend, Richard M. Everson, and Sameer Singh. Using Unconstrained Elite Archives for Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 7(3):305–323, June 2003.
- [2018] Jonathan E. Fieldsend and Sameer Singh. A Multi-Objective Algorithm based upon Particle Swarm Optimisation, an Efficient Data Structure and Turbulence. In *Proceedings of the 2002 U.K. Workshop on Computational Intelligence*, pages 37–44, Birmingham, UK, September 2002.
- [2019] Jonathan E. Fieldsend and Sameer Singh. Pareto Multi-Objective Non-Linear Regression Modelling to Aid CAPM Analogous Forecasting. In *Proceedings of the IEEE/INNS Joint International Conference on Neural Networks (ICNN'02). World Congress on Computational Intelligence*, volume 1, pages 388–393. IEEE, May 2002.
- [2020] Jonathan E. Fieldsend and Sameer Singh. Optimizing Forecast Model Complexity using Multi-Objective Evolutionary Algorithms. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 675–700. World Scientific, Singapore, 2004.
- [2021] Jonathan E. Fieldsend and Sameer Singh. Pareto Evolutionary Neural Networks. *IEEE Transactions on Neural Networks*, 16(2):338–354, March 2005.
- [2022] Jonathan Edward Fieldsend. *Novel Algorithms for Multi-Objective Search and their Application in Multi-Objective Evolutionary Neural Network Training*. PhD thesis, Department of Computer Science, University of Exeter, Exeter, UK, June 2003.
- [2023] J. R. Figueira, A. Liefvooghe, E.-G. Talbi, and A. P. Wierzbicki. A parallel multiple reference point approach for multi-objective optimization. *European Journal of Operational Research*, 205(2):390–400, September 1 2010.
- [2024] Amaury T. Brasil Filho, Plácido R. Pinheiro, Andre L. V. Coelho, and Nathanael C. Costa. Comparison of Two Prototype-Based Multicriteria Classification Methods. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 133–140, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [2025] Amaury T. Brasil Filho, Plácido R. Pinheiro, and André L.V. Coelho. Towards the Early Diagnosis of Alzheimer's Disease via a Multicriteria Classification Model. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 393–406. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [2026] Bogdan Filipič and Matjaž Depolli. Parallel Evolutionary Computation Framework for Single- and Multiobjective Optimization. In Roman Trobec, Marián Vajteršic, and Peter Zinterhof, editors, *Parallel Computing. Numerics, Applications, and Trends*, pages 217–240. Springer, London, UK, 2009.

- [2027] Bogdan Filipič, Tea Tušar, and Erkki Laitinen. Computer-Assisted Analysis of a Metallurgical Production Process in View of Multiple Objectives. In Bogdan Filipič and Jurij Šilc, editors, *Bioinspired Optimization Methods and their Applications*, pages 167–176. Jožef Stefan Institute, October 2006.
- [2028] Bogdan Filipič, Tea Tušar, and Erkki Laitinen. Preliminary Numerical Experiments in Multiobjective Optimization of a Metallurgical Production Process. *Informatica*, 31(2):233–240, 2007.
- [2029] Cyril Fillon. *New Strategies for Efficient and Practical Genetic Programming*. PhD thesis, XX Ciclo Del Dottorato di Ricerca in Ingegneria dell’Informazione, Università degli Studi di Trieste, Italy, March 2008.
- [2030] Cyril Fillon and Alberto Bartoli. Multi-objective Genetic Programming for Improving the Performance of TCP. In Marc Ebner, Michael O’Neill, Anikó Ekárt, Leonardo Vanneschi, and Anna Isabel Esparcia-Alcázar, editors, *Genetic Programming, 10th European Conference, EuroGP 2007*, pages 170–180, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4445.
- [2031] Anthony Finkelstein, Mark Harman, S. Afshin Mansouri, Jian Ren, and Yuanyuan Zhang. “Fairness Analysis” in Requirements Assignments. In *16th IEEE International Requirements Engineering Conference*, pages 115–124. IEEE Computer Society Press, September 2008.
- [2032] Anthony Finkelstein, Mark Harman, S. Afshin Mansouri, Jian Ren, and Yuanyuan Zhang. A search based approach to fairness analysis in requirement assignments to aid negotiation, mediation and decision making. *Requirements Engineering*, 14(4):231–245, December 2009.
- [2033] John H. Fisch, Yun Li, P.C. Kjaer, J.J. Gribble, and T.J.E. Miller. Pareto-Optimal Firing Angles for Switched Reluctance Motor Control. In *Proceedings of the 2nd IEE/IEEE International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications (GALESIA’97)*, pages 90–96, Glasgow, Scotland, September 1997. IEE.
- [2034] J. Robert Fischer, Uta Lessel, and Matthias Rarey. LoFT: Similarity-Driven Multiobjective Focused Library Design. *Journal of Chemical Information and Modeling*, 50(1):1–21, January 2010.
- [2035] Michelle J. Fisher, Jonathan E. Fieldsend, and Richard M. Everson. Precision and Recall Optimisation for Information Access Tasks. In *Proceedings of ROCAI 2004, part of the 16th European Conference on Artificial Intelligence*, pages 45–54, Valencia, Spain, August 2004.
- [2036] Seth L. Fleet, Kevin Flitt, and Claire J. Kennedy. A Genetic Algorithm for Multi-Function Radar Task List Optimisation. In Alwyn Barry, editor, *2003 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 196–201, Chicago, Illinois, USA, July 2003. AAAI.

- [2037] M. Fleischer. The Measure of Pareto Optima. Applications to Multi-objective Metaheuristics. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 519–533, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2038] Mark Fleischer. Scale Invariant Pareto Optimality. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 233–240, New York, USA, June 2005. ACM Press.
- [2039] Peter Fleming. Designing Control Systems with Multiple Objectives. In *IEE Colloquium on Advances in Control Technology*, pages 4/1–4/4, 1999.
- [2040] Peter Fleming, Robin C. Purshouse, and Robert J. Lygoe. Many-Objective Optimization: An Engineering Design Perspective. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 14–32, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2041] Peter J. Fleming and Maksim A. Pashkevich. Optimal advertising campaign generation for multiple brands using MOGA. *IEEE Transactions on Systems, Man, and Cybernetics Part C–Applications and Reviews*, 37(6):1190–1201, November 2007.
- [2042] P.J. Fleming and R.C. Purshouse. Genetic algorithms in control systems engineering. Technical Report 789, Department of Automatic Control and Systems Engineering, University of Sheffield, Sheffield, UK, May 2001.
- [2043] Jorge Isacc Flores-Mendoza and Efrén Mezura-Montes. Dynamic Adaptation and Multiobjective Concepts in a Particle Swarm Optimizer for Constrained Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3426–3433, Hong Kong, June 2008. IEEE Service Center.
- [2044] Kostas Florios, George Mavrotas, and Danae Diakoulaki. Solving multiobjective, multiconstraint knapsack problems using mathematical programming and evolutionary algorithms. *European Journal of Operational Research*, 203(1):14–21, May 2009.
- [2045] Kostas Florios, George Mavrotas, and Danae Diakoulaki. Solving multiobjective, multiconstraint knapsack problems using mathematical programming and evolutionary algorithms. *European Journal of Operational Research*, 203(1):14–21, May 16 2010.
- [2046] Robert Flynn and Porter D. Sherman. Multicriteria Optimization of Aircraft Panels: Determining Viable Genetic Algorithm Configurations. *International Journal of Intelligent Systems*, 10:987–999, 1995.

- [2047] K. Foli, T. Okabe, M. Olhofer, Y.C. Jin, and B. Sendhoff. Optimization of micro heat exchanger: CFD, analytical approach and multi-objective evolutionary algorithms. *International Journal of Heat and Mass Transfer*, 49(5–6):1090–1099, March 2006.
- [2048] Francesco Folino and Clara Pizzuti. Multiobjective Evolutionary Community Detection for Dynamic Networks. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 535–536, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [2049] Carlos M. Fonseca and Peter J. Fleming. Genetic Algorithms for Multiobjective Optimization: Formulation, Discussion and Generalization. In Stephanie Forrest, editor, *Proceedings of the Fifth International Conference on Genetic Algorithms*, pages 416–423, San Mateo, California, 1993. University of Illinois at Urbana-Champaign, Morgan Kaufman Publishers.
- [2050] Carlos M. Fonseca and Peter J. Fleming. An Overview of Evolutionary Algorithms in Multiobjective Optimization. Technical report, Department of Automatic Control and Systems Engineering, University of Sheffield, Sheffield, U. K., 1994.
- [2051] Carlos M. Fonseca and Peter J. Fleming. Multiobjective Genetic Algorithms Made Easy: Selection, Sharing, and Mating Restriction. In *Proceedings of the First International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications*, pages 42–52, Sheffield, UK, September 1995. IEE.
- [2052] Carlos M. Fonseca and Peter J. Fleming. Multiobjective Optimization and Multiple Constraint Handling with Evolutionary Algorithms I: A Unified Formulation. Technical Report 564, University of Sheffield, Sheffield, UK, January 1995.
- [2053] Carlos M. Fonseca and Peter J. Fleming. Multiobjective Optimization and Multiple Constraint Handling with Evolutionary Algorithms II: Application Example. Technical Report 565, University of Sheffield, Sheffield, UK, January 1995.
- [2054] Carlos M. Fonseca and Peter J. Fleming. An Overview of Evolutionary Algorithms in Multiobjective Optimization. *Evolutionary Computation*, 3(1):1–16, Spring 1995.
- [2055] Carlos M. Fonseca and Peter J. Fleming. Nonlinear System Identification with Multiobjective Genetic Algorithms. In *Proceedings of the 13th World Congress of the International Federation of Automatic Control*, pages 187–192, San Francisco, California, 1996. Pergamon Press.
- [2056] Carlos M. Fonseca and Peter J. Fleming. On the Performance Assessment and Comparison of Stochastic Multiobjective Optimizers. In Hans-Michael Voigt,

- Werner Ebeling, Ingo Rechenberg, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN IV*, Lecture Notes in Computer Science, pages 584–593, Berlin, Germany, September 1996. Springer-Verlag.
- [2057] Carlos M. Fonseca and Peter J. Fleming. Multiobjective Optimization. In Thomas Bäck, David B. Fogel, and Zbigniew Michalewicz, editors, *Handbook of Evolutionary Computation*, volume 1, pages C4.5:1–C4.5:9. Institute of Physics Publishing and Oxford University Press, 1997.
 - [2058] Carlos M. Fonseca and Peter J. Fleming. Multiobjective Optimization and Multiple Constraint Handling with Evolutionary Algorithms—Part I: A Unified Formulation. *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, 28(1):26–37, 1998.
 - [2059] Carlos M. Fonseca and Peter J. Fleming. Multiobjective Optimization and Multiple Constraint Handling with Evolutionary Algorithms—Part II: A Application Example. *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, 28(1):38–47, 1998.
 - [2060] Carlos M. Fonseca, Viviane Grunert da Fonseca, and Luís Paquete. Exploring the Performance of Stochastic Multiobjective Optimisers with the Second-Order Attainment Function. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 250–264, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
 - [2061] Carlos M. Fonseca, Andreia P. Guerreiro, Manuel López-Ibáñez, and Luís Paquete. On the Computation of the Empirical Attainment Function. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 106–120, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
 - [2062] Carlos M. Fonseca, Luís Paquete, and Manuel López-Ibáñez. An Improved Dimension-Sweep Algorithm for the Hypervolume Indicator. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3973–3979, Vancouver, BC, Canada, July 2006. IEEE.
 - [2063] C.M. Fonseca and P.J. Fleming. Multiobjective Genetic Algorithms. In *IEE Colloquium on Genetic Algorithms for Control Systems Engineering*, pages 6/1–6/5. IEE, 1993.
 - [2064] C.M. Fonseca and P.J. Fleming. Multiobjective optimal controller design with genetic algorithms. In *International Conference on Control*, volume 1, pages 745–749, 1994.
 - [2065] C.M. Fonseca and P.J. Fleming. Multiobjective genetic algorithms. In A.M.S. Zalzala and P.J. Fleming, editors, *Genetic Algorithms in Engineering Systems*, chapter 3, pages 63–78. The Institution of Electrical Engineers. Control Engineering Series 55, Bath, UK, 1997.

- [2066] L.G. Fonseca, H.J.C. Barbosa, and A.C.C. Lemonge. On Similarity-Based Surrogate Models for Expensive Single- and Multi-objective Evolutionary Optimization. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 219–248. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [2067] Christian Fonteix, Silvère Massebeuf, Fernand Pla, and Laszlo Nando Kiss. Multicriteria optimization of an emulsion polymerization process. *European Journal of Operational Research*, 153(2):350–359, March 2004.
- [2068] Wai Kuan Foong. *Ant Colony Optimisation for Power Plant Maintenance Scheduling*. PhD thesis, School of Civil and Environmental Engineering, The University of Adelaide, Australia, April 2007.
- [2069] E. David Ford and Maureen C. Kennedy. Assessment of uncertainty in functional-structural plant models. *Annals of Botany*, 108(6):1043–1053, October 2011.
- [2070] Klebber T.M. Formiga, Fazal H. Chaufhry, Peter B. Cheung, and Luisa F.R. Reis. Optimal Design of Water Distribution System by Multiobjective Evolutionary Methods. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 677–691, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2071] W. Fornaciari, P. Micheli, F. Salice, and L. Zampella. A First Step Towards Hw/Sw Partitioning of UML Specifications. In *IEEE/ACM Design Automation and Test in Europe (DATE’03)*, pages 668–673, Munich, Germany, March 2003. IEEE.
- [2072] B. Forouraghi. A genetic algorithm for multiobjective robust design. *Applied Intelligence*, 12(3):151–161, May 2000.
- [2073] Babak Forouraghi. Optimal tolerance allocation using a multiobjective particle swarm optimizer. *International Journal of Advanced Manufacturing Technology*, 44(7-8):710–724, October 2009.
- [2074] Manuel Förster, Bettina Bickel, Bern Hardung, and Gabriella Kókai. Self-Adaptive Ant Colony Optimization Applied to Function Allocation in Vehicle Networks. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO’2007)*, volume 2, pages 1991–1998, London, UK, July 2007. ACM Press.
- [2075] M. P. Fourman. Compaction of Symbolic Layout using Genetic Algorithms. In *Genetic Algorithms and their Applications: Proceedings of the First International Conference on Genetic Algorithms*, pages 141–153. Lawrence Erlbaum, 1985.

- [2076] John W. Fowler, Esma S. Gel, Murat M. Koksalan, Pekka Korhonen, Jon L. Marquis, and Jyrki Wallenius. Interactive evolutionary multi-objective optimization for quasi-concave preference functions. *European Journal Of Operational Research*, 206(2):417–425, October 16 2010.
- [2077] K. R. Fowler, E. W. Jenkins, C. L. Cox, B. McClune, and B. Seyfzadeh. Design analysis of polymer filtration using a multi-objective genetic algorithm. *Separation Science and Technology*, 43(4):710–726, March 2006.
- [2078] K. R. Fowler, E. W. Jenkins, C. L. Cox, B. McClune, and B. Seyfzadeh. Design analysis of polymer filtration using a multi-objective genetic algorithm. *Separation Science and Technology*, 43(4):710–726, March 2008.
- [2079] Michalis Fragiadakis, Nikos D. Lagaros, and Manolis Papadrakakis. Performance-based multiobjective optimum design of steel structures considering life-cycle cost. *Structural and Multidisciplinary Optimization*, 32(1):1–11, July 2006.
- [2080] Jose M. Framinan. A fitness-based weighting mechanism for multicriteria flow-shop scheduling using genetic algorithms. *International Journal of Advanced Manufacturing Technology*, 43(9-10):939–948, August 2009.
- [2081] Jose M. Framinan and Rafael Pastor. A proposal for a hybrid meta-strategy for combinatorial optimization problems. *Journal of Heuristics*, 14(4):375–390, August 2008.
- [2082] Domonique Francisci and Martine Collard. Multi-Criteria Evaluation of Interesting Dependencies according to a Data Mining Approach. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1568–1574, Canberra, Australia, December 2003. IEEE Press.
- [2083] Carsten Franke. *Design and Evaluation of Multi-Objective Online Scheduling Strategies for Parallel Machines using Computational Intelligence*. PhD thesis, Robotics Research Institute, University of Dortmund, Dortmund, Germany, November 2006.
- [2084] Alex A. Freitas. A Review of evolutionary Algorithms for Data Mining. In Oded Maimon and Lior Rokach, editors, *Soft Computing for Knowledge Discovery and Data Mining*, pages 79–111. Springer, 2008.
- [2085] Fabio Freschi. *Multi-Objective Artificial Immune System for Optimization in Electrical Engineering*. PhD thesis, Department of Electrical Engineering, Politecnico di Torino, Torino, Italy, 2006.
- [2086] Fabio Freschi, Carlos A. Coello Coello, and Maurizio Repetto. Multiobjective Optimization and Artificial Immune Systems: A Review. In Hongwei Mo, editor, *Handbook of Research on Artificial Immune Systems and Natural Computing: Applying Complex Adaptive Technologies*, pages 1–21. Medical Information Science Reference, Hershey, New York, 2009. ISBN 978-1-60566-310-4.

- [2087] Fabio Freschi and Maurizio Repetto. Multiobjective Optimization by a Modified Artificial Immune System Algorithm. In Christian Jacob, Marcin L. Pilat, Peter J. Bentley, and Jonathan Timmis, editors, *Artificial Immune Systems. 4th International Conference, ICARIS 2005*, pages 248–261, Banff, Canada, August 2005. Springer. Lecture Notes in Computer Science Vol. 3627.
- [2088] Fabio Freschi and Maurizio Repetto. VIS: an artificial immune network for multi-objective optimization. *Engineering Optimization*, 38(8):975–996, December 2006.
- [2089] Tobias Friedrich. *Use and Avoidance of Randomness*. PhD thesis, Naturwissenschaftlich-Technischen Fakultäten der Universität des Saarlandes, Saarbrücken, Germany, 2007.
- [2090] Tobias Friedrich, Karl Bringmann, Thomas Voß, and Christian Igel. The Logarithmic Hypervolume Indicator. In Hans-Georg Beyer and William B. Langdon, editors, *Proceedings of the 2011 ACM/SIGEVO Foundations of Genetic Algorithms XI (FOGA'2011)*, pages 81–92. ACM Press, Schwarzenberg, Austria, January 5–9 2011.
- [2091] Tobias Friedrich, Jun He, Nils Hebbinghaus, Frank Neumann, and Carsten Witt. Approximating Covering Problems by Randomized Search Heuristics Using Multi-Objective Models. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 797–804, London, UK, July 2007. ACM Press.
- [2092] Tobias Friedrich, Jun He, Nils Hebbinghaus, Frank Neumann, and Carsten Witt. Approximating Covering Problems by Randomized Search Heuristics Using Multi-Objective Models. *Evolutionary Computation*, 18(4):617–633, Winter 2010.
- [2093] Tobias Friedrich, Nils Hebbinghaus, and Frank Neumann. Plateaus Can Be Harder in Multi-Objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2622–2629, Singapore, September 2007. IEEE Press.
- [2094] Tobias Friedrich, Nils Hebbinghaus, and Frank Neumann. Plateaus can be harder in multi-objective optimization. *Theoretical Computer Science*, 411(6):854–864, February 6 2010.
- [2095] Tobias Friedrich, Christian Horoba, and Frank Neumann. Runtime Analyses for Using Fairness in Evolutionary Multi-Objective Optimization. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 671–680. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.

- [2096] Tobias Friedrich, Christian Horoba, and Frank Neumann. Multiplicative approximations and the hypervolume indicator. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 571–578, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2097] Tobias Friedrich, Trent Kroeger, and Frank Neumann. Weighted Preferences in Evolutionary Multi-objective Optimization. In Dianhui Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 291–300, Perth, Australia, December 5-8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [2098] Mariano Frutos, Ana Carolina Olivera, and Fernando Tohme. A memetic algorithm based on a NSGAII scheme for the flexible job-shop scheduling problem. *Annals Of Operations Research*, 181(1):745–765, December 2010.
- [2099] G. Fu, S.-T. Khu, and D. Butler. Use of surrogate modelling for multiobjective optimisation of urban wastewater systems. *Water Science and Technology*, 60(6):1641–1647, 2009.
- [2100] Guangtao Fu, David Butler, and Soon-Thiam Khu. Multiple objective optimal control of integrated urban wastewater systems. *Environmental Modelling & Software*, 23(2):225–234, February 2008.
- [2101] Jian Fu, Qing Liu, Xinmin Zhou, Kui Xiang, and Zhigang Zeng. An Adaptive Variable Strategy Pareto Differential Evolution Algorithm for Multi-Objective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 648–652, Hong Kong, June 2008. IEEE Service Center.
- [2102] Liu Fu, Jintu Fan, Li Yuanchun, Tian Yantao, and Dai Yisong. Study and Application of a Constrained Multi-Objective Optimization Algorithm. In *Proceedings of the IEEE International Vehicle Electronics Conference*, volume 1, pages 305–307, 1999.
- [2103] Daniel Fuentes. Aplicación del Algoritmo Competitivo Imperialista (ICA) para la Minimización de Pérdidas Eléctricas en Sistemas de Distribución Aéreos. Thesis, May 2010. (In Spanish).
- [2104] Juan Carlos Fuentes Cabrera and Carlos A. Coello Coello. Micro-MOPSO: A Multi-Objective Particle Swarm Optimizer That Uses a Very Small Population Size. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*, chapter 4, pages 83–104. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.
- [2105] K. Fujita, N. Hirokawa, S. Akagi, S. Kitamura, and H. Yokohata. Multi-objective optimal design of automotive engine using genetic algorithm. In *Proceedings of DETC'98 – ASME Design Engineering Technical Conferences*, page 11, 1998.

- [2106] Yoshikazu Fukuyama, Hamid Ghezelayagh, Kwang Y. Lee, Chen-Ching Liu, Yong-Hua Song, and Ying Xiao. Power System Controls. In Kwang Y. Lee and Mohamed A. El-Sharkawi, editors, *Modern Heuristic Optimization Techniques. Theory and Applications to Power Systems*, chapter 16, pages 403–469. Wiley-Interscience, USA, 2008.
- [2107] Joanne Fuller, William Millan, and Ed Dawson. Multi-objective Optimisation of Bijective S-Boxes. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1525–1532, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [2108] Pablo Funes, Eric Bonabeau, Jérôme Hervé, and Yves Morieux. Interactive Multi-Participant Tour Allocation. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1699–1705, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [2109] K. Y. Fung, C. K. Kwong, K. W. M. Siu, and K. M. Yu. A multi-objective genetic algorithm approach to rule mining for affective product design. *Expert Systems With Applications*, 39(8):7411–7419, June 15 2012.
- [2110] Wing On Fung and Tughrul Arslan. A Multi-Objective Algorithm for the Design of High Performance Reconfigurable Architectures with Embedded Decoding. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4399–4404, Singapore, September 2007. IEEE Press.
- [2111] Daniel Funke and Florian Kerschbaum. Privacy-Preserving Multi-Objective Evolutionary Algorithms. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 41–50. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [2112] Renata Furtuna, Silvia Curteanu, and Florin Leon. An elitist non-dominated sorting genetic algorithm enhanced with a neural network applied to the multi-objective optimization of a polysiloxane synthesis process. *Engineering Applications of Artificial Intelligence*, 24(5):772–785, August 2011.
- [2113] Renata Furtuna, Silvia Curteanu, and Florin Leon. Multi-objective optimization of a stacked neural network using an evolutionary hyper-heuristic. *Applied Soft Computing*, 12(1):133–144, January 2012.
- [2114] Renata Furtuna, Silvia Curteanu, and Carmen Racles. NSGA-II-RJG applied to multi-objective optimization of polymeric nanoparticles synthesis with silicone surfactants. *Central European Journal of Chemistry*, 9(6):1080–1095, December 2011.
- [2115] Tomonari Furukawa. Parameter identification with weightless regularization. *International Journal for Numerical Methods in Engineering*, 52:219–238, 2001.

- [2116] Tomonari Furukawa and Gamini Dissanayake. Parameter identification of autonomous vehicles using multi-objective optimization. *Engineering Optimization*, 34(4):369–395, 2002.
- [2117] Tomonari Furukawa, Gamini Dissanayake, and Hugh F. Durrant-Whyte. Application of Multi-Objective Evolutionary Algorithms in Autonomous Vehicles Navigation. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 125–153. World Scientific, Singapore, 2004.
- [2118] Tomonari Furukawa, Chen Jian Ken Lee, and John G. Michopoulos. Regularization for Parameter Identification Using Multi-Objective Optimization. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 125–149. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [2119] Tomonari Furukawa, Shinobu Yoshimura, and Hiroshi Kawai. Human-like Optimization—A Novel Technique for Computational Design. In H.A. Mang, F.G. Rammerstorfer, and J. Eberhardsteiner, editors, *Proceedings of the Fifth World Congress on Computational Mechanics (WCCM V)*, Vienna, Austria, July 2002. Vienna University of Technology.
- [2120] Tomonari Furukawa, Shinobu Yoshimura, and Genki Yagawa. Weightless Regularised Identification Using Multi-objective Optimisation Method. In *Proceedings of the 3rd International Conference on Inverse Problems in Engineering. Inverse Problems in Engineering: Theory and Practice*, pages 1–8, Port Ludlow, Washington, June 1999. ASME Press.
- [2121] T.F. Fwa, W.T. Chan, and K.Z. Hoque. Multiobjective optimization for pavement maintenance programming. *Journal of Transportation Engineering-ASCE*, 126(5):367–374, September-October 2000.
- [2122] B. Gaal, I. Vassanyi, and G. Kozmann. A novel artificial intelligence method for weekly dietary menu planning. *Methods of Information in Medicine*, 44(5):655–664, 2005.
- [2123] Salvador Gabarda and Gabriel Cristobal. An evolutionary blind image deconvolution algorithm through the pseudo-Wigner distribution. *Journal of Visual Communication and Image Representation*, 17(5):1040–1052, October 2006.
- [2124] Louis Gacôgne. Research of Pareto Set by Genetic Algorithm, Application to Multicriteria Optimization of Fuzzy Controller. In *5th European Congress on Intelligent Techniques and Soft Computing EUFIT'97*, pages 837–845, Aachen, Germany, September 1997.
- [2125] Louis Gacôgne. Multiple Objective Optimization of Fuzzy Rules for Obstacles Avoiding by an Evolution Algorithm with Adaptative Operators. In *Proceedings of the Fifth International Mendel Conference on Soft Computing (Mendel'99)*, pages 236–242, Brno, Czech Republic, June 1999.

- [2126] M. J. Gacto, R. Alcalá, and F. Herrera. Interpretability of linguistic fuzzy rule-based systems: An overview of interpretability measures. *Information Sciences*, 181(20):4340–4360, October 2011.
- [2127] Maria Jose Gacto, Rafael Alcalá, and Francisco Herrera. Adaptation and application of multi-objective evolutionary algorithms for rule reduction and parameter tuning of fuzzy rule-based systems. *Soft Computing*, 13(5):419–436, March 2009.
- [2128] Maria Jose Gacto, Rafael Alcalá, and Francisco Herrera. Integration of an Index to Preserve the Semantic Interpretability in the Multiobjective Evolutionary Rule Selection and Tuning of Linguistic Fuzzy Systems. *IEEE Transactions On Fuzzy Systems*, 18(3):515–531, June 2010.
- [2129] C. Gagné, M. Gravel, and W. Price. Scheduling a single machine where setup times are sequence dependent using an ant-colony heuristic. In *Abstract Proceedings of ANTS'2000*, pages 157–160, Brussels, Belgium, September 2000.
- [2130] C. Gagne, M. Gravel, and W.L. Price. Ant Colony Optimization Algorithm With Multiple Visibility Matrices to Solve an Industrial Scheduling Problem. *INFOR*, 40(3):259–276, August 2002.
- [2131] C. Gagne, M. Gravel, and W.L. Price. Multiple Objective Optimization Using an Ant Colony Algorithm. *INFOR*, 42(1):23–42, February 2004.
- [2132] Caroline Gagné, Wilson L. Price, and Marc Gravel. Scheduling a Single Machine with Sequence Dependent Setup Time Using Ant Colony Optimization. Technical Report 2001–003, Faculté des Sciences de L'Administration, Université Laval, Québec, Canada, April 2001. Available at <http://www.fsa.ulaval.ca/rd>.
- [2133] Christian Gagne, Julie Beaulieu, Marc Parizeau, and Simon Thibault. Human-competitive lens system design with evolution strategies. *Applied Soft Computing*, 8(4):1439–1452, September 2008.
- [2134] Christian Gagne and Marc Parizeau. Genetic engineering of hierarchical fuzzy regional representations for handwritten character recognition. *International Journal on Document Analysis and Recognition*, 8(4):223–231, September 2006.
- [2135] Christian Gagne and Marc Parizeau. Coevolution of nearest neighbor classifiers. *International Journal of Pattern Recognition and Artificial Intelligence*, 21(5):921–946, August 2007.
- [2136] Ewa Gajda, Robert Schaefer, and Maciej Smolka. Evolutionary Multiobjective Optimization Algorithm as a Markov System. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part I*, pages 617–626. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.

- [2137] Lucie Galand and Olivier Spanjaard. Exact algorithms for OWA-optimization in multiobjective spanning tree problems. *Computers & Operations Research*, 39(7):1540–1554, July 2012.
- [2138] Amir Galehdar, David V. Thiel, Andrew Lewis, and Marcus Randall. Multi-objective Optimization for Small Meander Wire Dipole Antennas in a Fixed Area Using Ant Colony System. *International Journal of RF and Microwave Computer-Aided Engineering*, 19(5):592–597, September 2009.
- [2139] Marta Galende-Hernandez, Gregorio I. Sainz-Palmero, and Maria J. Fuente-Aparicio. Complexity reduction and interpretability improvement for fuzzy rule systems based on simple interpretability measures and indices by bi-objective evolutionary rule selection. *Soft Computing*, 16(3):451–470, March 2012.
- [2140] Erick Yair Miranda Galindo, Juan Gabriel Segovia Hernandez, Salvador Hernandez, Claudia Gutierrez Antonio, and Abel Briones Ramirez. Reactive Thermally Coupled Distillation Sequences: Pareto Front. *Industrial & Engineering Chemistry Research*, 50(2):926–938, January 19 2011.
- [2141] Thierry Galinho, Alain Cardon, and Jean-Philippe Vacher. Genetic Integration in a Multiagent System for Job-Shop Scheduling. In Helder Coelho, editor, *Progress in Artificial Intelligence—IBERAMIA’98*, pages 76–87, Lisbon, Portugal, October 1998. Springer-Verlag.
- [2142] Luis Gallar, Manuel Arias, Vassilios Pachidis, and Riti Singh. Stochastic axial compressor variable geometry schedule optimisation. *Aerospace Science and Technology*, 15(5):366–374, July - August 2011.
- [2143] Roberto L. Galski, Fabiano L. de Sousa, Fernando M. Ramos, and Antonio J. Silva Neto. Application of a GEO plus SA Hybrid optimization algorithm to the Solution of an Inverse Radiative transfer problem. *Inverse Problems in Science and Engineering*, 17(3):321–334, 2009.
- [2144] J. Galuski and C.L. Bloebaum. Multi-objective Pareto concurrent subspace optimization for multidisciplinary design. *AIAA Journal*, 45(8):1894–1906, August 2007.
- [2145] B. Galvan, G. Winter, D. Greiner, D. Salazar, and M. Méndez. New Evolutionary Methodologies for Integrated Safety System Design and Maintenance Optimization. In Gregory Levitin, editor, *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pages 151–190. Springer, Heidelberg, 2007.
- [2146] Luca Maria Gambardella, Éric Taillard, and Giovanni Agazzi. MACS-VRPTW: A Multiple Ant Colony System for Vehicle Routing Problems with Time Windows. In David Corne, Marco Dorigo, and Fred Glover, editors, *New Ideas in Optimization*, pages 63–76. McGraw-Hill, 1999.

- [2147] Sadeesha Gamhewa and Philip Hingston. Testing Parallelization Paradigms for MOEAs. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 755–756, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [2148] Mark A. Gammon. *Ship Hull Form Optimization by Evolutionary Algorithm*. PhD thesis, Institute for Graduate Studies in Science and Engineering, Yildiz Technical University, Istanbul, Turkey, 2004.
- [2149] Mark A. Gammon. Optimization of fishing vessels using a Multi-Objective Genetic Algorithm. *Ocean Engineering*, 38(10):1054–1064, July 2011.
- [2150] Min Gan, Hui Peng, Xiaoyan Peng, Xiaohong Chen, and Garba Inoussa. An adaptive decision maker for constrained evolutionary optimization. *Applied Mathematics and Computation*, 215(12):4172–4184, February 15 2010.
- [2151] S. Ganapathy and S. Velusami. Decentralized Load-Frequency Control of Interconnected Power Systems with SMES Units and Governor Dead Band using Multi-Objective Evolutionary Algorithm. *Journal of Electrical Engineering & Technology*, 4(4):443–450, December 2009.
- [2152] S. Ganapathy and S. Velusami. MOEA based design of decentralized controllers for LFC of interconnected power systems with nonlinearities, AC-DC parallel tie-lines and SMES units. *Energy Conversion and Management*, 51(5):873–880, May 2010.
- [2153] Ankit Kumar Gandhi, Sri Krishna Kumar, Mayank Kumar Pandey, and M. K. Tiwari. EMPSO-based optimization for inter-temporal multi-product revenue management under salvage consideration. *Applied Soft Computing*, 11(1):468–476, January 2011.
- [2154] Xavier Gandibleux and Matthias Ehrgott. 1984-2004 – 20 Years of Multiobjective Metaheuristics. But What About the Solution of Combinatorial Problems with Multiple Objectives? In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 33–46, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2155] Xavier Gandibleux and Arnaud Freville. Tabu Search Based Procedure for Solving the 0-1 Multi-Objective Knapsack Problem: The Two Objectives Case. *Journal of Heuristics*, 6(3):361–383, August 2000.
- [2156] Xavier Gandibleux, Nazik Mezdaoui, and Arnaud Fréville. A Tabu Search Procedure to Solve Combinatorial Optimisation Problems. In Rafael Caballero, Francisco Ruiz, and Ralph E. Steuer, editors, *Advances in Multiple Objective and Goal Programming*, volume 455 of *Lecture Notes in Economics and Mathematical Systems*, pages 291–300. Springer-Verlag, 1997.

- [2157] Xavier Gandibleux, Hiroyuki Morita, and Naoki Katoh. The Supported Solutions Used as a Genetic Information in a Population Heuristic. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 429–442. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [2158] Xavier Gandibleux, Hiroyuki Morita, and Naoki Katoh. Use of a Genetic Heritage for Solving the Assignment Problem with Two Objectives. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 43–57, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2159] Xavier Gandibleux, Hiroyuki Morita, and Naoki Katoh. Evolutionary Operators Based on Elite Solutions for Bi-Objective Combinatorial Optimization. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 555–579. World Scientific, Singapore, 2004.
- [2160] Amir Hossein Gandomi, Xin-She Yang, and Amir Hossein Alavi. Mixed variable structural optimization using Firefly Algorithm. *Computers & Structures*, 89(23-24):2325–2336, December 2011.
- [2161] S. Ganguly, S. Datta, and N. Chakraborti. Genetic Algorithms in Optimization of Strength and Ductility of Low-Carbon Steels. *Materials and Manufacturing Processes*, 22(5):650–658, 2007.
- [2162] S. Ganguly, S. Datta, and N. Chakraborti. Genetic algorithm based search on the role of variables in the work hardening process of multiphase steels. *Computational Materials Science*, 45(1):158–166, March 2009.
- [2163] S. Ganguly, S. Datta, P. P. Chattopadhyay, and N. Chakraborti. Designing the Multiphase Microstructure of Steel for Optimal TRIP Effect: A Multiobjective Genetic Algorithm Based Approach. *Materials and Manufacturing Processes*, 24(1):31–37, January 2009.
- [2164] S. Ganguly, N.C. Sahoo, and D. Das. Mono- and Multi-Objective Planning of Electrical Distribution Networks Using Particle Swarm Optimization. *Applied Soft Computing*, 11(2):2391–2405, March 2011.
- [2165] Jianquan Gao. WBMOIGA: Weight-Based Multiobjective Immune Genetic Algorithm and Its Application. In *International Conference on Information and Automation (ICIA'09)*, pages 1–6, Macau, China, June 2009. IEEE Computer Society.
- [2166] Jiaquan Gao, Lei Fang, and Jun Wang. A weight-based multiobjective immune algorithm: WBMOIA. *Engineering Optimization*, 42(8):719–745, 2010.

- [2167] Jiaquan Gao, Zhimin Fang, and Lei Fang. Effects of Similarity-Based Selection on WBMIOA: A Weight-Based Multiobjective Immune Algorithm. In Zhihua Cai, Zhenhua Li, Zhuo Kang, and Yong Liu, editors, *Advances in Computation and Intelligence, 4th International Symposium, ISICA 2009*, pages 191–200, Huangshi, China, October 23–25 2009. Springer. Lecture Notes in Computer Science Vol. 5821.
- [2168] Jiaquan Gao, Guixia He, and Yushun Wang. A new parallel genetic algorithm for solving multiobjective scheduling problems subjected to special process constraint. *International Journal of Advanced Manufacturing Technology*, 43(1-2):151–160, July 2009.
- [2169] Jiaquan Gao, Guixia He, Yushun Wang, and Feng Liu. Multi-Objective Scheduling Problems Subjected to Special Process Constraint. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 105–110, Hong Kong, June 2008. IEEE Service Center.
- [2170] Jiaquan Gao and Jun Wang. WBMIOAIS: A novel artificial immune system for multiobjective optimization. *Computers & Operations Research*, 37(1):50–61, January 2010.
- [2171] Jiaquan Gao and Jun Wang. A hybrid quantum-inspired immune algorithm for multiobjective optimization. *Applied Mathematics and Computation*, 217(9):4754–4770, January 1 2011.
- [2172] Song Gao, Sanyou Zeng, Bo Xiao, Lei Zhang, Yulong Shi, Xin Tian, Yang Yang, Haoqiu Long, Xianqiang Yang, Danping Yu, and Zu Yan. An Orthogonal Multi-objective Evolutionary Algorithm with Lower-dimensional Crossover. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1959–1964, Trondheim, Norway, May 2009. IEEE Press.
- [2173] X. Z. Gao, X. Wang, and S. J. Ovaska. Harmony Search Methods for Multimodal and Constrained Optimization. In Zong Woo Geem, editor, *Music-Inspired Harmony Search Algorithm*, pages 39–51. Springer. Studies in Computational Intelligence. Vol. 191, Berlin, Germany, 2009.
- [2174] Xiaodan Gao, Bingzhen Chen, Xiaorong He, Tong Qiu, Jichun Li, Chongming Wang, and Longjiang Zhang. Multi-objective optimization for the periodic operation of the naphtha pyrolysis process using a new parallel hybrid algorithm combining NSGA-II with SQP. *Computers & Chemical Engineering*, 32(11):2801–2811, November 24 2008.
- [2175] Yuelin Gao and Min Qu. Multi-objective Particle Swarm Optimization Algorithm Based on the Disturbance Operation. In Hepu Deng, Duoqian Miao, Jingsheng Lei, and Fu Lee Wang, editors, *Artificial Intelligence and Computational Intelligence, Third International Conference, AICI 2011*, pages 591–600, Taiyuan, China, September 24–25 2011. Springer. Lecture Notes in Computer Science Vol. 7002.

- [2176] Zhen Gao, Dan Zhang, and Yunjian Ge. Design optimization of a spatial six degree-of-freedom parallel manipulator based on artificial intelligence approaches. *Robotics and Computer-Integrated Manufacturing*, 26(1):180–189, April 2010.
- [2177] Zhen Gao, Dan Zhang, Xiaolin Hu, and Yunjian Ge. Design, analysis and stiffness optimization of a three degree of freedom parallel manipulator. *Robotica*, 28(3):349–357, May 2010.
- [2178] Jesus Garcia, Antonio Berlanga, and Jose M. Molina. Evolutionary algorithms in multiply-specified engineering. The MOEAs and WCES strategies. *Advanced Engineering Informatics*, 21(1):3–21, January 2007.
- [2179] Rodolfo Garcia, Emerson Cabrera Paraiso, and Júlio Cesar Nievola. Multiobjective Optimization of Indexes Obtained by Clustering for Feature Selection Methods Evaluation in Genes Expression Microarrays. In Hujun Yin, Wenjia Wang, and Victor Rayward-Smith, editors, *Intelligent Data Engineering and Automated Learning - IDEAL 2011, 12th International Conference*, pages 353–360, Norwich, UK, September 7-9 2011. Springer. Lecture Notes in Computer Science Vol. 6936.
- [2180] Sandra García, Ricardo Aler, and Inés María Galván. Using Evolutionary Multiobjective Techniques for Imbalanced Classification Data. In Konstantinos Diamantaras, Wlodek Duch, and Lazaros S. Iliadis, editors, *Artificial Neural Networks ICANN 2010, 20th International Conference*, pages 422–427, Thessaloniki, Greece, September 15-18 2010. Springer. Lecture Notes in Computer Science Vol. 6352.
- [2181] Sandra García, Cristóbal Luque, Alejandro Cervantes, and Inés M. Galván. Multiobjective Algorithms Hybridization to Optimize Broadcasting Parameters in Mobile Ad-Hoc Networks. In Joan Cabestany, Francisco Sandoval, Alberto Prieto, and Juan M. Corchado, editors, *Bio-Inspired Systems: Computational and Ambient Intelligence, 10th International Work-Conference on Artificial Neural Networks, IWANN 2009*, pages 728–735, Salamanca, Spain, June 10-12 2009. Springer. Lecture Notes in Computer Science Vol. 5517.
- [2182] Carlos R. Garcia-Alonso, Luis Salvador-Carulla, Miguel A. Negrin-Hernandez, and Berta Moreno-Küstner. Development of a New Spatial Analysis Tool in Mental Health: Identification of Highly Autocorrelated Areas (Hot-Spots) of Schizophrenia Using a Multiobjective Evolutionary Algorithm Model (MOEA/HS). *Epidemiologia e Psichiatria Sociale-an International Journal for Epidemiology and Psychiatric Sciences*, 19(4):302–313, October-December 2010.
- [2183] Jesús García Herrero, Antonio Berlanga, and José Manuel Molina López. Effective Evolutionary Algorithms for Many-Specifications Attainment: Application to Air Traffic Control Tracking Filters. *IEEE Transactions on Evolutionary Computation*, 13(1):151–168, February 2009.

- [2184] C. García-Martínez, O. Cordón, and F. Herrera. A taxonomy and an empirical analysis of multiple objective ant colony optimization algorithms for the bi-criteria TSP. *European Journal of Operational Research*, 180(1):116–148, July 2007.
- [2185] Carlos García-Martínez, Oscar Cordón, and Francisco Herrera. An Empirical Analysis of Multiple Objective Ant Colony Optimization Algorithms for the Bi-criteria TSP. In Marco Dorigo, Mauro Birattari, Christian Blum, Luca M. Gambardella, Francesco Mondada, and Thomas Stützle, editors, *Proceedings of the 4th International Workshop on Ant Colony Optimization and Swarm Intelligence*, pages 61–72. Springer. Lecture Notes in Computer Science Vol. 3172, 2004.
- [2186] C. A. Garcia Montoya and S. Mendoza Toro. Implementation of an evolutionary algorithm in planning investment in a power distribution system. *Revista Ingenieria e Investigacion*, 31(2):118–124, 2011.
- [2187] Abel Garcia Najera. *Multi-Objective Evolutionary Algorithms for Vehicle Routing Problems*. PhD thesis, School of Computer Science, College of Engineering and Physical Sciences, The University of Birmingham, UK, November 2010.
- [2188] Abel Garcia-Najera and John A. Bullinaria. Extending ACO_R to Solve Multi-Objective Problems. In G. M. Coghill, editor, *Proceedings of the UK Workshop on Computational Intelligence (UKCI 2007)*, London, UK, 2007. Imperial College United Kingdom.
- [2189] Abel Garcia-Najera and John A. Bullinaria. Comparison of similarity measures for the multi-objective vehicle routing problem with time windows. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 579–586, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2190] Abel Garcia-Najera and John A. Bullinaria. Optimizing Delivery Time in Multi-Objective Vehicle Routing Problems with Time Windows. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 51–60. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [2191] J. Garcia-Nieto, E. Alba, L. Jourdan, and E. Talbi. Sensitivity and specificity based multiobjective approach for feature selection: Application to cancer diagnosis. *Information Processing Letters*, 109(16):887–896, July 31 2009.
- [2192] N. García-Pedrajas, C. Hervás-Martínez, and J. Muñoz Pérez. Multi-objective cooperative coevolution of artificial neural networks (multi-objective cooperative networks). *Neural Networks*, 15(10):1259–1278, December 2002.

- [2193] Nicolás García-Pedrajas. Cooperative Coevolution of Neural Networks and Ensembles of Neural Networks. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 465–490. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [2194] Nicolás García-Pedrajas, César Hervás-Martínez, and Domingo Ortiz-Boyer. Cooperative Coevolution of Artificial Neural Network Ensembles for Pattern Classification. *IEEE Transactions on Evolutionary Computation*, 9(3):271–302, June 2005.
- [2195] Eleanor J. Gardiner, David A. Cosgrove, Robin Taylor, and Valerie J. Gillet. Multiobjective Optimization of Pharmacophore Hypotheses: Bias Toward Low-Energy Conformations. *Journal of Chemical Information and Modeling*, 49(12):2761–2773, December 2009.
- [2196] Joost Garen. A Genetic Algorithm for Tackling Multiobjective Job-Shop Scheduling Problems. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T’kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 201–219, Berlin, 2004. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535.
- [2197] Ritu Garg and Awadhesh Kumar Singh. Multi-objective Workflow Grid Scheduling Based on Discrete Particle Swarm Optimization. In Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 183–190, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [2198] Sanjeev Garg. Array Informatics using Multi-Objective Genetic Algorithms: From Gene Expressions to Gene Networks. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 12, pages 363–400. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [2199] Sanjeev Garg and Santosh K. Gupta. Multiobjective optimization of a free radical bulk polymerization reactor using genetic algorithm. *Macromolecular Theory and Simulations*, 8(1):46–53, 1999.
- [2200] Aaron Garrett. *Neural Enhancement for Multiobjective Optimization*. PhD thesis, Auburn University, Auburn, Alabama, USA, May 2008.
- [2201] Aaron Garrett, Gerry Dozier, and Kalyanmoy Deb. NEMO: Neural Enhancement for Multiobjective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pages 3108–3113, Singapore, September 2007. IEEE Press.
- [2202] Deon Garrett. Plateau Connection Structure and Multiobjective Metaheuristic Performance. In *2009 IEEE Congress on Evolutionary Computation (CEC’2009)*, pages 1281–1288, Trondheim, Norway, May 2009. IEEE Press.

- [2203] Deon Garrett. PMF: A Multicore-Enabled Framework for the Construction of Metaheuristics for Single and Multiobjective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part II*, pages 351–360. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [2204] Deon Garrett and Dipankar Dasgupta. Analyzing the Performance of Hybrid Evolutionary Algorithms for the Multiobjective Quadratic Assignment Problem. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6174–6181, Vancouver, BC, Canada, July 2006. IEEE.
- [2205] Deon Garrett and Dipankar Dasgupta. An Empirical Comparison of Memetic Algorithm Strategies on the Multiobjective Quadratic Assignment Problem. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 80–87, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [2206] Deon Garrett, Dipankar Dasgupta, Joseph Vannucci, and James Simien. Applying Hybrid Multiobjective Evolutionary Algorithms to the Sailor Assignment Problem. In Lakhmi C. Jain, Vasile Palade, and Dipti Srinivasan, editors, *Advances in Evolutionary Computing for System Design*, pages 269–301. Springer. Studies in Computational Intelligence Vol. 66, 2007.
- [2207] Cícero Garrozi and Aluizio Gausto Ribeiro Araújo. Multiobjective Genetic Algorithm for Multicast Routing. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 8682–8689, Vancouver, BC, Canada, July 2006. IEEE.
- [2208] Mario Garza Fabre. Optimización de problemas con más de tres objetivos mediante algoritmos evolutivos. Master's thesis, Laboratorio de Tecnologías de la Información, CINVESTAV-IPN, Cd. Victoria, Tamaulipas, México, September 2009. (in Spanish).
- [2209] Mario Garza-Fabre, Carlos A. Coello Coello Gregorio Toscano-Pulido, and Eduardo Rodríguez-Tello. Effective Ranking + Speciation = Many-Objective Optimization. In *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pages 2115–2122, New Orleans, Louisiana, USA, 5-8 June 2011. IEEE Service Center.
- [2210] Mario Garza-Fabre, Gregorio Toscano Pulido, and Carlos A. Coello Coello. Alternative Fitness Assignment Methods for Many-Objective Optimization Problems. In *Artificial Evolution, 9th International Conference, Evolution Artificielle, EA 2009*, pages 146–157, Strasbourg, France, 2010. Springer. Lecture Notes in Computer Science, Vol. 5975. ISBN 978-3-642-14155-3.
- [2211] Mario Garza Fabre, Gregorio Toscano Pulido, and Carlos A. Coello Coello. Ranking Methods for Many-Objective Problems. In Arturo Hernández Aguirre, Raúl Monroy Borja, and Carlos Alberto Reyes García, editors, *MICAI 2009*:

- Advances in Artificial Intelligence. 8th Mexican International Conference on Artificial Intelligence*, pages 633–645, Guanajuato, México, November 2009. Springer. Lecture Notes in Artificial Intelligence Vol. 5845.
- [2212] A. Gaspar-Cunha. *Modelling and Optimisation of Single Screw Extrusion*. PhD thesis, University of Minho, Guimarães, Portugal, 2000.
 - [2213] A. Gaspar-Cunha. A Multi-Objective Evolutionary Algorithm for Solving Traveling Salesman Problems: Application to the Design of Polymer Extruders. In Bernardete Ribeiro, Rudolf F. Albrecht, Andrej Dobnikar, David W. Pearson, and Nigel C. Steele, editors, *Adaptive and Natural Computing Algorithms*, pages 189–193, Coimbra, Portugal, March 2005. Springer.
 - [2214] A. Gaspar-Cunha and J.A. Covas. A Real-World Test Problem for EMO Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 752–766, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
 - [2215] A. Gaspar-Cunha and J.A. Covas. Robustness in multi-objective optimization using evolutionary algorithms. *Computational Optimization and Applications*, 39(1):75–96, January 2008.
 - [2216] A. Gaspar-Cunha, J.A. Covas, and B. Vergnes. Defining the configuration of co-rotating twin-screw extruders with multiobjective evolutionary algorithms. *Polymer Engineering and Science*, 45(8):1159–1173, August 2005.
 - [2217] A. Gaspar-Cunha, A. Poulesquen, B. Vergnes, and J.A. Covas. Optimization of Processing Conditions for Polymer Twin-screw Extrusion. *International Polymer Processing*, 17(3):201–213, 2002.
 - [2218] A. Gaspar-Cunha and J.C. Viana. Using multi-objective evolutionary algorithms to optimize mechanical properties of injection molded part. *International Polymer Processing*, 20(3):274–285, September 2005.
 - [2219] A. Gaspar-Cunha and A. Vieira. A multi-objective evolutionary algorithm using neural networks to approximate fitness evaluations. *International Journal of Computers, Systems and Signals*, 6(1):18–36, 2005.
 - [2220] António Gaspar-Cunha and José A. Covas. RPSGAe–Reduced Pareto Set Genetic Algorithm: Application to Polymer Extrusion. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T’kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 221–249, Berlin, 2004. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535.
 - [2221] António Gaspar-Cunha and José A. Covas. The Use of Evolutionary Algorithms to Solve Practical Problems in Polymer Extrusion. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 177–199. World Scientific, Singapore, 2004.

- [2222] António Gaspar-Cunha, José Ferreira, José António Covas, and Carlos Fonseca. Extending Optimization Algorithms to Complex Engineering Problems. In António Gaspar-Cunha and José António Covas, editors, *Optimization in Polymer Processing*, chapter 4, pages 59–83. Nova Science Publishers, New York, USA, 2011. ISBN 978-1-61122-818-2.
- [2223] António Gaspar-Cunha, Dirk Loyens, and Ferrie van Hattum. Aesthetic Design Using Multi-Objective Evolutionary Algorithms. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 374–388, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [2224] António Gaspar-Cunha, Fernando Mendes, Jo ao Duarte, Armando Vieira, Bernardete Ribeiro, André Ribeiro, and Jo ao Neves. Multi-Objective Evolutionary Algorithms for Feature Selection: Application in Bankruptcy Prediction. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 319–328, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [2225] Martin Gassner and Francois Marechal. Combined mass and energy integration in process design at the example of membrane-based gas separation systems. *Computers & Chemical Engineering*, 34(12):2033–2042, December 9 2010.
- [2226] Martin Gassner and Francois Marechal. Thermo-economic optimisation of the polygeneration of synthetic natural gas (SNG), power and heat from lignocellulosic biomass by gasification and methanation. *Energy & Environmental Science*, 5(2):5768–5789, February 2012.
- [2227] Valentina Gecevska and Franc Cus. Intelligent Process Planning for Competitive Engineering. *Strojarstvo*, 52(1):33–41, January-February 2010.
- [2228] Zong Woo Geem. Harmony search optimisation to the pump-included water distribution network design. *Civil Engineering and Environmental Systems*, 26(3):211–221, 2009.
- [2229] Zong Woo Geem. Multiobjective Optimization of Time-Cost Trade-Off Using Harmony Search. *Journal Of Construction Engineering and Management-ASCE*, 136(6):711–716, June 2010.
- [2230] Martin J. Geiger. MOOPPS: An Optimization System for Multi Objective Production Scheduling. In *MIC'2005. The 6th Metaheuristics International Conference*, pages 403–408, Vienna, Austria, August 2005.

- [2231] Martin Josef Geiger. The Interactive Pareto Iterated Local Search (iPILS) Metaheuristic and its Application to Biobjective Portfolio Optimization Problem. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 193–199, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [2232] Martin Josef Geiger. On operators and search space topology in multi-objective flow shop scheduling. *European Journal of Operational Research*, 181(1):195–206, August 16 2007.
- [2233] Martin Josef Geiger. Multi-criteria Curriculum-Based Course Timetabling—A Comparison of a Weighted Sum and a Reference Point Based Approach. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 290–304. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [2234] Martin Josef Geiger. Fast Approximation Heuristics for Multi-Objective Vehicle Routing Problems. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Marc Ebner, Muddassar Farooq, Andreas Fink, Jörn Grahlf, Gary Greenfield, Penousal Machado, Michael O'Neill, Ernesto Tarantino, and Neil Urquhard, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMNET, EvoENVIRONMENT, EvoFIN, EvoMUSART and EvoTRANSLOG*, pages 441–450, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6025.
- [2235] Martin Josef Geiger and Sanja Petrovic. An Interactive Multicriteria Optimisation Approach to Scheduling. In Max Bramer and Vldan Devedzic, editors, *Artificial Intelligence Applications and Innovations*, pages 475–484. Kluwer Academic Publishers, Boston/Dordrecht/London, 2004.
- [2236] Martin Josef Geiger and Wolf Wenger. On the Interactive Resolution of Multi-objective Vehicle Routing Problems. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 687–699, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2237] Martin Josef Geiger and Wolf Wenger. Market Based Allocation of Transportation Orders to Vehicles in Adaptive Multi-objective Vehicle Routing. In Carlos Cotta, Marc Sevaux, and Kenneth Sörensen, editors, *Adaptive and Multilevel Metaheuristics*, pages 119–132. Springer. Studies in Computational Intelligence Vol. 136, 2008.
- [2238] Martin Josef Geiger, Wolf Wenger, and Walter Habenicht. Interactive Utility Maximization in Multi-objective Vehicle Routing Problems: A “Decision Maker in the Loop”-Approach. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 178–184, Honolulu, Hawaii, USA, April 2007. IEEE Press.

- [2239] M.J. Geiger. Genetic Algorithms for Multiple Objective Vehicle Routing. In Jorge Pinho de Sousa, editor, *Proceedings of the 4th Metaheuristics International Conference (MIC'2001)*, pages 349–354. Program Operational Ciencia, Tecnologia, Inovação do Quadro Comunitário de Apoio III de Fundação para a Ciencia e Tecnologia, Porto, Portugal, July 16–20 2001.
- [2240] M Gen, K Ida, J Lee, and J Kim. Fuzzy nonlinear goal programming using genetic algorithm. *Computers & Industrial Engineering*, 33(1-2):39–42, October 1997.
- [2241] M. Gen, K. Ida, and Y. Li. Solving bicriteria solid transportation problem with fuzzy numbers by genetic algorithm. *International Journal of Computers and Industrial Engineering*, 29:537–543, 1995.
- [2242] M. Gen, Y.Z Li, and K. Ida. Solving multi-objective transportation problem by spanning tree-based genetic algorithm. *IEICE Transactions of Fundamental of Electronics Communications and Computer Sciences*, E82A(12):2802–2810, December 1999.
- [2243] Mitsuo Gen and Runwei Cheng. *Genetic Algorithms and Engineering Design*. John Wiley and Sons, Inc., New York, 1997.
- [2244] Mitsuo Gen and Runwei Cheng. *Genetic Algorithms and Engineering Optimization*. Wiley Series in Engineering Design and Automation. John Wiley & Sons, New York, 2000.
- [2245] Mitsuo Gen, Runwei Cheng, and Lin Lin. *Network Models and Optimization. Multiobjective Genetic Algorithm Approach*. Springer, 2008. ISBN 978-1-84800-180-0.
- [2246] Mitsuo Gen, Kenichi Ida, and Jongryul Kim. A Spanning Tree-Based Genetic Algorithm for Bicriteria Topological Network Design. In *Proceedings of the 5th IEEE Conference on Evolutionary Computation*, pages 15–20, Piscataway, New Jersey, 1998. IEEE Press.
- [2247] Mitsuo Gen and Yin-Zhen Li. Solving Multi-Objective Transportation Problems by Spanning Tree-based Genetic Algorithm. In Ian Parmee, editor, *The Integration of Evolutionary and Adaptive Computing Technologies with Product/System Design and Realisation*, pages 95–108, Plymouth, United Kingdom, April 1998. Plymouth Engineering Design Centre, Springer-Verlag.
- [2248] Huantong Geng, Min Zhang, Linfeng Huang, and Xufa Wang. Infeasible elitists and stochastic ranking selection in constrained evolutionary multi-objective optimization. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 336–344. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.

- [2249] Paraskevi S. Georgiadou, Ioannis A. Papazoglou, Chris T. Kiranoudis, and Nikolaos C. Markatos. Multi-Objective Emergency Response Optimization Around Chemical Plants. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 11, pages 339–362. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [2250] Paraskevi S. Georgiadou, Ioannis A. Papazoglou, Chris T. Kiranoudis, and Nikolaos C. Markatos. Multi-objective evolutionary emergency response optimization for major accidents. *Journal of Hazardous Materials*, 178(1-3):792–803, June 15 2010.
- [2251] Chariklia A. Georgopoulou and Kyriakos C. Giannakoglou. A multi-objective metamodel-assisted memetic algorithm with strength-based local refinement. *Engineering Optimization*, 41(10):909–923, October 2009.
- [2252] Chariklia A. Georgopoulou and Kyriakos C. Giannakoglou. Two-level, two-objective evolutionary algorithms for solving unit commitment problems. *Applied Energy*, 86(7-8):1229–1239, July-August 2009.
- [2253] A. Gepperth and S. Roth. Applications of multi-objective structure optimization. *Neurocomputing*, 69(7–9):701–713, March 2006.
- [2254] Alexander Rainer Tassilo Gepperth. *Neural learning methods for visual object detection*. PhD thesis, Fakultät für Physik und Astronomie, Ruhr-Universität Bochum, Germany, April 2006.
- [2255] Paolo Geremia, Mauro Poian, and Silvia Poles. Genetic Optimization for Yacht Design. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO’2007)*, volume 2, pages 2007–2012, London, UK, July 2007. ACM Press.
- [2256] John S. Gero and Sushil J. Louis. Improving Pareto Optimal Designs Using Genetic Algorithms. *Microcomputers in Civil Engineering*, 10(4):241–249, 1995.
- [2257] John S. Gero, Sushil J. Louis, and Sourav Kundu. Evolutionary learning of novel grammars for design improvement. *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, 8:83–94, 1994.
- [2258] K. Ghali and O. Hammami. Embedded Processor Characteristics Specification Through Multiobjective Evolutionary Algorithms. In *Proceedings of the IEEE International Symposium on Industrial Electronics (ISIE’03)*, volume 2, pages 907–912. IEEE, June 2003.
- [2259] Adam Ghandar, Zbigniew Michalewicz, and Ralf Zurbrugg. Interpretable multi-criteria fuzzy rule based decision models for hedge fund management. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 3034–3041, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [2260] Adam Ghandar, Zbigniew Michalewicz, Ralf Zurbruegg, and Chee Cheong. Index tracking fund enhancement using evolving multi-criteria fuzzy decision models. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2980–2987, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2261] Mehdi Ghatee and S. Mehdi Hashemi. Applications of fuzzy minimum cost flow problems to network design under uncertainty. *Fuzzy Sets and Systems*, 160(22):3263–3289, November 16 2009.
- [2262] H. Ghiasi, D. Pasini, and L. Lessard. Pareto frontier for simultaneous structural and manufacturing optimization of a composite part. *Structural and Multidisciplinary Optimization*, 40(1-6):497–511, January 2010.
- [2263] Hossein Ghiasi, Damiano Pasini, and Larry Lessard. A non-dominated sorting hybrid algorithm for multi-objective optimization of engineering problems. *Engineering Optimization*, 43(1):39–59, January 2011.
- [2264] Tiziano Ghisu, Jerome P. Jarret, and Geoffrey T. Parks. Robust Design Optimization of Airfoils with Respect to Ice Accretion. *Journal of Aircraft*, 48(1):287–304, January-February 2011.
- [2265] Tiziano Ghisu, Geoffrey T. Parks, Daniel M. Jaeggi, Jerome P. Jarrett, and P. John Clarkson. The Benefits of Adaptive Parametrization in Multi-Objective Tabu Search Optimization. *Engineering Optimization*, 42(10):959–981, 2010.
- [2266] Nouredine Ghoggali and Farid Melgani. Automatic Ground-Truth Validation with Genetic Algorithms for Multispectral Image Classification. *IEEE Transactions on Geoscience and Remote Sensing*, 47(7):2172–2181, July 2009.
- [2267] Nouredine Ghoggali, Farid Melgani, and Yakoub Bazi. A Multiobjective Genetic SVM Approach for Classification Problems with Limited Training Samples. *IEEE Transactions of Geoscience and Remote Sensing*, 47(6):1707–1718, June 2009.
- [2268] M.R. Gholamian, S.M.T. Fatemi Ghomi, and M. Ghazanfari. A hybrid intelligent system for multiobjective decision making problems. *Computers and Industrial Engineering*, 51(1):26–43, September 2006.
- [2269] M.R. Gholamian, S.M.T. Fatemi Ghomi, and M. Ghazanfari. A hybrid system for multiobjective problems - A case study in NP-hard problems. *Knowledge-Based Systems*, 20(4):426–436, May 2007.
- [2270] M.R. Gholamian, S.M.T.F. Ghomi, and M. Ghazanfari. A hybrid systematic design for multiobjective market problems: a case study in crude oil markets. *Engineering Applications of Artificial Intelligence*, 18(4):495–509, June 2005.
- [2271] A.K. Gholap and J.A. Khan. Design and multi-objective optimization of heat exchangers for refrigerators. *Applied Energy*, 84(12):1226–1239, December 2007.

- [2272] Keivan Ghoseiri and Seyed Farid Ghannadpour. Multi-objective vehicle routing problem with time windows using goal programming and genetic algorithm. *Applied Soft Computing*, 10(4):1096–1107, September 2010.
- [2273] Keivan Ghoseiri and Behnam Nadjari. An ant colony optimization algorithm for the bi-objective shortest path problem. *Applied Soft Computing*, 10(4):1237–1246, September 2010.
- [2274] A. Ghosh and B. Nath. Multi-objective Rule Mining using Genetic Algorithms. *Information Sciences*, 163(1–3):123–133, June 2004.
- [2275] Ashish Ghosh and Mrinal Kanti Das. Non-dominated rank based sorting genetic algorithms. *Fundamenta Informaticae*, 83(3):231–252, 2008.
- [2276] Ashish Ghosh and Satchidananda Dehuri. Evolutionary algorithms for multi-criterion optimization: a survey. *International Journal of Computing & Information Sciences*, 2(1):38–57, April 2004.
- [2277] Pradipta Ghosh, Hamim Zafar, and Ankush Mandal. Modified Local Neighborhood Based Niching Particle Swarm Optimization for Multimodal Function Optimization. In Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 199–208, Visakhapatnam, Andhra Pradesh, India, December 19–21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [2278] Saurav Ghosh, Subhrajit Roy, Sk. Minhazul Islam, Shizheng Zhao, Ponnuthurai Nagaratnam Suganthan, and Swagatam Das. Non-uniform Circular-Shaped Antenna Array Design and Synthesis - A Multi-Objective Approach. In Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 223–230, Visakhapatnam, Andhra Pradesh, India, December 19–21 2011. Springer. Lecture Notes in Computer Science Vol. 7077.
- [2279] Kyriakos C. Giannakoglou and Ioannis C. Kampolis. Multilevel Optimization Algorithms Based on Metamodel- and Fitness Inheritance-Assisted Evolutionary Algorithms. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 61–84. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [2280] Stefano Icaro Gianoli, Graeme Puxty, Ulrich Fisher, Marcel Maeder, and Konrad Hungerbühler. Empirical kinetic modeling of on line simultaneous infrared and calorimetric measurement using a Pareto optimal approach and multi-objective genetic algorithm. *Chemometrics and Intelligent Laboratory Systems*, 85(1):47–62, January 15 2007.
- [2281] Vincent Giard and Jully Jeunet. Optimal sequencing of mixed models with sequence-dependent setups and utility workers on an assembly line. *International Journal of Production Economics*, 123(2):290–300, February 2010.

- [2282] Oliver Giel. Expected Runtimes of a Simple Multi-objective Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1918–1925, Canberra, Australia, December 2003. IEEE Press.
- [2283] Oliver Giel and Per Kristian Lehre. On the Effect of Populations in evolutionary multi-objective optimization. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 651–658, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2284] C. Gil, A. Marquez, R. Ba nos, M.G. Montoya, and J. Gomez. A hybrid method for solving multi-objective global optimization problems. *Journal of Global Optimization*, 38(2):265–281, June 2007.
- [2285] C. Gil, R. Ba nos, M.G. Montoya, and J. Gómez. Performance of Simulated Annealing, Tabu Search, and Evolutionary Algorithms for Multi-objective Network Partitioning. *Algorithmic Operations Research*, 1(1):55–64, 2006.
- [2286] M.K. Gill, Y.H. Kaheil, A. Khalil, M. Mckee, and L. Bastidas. Multiobjective particle swarm optimization for parameter estimation in hydrology. *Water Resources Research*, 42(7, Art. No. W07417), July 22 2006.
- [2287] A. Gillet, P. Francescato, and P. Saffre. Single- and Multi-objective Optimization of Composite Structures: The Influence of Design Variables. *Journal of Composite Materials*, 44(4):457–480, February 2010.
- [2288] V. J. Gillet, P. Willett, P. J. Fleming, and D. V. S. Green. Designing focused libraries using MoSELECT. *Journal of Molecular Graphics & Modelling*, 20(6):491–498, June 2002.
- [2289] V.J. Gillet, W. Khatib, P. Willett, P.J. Fleming, and D.V.S. Green. Combinatorial Library Design using a Multiobjective Genetic Algorithm. *Journal of Chemical Information and Computer Sciences*, 42(2):375–385, March-April 2002.
- [2290] V. Gineityte, B. Csukas, and S. Balogh. Combining genetic programming with generic simulation models in evolutionary synthesis. *Computers in Industry*, 36(3):181–197, June 1998.
- [2291] A. P. Giotis and K. C. Giannakoglou. Single- and Multi-Objective Airfoil Design Using Genetic Algorithms and Artificial Intelligence. In Kaisa Miettinen, Marko M. Mäkelä, Pekka Neittaanmäki, and Jacques Periaux, editors, *Proceedings of EUROGEN'99*, Jyväskylä, Finland, 30 May-6 June 1999. University of Jyväskylä.
- [2292] M. Gitizadeh and M. Kalantar. Genetic Algorithm Based Fuzzy Multi-Objective Approach to FACTS Devices Allocation in FARS Regional Electric Network. *Scientia Iranica*, 15(6):534–546, November-December 2008.

- [2293] Mozen Gitizadeh and Mohsen Kalantar. Genetic algorithm-based fuzzy multi-objective approach to congestion management using FACTS devices. *Electrical Engineering*, 90(8):539–549, February 2009.
- [2294] Rafael Giusti, Gustavo E.A.P.A. Batista, and Ronaldo C. Prati. Evaluating Ranking Composition Methods for Multi-Objective Optimization of Knowledge Rules. In *Eighth International Conference on Hybrid Intelligent Systems (HIS'08)*, pages 537–542, Barcelona, Spain, 10-12 September 2008. IEEE Computer Society Press.
- [2295] O. Giustolisi, A. Doglioni, D.A. Savic, and F. di Pierro. An evolutionary multiobjective strategy for the effective management of groundwater resources. *Water Resources Research*, 44(1), January 3 2008. article no. W01403.
- [2296] O. Giustolisi and D.A. Savic. Advances in data-driven analyses and modelling using EPR-MOGA. *Journal of Hydroinformatics*, 11(3-4):225–236, 2009.
- [2297] Orazio Giustolisi and Luigi Berardi. Prioritizing Pipe Replacement: From Multiobjective Genetic Algorithms to Operational Decision Support. *Journal of Water Planning and Management-ASCE*, 135(6):484–492, November-December 2009.
- [2298] D. Gladwin, P. Stewart, and J. Stewart. Internal combustion engine control for series hybrid electric vehicles by parallel and distributed genetic programming/multiobjective genetic algorithms. *International Journal of Systems Science*, 42:249–261, 2011.
- [2299] Tobias Glasmachers, Tom Schaul, and Jürgen Schmidhuber. A Natural Evolution Strategy for Multi-objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature-PPSN XI, 11th International Conference, Proceedings, Part I*, pages 627–636. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [2300] A. Gnanavelbabu, J. Jerald, A. Noorul Haq, and P. Asokan. Multi objective scheduling of jobs, agvs and as/rs in fms using artificial immune system. *Advances in Production Engineering & Management*, 4(3):139–150, 2009.
- [2301] Oliver C. Gobin and Ferdi Schuth. On the Suitability of Different Representations of Solid Catalysts for Combinatorial Library Design by Genetic Algorithms. *Journal of Combinatorial Chemistry*, 10(6):835–846, November - December 2008.
- [2302] Tushar Goel and Kalyanmoy Deb. Hybrid Methods for Multi-Objective Evolutionary Algorithms. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 188–192, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.

- [2303] Tushar Goel and Nielen Stander. A non-dominance-based online stopping criterion for multi-objective evolutionary algorithms. *International Journal For Numerical Methods In Engineering*, 84(6):661–684, November 5 2010.
- [2304] Tushar Goel, Nielen Stander, and Yih-Yih Lin. Efficient resource allocation for genetic algorithm based multi-objective optimization with 1,000 simulations. *Structural And Multidisciplinary Optimization*, 41(3):421–432, April 2010.
- [2305] C. Goh and Y. Li. Multi-Objective Synthesis of CMOS Operational Amplifiers using a Hybrid Genetic Algorithm. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 214–218, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [2306] C. K. Goh, Y. S. Ong, K. C. Tan, and E. J. Teoh. An Investigation on Evolutionary Gradient Search for Multi-Objective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3742–3747, Hong Kong, June 2008. IEEE Service Center.
- [2307] C. K. Goh and K. C. Tan. Noise Handling in Evolutionary Multi-Objective Optimization. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 4497–4504, Vancouver, BC, Canada, July 2006. IEEE.
- [2308] C. K. Goh, K. C. Tan, C. Y. Cheong, and Y. S. Ong. Noise-Induced Features in Robust Multi-Objective Optimization Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 568–575, Singapore, September 2007. IEEE Press.
- [2309] C. K. Goh, K. C. Tan, C. Y. Cheong, and Y. S. Ong. An investigation on noise-induced features in robust evolutionary multi-objective optimization. *Expert Systems with Applications*, 37(8):5960–5980, August 2010.
- [2310] C. K. Goh, K. C. Tan, D. S. Liu, and S. C. Chiam. A competitive and cooperative co-evolutionary approach to multi-objective particle swarm optimization algorithm design. *European Journal of Operational Research*, 202(1):42–54, April 1 2010.
- [2311] Chi Keong Goh, Wei Ling Lim, Yong Han Chew, and Kay Chen Tan. A Multi-Objective Evolutionary Algorithm for Channel Routing Problems. In Keshav P. Dahal, Kay Chen Tan, and Peter I Cowling, editors, *Evolutionary Scheduling, Studies in Computational Intelligence (SCI)*, pages 405–436. Springer, Berlin, 2007. ISBN 3-540-48582-1.
- [2312] Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors. *Multi-Objective Memetic Algorithms*. Springer, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.

- [2313] Chi Keong Goh and Kay Chen Tan. Evolving the Tradeoffs between Pareto-Optimality and Robustness in Multi-Objective Evolutionary Algorithms. In Shengxiang Yang, Yew Soon Ong, and Yaochu Jin, editors, *Evolutionary Computation in Dynamic and Uncertain Environments*, pages 457–478. Springer, 2007. ISBN 978-3-540-49772-1.
- [2314] Chi-Keong Goh and Kay Chen Tan. A Competitive-Cooperative Coevolutionary Paradigm for Dynamic Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 13(1):103–127, February 2009.
- [2315] C.K. Goh and K. C. Tan. An Investigation on Noisy Environments in Evolutionary Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 11(3):354–381, June 2007.
- [2316] Mahmut Ali Gökçe. *Optimization of Sourcing Decisions in Supply Chains*. PhD thesis, Department of Industrial Engineering, North Carolina State University, Raleigh, North Carolina, 2002.
- [2317] Nuri Mehmet Gökhan. *Development of a Simultaneous Design for Supply Chain Process for the Optimization of the Product Design and Supply Chain Configuration Problem*. PhD thesis, School of Engineering, University of Pittsburgh, September 2007.
- [2318] Elizabeth F.G. Goldberg, Givenaldo R. de Souza, and Marco C. Goldberg. Particle Swarm Optimization for the Bi-objective Degree-constrained Minimum Spanning Tree. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 1527–1534, Vancouver, BC, Canada, July 2006. IEEE.
- [2319] David E. Goldberg. *Genetic Algorithms in Search, Optimization and Machine Learning*. Addison-Wesley Publishing Company, Reading, Massachusetts, 1989.
- [2320] David E. Goldberg and Liwei Wang. Adaptive Niching via Coevolutionary Sharing. In D. Quagliarella, J. Périaux, C. Poloni, and G. Winter, editors, *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science. Recent Advances and Industrial Applications*, chapter 2, pages 21–38. John Wiley & Sons, Chichester, UK, 1997.
- [2321] Robert Goldberg and Natalie Hammerman. Multi-criteria Optimization of Finite State Automata: Maximizing Performance while Minimizing Description Length. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 255–271. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [2322] Yorgos Goletsis, Costas Papaloukas, Dimitrios I. Fotiadis, Aristidis Likas, and Lampros K. Michalis. Automated Ischemic Beat Classification Using Genetic Algorithms and Multicriteria Decision Analysis. *IEEE Transactions on Biomedical Engineering*, 51(10):1717–1725, October 2004.

- [2323] Mihalīs M. Golias, Maria Boile, and Sotirios Theofanis. Berth scheduling by customer service differentiation: A multi-objective approach. *Transportation Research Part E - Logistics and Transportation Review*, 45(6):878–892, November 2009.
- [2324] C. Gollub and R. de Vivie-Riedle. Multi-objective genetic algorithm optimization of 2D- and 3D-Pareto fronts for vibrational quantum processes. *New Journal of Physics*, 11(013019):1–15, January 16 2009.
- [2325] Hamid Reza Golmakani and Elnaz Jalilipour Alishah. Portfolio Selection using an Artificial Immune System. In *IEEE International Conference on Information Reuse and Integration (IRI'2008)*, pages 28–33, Las Vegas, Nevada, USA, July 2008. IEEE Systems, Man, and Cybernetics Society.
- [2326] I. Golovkin, R. Mancini, S. Louis, Y. Ochi, K. Fujita, H. Nishimura, H. Shirga, N. Miyanaga, H. Azechi, R. Butzbach, I. Uschmann, E. Förster, J. Delettrez, J. Koch, R.W. Lee, and L. Klein. Spectroscopic Determination of Dynamic Plasma Gradients in Implosion Cores. *Physical Review Letters*, 88(4), January 2002.
- [2327] Igor E. Golovkin, Sushil J. Louis, and Roberto C. Mancini. Parallel Implementation of Niche Pareto Genetic Algorithm Code for X-ray Plasma Spectroscopy. In *Late Breaking Papers at the 2000 Genetic and Evolutionary Computation Conference*, pages 222–227, Las Vegas, Nevada, July 2000.
- [2328] Igor E. Golovkin, Sushil J. Louis, and Roberto C. Mancini. Parallel Implementation of Niche Pareto Genetic Algorithm Code for X-ray Plasma Spectroscopy. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1820–1824, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [2329] Igor E. Golovkin, Roberto C. Mancini, Sushil J. Louis, Richard W. Lee, and Lewis Klein. Multi-criteria Search and Optimization: an Application to X-ray Plasma Spectroscopy. In *2000 Congress on Evolutionary Computation*, volume 2, pages 1521–1527, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [2330] Alvaro Gomes, Carlos Henggeler Antunes, and António Gomes Martins. A Multiple Objective Evolutionary Approach for the Design and Selection of Load Control Strategies. *IEEE Transactions on Power Systems*, 19(2):1173–1180, May 2004.
- [2331] Alvaro Gomes, Carlos Henggeler Antunes, and Antonio Gomes Martins. Dealing with solution diversity in an EA for multiple objective decision support—A case study. In Jens Gottlieb and Günter R. Raidl, editors, *Evolutionary Computation in Combinatorial Optimization, Proceedings of the 4th European Conference, EvoCOP 2004*, pages 104–113. Springer. Lecture Notes in Computer Science Vol. 3004, 2004.

- [2332] Alvaro Gomes, Henggeler Antunes, and A. Gomes Martins. Improving the Responsiveness of NSGA-II in Dynamic Environments Using an Adaptive Mutation Operator - A Case Study. In Ignac Lovrek, Robert J. Howlett, and Lakhmi C. Jain, editors, *Knowledge-Based Intelligent Information and Engineering Systems, 12th International Conference, KES 2008*, pages 90–97, Zagreb, Croatia, September 3–5 2008. Springer. Lecture Notes in Artificial Intelligence Vol. 5177.
- [2333] Carlos Gomes da Silva, Jo ao Clímaco, and José Figueira. A scatter search method for the bi-criteria multi-dimensional $\{0,1\}$ -knapsack problem using surrogate relaxation. *Journal of Mathematical Modelling and Algorithms*, 3(3):183–208, 2004.
- [2334] Carlos Gomes da Silva, Jo ao Clímaco, and José Figueira. A scatter search method for bi-criteria $\{0,1\}$ -knapsack problems. *European Journal of Operational Research*, 169(2):373–391, March 2006.
- [2335] Carlos Gomes da Silva, José Figueira, and Jo ao Clímaco. Integrating partial optimization with scatter search for solving bi-criteria $\{0,1\}$ -knapsack problems. *European Journal of Operational Research*, 177(3):1656–1677, March 16 2007.
- [2336] Adrien Gomez, Luc Pibouleau, Catherine Azzaro-Pantel, Serge Domenech, Christian Latge, and David Haubensack. Multiobjective genetic algorithm strategies for electricity production from generation IV nuclear technology. *Energy Conversion and Management*, 51(4):859–871, April 2010.
- [2337] T. Gomez, M. Hernandez, J. Molina, M. A. Leon, E. Aldana, and R. Caballero. A multiobjective model for forest planning with adjacency constraints. *Annals of Operations Research*, 190(1):75–95, October 2011.
- [2338] Fernando I. Gomez-Castro, Juan Gabriel Segovia-Hernandez, Salvador Hernandez, Claudia Gutierrez-Antonio, and Abel Briones-Ramirez. Dividing wall distillation columns: Optimization and control properties. *Chemical Engineering & Technology*, 31(9):1246–1260, September 2008.
- [2339] Fernando Israel Gomez-Castro, Mario Alberto Rodriguez-Angeles, Juan Gabriel Segovia-Hernandez, Claudia Gutierrez-Antonio, and Abel Briones-Ramirez. Optimal Designs of Multiple Dividing Wall Columns. *Chemical Engineering & Technology*, 34(12):2051–2058, December 2011.
- [2340] Pedro Gómez-Meneses, Marcus Randall, and Andrew Lewis. A Hybrid Multi-objective Extremal Optimisation Approach for Multi-objective Combinatorial Optimisation Problems. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 292–299, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2341] A.F. Gomez-Skarmeta, F. Jimenez, and G. Sanchez. Improving interpretability in approximative fuzzy models via multiobjective evolutionary algorithms. *International Journal of Intelligent Systems*, 22(9):943–969, September 2007.

- [2342] Antonio F. Gómez-Skarmeta, Fernando Jiménez, and Jesús Ibáñez. Pareto-optimality in Fuzzy Modeling. In *6th European Congress on Intelligent Techniques and Soft Computing EUFIT'98*, pages 694–700, Aachen, Germany, September 1998.
- [2343] Cedric Gondro and Brian P. Kinghorn. Optimization of cDNA Microarray Experimental Designs Using an Evolutionary Algorithm. *IEEE-ACM Transactions on Computational Biology and Bioinformatics*, 5(4):630–638, October-December 2008.
- [2344] D.W. Gong, Y. Zhang, and J.H. Zhang. Multi-objective particle swarm optimization based on minimal particle angle. In *Advances in Intelligent Computing, Pt 1, Proceedings*, pages 571–580. Springer-Verlag, Lecture Notes in Computer Science Vol. 3644, 2005.
- [2345] Maoguo Gong, Tian Hou, Bao Fu, and Licheng Jiao. A Non-Dominated Neighbor Immune Algorithms for Community Detection in Networks. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1627–1634, Dublin, Ireland, July 12-16 2011. ACM Press.
- [2346] Maoguo Gong, Licheng Jiao, Haifeng Du, and Liefeng Bo. Multiobjective immune algorithm with nondominated neighbor-based selection. *Evolutionary Computation*, 16(2):225–255, Summer 2008.
- [2347] Maoguo Gong, Licheng Jiao, Haifeng Du, Ronghua Shang, and Bin Lu. Performance Assessment of an Artificial Immune System Multiobjective Optimizer by Two Improved Metrics. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 373–374, New York, USA, June 2005. ACM Press.
- [2348] MaoGuo Gong, LiCheng Jiao, WenPing Ma, and HaiFeng Du. Multiobjective optimization using an immunodominance and clonal selection inspired algorithm. *Science in China Series F-Information Sciences*, 51(8):1064–1082, August 2008.
- [2349] Maoguo Gong, Licheng Jiao, Lining Zhang, and Haifeng Du. Immune secondary response and clonal selection inspired optimizers. *Progress in Natural Science*, 19(2):237–253, February 10 2009.
- [2350] Maoguo Gong, Chao Liu, Licheng Jiao, and Gang Cheng. Hybrid immune algorithm with Lamarckian local search for multi-objective optimization. *Memetic Computing*, 2(1):47–67, March 2010.
- [2351] Maoguo Gong, Fang Liu, Wei Zhang, Licheng Jiao, and Qingfu Zhang. Interactive MOEA/D for Multi-Objective DEcision Making. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 721–728, Dublin, Ireland, July 12-16 2011. ACM Press.

- [2352] Maoguo Gong, Lining Zhang, Licheng Jiao, and Shuiping Gou. Solving Multiobjective Clustering Using an Immune-inspired Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 15–22, Singapore, September 2007. IEEE Press.
- [2353] Wenyin Gong and Zhihua Cai. A Multiobjective Differential Evolution Algorithm for Constrained Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 181–188, Hong Kong, June 2008. IEEE Service Center.
- [2354] Wenyin Gong, Zhihua Cai, and Li Zhu. An Efficient Multiobjective Differential Evolution for Engineering Design. *Structural and Multidisciplinary Optimization*, 38(12):137–157, April 2009.
- [2355] Weyin Gong and Zhihua Cai. An improved multiobjective differential evolution based on Pareto-adaptive epsilon-dominance and orthogonal design. *European Journal of Operational Research*, 198(2):576–601, October 16 2009.
- [2356] Sandro M. Goni and Viviana O. Salvadori. Model-based multi-objective optimization of beef roasting. *Journal of Food Engineering*, 111(1):92–101, July 2012.
- [2357] Tad Gonsalves and Kiyoshi Itoh. Multi-Objective Optimization for Software Development Projects. In S.I. Ao, Oscar Castillo, Craig Douglas, David Dagan Feng, and Jeong-A Lee, editors, *Proceedings of the International MultiConference of Engineers and Computer Scientists 2010 (IMECS 2010)*, volume 1, pages 1–6, Hong Kong, March 17-19 2010. Newswood Limited. ISBN 978-988-17012-8-2.
- [2358] Tad Gonsalves and Kiyoshi Itoh. GA optimization of Petri net-modeled concurrent service systems. *Applied Soft Computing*, 11(5):3929–3937, July 2011.
- [2359] J. González, I. Rojas, H. Pomares, and J. Ortega. RBF Neural Networks, Multi-objective Optimization and Time Series Forecasting. In José Mira and Alberto Prieto, editors, *Bio-inspired Applications of Connectionism, 6th International Work-Conference on Artificial and Natural Neural Networks, IWANN 2001*, pages 498–505, Granada, Spain, June 2001. Springer-Verlag. Lecture Notes in Computer Science Vol. 2084.
- [2360] Jesús González, Ignacio Rojas, Julio Ortega, Héctor Pomares, and Antonio Fco. Díaz. Multiobjective Evolutionary Optimization of the Size, Shape and Position Parameters of Radial Basis Function Networks for Function Approximation. *IEEE Transactions on Neural Networks*, 14(6):1478–1498, November 2003.
- [2361] L.F. Gonzalez, J. Periaux, L. Damp, and K. Srinivas. Evolutionary methods for multidisciplinary optimization applied to the design of uav systems. *Engineering Optimization*, 39(7):773–795, October 2007.

- [2362] L.F. Gonzalez, J. Périaux, K. Srinivas, and E.J. Whitney. Evolutionary Optimization Tools for Multi Objective Design in Aerospace Engineering: From Theory to MDO Applications. In William Annicchiarico, Jacques Périaux, Miguel Cerrolaza, and Gabriel Winter, editors, *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization*, pages 268–293. WIT Press, CIMNE Barcelona, Southampton, Boston, 2005. ISBN 1-84564-038-1.
- [2363] L.F. González, E.J. Whitney, K. Srinivas, K.C. Wong, and J. Périaux. Multidisciplinary Aircraft Conceptual Design Optimisation Using a Hierarchical Asynchronous Parallel Evolutionary Algorithm (HAPEA). In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture VI*, pages 273–284, London, 2004. Springer.
- [2364] Ofelia Gonzalez, Coromoto Leon, Gara Miranda, Casiano Rodriguez, and Carlos Segura. A Parallel Skeleton for the Strength Pareto Multiobjective Evolutionary Algorithm 2. In *Proceedings of 15th EUROMICRO International Conference on Parallel, Distributed and Network-Based Processing (PDP'07)*, pages 434–441. IEEE Computer Society, February 2007.
- [2365] Ramón González, Benjamín Barán, and J. Ignacio Hidalgo. Multiobjective Optimization for the Circuit Partitioning Problem into Multiple Devices. In *Southern Programmable Logic 07. Designer's Forum Workshop*, pages 9–14, Mar del Plata, Argentina, February 2007. IEEE Press. ISBN: 84-611-4716-2.
- [2366] V. Gonzalez, L. F. Alarcon, and K. Molenaar. Multiobjective design of Work-In-Process buffer for scheduling repetitive building projects. *Automation in Construction*, 18(2):95–108, March 2009.
- [2367] David L. González-Álvarez, Miguel A. Vega-Rodríguez, Juan A. Gómez-Pulido, and Juan M. Sánchez-Pérez. Solving the motif discovery problem by using Differential Evolution with Pareto Tournaments. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4140–4147, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2368] David L. González-Álvarez, Miguel A. Vega-Rodríguez, Juan A. Gómez-Pulido, and Juan M. Sánchez-Pérez. Applying a Multiobjective Gravitational Search Algorithm (MO-GSA) to Discover Motifs. In Joan Cabestany, Ignacio Rojas, and Gonzalo Joya, editors, *Advances in Computational Intelligence, 11th International Work-Conference on Artificial Neural Networks, IWANN 2011*, pages 372–379, Torremolinos-Málaga, Spain, June 8-10 2011. Springer. Lecture Notes in Computer Science Vol. 6692.
- [2369] Pedro González García. *Aprendizaje Evolutivo de Reglas Difusas para Descripción de Subgrupos*. PhD thesis, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad de Granada, Spain, November 2007. (in Spanish).
- [2370] Ines Gonzalez-Rodriguez, Camino R. Vela, and Jorge Puente. A genetic solution based on lexicographical goal programming for a multiobjective job shop

- with uncertainty. *Journal of Intelligent Manufacturing*, 21(1):65–73, February 2010.
- [2371] N. R. Gopal and S. V. Satyanarayana. Cost analysis for removal of VOCs from water by pervaporation using NSGA-II. *Desalination*, 274(1-3):212–219, July 1 2011.
 - [2372] Deepak Gopinath, Yogendra K. Joshi, and Shapour Azarm. Multi-Objective Placement Optimization of Power Electronic Devices on Liquid Cooled Heat Sinks. In *Proceedings of the Seventeenth Annual IEEE Symposium on Semiconductor Thermal Measurement and Management*, pages 117–119. IEEE, 2001.
 - [2373] Fernando Gordejuela-Sanchez, Alpar Juttner, and Jie Zhang. A Multiobjective Optimization Framework for IEEE 802.16e Network Design and Performance Analysis. *IEEE Journal on Selected Areas in Communications*, 27(2):202–216, February 2009.
 - [2374] Dirk Gorissen, Ivo Couckuyt, Eric Laermans, and Tom Dhaene. Multiobjective global surrogate modeling, dealing with the 5-percent problem. *Engineering with Computers*, 26(1):81–98, February 2010.
 - [2375] Louis Gosselin, Maxime Tye-Gringras, and Francois Mathieu-Potvin. Review of Utilization of Genetic Algorithms in Heat Transfer Problems. *International Journal of Heat and Mass Transfer*, 52(9-10):2169–2188, April 2009.
 - [2376] S. K. Goudos, K. Siakavara, E. E. Vafiadis, and J. N. Sahalos. Pareto optimal yagi-uda antenna design using multi-objective differential evolution. *Progress in Electromagnetics Research*, 105:231–251, 2010.
 - [2377] S.K. Goudos and J.N. Sahalos. Microwave absorber optimal design using multi-objective particle swarm optimization. *Microwave and Optical Technology Letters*, 48(8):1553–1558, August 2006.
 - [2378] S.K. Goudos, Z.D. Zaharis, M. Salazar-Lechuga, P.I. Lazaridis, and P.B. Gallion. Dielectric Filter Optimal Design Suitable for Microwave Communications by using Multiobjective Evolutionary Algorithms. *Microwave and Optical Technology Letters*, 49(10):2324–2329, October 2007.
 - [2379] Sotirios K. Goudos. A versatile software tool for microwave planar radar absorbing materials design using global optimization algorithms. *Materials and Design*, 28:2585–2595, 2007.
 - [2380] Sotirios K. Goudos and John N. Sahalos. Pareto Optimal Microwave Filter Design Using Multiobjective Differential Evolution. *IEEE Transactions on Antennas and Propagation*, 58(1):132–144, January 2010.
 - [2381] Sotirios K. Goudos, Zaharias D. Zaharis, Dimitra G. Kampitaki, Ioannis T. Rekanos, and Costas S. Hilaras. Pareto Optimal Design of Dual-Band Base Station Antenna Arrays Using Multi-Objective Particle Swarm Optimization With Fitness Sharing. *IEEE Transactions on Magnetics*, 45(3):1522–1525, March 2009.

- [2382] John Yannis Goulermas and Panos Liatsis. A Collective-Based Adaptive Symbiotic Model for Surface Reconstruction in Area-Based Stereo. *IEEE Transactions on Evolutionary Computation*, 7(5):482–502, October 2003.
- [2383] Deepak Govindan, Suman Chakraborty, and Nirupam Chakraborti. Analyzing the Fluid Flow in Continuous Casting through Evolutionary Neural Nets and Multi-objective Genetic Algorithms. *Seteel Research International*, 81(3):197–203, March 2010.
- [2384] S.M. Gowda, B.J. Sheu, and R.C.H. Chang. Effective Parameter Extraction Using Multiple-Objective Function For VLSI Circuits. *Analog Integrated Circuits and Signal Processing*, 5(2):121–133, March 1994.
- [2385] Tristram Gräbener, Alain Berro, and Yves Duthen. What Algorithms for Urban Routing on Mobile Devices? In *9th Workshop on Multimedia Metadata (WMM'09)*, Toulouse, France, March 2009.
- [2386] Lars Graening, Nikola Aulig, and Markus Olhofer. Towards Directed Open-Ended Search by a Novelty Guided Evolution Strategy. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 71–80. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [2387] Darby E. Grande. *Asset Replacement Considering Environmental and Economic Objectives*. PhD thesis, Department of Industrial and Operations Engineering, The University of Michigan, 2004.
- [2388] L. Grandinetti, F. Guerriero, D. Lagana, and O. Pisacane. An optimization-based heuristic for the Multi-objective Undirected Capacitated Arc Routing Problem. *Computers & Operations Research*, 39(10):2300–2309, October 2012.
- [2389] L. Grandinetti, F. Guerriero, G. Lepera, and M. Mancini. A niched genetic algorithm to solve a pollutant emission reduction problem in the manufacturing industry: A case study. *Computers & Operations Research*, 34(7):2191–2214, July 2007.
- [2390] Eric Granger, Donovan Prieur, and Jean-François Connolly. Evolving ARTMAP neural networks using Multi-Objective Particle Swarm Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2384–2391, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2391] Robin Gras. *Structure des espaces de recherche, complexité des algorithmes d'optimisation combinatoire stochastique et applications à la bioinformatique*. Habilitation à diriger les recherches, Université de Rennes I, France, December 2004. (In French).

- [2392] Marc Gravel, Aaron Luntala Nsakanda, and Wilson Price. Efficient solutions to the cell-formation problem with multiple routings via a double-loop genetic algorithm. *European Journal of Operational Research*, 109(2):286–298, September 1 1998.
- [2393] Marc Gravel, Wilson L. Price, and Cariline Gagné. Scheduling continuous casting of aluminum using a multiple objective ant colony optimization metaheuristic. *European Journal of Operational Research*, 143(1):218–229, November 2002.
- [2394] Marc Gravel, Wilson L. Price, and Caroline Gagné. Scheduling Continuous Casting of Aluminum Using a Multiple-Objective Ant Colony Optimization Metaheuristic. Technical Report 2001–004, Faculté des Sciences de L’Administration, Université Laval, Québec, Canada, April 2001. Available at <http://www.fsa.ulaval.ca/rd>.
- [2395] Salvatore Greco, Benedetto Matarazzo, and Roman Slowinski. Interactive Evolutionary Multiobjective Optimization using Dominance-based Rough Set Approach. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 3026–3033, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2396] Salvatore Greco, Benedetto Matarazzo, and Roman Słowiński. Interactive Multiobjective Mixed-Integer Optimization Using Dominance-Based Rough Set Approach. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Greco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 241–253, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [2397] Salvatore Greco, Roman Słowiński, José Rui Figueira, and Vincent Mousseau. Robust Ordinal Regression. In Matthias Ehrgott, José Rui Figueira, and Salvatore Greco, editors, *Trends in Multiple Criteria Decision Analysis*, chapter 9, pages 241–283. Springer, International Series in Operations Research and Management Science, 2010. ISBN 978-1-4419-5903-4.
- [2398] Mardé Greeff and Andries P. Engelbrecht. Solving Dynamic Multi-Objective Problems with Vector Evaluated Particle Swarm Optimisation. In *2008 Congress on Evolutionary Computation (CEC’2008)*, pages 2922–2929, Hong Kong, June 2008. IEEE Service Center.
- [2399] Mardé Greeff and Andries P. Engelbrecht. Dynamic Multi-objective Optimisation Using PSO. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*, chapter 5, pages 105–123. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.
- [2400] Gary R. Greenfield. Evolving Aesthetic Images using Multiobjective Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC’2003)*, volume 3, pages 1903–1909, Canberra, Australia, December 2003. IEEE Press.

- [2401] Garrison W. Greenwood, Xiaobo Sharon Hu, and Joseph G. D'Ambrosio. Fitness Functions for Multiple Objective Optimization Problems: Combining Preferences with Pareto Rankings. In Richard K. Belew and Michael D. Vose, editors, *Foundations of Genetic Algorithms 4*, pages 437–455, San Mateo, California, 1997. Morgan Kaufmann.
- [2402] D. Greiner, J.M. Emperor, and G. Winter. Single and Multiobjective Frame Optimization by Evolutionary Algorithms and the Auto-Adaptive Rebirth Operator. *Computer Methods in Applied Mechanics and Engineering*, 193(33–35):3711–3743, 2004.
- [2403] D. Greiner, G. Winter, and J.M. Emperor. Optimising frame structures by different strategies of genetic algorithms. *Finite Elements in Analysis and Design*, 37(5):381–402, May 2001.
- [2404] D. Greiner, G. Winter, and J.M. Emperor. Searching for an Efficient Method in Multiobjective Frame Optimisation using Evolutionary Algorithms. In K.J. Bathe, editor, *Computational Fluid and Solid Mechanics 2003. Proceedings of the Second MIT Conference on Computational Fluid and Solid Mechanics*, volume 2, pages 2285–2290, The Netherlands, June 2003. Elsevier.
- [2405] D. Greiner, G. Winter, J.M. Emperor, and B. Galván. A Comparative Analysis of “Controlled Elitism” in the NSGA-II Applied to Frame Optimization. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 101–110. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [2406] David Greiner, Juan J. Aznarez, Orlando Maeso, and Gabriel Winter. Single- and multi-objective shape design of Y-noise barriers using evolutionary computation and boundary elements. *Advances in Engineering Software*, 41(2):368–378, February 2010.
- [2407] David Greiner, José M. Emperor, Gabriel Winter, and Blas Galván. Improving Computational Mechanics Optimum Design Using Helper Objectives: An Application in Frame Bar Structures. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 575–589, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2408] David Greiner, Blas Galván, Juan J. Aznárez, Orlando Maeso, and Gabriel Winter. Robust Design of Noise Attenuation Barriers with Evolutionary Multi-objective Algorithms and the Boundary Element Method. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 261–274. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.

- [2409] David Greiner, Blas Galván, José M. Emperador, Máximo Méndez, and Gabriel Winter. Introducing Reference Point Using g-Dominance in Optimum Design Considering Uncertainties: An Application in Structural Engineering. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 389–403, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [2410] David Greiner, Blas Galván, and Gabriel Winter. Safety Systems Optimum Design by Multicriteria Evolutionary Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 722–736, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2411] David Greiner, Gabriel Winter, José M. Emperador, and Blas Galván. Gray Coding in Evolutionary Multicriteria Optimization: Application in Frame Structural Optimum Design. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 576–591, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2412] Gero Greiner. Single- and Multi-Objective Evolutionary Algorithms for Graph Bisectioning. In *FOGA '09: Proceedings of the tenth ACM SIGEVO workshop on Foundations of genetic algorithms*, pages 29–38, Orlando, Florida, USA, January 2009. ACM.
- [2413] David Juan Greiner Sánchez. *Optimización Multiobjetivo de Pórticos Metálicos Mediante Algoritmos Evolutivos*. PhD thesis, Universidad de las Plamas de Gran Canaria, Escuela Técnica Superior de Ingenieros Industriales, Departamentos de Informática y Sistemas, Matemática Aplicada e Ingeniería Civil, Las Palmas de Gran Canaria, Spain, May 2005. (in Spanish).
- [2414] L.A. Griffin, A.J. Chipperfield, P.J. Fleming, C. Davies, and N. Grum. Active magnetic bearing control system testing and validation using a multiobjective algorithm. In *26th Annual Conference of the IEEE Industrial Electronics Society*, volume 3, pages 1675–1679. IEEE, 2000.
- [2415] Pierre Grignon and G. M. Fadel. Bi-objective Optimization by Iterative Genetic Algorithms. In *EURO-INFORMS conference*, Barcelona, Spain, July 1997.
- [2416] Pierre Grignon and G. M. Fadel. Quality Criteria for Multi-objective optimization solutions obtained with a Genetic Algorithm. In *38th AIAA/ASME/ASCE/AHS/ASC SDM conference*, Orlando, Florida, April 1997. AIAA-97-1658.
- [2417] Pierre Grignon and Georges M. Fadel. Configuration design optimization method. In *Proceedings of DETC'99 – ASME Design Engineering Technical Conferences*, Las Vegas, Nevada, September 1999.

- [2418] Pierre Grignon and Georges M. Fadel. Multiobjective optimization by iterative genetic algorithm. In *Proceedings of DETC'99 – ASME Design Engineering Technical Conferences*, Las Vegas, Nevada, September 1999.
- [2419] Pierre Grignon, J. Wodziack, and G. M. Fadel. Bi-Objective optimization of components packing using a genetic algorithm. In *NASA/AIAA/ISSMO Multidisciplinary Design and Optimization Conference*, pages 352–362, Seattle, Washington, September 1996. AIAA-96-4022-CP.
- [2420] Pierre M. Grignon. *Configuration Design*. PhD thesis, Mechanical Engineering Department, Clemson University, Clemson, SC, May 1999.
- [2421] P.M. Grignon and G.M. Fadel. A GA based configuration design optimization method. *Journal of Mechanical Design*, 126(1):6–15, January 2004.
- [2422] Christian Grimme and Joachim Lepping. Designing Multi-objective Variation Operators Using a Predator-Prey Approach. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 21–35, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2423] Christian Grimme, Joachim Lepping, and Alexander. Discovering Performance Bounds for Grid Scheduling by Using Evolutionary Multiobjective Optimization. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1491–1498, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [2424] Christian Grimme, Joachim Lepping, and Alexander Papaspyrou. Exploring the Behavior of Building Blocks for Multi-Objective Variation Operator Design using Predator-Prey Dynamics. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 805–812, London, UK, July 2007. ACM Press.
- [2425] Christian Grimme, Joachim Lepping, and Alexander Papaspyrou. The Parallel Predator-Prey Model: A Step towards Practical Application. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature–PPSN X*, pages 681–690. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2426] Christian Grimme, Joachim Lepping, and Alexander Papaspyrou. Adapting to the Habitat: On the Integration of Local Search into the Predator-Prey Model. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 510–524. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.

- [2427] Christian Grimme and Karlheinz Schmitt. Inside a Predator-Prey Model for Multi-Objective Optimization: A Second Study. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 707–714, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2428] Jacomine Grobler. Particle swarm optimization and differential evolution for multi-objective multiple machine scheduling. Master's thesis, Faculty of Engineering, Built Environment and Information Technology, University of Pretoria, South Africa, September 2008.
- [2429] Jacomine Grobler and Andries P. Engelbrecht. Hybridizing PSO and DE for improved vector evaluated multi-objective optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1255–1262, Trondheim, Norway, May 2009. IEEE Press.
- [2430] Jacomine Grobler, Andries P. Engelbrecht, and V. S. S. Yadavalli. Multi-Objective DE and PSO Strategies for Production Scheduling. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1154–1161, Hong Kong, June 2008. IEEE Service Center.
- [2431] Wolfram Gronwald, Tim Hohm, and Daniel Hoffmann. Evolutionary Pareto-optimization of stably folding peptides. *BMC Bioinformatics*, 9(109), 2008.
- [2432] J.C.J. Groot, W.A.H. Rossing, A. Jellema, D.J. Stobbelaar, H. Renting, and M.K. Van Ittersum. Exploring multi-scale trade-offs between nature conservation, agricultural profits and landscape quality—a methodology to support discussions on land-use perspectives. *Agriculture Ecosystems & Environment*, 120:58–69, 2007.
- [2433] J.C.J. Groot, W.A.H. Rossing, A. Jellema, and M.K. Van Ittersum. Landscape design and agricultural land-use allocation using Pareto-based multi-objective Differential Evolution. In *International Environmental Modelling & Software Summit*, Burlington, Vermont, USA, July 2006.
- [2434] R. Groppetti and R. Muscia. On a Genetic Multiobjective Approach for the Integration and Optimization of Assembly Product Design and Process Planning. In P. Chedmail, J. C. Bocquet, and D. Dornfeld, editors, *Integrated Design and Manufacturing in Mechanical Engineering*, pages 61–70. Kluwer Academic Publishers, The Netherlands, 1997.
- [2435] Crina Grosan. A new evolutionary technique for detecting Pareto continuous regions. In Alwyn Barry, editor, *2003 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 304–307, Chicago, Illinois, USA, July 2003. AAAI.
- [2436] Crina Grosan. Improving the Performance of Evolutionary Algorithms for the Multiobjective 0/1 Knapsack Problem using ε -dominance. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1958–1963, Portland, Oregon, USA, June 2004. IEEE Service Center.

- [2437] Crina Grosan. A Comparison of Several Evolutionary Models and Representations for Multiobjective Optimization. In Nadia Nedjah and Luiza de Macedo Mourelle, editors, *Real-World Multi-Objective System Engineering*, pages 53–73. Nova Science Publishers, New York, 2005.
- [2438] Crina Grosan and Ajith Abraham. Ensemble of Genetic Programming Models for Designing Reactive Power Controllers. In Nadia Nedjah, Luiza M. Mourelle, Marley M.B.R. Vellasco, Ajith Abraham, and Mario Köppen, editors, *Fifth International Conference on Hybrid Intelligent Systems (HIS'05)*, pages 277–282, Los Alamitos, California, USA, November 2005. IEEE Computer Society.
- [2439] Crina Grosan and Ajith Abraham. Approximating Pareto frontier using a hybrid line search approach. *Information Sciences*, 180(14):2674–2695, July 15 2010.
- [2440] Crina Grosan, Ajith Abraham, and Alexander Gelbukh. Evolutionary Method for Nonlinear Systems of Equations. In Alexander Gelbukh and Carlos Alberto Reyes-Garcia, editors, *MICAI 2006: Advances in Artificial Intelligence, 5th Mexican International Conference on Artificial Intelligence*, pages 283–293. Springer, Lecture Notes in Artificial Intelligence Vol. 4293, Apizaco, Mexico, November 2006.
- [2441] Aurelien Grosdidier, Vincent Zoete, and Olivier Michielin. Fast Docking Using the CHARMM Force Field with EADock DSS. *Journal of Computational Chemistry*, 32(10):2149–2159, July 30 2011.
- [2442] Louis Grosselin, Maxime Tye-Gingras, and Francois Mathieu-Potvin. Review of Utilization of Genetic Algorithms in Heat Transfer Problems. *International Journal of Heat and Mass Transfer*, 52(9-10):2169–2188, April 2009.
- [2443] Laurent Grosset, Satchi Venkataraman, and Raphael T. Haftka. Genetic optimization of two-material composite laminates. In *Proceedings of the American Society of Composites—16th Annual Technical Conference*, Blacksburg, Virginia, September 2001.
- [2444] Darko Grundler. Multiobjective Optimization of Heat Transfer Plant using Decision Table Controller and Genetic Algorithm. In *2000 Congress on Evolutionary Computation*, volume 1, pages 517–521, San Diego, California, July 2000. IEEE Service Center.
- [2445] Viviane Grunert da Fonseca and Carlos M. Fonseca. The Attainment-Function Approach to Stochastic Multiobjective Optimizer Assessment and Comparison. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, chapter 9, pages 103–130. Springer, Heidelberg, 2010.
- [2446] Viviane Grunert da Fonseca, Carlos M. Fonseca, and Andreia O. Hall. Inferential Performance Assessment of Stochastic Optimisers and the Attainment

- Function. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 213–225. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [2447] Fang-Qing Gu and Hai-Lin Liu. A Novel Weight Design in Multi-objective Evolutionary Algorithm. In *2010 International Conference on Computational Intelligence and Security (CIS 2010)*, pages 137–141, Nanning, Guangxi Zhuang Autonomous Region, China, 11–14 December 2010. IEEE Computer Society Press.
 - [2448] Jun-Hua Gu, Qing Tan Na-Na Li, and Wei Wei. A Novel Niche Genetic Algorithm with Local Search Ability. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4606–4609, Singapore, September 2007. IEEE Press.
 - [2449] Xu Gu. *Systems Biology Approaches to the Computational Modelling of Trypanothione Metabolism in Trypanosoma brucei*. PhD thesis, Department of Computing Science, The University of Glasgow, Scotland, March 2010.
 - [2450] Sheng-Wei Guan and Shu Zhang. An Evolutionary Approach to the Design of Controllable Cellular Automata Structure for Random Number Generation. *IEEE Transactions on Evolutionary Computation*, 7(1):23–36, February 2003.
 - [2451] F. Guenes and F. Tokan. Pareto Optimal Synthesis of the Linear Array Geometry for Minimum Side lobe Level and Null Control During Beam Scanning. *International Journal of RF and Microwave Computer-Aided Engineering*, 20(5):557–566, September 2010.
 - [2452] F. Guenes and F. Tokan. Pareto Optimal Synthesis of the Linear Array Geometry for Minimum Side lobe Level and Null Control During Beam Scanning. *International Journal of RF And Microwave Computer-Aided Engineering*, 20(5):557–566, September 2010.
 - [2453] Eric Guenterberg, Allen Y. Yang, Hassan Ghasemzadeh, Roozbeh Jafari, Ruzena Bajcsy, and S. Shankar Sastry. A Method for Extracting Temporal Parameters Based on Hidden Markov Models in Body Sensor Networks With Inertial Sensors. *IEEE Transactions on Information Technology in Biomedicine*, 13(6):1019–1030, November 2009.
 - [2454] Stefan Gueorguiev, Mark Harman, and Giuliano Antoniol. Software project planning for robustness and completion time in the presence of uncertainty using multi objective search based software engineering. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1673–1680, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
 - [2455] José L. Guerrero, Luis Martí, Antonio Berlanga, Jesús Garcia, and José M. Molina. Introducing a robust and efficient stopping criterion for MOEAs. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3050–3057, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [2456] José Luis Guerrero, Jesús García, Luis Martí, José M. Manuel Molina, and Antonio Berlanga. A stopping criterion based on Kalman estimation techniques with several progress indicators. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 587–594, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2457] P.-Y. Gueugniaud, M. Bertin-Maghit, C. Hirschauer, C. Bouchard, B. Vilasco, P. Petit, M. Gen, K. Ida, J. Lee, and J. Kim. Fuzzy Nonlinear Goal Programming Using Genetic Algorithm. *Computers & Industrial Engineering*, 33(1):39–42, October 1997.
- [2458] A. Guillen, H. Pomares, J. Gonzalez, I. Rojas, O. Valenzuela, and B. Prieto. Parallel multiobjective memetic RBFNNs design and feature selection function approximation problems. *Neurocomputing*, 72(16-18):3541–3555, October 2009.
- [2459] Alberto Guillén, Héctor Pomares, Jesús González, Ignacio Rojas, L.J. Herrera, and A. Prieto. Parallel Multi-objective Memetic RBFNNs Design and Feature Selection for Function Approximation Problems. In Francisco Sandoval, Alberto Prieto, Joan Cabestany, and Manuel Graña, editors, *Computational and Ambient Intelligence, 9th International Work-Conference on Artificial Neural Networks, IWANN 2007*, pages 341–350, San Sebastián, Spain, June 20-22 2007. Springer. Lecture Notes in Computer Science Vol. 4507.
- [2460] Alberto Guillén, Ignacio Rojas, Jesús González, Héctor Pomares, L.J. Herrera, and Francisco Fernández. Multiobjective RBFNNs Designer for Function Approximation: An Application for Mineral Reduction. In Licheng Jiao, Lipo Wang, Xinbo Gao, Jing Liu, and Feng Wu, editors, *Advances in Natural Computation, Second International Conference, ICNC 2006*, pages 511–520, Xi'an, China, September 24-28 2006. Springer. Lecture Notes in Computer Science Vol. 4221.
- [2461] Alberto Guillén, Ignacio Rojas, Jesus González, Hector Pomares, Luis J. Herrera, and Ben Paechter. Boosting the Performance of a Multiobjective Algorithm to Design RBFNNs Through Parallelization. In Bartłomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA 2007, Part I*, pages 85–92, Warsaw, Poland, April 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4431.
- [2462] Alberto Guillén, Ignacio Rojas, Jesús González, Héctor Pomares, Luis Javier Herrera, and Ben Paechter. Improving the Performance of Multi-objective Genetic Algorithm for Function Approximation Through Parallel Islands Specialisation. In Abdul Sattar and Byeong Ho Kang, editors, *AI 2006: Advances in Artificial Intelligence, 19th Australian Joint Conference on Artificial Intelligence*, pages 1127–1132, Hobart, Australia, December 4-8 2006. Springer. Lecture Notes in Computer Science. Volume 4304.

- [2463] Frederico G. Guimarães, Elizabeth F. Wanner, and Ricardo H.C. Takahashi. A Quality Metric for Multi-objective Optimization Based on Hierarchical Clustering Techniques. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 3292–3299, Trondheim, Norway, May 2009. IEEE Press.
- [2464] Frederico G. Guimarães, Felipe Campelo, Rodney R. Saldanha, Hajime Igarashi, Ricardo H.C. Takahashi, and Jaime A. Ramírez. A Multiobjective Proposal for the TEAM Benchmark Problem 22. *IEEE Transactions on Magnetics*, 42(4):1471–1474, April 2006.
- [2465] A.M. Gujarathi and B.V. Babu. Hybrid multi-objective differential evolution (H-MODE) for optimisation of polyethylene terephthalate (PET) reactor. *International Journal of Bio-Inspired Computation*, 2(3-4):213–221, 2010.
- [2466] Ashish M. Gujarathi and B. V. Babu. Optimization of Adiabatic Styrene Reactor: A Hybrid Multiobjective Differential Evolution (H-MODE) Approach. *Industrial & Engineering Chemistry Research*, 48(24):11115–11132, December 16 2009.
- [2467] Ashish M. Gujarathi and B. V. Babu. Optimization of Adiabatic Styrene Reactor: A Hybrid Multiobjective Differential Evolution (H-MODE) Approach. *Industrial & Engineering Chemistry Research*, 48(24):11115–11132, December 16 2009.
- [2468] Ashish M. Gujarathi and B. V. Babu. Multi-objective optimization of industrial styrene reactor: Adiabatic and pseudo-isothermal operation. *Chemical Engineering Science*, 65(6):2009–2026, March 2010.
- [2469] Ashish M. Gujarathi and B. V. Babu. Multiobjective Optimization of Industrial Processes Using Elitist Multiobjective Differential Evolution (Elitist-MODE). *Materials and Manufacturing Processes*, 26(3):455–463, 2011.
- [2470] Ashish M. Gujarathi and B.V. Babu. Improved Multiobjective Differential Evolution (MODE) Approach for Purified Terephthalic Acid (PTA) Oxidation Process. *Materials and Manufacturing Processes*, 24(3):303–319, 2009.
- [2471] Evrim Ursavas Guldogan. An integrated approach to machine selection and operation allocation problem. *International Journal of Advanced Manufacturing Technology*, 55(5-8):797–805, July 2011.
- [2472] S. Gunawan and S. Azarm. Multi-objective robust optimization using a sensitivity region concept. *Structural and Multidisciplinary Optimization*, 29(1):50–60, January 2005.
- [2473] S. Gunawan, A. Farhang-Mehr, and S. Azarm. Multi-level Multi-objective Genetic Algorithm Using Entropy to Preserve Diversity. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 148–161, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.

- [2474] S. Gunawan, A. Farhang-Mehr, and S. Azarm. On maximizing solution diversity in a multiobjective multidisciplinary genetic algorithm for design optimization. *Mechanics Based Design of Structures and Machines*, 32(4):491–514, November 2004.
- [2475] Filiz Gunes and Fikret Tokan. Amplitude-Only Pattern Synthesis of Nonuniform Linear Arrays Using a Generalized Pattern Search Optimization. *International Journal of RF and Microwave Computer-Aided Engineering*, 21(3):251–262, May 2011.
- [2476] K. Guney and M. Onay. Optimal synthesis of linear antenna arrays using a harmony search algorithm. *Expert Systems With Applications*, 38(12):15455–15462, November - December 2011.
- [2477] Michael Guntsch. *Ant Algorithms in Stochastic and Multi-Criteria Environments*. PhD thesis, Department of Economics and Business Engineering, University of Karlsruhe, Germany, 2004.
- [2478] Michael Guntsch and Martin Middendorf. Solving Multi-criteria Optimization Problems with Population-Based ACO. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 464–478, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2479] C. X. Guo, J. P. Zhan, and Q. H. Wu. Dynamic economic emission dispatch based on group search optimizer with multiple producers. *Electric Power Systems Research*, 86:8–16, May 2012.
- [2480] Hongliang Guo, Yan Meng, and Yaochu Jin. A cellular mechanism for multi-robot construction via evolutionary multi-objective optimization of a gene regulatory network. *Biosystems*, 98(3):193–203, December 2009.
- [2481] Jun Guo, Yi Wang, Kit-Sang Tang, Sammy Chan, Eric W.M. Wong, Peter Taylor, and Moshe Zukerman. Evolutionary optimization of file assignment for a large-scale video-on-demand system. *IEEE Transactions on Knowledge and Data Engineering*, 20(6):836–850, June 2008.
- [2482] Suchang Guo, Hong-Zhong Huang, Zhonglai Wang, and Min Xie. Grid Service Reliability Modeling and Optimal Task Scheduling Considering Fault Recovery. *IEEE Transactions on Reliability*, 60(1):263–274, March 2011.
- [2483] Weiya Guo, Zhenhua Li, Dan Zhao, and Tim Wong. A K-Nearest-Neighbors Pareto Rank Assignment Strategy and Compound Crossover Operator Based NSGA-II and Its Applications on Multi-objective Optimization Functions. In Lishan Kang, Zhihua Cai, Xuesong Yan, and Yong Liu, editors, *Advances in Computation and Intelligence, Third International Symposium, ISICA 2008*, pages 142–151, Wuhan, China, December 19-21 2008. Springer. Lecture Notes in Computer Science Vol. 5370.

- [2484] Xiuping Guo, Genke Yang, and Zhiming Wu. A Hybrid Self-adjusted Memetic Algorithm for Multi-objective Optimization. In Alexander Gelbukh, Álvaro de Albornoz, and Hugo Terashima-Marín, editors, *MICAI 2005: Advances in Artificial Intelligence*, pages 663–672, Monterrey, México, November 2005. Springer. Lecture Notes in Artificial Intelligence Vol. 3789.
- [2485] Y. Guo, G.A. Walters, S. T. Khu, and E. Keedwell. A novel cellular automata based approach to storm sewer design. *Engineering Optimization*, 39(3):345–364, April 2007.
- [2486] Yuanping Guo, Xiabin Cao, and Jun Zhang. Constraint Handling Based Multiobjective Evolutionary Algorithm for Aircraft Landing Scheduling. *International Journal of Innovative Computing Information Control*, 5(8):2229–2238, August 2009.
- [2487] Yuanping Guo, Xianbin Cao, and Jun Zhang. Multiobjective Evolutionary Algorithm with Constraint Handling for Aircraft Landing Scheduling. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3658–3663, Hong Kong, June 2008. IEEE Service Center.
- [2488] Yufeng Guo, Edward C. Keedwell, Godfrey A. Walters, and Soon-Thiam Khu. Hybridizing Cellular Automata Principle and NSGAII for Multi-objective Design of Urban Water Networks. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 546–559, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2489] Z. X. Guo, W. K. Wong, S. Y. S. Leung, J. T. Fan, and S. F. Chan. A Bi-level Genetic Algorithm for Multi-objective Scheduling of Multi- and Mixed-Model Apparel Assembly Lines. In Abdul Sattar and Byeong Ho Kang, editors, *AI 2006: Advances in Artificial Intelligence, 19th Australian Joint Conference on Artificial Intelligence*, pages 934–941, Hobart, Australia, December 4–8 2006. Springer. Lecture Notes in Computer Science Vol. 4304.
- [2490] Liu Guoquan. *Modelling and Scheduling of Heterogeneous Computing Systems*. PhD thesis, Department of Industrial and Systems Engineering, National University of Singapore, Singapore, 2005.
- [2491] H. V. Gupta, S. Sorrosian, and P. O. Yapo. Towards Improved Calibration of Hydrologic Models: Multiple and Non-Commensurable Measures of Information. *Water Resources Research*, 34(4):751–763, 1998.
- [2492] Himanshu Gupta and Kalyanmoy Deb. Handling Constraints in Robust Multi-Objective Optimization. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 25–32, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [2493] M. Gupta, J. Rees, A. Chaturvedi, and J. Chi. Matching information security vulnerabilities to organizational security profiles: a genetic algorithm approach. *Decision Support Systems*, 41(3):592–603, March 2006.
- [2494] Nitin Gupta and Vivek Kumar Agrawal. Two-Criterion Optimization in State Assignment for Synchronous Finite State Machines using NSGA-II. In Bernardete Ribeiro, Rudolf F. Albrecht, Andrej Dobnikar, David W. Pearson, and Nigel C. Steele, editors, *Adaptive and Natural Computing Algorithms*, pages 214–217, Coimbra, Portugal, March 2005. Springer.
- [2495] Ravi Raj Gupta and S. K. Gupta. Multiobjective optimization of an industrial nylon-6 semibatch reactor system using genetic algorithm. *Journal of Applied Polymer Science*, 73(5):729–739, August 1 1999.
- [2496] Shantanu Gupta, Rajiv Tiwari, and Shivashankar B. Nair. Multi-objective design optimisation of rolling bearings using genetic algorithms. *Mechanism And Machine Theory*, 42(10):1418–1443, October 2007.
- [2497] C. Guria, P.K. Bhattacharya, and S.K. Gupta. Multi-objective optimization of reverse osmosis desalination units using different adaptations of the non-dominated sorting genetic algorithm (NSGA). *Computers & Chemical Engineering*, 29(9):1977–1995, August 2005.
- [2498] C. Guria, M. Verma, S.K. Gupta, and S.P. Mehrotra. Simultaneous optimization of the performance of flotation circuits and their simplification using the jumping gene adaptations of genetic algorithm. *International Journal of Mineral Processing*, 77(3):165–185, November 2005.
- [2499] C. Guria, M. Verma, S.P. Mehrotra, and S.K. Gupta. Multi-objective optimal synthesis and design of froth flotation circuits for mineral processing, using the jumping gene adaptation of genetic algorithm. *Industrial & Engineering Chemistry Research*, 44(8):2621–2633, April 2005.
- [2500] Chandan Guria, Mohan Verma, Surya P. Mehrotra, and Santosh K. Gupta. Simultaneous optimization of the performance of flotation circuits and their simplification using the jumping gene adaptations of genetic algorithm-II: More complex problems. *International Journal of Mineral Processing*, 79(3):149–166, June 2006.
- [2501] Ashwin Gurnani, Scott Ferguson, Kemper Lewis, and Joseph Donndelinger. A constraint-based approach to feasibility assessment in preliminary design. *AI EDAM-Artificial Intelligence for Engineering Design Analysis and Manufacturing*, 20(4):351–367, Fall 2006.
- [2502] Everardo Gutierrez and Carlos Brizuela. An Enhanced MOGWW for the bi-objective Quadratic Assignment Problem. *International Journal of Computational Intelligence Systems*, 4(4):530–549, June-August 2011.

- [2503] Claudia Gutierrez-Antonio and Abel Briones-Ramirez. Pareto front of ideal Petlyuk sequences using a multiobjective genetic algorithm with constraints. *Computers & Chemical Engineering*, 33(2):454–464, February 2009.
- [2504] Walter J. Gutjahr. Two Metaheuristics for Multiobjective Stochastic Combinatorial Optimization. In O.B. Lupanov, O.M. Kasim-Zade, A.V. Chaskin, and K. Steinhöf, editors, *Stochastic Algorithms: Foundations and Applications, SAGA 2005, Proceedings*, pages 116–125, Moscow, Russia, October 2005. Springer. Lecture Notes in Computer Science Vol. 3777.
- [2505] Walter J. Gutjahr, Stefan Katzensteiner, Peter Reiter, Christian Stummer, and Michaela Denk. Multi-objective decision analysis for competence-oriented project portfolio selection. *European Journal of Operational Research*, 205(3):670–679, September 16 2010.
- [2506] H. Altay Güvenir. A Genetic Algorithm for Multicriteria Inventory Classification. In D.W. Pearson, N.C. Steele, and R.F. Albrecht, editors, *Artificial Neural Nets and Genetic Algorithms. Proceedings of the International Conference*, pages 6–9, Wien, April 1995. Springer-Verlag.
- [2507] H. Altay Güvenir and E. Erel. Multicriteria inventory classification using a genetic algorithm. *European Journal of Operational Research*, 105(1):29–37, February 1998.
- [2508] Emmanuel Guy and Jean-Philippe Vacher. Application des algorithmes génétiques à l’ordonnancement d’atelier de type job-shop. Master’s thesis, Ecole Supérieure d’Ingénieurs en Génie Electrique, 1996. (In French).
- [2509] Maria Alejandra Guzman, Alberto Delgado, and Jonas De Carvalho. A novel multiobjective optimization algorithm based on bacterial chemotaxis. *Engineering Applications of Artificial Intelligence*, 23(3):292–301, April 2010.
- [2510] Mariem Gzara and Abdelbasset Essabri. Balanced Explore-Exploit Clustering based Distributed Evolutionary Algorithm for Multi-objective Optimisation. *Studies in Informatics and Control*, 20(2):97–106, June 2011.
- [2511] Charles R. Haag. An Artificial Immune System-inspired Multiobjective Evolutionary Algorithm with Application to the Detection of Distributed Computer Network Intrusions. Master’s thesis, Department of Electrical and Computer Engineering, Graduate School of Engineering and Management, Air Force Institute of Technology (AFIT), WPAFB, Dayton, Ohio, USA, March 2007.
- [2512] Charles R. Haag, Gary B. Lamont, Paul D. Williams, and Gilbert L. Peterson. An Artificial Immune System-Inspired Multiobjective Evolutionary Algorithm with Application to the Detection of Distributed Computer Network Intrusions. In Leandro Nunes de Castro, Fernando José Von Zuben, and Helder Knidel, editors, *Artificial Immune Systems, 6th International Conference, ICARIS 2007*, pages 420–435. Springer. Lecture Notes in Computer Science Vol. 4628, Santos, Brazil, August 2007.

- [2513] O.C.L. Haas, K. J. Burnham, and J. A. Mills. Optimization of beam orientation in radiotherapy using planar geometry. *Physics In Medicine And Biology*, 43(8):2179–2193, August 1998.
- [2514] OCL Haas, KJ Burnham, and JA Mills. On improving physical selectivity in the treatment of cancer: A systems modelling and optimisation approach. *Control Engineering Practice*, 5(12):1739–1745, December 1997.
- [2515] O.C.L. Haas, K.J. Burnham, and J.A. Mills. Hybrid optimisation technique for radiotherapy treatment planning. In *Proceedings of the 1998 IEEE International Conference on Control Applications*, volume 1, pages 368–372, Trieste, Italy, September 1998.
- [2516] P. Haastrup and Â. Guimarães Pereira. Exploring the Use of Multi-Objective Genetic Algorithms for Reducing Traffic Generated Urban Air and Noise Pollution. In *Proceedings of the 5th European Congress on Intelligent and Soft Computing*, pages 819–825, Aachen, Germany, September 1997.
- [2517] Sascha Häckel, Marco Fischer, David Zechel, and Tobias Teich. A Multi-Objective Ant Colony Approach for Pareto-Optimization Using Dynamic Programming. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 33–40, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [2518] A. Hadi and F. Rashidi. Design of optimal power distribution networks using multiobjective genetic algorithm. In *KI 2005: Advances in Artificial Intelligence*, pages 203–215. Springer. Lecture Notes in Artificial Intelligence Vol. 3698, 2005.
- [2519] H.A. Haghiac and I. Haque. Quality function deployment as a tool for including customer preferences in optimising vehicle dynamic behaviour. *International Journal of Vehicle Design*, 39(4):311–330, 2005.
- [2520] Song Yop Hahn. Application of Vector Optimization Employing Modified Genetic Algorithm to Permanent Magnet Motor Design. In *Proceedings of the IEEE Conference on Electromagnetic Field Computation*, pages 0D1–7, Okayama, Japan, 1996. IEEE Press.
- [2521] Hassan Hajabdollahi, Pouria Ahmadi, and Ibrahim Dincer. An Exergy-Based Multi-Objective Optimization Of A Heat Recovery Steam Generator (HRSG) In A Combined Cycle Power Plant (CCPP) Using Evolutionary Algorithm. *International Journal of Green Energy*, 8(1):44–64, 2011.
- [2522] Hassan Hajabdollahi, Pouria Ahmadi, and Ibrahim Dincer. Multi-Objective Optimization of Plain Fin-and-Tube Heat Exchanger Using Evolutionary Algorithm. *Journal of Thermophysics and Heat Transfer*, 25(3):424–431, July - September 2011.

- [2523] Jaroslav Hajek, Andras Szollos, and Jakub Sistek. A new mechanism for maintaining diversity of Pareto archive in multi-objective optimization. *Advances in Engineering Software*, 41(7-8):1031–1057, July-August 2010.
- [2524] P. Hajela and C. Y. Lin. Genetic search strategies in multicriterion optimal design. *Structural Optimization*, 4:99–107, 1992.
- [2525] P. Hajela and J. Yoo. GA Based Fuzzy Optimization for Non-Convex Pareto Surfaces. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 85–90, San Francisco, California, July 2001.
- [2526] Sonia Hajri-Gabouj. A Fuzzy Genetic Multiobjective Optimization Algorithm for a Multilevel Generalized Assignment Problem. *IEEE Transactions on Systems, Man, and Cybernetics, Part C—Applications and Reviews*, 33(2):214–224, May 2003.
- [2527] Jussi Hakanen and Timo Aittokoski. Comparison of MCDM and EMO Approaches in Wastewater Treatment Plant Design. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 350–364. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [2528] Mehrdad Hakimi-Asiabar, Seyyed Hassan Ghodsypour, and Reza Kerachian. Multi-objective genetic local search algorithm using Kohonen’s neural map. *Computers & Industrial Engineering*, 56(4):1566–1576, May 2009.
- [2529] Mehrdad Hakimi-Asiabar, Seyyed Hassan Ghodsypour, and Reza Kerachian. Deriving operating policies for multi-objective reservoir systems: Application of Self-Learning Genetic Algorithm. *Applied Soft Computing*, 10(4):1151–1163, September 2010.
- [2530] Ramin Halavati and Saeed Bagheri Shouraki. Symbiotic artificial immune system. *Soft Computing*, 13(6):565–575, April 2009.
- [2531] Mahmoud R. Halfawy, Leila Dridi, and Samar Baker. Integrated Decision Support System for Optimal Renewal Planning of Sewer Networks. *Journal of Computing in Civil Engineering*, 22(6):360–372, November-December 2008.
- [2532] D. Halhal, G. A. Walters, D. Ouazar, and D. A. Savic. Water network rehabilitation with structured messy genetic algorithm. *Journal of Water Resources Planning and Management ASCE*, 123(3):137–146, 1997.
- [2533] Nasreddine Hallam, Peter Blanchfield, and Graham Kendall. Handling Diversity in Evolutionary Multiobjective Optimisation. In *2005 IEEE Congress on Evolutionary Computation (CEC’2005)*, volume 3, pages 2233–2240, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [2534] Nasreddine Hallan, Graham Kendall, and Peter Blanchfield. Solving Multi-objective Optimisation Problems Using the Potential Pareto Regions Evolutionary Algorithm. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 503–512. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [2535] Werner Halter and Sanaz Mostaghim. Bilevel Optimization of Multi-Component Chemical Systems Using Particle Swarm Optimization. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 4383–4390, Vancouver, BC, Canada, July 2006. IEEE.
- [2536] Naoki Hamada, Yuichi Nagata, Shigenobu Kobayashi, and Isao Ono. Adaptive weighted aggregation: A multiobjective function optimization framework taking account of spread and evenness of approximate solutions. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 789–794, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2537] Naoki Hamada, Jun Sakuma, Shigenobu Kobayashi, and Isao Ono. Functional-Specialization Multi-Objective Real-Coded Genetic Algorithm: FS-MOGA. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature-PPSN X*, pages 691–701. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2538] Jeff D. Hamann. *Optimizing the Primary Forest Products Supply Chain: A Multi-Objective Heuristic Approach*. PhD thesis, Oregon State University, USA, July 2008.
- [2539] Hatem Hamda, Olga Roudenko, and Marc Schoenauer. Multi-Objective Evolutionary Topological Optimum Design. In I.C. Parmee, editor, *Proceedings of the Fifth International Conference on Adaptive Computing Design and Manufacture (ACDM 2002)*, volume 5, pages 121–132, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
- [2540] Mohammad Hamdan. On The Disruption-Level Of Polynomial Mutation For Evolutionary Multi-Objective Optimisation Algorithms. *Computing and Informatics*, 29(5):783–800, 2010.
- [2541] Mohammad Hamdan. A Dynamic Polynomial Mutation for Evolutionary Multi-Objective Optimization Algorithms. *International Journal on Artificial Intelligence Tools*, 20(1):209–219, February 2011.
- [2542] Tarek M. Hamdani, Jin-Myung Won, Adel M. Alimi, and Fakhri Karray. Multi-objective Feature Selection with NSGA II. In Bartłomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA*

- 2007, *Part I*, pages 240–247, Warsaw, Poland, April 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4431.
- [2543] M. Hamdaoui, J. Chaskalovic, S. Doncieux, and P. Sagaut. Using Multiobjective Evolutionary Algorithms and Data-Mining Methods to Optimize Ornithopters’ Kinematics. *Journal Of Aircraft*, 47(5):1504–1516, September-October 2010.
 - [2544] Maryam Hamedi, G.R. Esmaeilian, N. Ismail, and M.K.A. Ariffin. Capability-based virtual cellular manufacturing systems formation in dual-resource constrained settings using Tabu Search. *Computers & Industrial Engineering*, 62(4):953–971, May 2012.
 - [2545] Abdelaziz Hammache, Marzouk Benali, and Francois Aube. Multi-objective self-adaptive algorithm for highly constrained problems: Novel method and applications. *Applied Energy*, 87(8):2467–2478, August 2010.
 - [2546] Mark Hampsey. *Multiobjective Evolutionary Optimisation of Small Wind Turbine Blades*. PhD thesis, Department of Mechanical Engineering, University of Newcastle, Australia, August 2002.
 - [2547] Karim Hamza, Juan F. Reyes-Luna, and Kazuhiro Saitou. Simultaneous Assembly Planning and Assembly System Design Using Multi-objective Genetic Algorithms. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 2096–2108. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
 - [2548] Karim Hamza and Kazuhiro Saitou. Optimization of Constructive Solid Geometry Via a Tree-Based Multi-objective Genetic Algorithm. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 981–992, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
 - [2549] Karim Hamza and Kazuhiro Saitou. A Co-Evolutionary Approach for Design Optimization via Ensembles of Surrogates With Application to Vehicle Crashworthiness. *Journal of Mechanical Design*, 134(1), January 2012.
 - [2550] Kyungtae Han. *Automatic transformations from floating-point to fixed-point for implementing digital signal processing algorithms*. PhD thesis, The University of Texas at Austin, August 2006.
 - [2551] Lixia Han and Yuping Wang. A Novel Genetic Algorithm for Multi-criteria Minimum Spanning Tree Problem. In *Computational Intelligence and Security. International Conference, CIS 2005*, pages 297–302, Xi’an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.
 - [2552] Lixin Han and Hong Yan. Fuzzy Biclustering for DNA Microarray Data Analysis. In *IEEE International Conference on Fuzzy Systems, 2008. (FUZZ-IEEE*

- 2008). (*IEEE World Congress on Computational Intelligence*), pages 1132–1138, Hong Kong, June 2008. IEEE Service Center.
- [2553] Lixin Han and Hong Yan. BSN: An automatic generation algorithm of social network data. *Journal of Systems and Software*, 84(8):1261–1269, August 2011.
 - [2554] Sang-II Han, Itsuya Muta, Tsutomu Hoshino, and Taketsune Nakamura. Multi-objective Optimal Design of Superconducting Generator Using Genetic Algorithm. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 178–182, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
 - [2555] S.I. Han, I. Muta, T. Hoshino, T. Nakamura, and N. Maki. Optimal design of superconducting generator using genetic algorithm and simulated annealing. *IEE Proceedings—Electric Power Applications*, 151(5):543–554, September 2004.
 - [2556] Yumi Han, Changhyup Park, and Joe M. Kang. Prediction of nonlinear production performance in waterflooding project using a multi-objective evolutionary algorithm. *Energy Exploration & Exploitation*, 29(2):129–142, 2011.
 - [2557] Zhen Xue Han, Leon Xu, Ren Wei, Bo Ping Wang, and Tommi Reinikainen. Reliability-Based Design Optimization for Land Grid Array Solder Joints Under Thermo-Mechanical Load. In *Proceedings of the 5th International Conference on Thermal and Mechanical Simulation and Experiments in Microelectronics and Microsystems (EuroSimE 2004)*, pages 219–224. IEEE, May 2004.
 - [2558] Julia Handl, Douglas B. Kell, and Joshua Knowles. Multiobjective optimization in bioinformatics and computational biology. *IEEE-ACM Transactions on Computational Biology and Bioinformatics*, 4(2):279–292, April-June 2007.
 - [2559] Julia Handl and Joshua Knowles. Evolutionary Multiobjective Clustering. In Xin Yao et al., editor, *Parallel Problem Solving from Nature (PPSN VIII)*, pages 1081–1091, Berlin, September 2004. Springer-Verlag. Lecture Notes in Computer Science, Vol. 3242.
 - [2560] Julia Handl and Joshua Knowles. Multiobjective clustering with automatic determination of the number of clusters. Technical Report TR-COMPSYSBIO-2004-02, UMIST, Department of Chemistry, August 2004.
 - [2561] Julia Handl and Joshua Knowles. Exploiting the Trade-Off—The Benefits of Multiple Objectives in Data Clustering. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 547–560, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [2562] Julia Handl and Joshua Knowles. Improvements to the scalability of multi-objective clustering. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2372–2379, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2563] Julia Handl and Joshua Knowles. Multiobjective clustering around medoids. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 632–639, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2564] Julia Handl and Joshua Knowles. Feature Subset Selection in Unsupervised Learning via Multiobjective Optimization. *International Journal of Computational Intelligence Research*, 2(3):217–238, 2006.
- [2565] Julia Handl and Joshua Knowles. Multi-Objective Clustering and Cluster Validation. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 21–47. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [2566] Julia Handl and Joshua Knowles. On Semi-Supervised Clustering via Multiobjective Optimization. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1465–1472, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2567] Julia Handl and Joshua Knowles. Semi-supervised feature selection via multi-objective optimization. In *2006 International Joint Conference on Neural Networks (IJCNN'2006)*, pages 6351–6358, Vancouver, BC, Canada, July 2006. IEEE.
- [2568] Julia Handl and Joshua Knowles. An Evolutionary Approach to Multiobjective Clustering. *IEEE Transactions on Evolutionary Computation*, 11(1):56–76, February 2007.
- [2569] Julia Handl and Joshua Knowles. Modes of Problem Solving with Multiple Objectives: Implications for Interpreting the Pareto Set and for Decision Making. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 131–151. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [2570] Julia Handl, Simon C. Lovell, and Joshua Knowles. Multiobjectivization by Decomposition of Scalar Cost Functions. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 31–40. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2571] Julia Handl, Simon C. Lovell, and Joshua D. Knowles. Investigations into the Effect of Multiobjectivization in Protein Structure Prediction. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 702–711. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.

- [2572] Julia Karena Handl. *Multiobjective approaches to the data-driven analysis of biological systems*. PhD thesis, School of Chemistry, Faculty of Engineering and Physical Sciences, UK, 2006.
- [2573] T. Hanne and S. Nickel. A multiobjective evolutionary algorithm for scheduling and inspection planning in software development projects. *European Journal of Operational Research*, 167(3):663–678, December 2005.
- [2574] Thomas Hanne. Concepts of a learning objected-oriented problem solver LOOPS. In *Proceedings of the 12th International Conference on Multiple Criteria Decision Making*, pages 330–339. Springer-Verlag, 1995.
- [2575] Thomas Hanne. On the convergence of multiobjective evolutionary algorithms. *European Journal of Operational Research*, 117(3):553–564, 1999.
- [2576] Thomas Hanne. Global Multiobjective Optimization Using Evolutionary Algorithms. *Journal of Heuristics*, 6(3):347–360, August 2000.
- [2577] Thomas Hanne. Global Multiobjective Optimization with Evolutionary Algorithms: Selection Mechanisms and Mutation Control. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 197–212. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [2578] Thomas Hanne. *Intelligent Strategies for Meta Multiple Criteria Decision Making*. Kluwer Academic Publishers, Boston, 2001.
- [2579] Thomas Hanne. A Primal-Dual Multiobjective Evolutionary Algorithm for Approximating the Efficient Set. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3127–3134, Singapore, September 2007. IEEE Press.
- [2580] Thomas Hanne. A multiobjective evolutionary algorithm for approximating the efficient set. *European Journal of Operational Research*, 176(3):1723–1734, February 1 2007.
- [2581] Thomas Hanne, Rolf Dornberger, and Lukas Frey. Multiobjective and Preference-Based Decision Support for Rail Crew Rostering. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 990–996, Trondheim, Norway, May 2009. IEEE Press.
- [2582] Thomas Hanne and Stefan Nickel. Scheduling in Software Development Using Multiobjective Evolutionary Algorithms. In Graham Kendall, Edmund K. Burke, Sanja Petrovic, and Michel Gendreau, editors, *Multidisciplinary scheduling: theory and applications. 1st international conference, MISTA 03*, pages 57–81. Springer, New York, NY, August 2005.

- [2583] Michael Pilegaard Hansen. Generating a Diversity of Good Solutions to a Practical Combinatorial Problem using Vectorized Simulated Annealing. Technical report, Institute of Mathematical Modelling, Technical University of Denmark, August 1997. Working Paper.
- [2584] Michael Pilegaard Hansen. Tabu Search in Multiobjective Optimisation : MOTS. In *Proceedings of the 13th International Conference on Multiple Criteria Decision Making (MCDM'97)*, Cape Town, South Africa, January 1997.
- [2585] Michael Pilegaard Hansen. *Metaheuristics for multiple objective combinatorial optimization*. PhD thesis, Institute of Mathematical Modelling, Technical University of Denmark, March 1998.
- [2586] Michael Pilegaard Hansen. Use of Substitute Scalarizing Functions to Guide a Local Search Based Heuristic: The Case of moTSP. *Journal of Heuristics*, 6:419–431, 2000.
- [2587] Michael Pilegaard Hansen. Use of Substitute Scalarizing Functions to Guide a Local Search Based Heuristic: The Case of moTSP. *Journal of Heuristics*, 6(3):419–431, August 2000.
- [2588] Michael Pilegaard Hansen and Andrzej Jaszkiewicz. Evaluating the quality of approximations to the non-dominated set. Technical Report IMM-REP-1998-7, Technical University of Denmark, March 1998.
- [2589] M.P. Hansen. Tabu search for multiobjective combinatorial optimization: TAMOCO. *Control and Cybernetics*, 29(3):799–818, 2000.
- [2590] Guang hao Hu, Zhi zhong Mao, and Da kuo He. Multi-objective optimization for leaching process using improved two-stage guide PSO algorithm. *Journal of Central South University of Technology*, 18(4):1200–1210, August 2011.
- [2591] M. Hapke, A. Jaszkiewicz, and R. Slowinski. Fuzzy multi-mode resource-constrained project scheduling with multiple objectives. In J. Weglarz, editor, *Recent Advances in Project Scheduling*, chapter 16, pages 355–382. Kluwer Academic Publishers, 1998.
- [2592] Maciej Hapke, Andrzej Jaszkiewicz, and Roman Slowinski. Pareto Simulated Annealing for Fuzzy Multi-Objective Combinatorial Optimization. *Journal of Heuristics*, 6(3):329–345, August 2000.
- [2593] Afsana Haque and Yasushi Asami. Optimizing urban land-use allocation: case study of Dhanmondi Residential Area, Dhaka, Bangladesh. *Environment and Planning B-Planning & Design*, 38(3):388–410, May 2011.
- [2594] Ken Harada, Kokolo Ikeda, and Shigenobu Kobayashi. Hybridizing of Genetic Algorithm and Local Search in Multiobjective Function Optimization: Recommendation of GA then LS. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 667–674, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.

- [2595] Ken Harada, Jun Sakuma, and Shigenobu Kobayashi. Local Search for Multi-objective Function Optimization: Pareto Descent Method. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 659–666, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2596] Ken Harada, Jun Sakuma, and Shigenobu Kobayashi. Uniform Sampling of Local Pareto-Optimal Solution Curves by Pareto Path Following and its Applications in Multi-objective GA. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 813–820, London, UK, July 2007. ACM Press.
- [2597] Ken Harada, Jun Sakuma, Isao Ono, and Shigenobu Kobayashi. Constraint-Handling Method for Multi-objective Function Optimization: Pareto Descent Repair Operator. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 156–170, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2598] Simion Haragas, Lucian Tudose, Daniela Jucan, and Andrei Szuder. Multi-Objective of the Pneumatic Ejectors for Plastics Thin-wall Injected Parts. *Materiale Plastice*, 47(1):74–79, March 2010.
- [2599] Uday Haral, Rew-Win Chen, Jr. Ferrell William G., and Mary Beth Kurz. Multiobjective single machine scheduling with nontraditional requirements. *International Journal of Production Economics*, 106(2):574–584, April 2007.
- [2600] Y. Haralampidis, C. Papadimitriou, and M. Pavlidou. Multi-objective framework for structural model identification. *Earthquake Engineering & Structural Dynamics*, 34(6):665–685, May 2005.
- [2601] Oscar Harari, Cristina Rubio-Escudero, and Igor Zwir. Targeting Differentially Co-regulated Genes by Multiobjective and Multimodal Optimization. In Elena Marchiori, Jason H. Moore, and Jagath C. Rajapakse, editors, *Evolutionary Computation, Machine Learning and Data Mining in Bioinformatics, 5th European Conference, EvoBIO 2007*, pages 68–77. Springer. Lecture Notes in Computer Science Vol. 4447, Valencia, Spain, April 2007.
- [2602] Mark Harman, Jens Krinke, Jian Ren, and Shin Yoo. Search Based Data Sensitivity Analysis Applied to Requirement Engineering. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1681–1688, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2603] Mark Harman, Kiran Lakhota, and Phil McMinn. A Multi-Objective Approach To Search-Based Test Data Generation. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 1098–1105, London, UK, July 2007. ACM Press.

- [2604] Mark Harman and Laurence Tratt. Pareto Optimal Search Based Refactoring at the Design Level. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 1106–1113, London, UK, July 2007. ACM Press.
- [2605] Irina Harris, Christine Mumford, and Mohamed Naim. The Multi-Objective Uncapacitated Facility Location Problem for Green Logistics. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2732–2729, Trondheim, Norway, May 2009. IEEE Press.
- [2606] Irina Harris, Christine L. Mumford, and Mohamed M. Naim. An Evolutionary Bi-Objective Approach to the Capacitated Facility Location Problem with Cost and CO₂ Emissions. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 697–704, Dublin, Ireland, July 12–16 2011. ACM Press.
- [2607] Stephen P. Harris and Emmanuel C. Ifeakor. Nonlinear FIR Filter Design by Genetic Algorithm. In *1st Online Conference on Soft Computing*, August 1996.
- [2608] Christopher G. Hart and Nickolas Vlahopoulos. An integrated multidisciplinary particle swarm optimization approach to conceptual ship design. *Structural and Multidisciplinary Optimization*, 41(3):481–494, April 2010.
- [2609] Z. Harth, H. Sun, and M. Schafer. Comparison of trust-region-based and evolutionary methods for optimization of flow geometries. *Engineering Optimization*, 39(7):797–810, October 2007.
- [2610] John W. Hartmann. Low-thrust Trajectory Optimization Using Stochastic Optimization Methods. Master's thesis, Department of Aeronautical and Astronautical Engineering, University of Illinois at Urbana-Champaign, January 1999.
- [2611] John W. Hartmann, Victoria L. Coverstone-Carroll, and Steven N. Williams. Optimal Interplanetary Spacecraft Trajectories Via A Pareto Genetic Algorithm. In *AAS/AIAA Space Flight Mechanics Meeting*, Monterey, California, February 1998. Paper No. AAS-98-202.
- [2612] John W. Hartmann, Victoria L. Coverstone-Carroll, and Steven N. Williams. Optimal Interplanetary Spacecraft Trajectories via a Pareto Genetic Algorithm. *The Journal of the Astronautical Sciences*, 46(3):267–282, July–September 1998.
- [2613] Bashar Awwad Shiekh Hasan, John Q. Gan, and Qingfu Zhang. Multi-objective evolutionary methods for channel selection in Brain-Computer Interfaces: Some preliminary experimental results. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3339–3344, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2614] Martina Hasenjäger and Bernhard Sendhoff. Crawling Along the Pareto Front: Tales From the Practice. In *2005 IEEE Congress on Evolutionary Computation*

- (CEC'2005), volume 1, pages 174–181, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2615] Martina Hasenjäger, Bernhard Sendhoff, Toyotaka Sonoda, and Toshiyuki Arima. Three Dimensional Evolutionary Aerodynamic Design Optimization with CMA-ES. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 2173–2180, New York, USA, June 2005. ACM Press.
 - [2616] Ghada Hassan and Christopher Clack. Multiobjective Robustness for Portfolio Optimization in Volatile Environments. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1507–1514, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
 - [2617] Ghada Hassan and Christopher D. Clack. Robustness of multiple objective GP stock-picking in unstable financial markets. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1513–1520, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
 - [2618] Md. Rafiul Hassan, Baikunth Nath, Michael Kirley, and Joarder Kamruzzaman. A hybrid of multiobjective Evolutionary Algorithm and HMM-Fuzzy model for time series prediction. *Neurocomputing*, 81:1–11, April 1 2012.
 - [2619] H. A. Hassan-Pour, M. Mosadegh-Khah, and R. Tavakkoli-Moghaddam. Solving a multi-objective multi-depot stochastic location-routing problem problem by a hybrid simulated annealing algorithm. *Proceedings of the Institution of Mechanical Engineers Part B - Journal of Engineering Manufacture*, 223(8):1045–1054, August 2009.
 - [2620] Toshiharu Hatanaka, Nobuhiko Kondo, and Katsuji Uosaki. Multi-Objective Structure Selection for Radial Basis Function Networks Based on Genetic Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 1095–1100, Canberra, Australia, December 2003. IEEE Press.
 - [2621] Toshiharu Hatanaka, Nobuhiko Kondo, and Katsuji Uosaki. Multi-Objective Structure selection for RBF Networks and Its Application to Nonlinear System Identification. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 491–505. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
 - [2622] Iason Hatzakis. *Multi-Objective Evolutionary Optimization in Time-Changing Environments*. PhD thesis, Department of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA, June 2007.
 - [2623] Iason Hatzakis and David Wallace. Dynamic Multi-Objective Optimization with Evolutionary Algorithms: A Forward-Looking Approach. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation*

Conference (GECCO'2006), volume 2, pages 1201–1208, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.

- [2624] Christian Haubelt, Jürgen Gamenik, and Jürgen Teich. Initial Population Construction for Convergence Improvement of MOEAs. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 191–205, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2625] Christian Haubelt, Sanaz Mostaghim, Frank Slomka, Jürgen Teich, and Ambrish Tyagi. Hierarchical Synthesis of Embedded Systems using Evolutionary Algorithms. In Rolf Drechsler and Nicole Drechsler, editors, *Evolutionary Algorithms for Embedded System Design*, pages 63–104. Kluwer Academic Publishers, Boston/Dordrecht/London, 2003.
- [2626] Christian Haubelt, Sanaz Mostaghim, Jürgen Teich, and Ambrish Tyagi. Solving Hierarchical Optimization Problems Using MOEAs. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 162–176, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2627] Christian Haubelt, Thomas Schlichter, and Jürgen Teich. Improving Automatic Design Space Exploration by Integrating Symbolic Techniques into Multi-Objective Evolutionary Algorithms. *International Journal of Computational Intelligence Research*, 2(3):239–254, 2006.
- [2628] Lee Loo Hay, Chew Ek Peng, Teng suyan, and Li juxin. Application of Evolutionary Algorithms for Solving Multi-Objective Simulation Optimization Problems. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 5, pages 91–110. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [2629] J. Hazra and A.K. Sinha. A Multi-Objective Optimal Power Flow Using Particle Swarm Optimization. *European Transactions on Electrical Power*, 21(1):1028–1045, January 2011.
- [2630] Jagabondhu Hazra and Avinash K. Sinha. Congestion management using multiobjective particle swarm optimization. *IEEE Transactions on Power Systems*, 22(4):1726–1734, November 2007.
- [2631] Guoliang He, Naixue Xiong, Athanasios V. Vasilakos, Yuanxiang Li, and Zhongzhi Shi. Automated Design of Logic Circuits with a Increasable Evolution Approach. In *11th IEEE International Conference on High Performance Computing and Communications, HPCC 2009*, pages 206–213, Seoul, South Korea, June 25-27 2009. IEEE Press.

- [2632] Y. He, F. Liu, H.J. Cao, and C.B. Li. A bi-objective model for job-shop scheduling problem to minimize both energy consumption and makespan. *Journal of Central South University of Technology*, 12:167–171, October 2005.
- [2633] Yijun He, Dezhaoh Chen, and Weixiang Zhao. Integrated method of compromise-based ant colony algorithm and rough set theory and its application in toxicity mechanism classification. *Chemometrics And Intelligent Laboratory Systems*, 92(1):22–32, May 15 2008.
- [2634] Y.P. He and J. McPhee. Design optimization of rail vehicles with passive and active suspensions: A combined approach using genetic algorithms and multi-body dynamics. *Vehicle System Dynamics*, 37:397–408, 2002.
- [2635] Yuping He. *Design of Rail Vehicles with Passive and Active Suspensions Using Multidisciplinary Optimization, Multibody Dynamics, and Genetic Algorithms*. PhD thesis, University of Waterloo, Waterloo, Ontario, Canada, 2003.
- [2636] T Hegazy. Optimization of resource allocation and leveling using genetic algorithms. *Journal Of Construction Engineering And Management-ASCE*, 125(3):167–175, May-June 1999.
- [2637] Petra J. G. J. Hellegers, Richard Soppe, Chris J. Perry, and Wim G. M. Bastiaanssen. Multi-objective Cultured Differential Evolution for Generating Optimal Trade-offs in Reservoir Flood Control Operation. *Water Resources Management*, 24(11):2419–2436, September 2010.
- [2638] Thomas Hemker, Kathleen R. Fowler, Matthew W. Farthing, and Oskar von Stryk. A mixed-integer simulation-based optimization approach with surrogate functions in water resources management. *Optimization and Engineering*, 9(4):341–360, December 2008.
- [2639] Tim Hendtlass. WoSP: A Multi-Optima Particle Swarm Algorithm. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 727–734, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2640] Song Hengjie, Miao Chunyan, and Shen Zhiqi. Fuzzy Cognitive Map Learning Based on Multi-Objective Particle Swarm Optimization. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 339, London, UK, July 2007. ACM Press.
- [2641] M.H. Hennessy and A.M. Kelley. Using real-valued multi-objective genetic algorithms to model molecular absorption spectra and Raman excitation profiles in solution. *Physical Chemistry Chemical Physics*, 6(6):1085–1095, March 2004.
- [2642] Karsten Hentsch and Peter Köchel. Job scheduling with forbidden setups and two objectives using genetic algorithms and penalties. *Central European Journal of Operations Research*, 19(3):285–298, September 2011.

- [2643] J. S. Heo, K. Y. Lee, and R. Garduno-Ramirez. Multiobjective control of power plants using particle swarm optimization techniques. *IEEE Transactions on Energy Conversion*, 21(2):552–561, June 2006.
- [2644] J. S. Heo, K. Y. Lee, and R. Garduno-Ramirez. Optimal multi-objective non-linear impulsive rendezvous. *Journal of Guidance Control and Dynamics*, 30(4):994–1002, July-August 2007.
- [2645] Wesam Herbawi and Michael Weber. Evolutionary Multiobjective Route Planning in Dynamic Multi-hop Ridesharing. In Peter Merz and Jin-Kao Hao, editors, *Evolutionary Computation in Combinatorial Optimization, 11th European Conference, EvoCOP 2011*, pages 84–95, Torino, Italy, April 27-29 2011. Springer. Lecture Notes in Computer Science Vol. 6622.
- [2646] A. Heredia-Langner, D.C. Montgomery, and W.M. Carlyle. Solving a multi-stage partial inspection problem using genetic algorithms. *International Journal of Production Research*, 40(8):1923–1940, 2002.
- [2647] S. Mostapha Kalami Heris and Hamid Khaloozadeh. Open- and Closed-Loop Multiobjective Optimal Strategies for HIV Therapy Using NSGA-II. *IEEE Transactions on Biomedical Engineering*, 58(6):1678–1685, June 2011.
- [2648] Augusto Hermosilla and Benjamín Barán. Comparación de un sistema de colonias de hormigas y una estrategia evolutiva para un Problema Multiobjetivo de Ruteo de Vehículos con Ventanas de Tiempo. In Mauricio Solar, David Fernández-Baca, and Ernesto Cuadros-Vargas, editors, *30ma Conferencia Latinoamericana de Informática (CLEI2004)*, pages 379–388. Sociedad Peruana de Computación, September 2004. ISBN 9972-9876-2-0 (In Spanish).
- [2649] Arturo Hernández Aguirre and Salvador Botello Rionda. Evolutionary Multi-Objective Optimization of Trusses. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 201–226. World Scientific, Singapore, 2004.
- [2650] Arturo Hernández Aguirre, Salvador Botello Rionda, Carlos A. Coello Coello, and Giovanni Lizárraga Lizárraga. Use of Multiobjective Optimization Concepts to Handle Constraints in Single-Objective Optimization. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 573–584. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [2651] Arturo Hernández Aguirre, Salvador Botello Rionda, Carlos A. Coello Coello, Giovanni Lizárraga Lizárraga, and Efrén Mezura Montes. Handling Constraints using Multiobjective Optimization Concepts. *International Journal for Numerical Methods in Engineering*, 59(15):1989–2017, April 2004.
- [2652] Arturo Hernández Aguirre, Salvador Botello Rionda, Carlos A. Coello Coello, Giovanni Lizárraga Lizárraga, and Efrén Mezura Montes. Handling Constraints using Multiobjective Optimization Concepts. *International Journal for Numerical Methods in Engineering*, 59(15):1989–2017, April 2004.

- [2653] Arturo Hernández Aguirre, Salvador Botello Rionda, Giovanni Lizárraga Lizárraga, and Carlos Coello Coello. IS-PAES: Multiobjective Optimization with Efficient Constraint Handling. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 111–120. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [2654] Arturo Hernández Aguirre, Salvador Botello Rionda, Giovanni Lizárraga Lizárraga, and Carlos A. Coello Coello. IS-PAES: A Constraint-Handling Technique Based on Multiobjective Optimization Concepts. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 73–87, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2655] Alfredo G. Hernandez-Diaz, Carlos A. Coello, Fatima Perez, Rafael Caballero, and Julian Molina. Using a Gradient Based Method to Seed an EMO Algorithm. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 327–337. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.
- [2656] Alfredo G. Hernández-Díaz, Carlos A. Coello Coello, Fátima Pérez, Rafael Caballero, Julián Molina, and Luis V. Santana-Quintero. Seeding the Initial Population of a Multi-Objective Evolutionary Algorithm using Gradient-Based Information. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1617–1624, Hong Kong, June 2008. IEEE Service Center.
- [2657] Alfredo G. Hernandez-Diaz, Carlos A. Coello Coello, Luis V. Santana-Quintero, Fatima Perez, Julian Molina, and Rafael Caballero. On the use of Projected Gradients for Constrained Multiobjective Optimization Problems. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 712–721. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2658] Alfredo G. Hernández-Díaz, Luis V. Santana-Quintero, Carlos Coello Coello, Rafael Caballero, and Julián Molina. A New Proposal for Multi-Objective Optimization using Differential Evolution and Rough Sets Theory. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 675–682, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2659] Alfredo G. Hernández-Díaz, Luis V. Santana-Quintero, Carlos A. Coello Coello, Rafael Caballero, , and Julián Molina. Rough Sets Theory for Multi-Objective Optimization Problems. In Carlos Cotta, Simeon Reich, Robert Schaefer, and Antoni Ligęza, editors, *Knowledge-Driven Computing*, pages 81–98. Springer-Verlag, Berlin, 2008. ISBN 978-3-540-77474-7.

- [2660] Alfredo G. Hernández-Díaz, Luis V. Santana-Quintero, Carlos A. Coello Coello, and Julián Molina. Pareto-adaptive ϵ -dominance. *Evolutionary Computation*, 15(4):493–517, Winter 2007.
- [2661] Alfredo G. Hernández Díaz, Luis V. Santana Quintero, Carlos A. Coello Coello, Julian Molina, and Rafael Caballero. Improving the efficiency of epsilon-dominance based grids. *Information Sciences*, 181(15):3101–3129, August 1 2011.
- [2662] Juan Arturo Herrera Ortiz. *A Multi-Objective Evolutionary Algorithm based on Rank Mutation and a Performance Comparison Methodology to Stochastic Optimizers*. PhD thesis, Postgraduate Program in Computer Sciences and Engineering, National Autonomous University of Mexico, Mexico City, Mexico, 2011.
- [2663] Juan Arturo Herrera-Ortiz and Itza T.Q. Curiel Cabral. A RankMOEA to Approximate the Pareto Front of a Dynamic Principal-Agent Model. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 785–792, Dublin, Ireland, July 12–16 2011. ACM Press.
- [2664] J. M. Herrero, S. Garcia-Nieto, X. Blasco, V. Romero-Garcia, J. V. Sanchez-Perez, and L. M. Garcia-Raffi. Optimization of sonic crystal attenuation properties by ev-MOGA multiobjective evolutionary algorithm. *Structural and Multidisciplinary Optimization*, 39(2):203–215, August 2009.
- [2665] J.M. Herrero, X. Blasco, M. Martínez, and C. Ramos. Nonlinear Robust Identification Using Multiobjective Evolutionary Algorithms. In José Mira and José R. Álvarez, editors, *Artificial Intelligence and Knowledge Engineering Applications: A Bioinspired Approach. First International Work-Conference on the Interplay Between Natural and Artificial Computation, IWINAC 2005*, pages 231–241. Springer, Lecture Notes in Computer Science, Vol. 3562, Las Palmas, Canary Islands, Spain, 2005.
- [2666] J.M. Herrero, X. Blasco, M. Martinez, C. Ramos, and J. Sanchis. Non-linear robust identification of a greenhouse model using multi-objective evolutionary algorithms. *Biosystems Engineering*, 98(3):335–346, 2007.
- [2667] J.M. Herrero, X. Blasco, M. Martinez, C. Ramos, and J. Sanchis. Robust identification of non-linear greenhouse model using evolutionary algorithms. *Control Engineering Practice*, 16(5):515–530, May 2008.
- [2668] A. Herreros, E. Baeyens, and JR Peran. Design of PID-type controllers using multiobjective genetic algorithms. *ISA Transactions*, 41(4):457–472, October 2002.
- [2669] Alberto Herreros, Enrique Baeyens, and José R. Perán. Design of Multiobjective Robust Controllers Using Genetic Algorithms. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 131–132, Orlando, Florida, July 1999.

- [2670] Alberto Herreros, Enrique Baeyens, and José R. Perán. MRCD (Multiobjective Robust Controller Design) Genetic Algorithm: Mechanics and Evaluation. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [2671] Alberto Herreros, Enrique Baeyens, and José R. Perán. MRCD: A Genetic Algorithm for Multiobjective Robust Control Design. *Engineering Applications of Artificial Intelligence*, 15(3–4):285–301, June–August 2002.
- [2672] Alain Hertz, Brigitte Jaumard, C.C. Ribeiro, and W.P. Formosinho Filho. A multi-criteria tabu search approach to cell formation problems in group technology with multiple objectives. *RAIRO/Operations Research*, 28(3):303–328, 1994.
- [2673] Andreas Herzog, Sebastian Handrich, and Christoph Herrmann. Multi-objective parameter estimation of biologically plausible neural networks in different behavior stages. In *2009 IEEE Congress on Evolutionary Computation (CEC’2009)*, pages 793–799, Trondheim, Norway, May 2009. IEEE Press.
- [2674] Magnus Lie Hetland and Pal Sætrum. Evolutionary Rules Mining in Time Series Databases. *Machine Learning*, 58(2–3):107–125, February–March 2005.
- [2675] Jan Hettenhausen, Andrew Lewis, and Sanaz Mostaghim. Interactive multi-objective particle swarm optimization with heatmap-visualization-based user interface. *Engineering Optimization*, 42(2):119–139, February 2010.
- [2676] J. Ignacio Hidalgo, José L. Risco-Martín, David Atienza, and Juan Lanchares. Analysis of Multi-Objective Evolutionary Algorithms to Optimize Dynamic Data Types in Embedded Systems. In *2008 Genetic and Evolutionary Computation Conference (GECCO’2008)*, pages 1515–1522, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [2677] Tomoyouki Higashihara and Masayasu Atsumi. Evolutionary Acquisition of Sensory—Action Network of Mobile Robot using Multiobjective Genetic Algorithm. *IPSJ SIG-ICS*, 98-ICS-111:1–6, 1998. In Japanese.
- [2678] A. J. Higgins and Stefan Hajkowitz. A Model for Landscape Planning Under Complex Spatial Conditions. *Environmental Modeling & Assessment*, 13(4):459–471, November 2008.
- [2679] Andrew J. Higgins, Stefan Hajkowitz, and Elisabeth Bui. A multi-objective model for environmental investment decision making. *Computers & Operations Research*, 35(1):253–266, January 2008.
- [2680] Renan Hilbert, Gábor Janiga, Romain Baron, and Dominique Thévenin. Multi-objective shape optimization of a heat exchanger using parallel genetic algorithms. *International Journal of Heat and Mass Transfer*, 49(15–16):2567–2577, July 2006.

- [2681] James A. Hilder, Nick D.L. Owens, Peter J. Hickey, Stuart N. Cairns, David P.A. Kilgour, Jon Timmis, and Andy Tyrrell. Parameter Optimisation in the Receptor Density Algorithm. In Pietro Liò, Giuseppe Nicosia, and Thomas Stibor, editors, *Artificial Immune Systems, 10th International Conference, ICARIS 2011*, pages 226–239, Cambridge, UK, July 18–21 2011. Springer. Lecture Notes in Computer Science Vol. 6825.
- [2682] James A. Hilder, James Alfred Walker, and Andy M. Tyrrell. Optimising Variability Tolerant Standard Cell Libraries. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2273–2280, Trondheim, Norway, May 2009. IEEE Press.
- [2683] M. R. Hilliard, G. E. Liepins, M. Palmer, and G. Rangarajen. The computer as a partner in algorithmic design: Automated discovery of parameters for a multiobjective scheduling heuristic. In R. Sharda, B. L. Golden, E. Wasil, O. Balci, and W. Stewart, editors, *Impacts of Recent Computer Advances on Operations Research*, pages 321–331. North-Holland Publishing Company, New York, 1989.
- [2684] Mark Hinchliffe, Mark Willis, and Ming Tham. Chemical Process Systems Modelling using Multi-Objective Genetic Programming. In John R. Koza, Wolfgang Banzhaf, Kumar Chellapilla, Kalyanmoy Deb, Marco Dorigo, David B. Fogel, Max H. Garzon, David E. Goldberg, Hitoshi Iba, and Rick L. Riolo, editors, *Proceedings of the Third Annual Conference on Genetic Programming*, pages 134–139, San Mateo, California, July 1998. University of Wisconsin at Madison, Morgan Kaufmann Publishers.
- [2685] Philip Hingston, Luigi Barone, Simon Huband, and Lyndon While. Multi-level Ranking for Constrained Multi-objective Evolutionary Optimisation. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 563–572. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [2686] Jean-Laurent Hippolyte, Christelle Boch, Pascal Chatonnay, Christophe Espanet, and Didier Chamagne. A Self-Adaptive Multiagent Evolutionary Algorithm for Electrical Machine Design. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 1250–1255, London, UK, July 2007. ACM Press.
- [2687] Tomoyuki Hiroyasu, Shinpei Chino, and Mitsunori Miki. Flexibility of Design Variables to Pareto-Optimal Solutions in Multi Objective Optimization Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4462–4468, Singapore, September 2007. IEEE Press.
- [2688] Tomoyuki Hiroyasu, Kenji Kobayashi, Masashi Nishioka, and Mitsunori Miki. Diversity Maintenance Mechanism for Multi-Objective Genetic Algorithms

- Using Clustering and Network Inversion. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 722–732. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2689] Tomoyuki Hiroyasu, Mitsunori Miki, Jiro Kamiura, Shinya Watanabe, and Hiro Hiroyasu. MOGADES: Multi-Objective Genetic Algorithm with Distributed Environment Scheme. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 201–227. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [2690] Tomoyuki Hiroyasu, Mitsunori Miki, Seiichi Nakayama, and Yoshiko Hanada. Multi-Objective Optimization of Diesel Engine Emissions and Fuel Economy Using SPEA2+. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 2195–2196, New York, USA, June 2005. ACM Press.
- [2691] Tomoyuki Hiroyasu, Mitsunori Miki, and Shinya Watanabe. Distributed Genetic Algorithms with a New Sharing Approach in Multiobjective Optimization Problems. In *1999 Congress on Evolutionary Computation*, pages 69–76, Washington, D.C., July 1999. IEEE Service Center.
- [2692] Tomoyuki Hiroyasu, Mitsunori Miki, and Shinya Watanabe. Divided Range Genetic Algorithms in Multiobjective Optimization Problems. In *Proceedings of International Workshop on Emergent Synthesis*, pages 57–66, Kobe, Japan, December 1999.
- [2693] Tomoyuki Hiroyasu, Mitsunori Miki, and Shinya Watanabe. The New Model of Parallel Genetic Algorithm in Multi-Objective Optimization Problems—Divided Range Multi-Objective Genetic Algorithm—. In *2000 Congress on Evolutionary Computation*, volume 1, pages 333–340, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [2694] Tomoyuki Hiroyasu, Seiichi Nakayama, and Mitsunori Miki. Comparison Study of SPEA2+, SPEA2, and NSGA-II in Diesel Engine Emissions and Fuel Economy Problem. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 236–242, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2695] Tomoyuki Hiroyasu, Masashi Nishioka, Mitsunori Miki, and Hisatake Yokouchi. Discussion of Search Strategy for Multi-objective Genetic Algorithm with Consideration of Accuracy and Broadness of Pareto Optimal Solutions. In Xiaodong Li, Michael Kirley, Mengjie Zhang, David G. Green, Victor Ciesielski, Hussein A. Abbass, Zbigniew Michalewicz, Tim Hendtlass, Kalyanmoy Deb, Kay Chen Tan, Jürgen Branke, and Yuhui Shi, editors, *Simulated Evolution and Learning*, pages 339–348. Springer, Lecture Notes in Computer Science, Vol. 5361, Heidelberg, Germany, December 2008.

- [2696] Tomoyuki Hiroyasu, Masashi Nishioka, Mitsunori Miki, and Hisatake Yokouchi. Application of MOGA Search Strategy to SVM Training Data Selection. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 125–139. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [2697] Tomoyuki Hiroyasu, Kengo Yoshii, and Mitsunori Miki. Discussion of Parallel Model of Multi-Objective Genetic Algorithms on Heterogeneous Computational Resources. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 904, London, UK, July 2007. ACM Press.
- [2698] Christian Hirsch, Pradyumn Kumar Shukla, and Hartmut Schmeck. Variable Preference Modeling Using Multi-Objective Evolutionary Algorithms. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 91–105, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [2699] Faicel Hnaien, Xavier Delorme, and Alexandre Dolgui. Multi-objective optimization for inventory control in two-level assembly systems under uncertainty of lead times. *Computers & Operations Research*, 37(11):1835–1843, November 2010.
- [2700] Nhu Binh Ho and Joc Cing Tay. Using Evolutionary Computation and Local Search for Solving Multi-objective Flexible Job Shop Problems. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 821–828, London, UK, July 2007. ACM Press.
- [2701] Nhu Binh Ho and Joc Cing Tay. Solving multiple-objective flexible job shop problems by evolution and local search. *IEEE Transactions on Systems Man and Cybernetics Part C-Applications and Reviews*, 38(5):674–685, September 2008.
- [2702] S. L. Ho and Shiyong Yang. Multiobjective Synthesis of Antenna Arrays Using a Vector Tabu Search Algorithm. *IEEE Antennas and Wireless Propagation Letters*, 8:947–950, 2009.
- [2703] S. L. Ho, Shiyong Yang, and W. N. Fu. A Population-Based Incremental Learning Vector Algorithm for Multiobjective Optimal Designs. *IEEE Transactions on Magnetics*, 47(5):1306–1309, May 2011.
- [2704] Shinn-Ying Ho and Xiao-I Chang. An Efficient Generalized Multiobjective Evolutionary Algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith,

- editors, *GECCO-99: Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 871–878, Orlando, Florida, USA, 1999. Morgan Kaufmann Publishers.
- [2705] Shinn-Ying Ho and Hui-Ling Huang. Facial modeling from an uncalibrated face image using a coarse-to-fine genetic algorithm. *Pattern Recognition*, 34:1015–1031, 2001.
 - [2706] Siu-Lau Ho and Shiyong Yang. A computationally efficient vector optimizer using ant colony optimizations algorithm for multiobjective designs. *IEEE Transactions on Magnetics*, 44(6):1034–1037, June 2008.
 - [2707] S.J. Ho, W.Y. Ku, J.W. Jou, M.H. Hung, and S.Y. Ho. Intelligent particle swarm optimization in multi-objective problems. In *Advances in Knowledge Discovery and Data Mining*, pages 790–800. Springer. Lecture Notes in Artificial Intelligence Vol. 3918, 2006.
 - [2708] S.L. Ho, Shiyong Yang, Guangzheng Ni, Edward W.C. Lo, and H.C. Wong. A Particle Swarm Optimization-Based Method for Multiobjective Design Optimizations. *IEEE Transactions on Magnetics*, 41(5):1756–1759, May 2005.
 - [2709] S.L. Ho, S.Y. Yang, G.Z. Ni, and H.C. Wong. A Tabu Method to Find the Pareto Solutions of Multiobjective Optimal Design Problems in Electromagnetics. *IEEE Transactions on Magnetics*, 38(2):1013–1016, March 2002. Part 1.
 - [2710] S.L. Ho, S.Y. Yang, G.Z. Ni, and K.F. Wong. An efficient multiobjective optimizer based on genetic algorithm and approximation techniques for electromagnetic design. *IEEE Transactions on Magnetics*, 43(4):1605–1608, April 2007.
 - [2711] SL Ho, SY Yang, HC Wong, and GZ Ni. A simulated annealing algorithm for multiobjective optimizations of electromagnetic devices. *IEEE Transactions on Magnetics*, 39(3):1285–1288 Part 1, May 2003.
 - [2712] Tsu-Feng Ho, Peng-Yeng Yin, Gwo-Jen Hwang, Shyong Jian Shyu, and Yan-Nan Yean. Multi-Objective Parallel Test-Sheet Composition Using Enhanced Particle Swarm Optimization. *Educational Technology & Society*, 12(4):193–206, October 2009.
 - [2713] William Ho and Ali Emrouznejad. Multi-Criteria logistics distribution network design using SAS/OR. *Expert Systems with Applications*, 36(3):7288–7298, April 2009.
 - [2714] Bri-Mathias Hodge, Frank Pettersson, and Nirupam Chakraborti. Re-evaluation of the optimal operating conditions for the primary end of an integrated steel plant using multi-objective genetic algorithms and nash equilibrium. *Steel Research International*, 77(7):459–461, July 2006.

- [2715] Laurent Hoffer, Jean-Paul Renaud, and Dragos Horvath. Fragment-Based Drug Design: Computational and Experimental State of the Art. *Combinatorial Chemistry & High Throughput Screening*, 14(6):500–520, July 2011.
- [2716] Tim Hohm and Daniel Hoffmann. A Multi-Objective Evolutionary Approach to Peptide Structure Redesign and Stabilization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 423–429, New York, USA, June 2005. ACM Press.
- [2717] Tim Hohm and Eckart Zitzler. Multiobjectivevivization for Parameter Estimation: a Case-Study on the segment Polaruty Network of Drosophila. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 209–216, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2718] Tim Hohm and Eckart Zitzler. A hierarchical approach to model parameter optimization for developmental systems. *Biosystems*, 102(2-3):157–167, November-December 2010.
- [2719] Clay Holdsworth, Minsun Kim, Jay Liao, and Mark H. Phillips. A hierarchical evolutionary algorithm for multiobjective optimization in IMRT. *Medical Physics*, 37(9):4986–4997, September 2010.
- [2720] Clay Holdsworth, Robert D. Stewart, Minsun Kim, Jay Liao, and Mark H. Phillips. Investigation of effective decision criteria for multiobjective optimization in IMRT. *Medical Physics*, 38(6):2964–2974, June 2011.
- [2721] Peter Michael Hollingsworth. *Requirements Controlled Design: A Method for Discovery of Discontinuous System Boundaries in the Requirements Hyperspace*. PhD thesis, School of Aerospace Engineering, Georgia Institute of Technology, USA, March 2004.
- [2722] Eric M. Holloway, Gary B. Lamont, and Gilbert L. Peterson. Network Security Using Self Organized Multi Agent Swarms. In *IEEE Symposium on Computational Intelligence in Cyber Security, 2009. (CICS '09)*, pages 144–151, Nashville, TN, USA, March-April 2009. IEEE Computer Society.
- [2723] TL Holst. Transonic flow computations using nonlinear potential methods. *Progress In Aerospace Sciences*, 36(1):1–61, January 2000.
- [2724] A. Homaifar, HY Lai, and E. McCormick. System Optimization Of Turbofan Engines Using Genetic Algorithms. *Applied Mathematical Modelling*, 18(2):72–83, February 1994.
- [2725] Lu Hong. An Adaptive Multi-objective Immune Optimization Algorithm. In *International Conference on Control, Automation and Systems Engineering 2009 (IITA'2009)*, pages 140–143, Zhangjiajie, China, July 2009. IEEE Computer Society.

- [2726] Young-Dae Hong, Ye-Hoon Kim, Ji-Hyeong Han, Jeong-Ki Yoo, and Jong-Hwan Kim. Evolutionary Multiobjective Footstep Planning for Humanoid Robots. *IEEE Transactions on Systems Man and Cybernetics Part C-Applications and Reviews*, 41(4):520–532, July 2011.
- [2727] K. Hongesombut, Y. Mitani, S. Dechanupaprittha, I. Ngamroo, K. Pasupa, and J. Tippayachai. Power System Stabilizer Tuning Based on Multiobjective Design Using Hierarchical and Parallel Micro Genetic Algorithm. In *International Conference on Power System Technology, 2004 (PowerCon'2004)*, pages 402–407, Singapore, November 2004. IEEE Computer Society.
- [2728] Meng Hongyun and Liu Sanyang. ISPEA: Improvement for the Strength Pareto Evolutionary Algorithm for Multiobjective Optimization with Immunity. In *Proceedings of the Fifth International Conference on Computational Intelligence and Multimedia Applications (ICCIMA'03)*, pages 368–372. IEEE Computer Society, September 2003.
- [2729] Hirosuke Horii. *Parallelization of Genetic Algorithms and Application to Multi-objective Optimization Problem*. PhD thesis, School of Information Science, Japan Advanced Institute of Science and Technology, Ishikawa, Japan, March 2002.
- [2730] Hirosuke Horii, Mitsunori Miki, Takayuki Koizumi, and Nobuyoshi Tsujiuchi. Asynchronous Migration of Island Parallel GA for Multi-Objective Optimization Problem. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 86–90, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [2731] Jeffrey Horn. Multicriterion Decision Making. In Thomas Bäck, David Fogel, and Zbigniew Michalewicz, editors, *Handbook of Evolutionary Computation*, volume 1, pages F1.9:1 – F1.9:15. IOP Publishing Ltd. and Oxford University Press, 1997.
- [2732] Jeffrey Horn. *The Nature of Niching: Genetic Algorithms and the Evolution of Optimal, Cooperative Populations*. PhD thesis, University of Illinois at Urbana Champaign, Urbana, Illinois, 1997.
- [2733] Jeffrey Horn. Niche Distributions on the Pareto Optimal Front. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 365–375, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2734] Jeffrey Horn. Shape Nesting by Coevolving Species. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 557–558, New York, USA, June 2005. ACM Press.

- [2735] Jeffrey Horn. Optimal Nesting of Species for Exact Cover: Many against Many. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 438–447. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2736] Jeffrey Horn and James Cattron. The Paradox of the Plankton: Oscillations and Chaos in Multispecies Evolution. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 298–309. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [2737] Jeffrey Horn and Nicholas Nafpliotis. Multiobjective Optimization using the Niche Pareto Genetic Algorithm. Technical Report IlliGAI Report 93005, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA, 1993.
- [2738] Jeffrey Horn, Nicholas Nafpliotis, and David E. Goldberg. A Niche Pareto Genetic Algorithm for Multiobjective Optimization. In *Proceedings of the First IEEE Conference on Evolutionary Computation, IEEE World Congress on Computational Intelligence*, volume 1, pages 82–87, Piscataway, New Jersey, June 1994. IEEE Service Center.
- [2739] Christian Horoba. Analysis of a Simple Evolutionary Algorithm for the Multi-objective Shortest Path Problem. In *FOGA '09: Proceedings of the tenth ACM SIGEVO workshop on Foundations of genetic algorithms*, pages 113–120, Orlando, Florida, USA, January 2009. ACM.
- [2740] Christian Horoba and Frank Neumann. Benefits and Drawbacks for the Use of ε -Dominance in Evolutionary Multi-Objective Optimization. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 641–648, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [2741] Christian Horoba and Frank Neumann. Additive Approximations of Pareto-Optimal Sets by Evolutionary Multi-Objective Algorithms. In *FOGA '09: Proceedings of the tenth ACM SIGEVO workshop on Foundations of genetic algorithms*, pages 79–86, Orlando, Florida, USA, January 2009. ACM.
- [2742] Christian Horoba and Frank Neumann. Approximating Pareto-Optimal Sets Using Diversity Strategies in Evolutionary Multi-Objective Optimization. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 2, pages 23–44. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.
- [2743] P. K. Hota, A. K. Barisal, and R. Chakrabarti. Economic emission load dispatch through fuzzy based bacterial foraging algorithm. *International Journal Of Electrical Power & Energy Systems*, 32(7):794–803, September 2010.
- [2744] P.K. Hota, R. Chakrabarti, and P.K. Chattopadhyay. An integrated approach to economic emission load dispatching using neural network and goal-attainment

- methods. *Electric Machines and Power Systems*, 27(10):1085–1096, October 1999.
- [2745] Shujuan Hou, Xu Han, Guangyong Sun, Shuyao Long, Wei Li, Xujing Yang, and Qing Li. Multiobjective optimization for tapered circular tubes. *Thin-Walled Structures*, 49(7):855–863, July 2011.
 - [2746] Tung-Hsu Hou, Chi-Hung Su, and Hung-Zhi Chang. An integrated multi-objective immune algorithm for optimizing the wire bonding process of integrated circuits. *Journal of Intelligent Manufacturing*, 19(3):361–374, June 2008.
 - [2747] Weifeng Hou, Hongye Su, Shengjing Mu, and Jian Chu. Multiobjective optimization of the industrial naphtha catalytic reforming process. *Chinese Journal of Chemical Engineering*, 15(1):75–80, February 2007.
 - [2748] X.H. Hou, L.C. Shen, and H.Y. Zhu. A smart particle swarm optimization algorithm for multi-objective problems. In *Computational Intelligence and Bioinformatics, Part 3*, pages 72–80. Springer-Verlag. Lecture Notes in Computer Science Vol. 4115, 2006.
 - [2749] Boye Annfelt Høverstad. On the Effect of Network Modularity on Evolutionary Search. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 3191–3198, Trondheim, Norway, May 2009. IEEE Press.
 - [2750] Eduardo Raul Hruschka, Ricardo J. G. B. Campello, Alex A. Freitas, and Andre C. Ponce de Leon F. de Carvalho. A Survey of Evolutionary Algorithms for Clustering. *IEEE Transactions on System man and Cybernetics Part C-Applications and Reviews*, 39(2):133–155, March 2009.
 - [2751] Chao-Tsung Hsiao, Georges Chahine, and Nail Gumerov. Application of a Hybrid Genetic/Powell Algorithm and a Boundary Element to Electrical Impedance Tomography. *Journal of Computational Physics*, 173(2):433–454, November 2001.
 - [2752] Y. T. Hsiao and C. Y. Chien. Multiobjective Optimal Feeder Reconfiguration. *IEE Proceedings-Generation, Transmission and Distribution*, 148(4):333–336, July 2001.
 - [2753] Machine Hsie, Wen ta Hsiao, Tao ming Chen, and Hsieh ching Chen. A model used in creating a work-rest schedule for laborers. *Automation in Construction*, 18(6):762–769, October 2009.
 - [2754] Sheng-Ta Hsieh, Tsung-Ying Sun, Shih-Yuan Chiu, Chan-Cheng Liu, and Cheng-Wei Lin. Cluster based solution exploration strategy for multiobjective particle swarm optimization. In V. Devedzic, editor, *Proceedings of the IASTED International Conference on Artificial Intelligence and Applications*, pages 295–300, Innsbruck, Austria, February 12-14 2007. Int Assoc Sci & Technol Dev.

- [2755] Chih-Ming Hsu and Chao-Ton Su. Multi-objective machine-component grouping in cellular manufacturing: a genetic algorithm. *Production Planning and Control*, 9(2):155–166, 1998.
- [2756] Chin-Hsiung Hsu, Ching-Shih Tsou, and Fong-Jung Yu. Multicriteria Tradeoffs in Inventory Control Using Memetic Particle Swarm Optimization. *International Journal of Innovative Computing Information and Control*, 5(11A):3755–3768, November 2009.
- [2757] Dandan Hu, Chao Yang, and Jun Yang. Budget constrained flow interception location model for congested systems. *Journal of Systems Engineering and Electronics*, 20(6):1255–1262, December 2009.
- [2758] Haigen Hu, Lihong Xu, and Qingsong Hu. Model-based Compromise Control of Greenhouse Climate using Pareto Optimization. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 217–222, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [2759] Haigen Hu, Lihong Xu, Ruihua Wei, and Bingkun Zhu. Multi-objective tuning of nonlinear PID controllers for greenhouse environment using Evolutionary Algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3397–3402, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [2760] Haigen Hu, Lihong Xu, Ruihua Wei, and Bingkun Zhu. Multi-objective control optimization for greenhouse environment using evolutionary algorithms. *Sensors*, 11(6):5792–5807, June 2011.
- [2761] Haigen Hu, Lihong Xu, Bingkun Zhu, and Rihua Wei. A Compatible Control Algorithm for Greenhouse Environment Control Based on MOCC Strategy. *Sensors*, 11(3):3281–3302, March 2011.
- [2762] Jianjun Hu and Erik Goodman. Robust and Efficient Genetic Algorithms with Hierarchical Niching and a Sustainable Evolutionary Computation Model. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 1220–1232, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [2763] Jianjun Hu and Erik Goodman. Wireless Access Point Configuration by Genetic Programming. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 1178–1184, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [2764] Jianjun Hu, Kisung Seo, Zhun Fan, Ronald C. Rosenberg, and Erik D. Goodman. HEMO: A Sustainable Multi-objective Evolutionary Optimization Framework. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 1029–1040. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.

- [2765] Jianjun Hu, Kisung Seo, Shaobo Li, Zhun Fan, Ronald C. Rosenberg, and Erik D. Goodman. Structure Fitness Sharing (SFS) for Evolutionary Design by Genetic Programming. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 780–787, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [2766] Mengqi Hu, Jeffery D. Weir, and Teresa Wu. Decentralized operation strategies for an integrated building energy system using a memetic algorithm. *European Journal of Operational Research*, 217(1):185–197, February 16 2012.
- [2767] Qingsong Hu, Lihong Xu, and Erik Goodman. Non-even Spread NSGA-II and Its Application to Conflicting Multi-Objective Compatible Control. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 223–230, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [2768] Qingsong Hu, Lihong Xu, and Erik D. Goodman. Dynamic multi-objective control of IPMCs propelled robot fish based on NSGA-II. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1927–1928, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2769] X. B. Hu and E. Di Paolo. An Efficient Genetic Algorithm with Uniform Crossover for the Multi-Objective Airport Gate Assignment Problem. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 55–62, Singapore, September 2007. IEEE Press.
- [2770] Xiabo Sharon Hu, Garrison Greenwood, and Joseph G. D'Ambrosio. An Evolutionary Approach to Hardware/Software Partitioning. In Hans-Michael Voigt, Werner Ebeling, Ingo Rechenberg, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN IV*, pages 900–909. Springer-Verlag. Lecture Notes in Computer Science No. 1141, September 1996.
- [2771] Xiao-Bing Hu and Ezequiel Di Paolo. An Efficient Genetic Algorithm with Uniform Crossover for the Multi-Objective Airport Gate Assignment Problem. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 4, pages 71–89. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [2772] Xiaohui Hu and Russell Eberhart. Multiobjective Optimization Using Dynamic Neighborhood Particle Swarm Optimization. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1677–1681, Piscataway, New Jersey, May 2002. IEEE Service Center.

- [2773] Xiaolin Hu. Applications of evolutionary computation in hybrid propulsion system optimization. Master's thesis, Wuhan University of Technology, Wuhan, China, May 2004. (In Chinese).
- [2774] Xiaolin Hu, Carlos A. Coello Coello, and Zhangcan Huan. A New Multi-Objective Evolutionary Algorithm Derived from the Line-Up Competition Algorithm. *Engineering Optimization*, 37(4):351–379, June 2005.
- [2775] Xiaolin Hu, Zhangcan Huang, and Zhongfan Wang. Hybridization of the Multi-Objective Evolutionary Algorithms and the Gradient-based Algorithms. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 870–877, Canberra, Australia, December 2003. IEEE Press.
- [2776] Xiaolin Hu, Zhongfan Wang, and Lianying Liao. Multi-Objective Optimization of HEV Fuel Economy and Emissions using Evolutionary Computation. In *Proceedings of the Society of Automotive Engineering World Congress 2004, Electronics Simulation and Optimization (SP-1856)*, pages 117–128, Detroit, USA, March 2004. Society of Automotive Engineers.
- [2777] Z. Hu, B. Chen, and X. He. Heuristic Synthesis for Multicomponent Products with Simple and Sharp Separators. *Computers & Chemical Engineering*, 17(4):379–397, April 1993.
- [2778] Zhi-Hua Hu. A multiobjective immune algorithm based on a multiple-affinity model. *European Journal of Operational Research*, 202(1):60–72, April 1 2010.
- [2779] Zhi-Hua Hu, Yong-Sheng Ding, Xiao-Kun Yu, Wen-Bin Zhang, and Qiao Yan. A Hybrid Neural Network and Immune Algorithm Approach for Fit Garment Design. *Textile Research Journal*, 79(14):1319–1330, September 2009.
- [2780] Zhi-Hua Hu, Yong-Sheng Ding, Wen-Bin Zhang, and Qiao Yan. An interactive co-evolutionary CAD system for garment pattern design. *Computer-Aided Design*, 40(12):1094–1104, December 2008.
- [2781] Zhihua Hu, Yongsheng Ding, and Qing Shao. Immune co-evolutionary algorithm based partition balancing optimization for tobacco distribution system. *Expert Systems With Applications*, 36(3):5248–5255, April 2009.
- [2782] You hua Jiang and Dai fa Liao. Multi-objective Optimal Design for Hybrid Active Power Filter Based on Composite Method of Genetic Algorithm and Particle Swarm Optimization. In *2009 International Conference on Artificial Intelligence and Computational Intelligence*, pages 549–553, Shanghai, China, November 2009. IEEE Computer Society.
- [2783] B. Huang, P. Fery, L. Xue, and Y. Wang. Seeking the Pareto front for multiobjective spatial optimization problems. *International Journal of Geographical Information Science*, 22(5):507–526, 2008.

- [2784] Bingquan Huang, B. Buckley, and T. M. Kechadi. Multi-Objective Feature Selection by Using NSGA-II for Customer Churn Prediction in Telecommunications. *Expert Systems With Applications*, 37(5):3638–3646, May 2010.
- [2785] Bo Huang, Li Yao, and K. Raguraman. Bi-level GA and GIS for multi-objective TSP route planning. *Transportation Planning and Technology*, 29(2):105–124, April 2006.
- [2786] Hong-Zhong Huang, Jian Qu, and Ming J. Zou. Genetic-Algorithm-based optimal apportionment of reliability and redundancy under multiple objectives. *IIE Transactions*, 41(4):287–298, April 2009.
- [2787] Hong-Zhong Huang, Zhigang Tian, and Ming J. Zuo. Intelligent Interactive Multiobjective Optimization of System Reliability. In Gregory Levitin, editor, *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pages 215–236. Springer, Heidelberg, 2007.
- [2788] H.Z. Huang, Y.K. Gu, and X.P. Du. An interactive fuzzy multi-objective optimization method for engineering design. *Engineering Applications of Artificial Intelligence*, 19(5):451–460, August 2006.
- [2789] J.J. Huang, G.H. Tzeng, and C.S. Ong. Optimal fuzzy multi-criteria expansion of competence sets using multi-objectives evolutionary algorithms. *Expert Systems with Applications*, 30(4):739–745, May 2005.
- [2790] Jun Huang, Xiaohong Huang, Yan Ma, and Yanbing Liu. High-dimensional objective optimizer: An evolutionary algorithm and its nonlinear analysis. *Expert Systems With Applications*, 38(7):8921–8928, January 2011.
- [2791] Jun Huang, Xiaohong Huang, Yan Ma, and Yanbing Liu. On a high-dimensional objective genetic algorithm and its nonlinear dynamic properties. *Communications in Nonlinear Science and Numerical Simulation*, 16(9):3825–3834, September 2011.
- [2792] Liang Huang, Il Hong Suh, and Ajith Abraham. Dynamic multi-objective optimization based on membrane computing for control of time-varying unstable plants. *Information Sciences*, 181(11):2370–2391, June 1 2011.
- [2793] Ting Huang and Jinhua Chen. Multiobjective Optimization in Mineral Resources Exploitation: Models and Case Studies. In Zhihua Cai, Zhenhua Li, Zhuo Kang, and Yong Liu, editors, *Advances in Computation and Intelligence, 4th International Symposium, ISICA 2009*, pages 309–317, Huangshi, China, October 23-25 2009. Springer. Lecture Notes in Computer Science Vol. 5821.
- [2794] V. L. Huang, A. K. Qin, P. N. Suganthan, and M. F. Tasgetiren. Multi-Objective Optimization Based on Self-Adaptive Differential Evolution Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3601–3608, Singapore, September 2007. IEEE Press.

- [2795] V. L. Huang, S. Z. Zhao, R. Mallipeddi, and P. N. Suganthan. Multi-Objective Optimization Using Self-Adaptive Differential Evolution Algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 190–194, Trondheim, Norway, May 2009. IEEE Press.
- [2796] V.L. Huang, P.N. Suganthan, and J.J. Liang. Comprehensive learning particle swarm optimizer for solving multiobjective optimization problems. *International Journal of Intelligent Systems*, 21(2):209–226, February 2006.
- [2797] Wei Huang and Tommy W.S. Chow. Network Topological Optimization for Packet Routing Using Multi-Objective Simulated Annealing Method. *Physica A-Statistical Mechanics and its Applications*, 389(4):871–880, February 15 2010.
- [2798] Wei Huang, Sung-Kwun Oh, Lixin Ding, Hyun-Ki Kim, and Su-Chong Joo. Identification of Fuzzy Inference Systems Using a Multi-objective Space Search Algorithm and Information Granulation. *Journal of Electrical Engineering & Technology*, 6(6):853–866, November 2011.
- [2799] YC Huang. Enhanced genetic algorithm-based fuzzy multi-objective approach to distribution network reconfiguration. *IEE Proceedings-Generation Transmission And Distribution*, 149(5):615–620, September 2002.
- [2800] Yongtai Huang and Lei Liu. Multiobjective Water Quality Model Calibration Using a Hybrid Genetic Algorithm and Neural Network-Based Approach. *Journal of Environmental Engineering-ASCE*, 136(10):1020–1031, October 2010.
- [2801] Zhibao Huang, Min Xie, Yanhuang Jiang, Haitao Chen, and Shaoshuai Wang. A MultiObjective Disaster Recovery Service Deployment Algorithm Based on Improved AntNet-CO. In *2009 Sixth Web Information Systems and Applications Conference*, pages 51–56, Xuzhou, Jiangsu, China, September 18-20 2009. IEEE Computer Society Press.
- [2802] Simon Huband, Luigi Barone, Philip Hingston, Lyndon While, David Tuppurainen, and Richard Bearman. Designing Comminution Circuits with a Multi-Objective Evolutionary Algorithm. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1815–1822, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2803] Simon Huband, Luigi Barone, Lyndon While, and Phil Hingston. A Scalable Multi-objective Test Problem Toolkit. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 280–295, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2804] Simon Huband, Phil Hingston, Luigi Barone, and Lyndon While. A Review of Multiobjective Test Problems and a Scalable Test Problem Toolkit. *IEEE Transactions on Evolutionary Computation*, 10(5):477–506, October 2006.

- [2805] Simon Huband, Phil Hingston, Lyndon White, and Luigi Barone. An Evolution Strategy with Probabilistic Mutation for Multi-Objective Optimisation. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2284–2291, Canberra, Australia, December 2003. IEEE Press.
- [2806] Simon Huband, R. Lyndon While, David Tuppurainen, Philip Hingston, Luigi Barone, and Ted Bearman. Economic Optimisation of an Ore Processing Plant with a Constrained Multi-objective Evolutionary Algorithm. In Abdul Sattar and Byeong Ho Kang, editors, *AI 2006: Advances in Artificial Intelligence, 19th Australian Joint Conference on Artificial Intelligence*, pages 962–969, Hobart, Australia, December 4-8 2006. Springer. Lecture Notes in Computer Science Vol. 4304.
- [2807] R.M. Hubley, E. Zitzler, and J.C. Roach. Evolutionary algorithms for the selection of single nucleotide polymorphisms. *BMC Bioinformatics*, 4(30), July 2003.
- [2808] Robert Hubley, Eckart Zitzler, Andrew F. Siegel, and Jared Roach. Multiobjective Genetic Marker Selection. In *Advances in Nature-Inspired Computation: The PPSN VII Workshops*, pages 32–33, Reading, UK, September 2002.
- [2809] C. W. Hudson, J. J. Carruthers, and A. M. Robinson. Application of particle swarm optimisation to sandwich material design. *Plastics Rubber and Composites*, 38(2-4):106–110, May 2009.
- [2810] C. W. Hudson, J. J. Carruthers, and A. M. Robinson. A comparison of three population-based optimization techniques for the design of composite sandwich materials. *Journal of Sandwich Structures & Materials*, 13(2):213–235, March 2011.
- [2811] E.J. Hughes, A. Tsourdos, and B.A. White. Multiobjective design of a fuzzy controller for a nonlinear missile autopilot. In *IEEE International Symposium on Computer Aided Control System Design*, pages 15–20, Glasgow, Scotland, September 2002. IEEE.
- [2812] Evan J. Hughes. Multi-Objective Probabilistic Selection Evolutionary Algorithm. Technical Report DAPS/EJH/56/2000, Department of Aerospace, Power, & Sensors, Cranfield University, RMCS, Shrivenham, UK, SN6 8LA, September 2000.
- [2813] Evan J. Hughes. Constraint Handling With Uncertain and Noisy Multi-Objective Evolution. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 963–970, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [2814] Evan J. Hughes. Evolutionary Multi-objective Ranking with Uncertainty and Noise. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 329–343. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.

- [2815] Evan J. Hughes. Multi-Objective Evolutionary Guidance for Swarms. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1127–1132, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [2816] Evan J. Hughes. Multi-objective Binary Search Optimisation. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 102–117, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2817] Evan J. Hughes. Multiple Single Objective Pareto Sampling. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2678–2684, Canberra, Australia, December 2003. IEEE Press.
- [2818] Evan J. Hughes. Swarm Guidance using a Multi-Objective Co-evolutionary On-Line Evolutionary Algorithm. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 2357–2363, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [2819] Evan J. Hughes. Evolutionary Many-Objective Optimisation: Many Once or One Many? In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 222–227, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [2820] Evan J. Hughes. Multi-Objective Equivalent Random Search. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 463–472. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [2821] Evan J. Hughes. MSOPS-II: A General-Purpose Many-Objective Optimiser. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3944–3951, Singapore, September 2007. IEEE Press.
- [2822] Evan J. Hughes. Radar Waveform Optimisation as a Many-Objective Application Benchmark. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 700–714, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2823] Evan J. Hughes. Fitness Assignment Methods for Many-Objective Problems. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 307–329. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [2824] Evan J. Hughes. Many Objective Optimisation: Direct Objective Boundary Identification. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature-PPSN X*,

pages 733–742. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.

- [2825] Evan J. Hughes. Many-Objective Directed Evolutionary Line Search. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 761–768, Dublin, Ireland, July 12–16 2011. ACM Press.
- [2826] Evan J. Hughes and Maurice Leyland. Using Multiple Genetic Algorithms to Generate Radar Point-Scattered Models. *IEEE Transactions on Evolutionary Computation*, 4(2):147–163, July 2000.
- [2827] Evan J. Hughes, Antonios Tsourdos, and Brian A. White. Multi-Objective Fuzzy Design of a Lateral Autopilot For a Quasi-Linear Parameter Varying Missile. In *IFAC International Conference on Intelligent Control Systems and Signal Processing (ICONS'03)*, Faro, Portugal, April 2003.
- [2828] Evan James Hughes. *Radar Cross Section Modelling Using Genetic Algorithms*. PhD thesis, Department of Aerospace, Power, & Sensors, Cranfield University, Royal Military College of Science, Shrivenham, UK, May 1998.
- [2829] Xiaohui Hui, Russell C. Eberhart, and Yuhui Shi. Particle Swarm with Extended Memory for Multiobjective Optimization. In *2003 IEEE Swarm Intelligence Symposium Proceedings*, pages 193–197, Indianapolis, Indiana, USA, April 2003. IEEE Service Center.
- [2830] Zhi hui Zhan and Jun Zhang. A Parallel Particle Swarm Optimization Approach for Multiobjective Optimization Problems. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 81–82, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [2831] Aaron Hula, Kiumars Jalali, Karim Hamza, Steven J. Skerlos, and Kazuhiro Saitou. Multi-Criteria Decision-Making for Optimization of Product Disassembly under Multiple Situations. *Environmental Science & Technology*, 37(23):5303–5313, December 2003.
- [2832] Helon Vicente Hultmann Ayala and Leandro dos Santos Coelho. Tuning of PID controller based on a multiobjective genetic algorithm applied to a robotic manipulator. *Expert Systems With Applications*, 39(10):8968–8974, August 2012.
- [2833] Ming-Hao Hung, Li-Sun Shu, Shinn-Jang Ho, Shiow-Fen Hwang, and Shinn-Ying Ho. A novel intelligent multiobjective simulated annealing algorithm for designing robust PID controllers. *IEEE Transactions on Systems, Man, and Cybernetics Part A—Systems and Humans*, 38(2):319–330, March 2008.
- [2834] Rachel Hunt, Mark Johnston, and Mengjie Zhang. Improving Robustness of Multiple-Objective Genetic Programming for Object Detection. In Dianhui

- Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 311–320, Perth, Australia, December 5-8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [2835] Andrew Hunter. Using Multiobjective Genetic Programming to Infer Logistic Polynomial Regression Models. In F. van Harmelen, editor, *Proceedings of the 15th European Conference on Artificial Intelligence (ECAI'2002)*, pages 193–197, Lyon, France, July 2002. IOS Press.
 - [2836] Junzhou Huo, Wei Sun, Jing Chen, Pengcheng Su, and Liying Deng. Optimal disc cutters plane layout design of the full-face rock tunnel boring machine (tbn) based on a multi-objective genetic algorithm. *Journal of Mechanical Science and Technology*, 24(2):521–528, February 2010.
 - [2837] Sung-Ho Hur, Reza Katebi, and Andrew Taylor. Modeling and Control of a Plastic Film Manufacturing Web Process. *IEEE Transactions on Industrial Informatics*, 7(2):171–178, May 2011.
 - [2838] Stephen Hurley and M. Imran Khan. Netted radar: Network communications design and optimisation. *AD HOC Networks*, 9(5):736–751, July 2011.
 - [2839] Afzal Husain and Kwang-Yong Kim. Multiobjective optimization of a microchannel heat sink using evolutionary algorithm. *Journal of Heat Transfer-Transactions of the ASME*, 130(11), November 2008. Article Number: 114505.
 - [2840] Afzal Husain and Kwang-Yong Kim. Enhanced multi-objective optimization of a microchannel heat sink through evolutionary algorithm coupled with multiple surrogate models. *Applied Thermal Engineering*, 30(13):1683–1691, September 2010.
 - [2841] Afzal Husain, Ki-Don Lee, and Kwang-Yong Kim. Enhanced multi-objective optimization of a dimpled channel through evolutionary algorithms and multiple surrogate methods. *International Journal for Numerical Methods in Fluids*, 66(6):742–759, June 30 2011.
 - [2842] Phil Husbands. Distributed Coevolutionary Genetic Algorithms for multi-Criteria and Multi-Constraint Optimisation. In Terence C. Fogarty, editor, *Evolutionary Computing. AIS Workshop. Selected Papers*, Lecture Notes in Computer Science Vol. 865, pages 150–165. Springer Verlag, April 1994.
 - [2843] Talib Hussain, David Montana, and Gordon Vidaver. Evolution-Based Deliberative Planning for Cooperating Unmanned Ground Vehicles in a Dynamic Environment. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 1017–1029, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.

- [2844] M.I. Hussein, K. Hamza, G.M. Hulbert, R.A. Scott, and K. Saitou. Design of Layered Structures with Desired Dispersion Properties Using a Multiobjective Genetic Algorithm. In *Proceedings of the Cairo University of Mechanical Design and Production, MDP-8*, pages 41–50, Cairo, Egypt, January 2004. Cairo University.
- [2845] Windo Hutabarat, Geoffrey T. Parks, Jerome P. Jarrett, William N. Dawes, and P. John Clarkson. Aerodynamic Topology Optimisation Using an Implicit Representation and a Multiobjective Genetic Algorithm. In Nicolas Monmarché, El-Ghazali Talbi, Pierre Collet, Marc Schoenauer, and Evelyne Lutton, editors, *Artificial Evolution. 8th International Conference Evolution Artificielle (EA 2007)*, pages 148–159, Tours, France, October 2007. Springer. Lecture Notes in Computer Science. Vol. 4926.
- [2846] K. W. Hutchinson, David S. Todd, and Pratyush Sen. An Evolutionary Multiple Objective Strategy for the Optimisation of Made-To-Order Products with special reference to the Conceptual Design of High Speed Mono Hull Roll-On/Roll-Off Passenger Ferries. In *Fast Sea Transportation, FAST 98*, Freemantle, Australia, November 1998.
- [2847] Anke K. Hutzschenreuter, Peter A. N. Bosman, and Han La Poutré. Evolutionary Multiobjective Optimization for Dynamic Hospital Resource Management. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 320–334. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [2848] Anke K. Hutzschenreuter, Peter A. N. Bosman, and Han La Poutré. Enhanced Hospital Resource Management Using Anticipatory Policies in Online Dynamic Multi-Objective Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 541–542, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [2849] Seok K. Hwang, Kyungmo Koo, and Jin S. Lee. Homogeneous Particle Swarm Optimizer for Multi-objective Optimization Problem. In *ICGST International Conference on Artificial Intelligence and Machine Learning (AIML-05)*, pages 141–147, Cairo, Egypt, December 19-21 2005. ICGST.
- [2850] K. Hyari and K. El-Rayes. Optimal planning and scheduling for repetitive construction projects. *Journal of Management in Engineering*, 22(1):11–19, 2006.
- [2851] Chul Ju Hyun, Yeongho Kim, and Yeo Keun Kim. A Genetic Algorithm for Multiple Objective Sequencing Problems in Mixed Model Assembly Lines. *Computers & Operations Research*, 25(7/8):675–690, 1998.

- [2852] Ester Bernadó i Mansilla and Josep M. Garrell i Guiu. MOLeCS: Using Multi-objective Evolutionary Algorithms for Learning. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 696–710. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [2853] Eduardo Ibanez and James D. McCalley. Multiobjective evolutionary algorithm for long-term planning of the national energy and transportation systems. *Energy Systems*, 2(2):151–169, 2011.
- [2854] Ken ichirou Komatsu, Tadashi Ishihara, and Hikaru Inooka. Genetic algorithm with redundant chromosome and its application to control systems design. In *IEEE International Conference on Systems, Man, and Cybernetics*, volume 5, pages 547–552. IEEE, 1999.
- [2855] Kenichi Ida, Mitsuo Gen, and Yin-Zhen Li. Solving Multiobjective Chance-constrained Solid Transportation Problem by Evolutionary Computation. In *5th European Congress on Intelligent Techniques and Soft Computing EUFIT’97*, pages 743–747, Aachen, Germany, September 1997.
- [2856] Christian Igel. Multi-objective Model Selection for Support Vector Machines. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 534–546, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2857] Christian Igel, Nikolaus Hansen, and Stefan Roth. Covariance Matrix Adaptation for Multi-objective Optimization. *Evolutionary Computation*, 15(1):1–28, Spring 2007.
- [2858] Christian Igel, Thorsten Suttorp, and Nikolaus Hansen. Steady-State Selection and Efficient Covariance Matrix Update in the Multi-objective CMA-ES. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 171–185, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2859] Yosuke Iijima, Masahiro Murakawa, Yuji Kasai, Eiichi Takahashi, and Tetsuya Higuchi. Proposal of Transmission Line Modeling using Multi-Objective Optimization Techniques. In *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pages 2094–2100, Singapore, September 2007. IEEE Press.
- [2860] H. Iima, R. Nakase, and N. Sannomiya. Genetic algorithm approach to a multiobjective rescheduling problem in a job shop. In *Proceedings of the 1st Multidisciplinary International Conference on Scheduling: Theory and Applications*, pages 422–437, The University of Nottingham, UK, August 2003.

- [2861] Hitoshi Iima. Proposition of Selection Operation in a Genetic Algorithm for a Job Shop Rescheduling Problem. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 721–735, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2862] Hitoshi Iima, Nobuo Sannomiya, and Makoto Wakasugi. Genetic Algorithm Approach to Production Ordering Problems with Inconsistent Constraints. In *IEEE International Symposium on Industrial Electronics*, volume 2, pages 703–708, 1998.
- [2863] Kokolo Ikeda, Hiromichi Suzuki, Sandor Markon, and Hajime Kita. Designing Traffic-Sensitive Controllers for Multi-Car Elevators Through Evolutionary Multi-objective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 673–686, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2864] Ilkka Ikonen, William E. Biles, Anup Kumar, John C. Wissel, and Rammo-han K. Ragade. Genetic Algorithm for Packing Three-Dimensional Non-Convex Objects Having Cavities and Holes. In *Proceedings of the 7th International Conference on Genetic Algorithms*, pages 591–598, East Lansing, Michigan, July 1997. Morgan Kaufmann Publishers.
- [2865] Taylan Ilhan, Seyed M.R. Iravani, and Mark S. Daskin. The orienteering problem with stochastic profits. *IIE Transactions*, 40(4):406–421, April 2008.
- [2866] Simon Illich, Lyndon While, and Luigi Barone. Multi-Objective Strip Packing Using an Evolutionary Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4207–4215, Singapore, September 2007. IEEE Press.
- [2867] Charles David Immanuel. *Experimental Analysis, Mathematical Modeling and Control of Particle Size Distribution in Semi-Batch Emulsion Polymerization*. PhD thesis, University of Delaware, 2003.
- [2868] Antony Iorio and Xiaodong Li. Rotationally invariant crossover operators in evolutionary multi-objective optimization. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 310–317. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [2869] Antony W. Iorio and Xiaodong Li. A Cooperative Coevolutionary Multiobjective Algorithm Using Non-dominated Sorting. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 537–548,

Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.

- [2870] Antony W. Iorio and Xiaodong Li. Solving rotated multi-objective optimization problems using differential evolution. In *AI 2004: Advances in Artificial Intelligence, Proceedings*, pages 861–872. Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 3339, 2004.
- [2871] Antony W. Iorio and Xiaodong Li. Incorporating Directional Information within a Differential Evolution Algorithm for Multi-objective Optimization. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 691–697, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2872] Antony W. Iorio and Xiaodong Li. Rotated Test Problems for Assessing the Performance of Multi-objective Optimization Algorithms. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 683–690, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2873] Antony W. Iorio and Xiaodong Li. Improving the performance and scalability of Differential Evolution on problems exhibiting parameter interactions. *Soft Computing*, 15(9):1769–1792, September 2011.
- [2874] M. G. Ippolito, G. Morana, E. R. Sanseverino, and F. Winovich. Ant colony search algorithm for optimal strategical planning of electrical distribution systems expansion. *Applied Intelligence*, 23(3):139–152, December 2005.
- [2875] M.G. Ippolito, E. Riva Sanseverino, and F. Vuinovich. Multiobjective Ant Colony Search Algorithm For Optimal Electrical Distribution System Strategical Planning. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1924–1931, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [2876] Jawed Iqbal and Chandan Guria. Optimization of an operating domestic wastewater treatment plant using elitist non-dominated sorting genetic algorithm. *Chemical Engineering Research & Design*, 87(11A):1481–1496, November 2009.
- [2877] Steffen Iredi, Daniel Merkle, and Martin Middendorf. Bi-Criterion Optimization with Multi Colony Ant Algorithms. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 359–372. Springer-Verlag, Lecture Notes in Computer Science No. 1993, 2001.
- [2878] F. X. Irisarri, F. Laurin, F. H. Leroy, and J. F. Maire. Computational Strategy for Multiobjective Optimization of Composite Stiffened Panels. *Composite Structures*, 93(3):1158–1167, February 2011.

- [2879] Francois-Xavier Irisarri, David Hicham Bassir, Nicolas Carrere, and Jean-Francois Maire. Multiobjective staking sequence optimization for laminated composite structures. *Composites Science and Technology*, 69(7-8):983–990, June 2009.
- [2880] A. Isaacs, T. Ray, and W. Smith. A Hybrid Evolutionary Algorithm With Simplex Local Search. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1701–1708, Singapore, September 2007. IEEE Press.
- [2881] Amitay Isaacs, Tapabrata Ray, and Warren Smith. An Evolutionary Algorithm with Spatially Distributed Surrogates for Multiobjective Optimization. In Marcus Randall, Hussein A. Abbass, and Janet Wiles, editors, *Progress in Artificial Life, Third Australian Conference, ACAL 2007*, pages 257–268, Gold Coast, Australia, December 4-6 2007. Springer. Lecture Notes in Artificial Intelligence Vol. 4828.
- [2882] Amitay Isaacs, Tapabrata Ray, and Warren Smith. Blessings of Maintaining Infeasible Solutions for Constrained Multi-Objective Optimization Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2785–2792, Hong Kong, June 2008. IEEE Service Center.
- [2883] Amitay Isaacs, Tapabrata Ray, and Warren Smith. Memetic Algorithm for Dynamic Bi-objective Optimization Problems. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1707–1713, Trondheim, Norway, May 2009. IEEE Press.
- [2884] P. Isasi, A. Sanchis, J.M. Molina, and A. Berlanga. Hierarchical Genetic Algorithms for Composite Laminate Panels Stress Optimisation. In *IEEE International Conference on Systems, Man, and Cybernetics*, volume 4, pages 447–451, 1999.
- [2885] A. H. Isfahani, S. Vaez-Zadeh, and M. A. Rahman. Performance improvement of permanent magnet machines by modular poles. *IET Electric Power Applications*, 3(4):343–351, July 2009.
- [2886] Hiroyuki Ishibashi, Hernán E. Aguirre, Kiyoshi Tanaka, and Tatsuo Sugimura. Multi-objective optimization with improved genetic algorithm. In *2000 International Conference on Systems, Man, and Cybernetics*, volume 5, pages 3852–3857. IEEE Press, 2000.
- [2887] H. Ishibuchi and S. Kaige. Implementation of Simple Multiobjective Memetic Algorithms and its Application to Knapsack Problems. *International Journal of Hybrid Intelligent Systems*, 1:22–35, 2004.
- [2888] Hisao Ishibuchi, Naoya Akedo, and Yuseke Nojima. A Many-Objective Test Problem for Visually Examining Diversity Maintenance Behavior in a Decision Space. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 649–656, Dublin, Ireland, July 12-16 2011. ACM Press.

- [2889] Hisao Ishibuchi, Tsutomu Doi, and Yusuke Nojima. Incorporation of Scalarizing Fitness Functions into Evolutionary Multiobjective Optimization Algorithms. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 493–502. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [2890] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, and Yusuke Nojima. An Empirical Study on the Specification of the Local Search Application Probability in Multiobjective Memetic Algorithms. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2788–2795, Singapore, September 2007. IEEE Press.
- [2891] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, and Yusuke Nojima. Scalability of Multiobjective Genetic Local Search to Many-Objective Problems: Knapsack Problem Case Studies. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3587–3594, Hong Kong, June 2008. IEEE Service Center.
- [2892] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Hiroyuki Ohyanagi, and Yusuke Nojima. Effects of the Existence of Highly Correlated Objectives on the Behavior of MOEA/D. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 166–181, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [2893] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Noritaka Tsukamoto, and Yusuke Nojima. Use of biased neighborhood structures in multiobjective memetic algorithms. *Soft Computing*, 13(8-9):795–810, July 2009.
- [2894] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Noritaka Tsukamoto, and Yusuke Nojima. Use of Heuristic Local Search for Single-Objective Optimization in Multiobjective Memetic Algorithms. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 743–752. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2895] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Noritaka Tsukamoto, and Yusuke Nojima. Implementation of Multiobjective Memetic Algorithms for Combinatorial Optimization Problems: A Knapsack Problem Case Study. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 2, pages 27–49. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [2896] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Noritaka Tsukamoto, and Yusuke Nojima. Many-Objective Test Problems to Visually Examine the Behavior of Multiobjective Evolution in a Decision Space. In Robert Schaefer, Carlos Cotta, Joanna Kolodziej, and Günter Rudolph, editors, *Parallel Problem*

Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II, pages 91–100. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.

- [2897] Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Yoshihiko Wakamatsu, and Yusuke Nojima. How to Choose Solutions for Local Search in Multiobjective Combinatorial Memetic Algorithms. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 516–525. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [2898] Hisao Ishibuchi and Shiori Kaige. Comparison of Multiobjective Memetic Algorithms on 0/1 Knapsack Problems. In Alwyn Barry, editor, *2003 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 222–227, Chicago, Illinois, USA, July 2003. AAAI.
- [2899] Hisao Ishibuchi and Shiori Kaige. Effects of Repair Procedures on the Performance of EMO Algorithms for Multiobjective 0/1 Knapsack Problems. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC’2003)*, volume 4, pages 2254–2261, Canberra, Australia, December 2003. IEEE Press.
- [2900] Hisao Ishibuchi, Shiori Kaige, and Kaname Narukawa. Comparison Between Lamarckian and Baldwinian Repair on Multiobjective 0/1 Knapsack Problems. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 370–385, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2901] Hisao Ishibuchi, Yutaka Kaisho, and Yusuke Nojima. Design of Linguistically Interpretable Fuzzy Rule-Based Classifiers: A Short Review and Open Questions. *Journal of Multiple-Valued Logic and Soft Computing*, 17(2–3):101–134, 2011.
- [2902] Hisao Ishibuchi, Isao Kuwajima, and Yusuke Nojima. Relation between Pareto-Optimal Fuzzy Rules and Pareto-Optimal Fuzzy Rule Sets. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM’2007)*, pages 42–49, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [2903] Hisao Ishibuchi, Isao Kuwajima, and Yusuke Nojima. Evolutionary Multi-objective Rule Selection for Classification Rule Mining. In Ashish Ghosh, Satchidananda Dehuri, and Susmita Ghosh, editors, *Multi-objective Evolutionary Algorithms for Knowledge Discovery from Data Bases*, pages 47–70. Springer, Berlin, 2008.
- [2904] Hisao Ishibuchi, Isao Kuwajima, and Yusuke Nojima. Multiobjective Classification Rule Mining. In Joshua Knowles, David Corne, and Kalyanmoy Deb,

- editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 219–240. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [2905] Hisao Ishibuchi and Tadahiko Murata. Multi-Objective Genetic Local Search Algorithm. In Toshio Fukuda and Takeshi Furuhashi, editors, *Proceedings of the 1996 International Conference on Evolutionary Computation*, pages 119–124, Nagoya, Japan, 1996. IEEE.
 - [2906] Hisao Ishibuchi and Tadahiko Murata. Minimizing the Fuzzy Rule and Maximizing Its Performance by a Multi-Objective Genetic Algorithm. In *Proceedings of the 6th International Conference on Fuzzy Systems*, pages 259–264, Barcelona, Spain, July 1997.
 - [2907] Hisao Ishibuchi and Tadahiko Murata. Multi-Objective Genetic Local Search Algorithm and Its Application to Flowshop Scheduling. *IEEE Transactions on Systems, Man and Cybernetics—Part C: Applications and Reviews*, 28(3):392–403, August 1998.
 - [2908] Hisao Ishibuchi and Tadahiko Murata. Multi-Objective Genetic Local Search for Minimizing the Number of Fuzzy Rules for Pattern Classification Problems. In David B. Fogel, editor, *Proceedings of the 1998 IEEE International Conference on Evolutionary Computation*, pages 1100–1105, Piscataway, New Jersey, May 1998. IEEE.
 - [2909] Hisao Ishibuchi, Tadahiko Murata, and Mitsuo Gen. Performance Evaluation of Fuzzy Rule-Based Classification Systems Obtained by Multi-Objective Genetic Algorithms. *Computers & Industrial Engineering*, 35(3–4):575–578, December 1998.
 - [2910] Hisao Ishibuchi, Tadahiko Murata, and I. B. Turksen. Selecting Linguistic Classification Rules by Two-Objective Genetic Algorithms. In *Proceedings of the 1995 IEEE International Conference on Systems, Man and Cybernetics*, pages 1410–1415, Vancouver, Canada, October 1995. IEEE.
 - [2911] Hisao Ishibuchi, Tadahiko Murata, and I. B. Turksen. Single-Objective and Two-Objective Genetic Algorithms for Selecting Linguistic Rules for Pattern Classification Problems. *Fuzzy Sets and Systems*, 89(2):135–150, July 1997.
 - [2912] Hisao Ishibuchi and Tomoharu Nakashima. Evolution of Reference Sets in Nearest Neighbor Classification. In B. McKay, X. Yao, C. S. Newton, J.-H. Kim, and T. Furuhashi, editors, *Simulated Evolution and Learning. Second Asia-Pacific Conference on Simulated Evolution and Learning, SEAL’98*, Canberra, Australia, 1998. Lecture Notes in Computer Science 1585, Springer-Verlag.
 - [2913] Hisao Ishibuchi and Tomoharu Nakashima. Linguistic Rule Extraction by Genetics-Based Machine Learning. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*

- (*GECCO'2000*), pages 195–202, San Francisco, California, 2000. Morgan Kaufmann.
- [2914] Hisao Ishibuchi and Tomoharu Nakashima. Multi-Objective Pattern and Feature Selection by a Genetic Algorithm. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 1069–1076, San Francisco, California, 2000. Morgan Kaufmann.
 - [2915] Hisao Ishibuchi and Tomoharu Nakashima. Three-Objective Optimization in Linguistic Function Approximation. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 340–347, Piscataway, New Jersey, May 2001. IEEE Service Center.
 - [2916] Hisao Ishibuchi, Tomoharu Nakashima, and Tetsuya Kuroda. A Hybrid Fuzzy GBML Algorithm for Designing Compact Fuzzy Rule-Based Classification Systems. In *Proceedings of 9th IEEE International Conference on Fuzzy Systems*, pages 706–711, San Antonio, Texas, May 7–10 2000.
 - [2917] Hisao Ishibuchi, Tomoharu Nakashima, and Tetsuya Kuroda. Minimizing the Number of Fuzzy Rules by Fuzzy Genetics-Based Machine Learning for Pattern Classification Problems. In *Proceedings of the 8th Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems*, pages 96–103, Madrid, Spain, July 3–7 2000.
 - [2918] Hisao Ishibuchi, Tomoharu Nakashima, and Tadahiko Murata. Three-objective genetics-based machine learning for linguistic rule extraction. *Information Sciences*, 136(1–4):109–133, August 2001.
 - [2919] Hisao Ishibuchi, Tomoharu Nakashima, and Manabu Nii. *Classification and Modeling with Linguistic Information Granules*. Springer, Berlin/Heidelberg/New York, 2005. ISBN 3-540-20767-8.
 - [2920] Hisao Ishibuchi, Yusuke Nakashima, and Yusuke Nojima. Performance evaluation of evolutionary multiobjective optimization algorithms for multiobjective fuzzy genetics-based machine learning. *Soft Computing*, 15(12):2415–2434, December 2011.
 - [2921] Hisao Ishibuchi and Satoshi Namba. Evolutionary Multiobjective Knowledge Extraction for High-Dimensional Pattern Classification Problems. In Xin Yao et al., editor, *Parallel Problem Solving from Nature - PPSN VIII*, pages 1123–1132, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
 - [2922] Hisao Ishibuchi and Kaname Narukawa. Performance evaluation of simple multiobjective genetic local search algorithms on multiobjective 0/1 knapsack problems. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 441–448, Portland, Oregon, USA, June 2004. IEEE Service Center.

- [2923] Hisao Ishibuchi and Kaname Narukawa. Some Issues on the Implementation of Local Search in Evolutionary Multiobjective Optimization. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 1246–1258, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [2924] Hisao Ishibuchi and Kaname Narukawa. Comparison of Evolutionary Multi-objective Optimization with Reference Solution-Based Single-Objective Approach. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 787–794, New York, USA, June 2005. ACM Press.
- [2925] Hisao Ishibuchi and Kaname Narukawa. Recombination of Similar Parents in EMO Algorithms. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 265–279, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2926] Hisao Ishibuchi and Kaname Narukawa. Spatial Implementation of Evolutionary Multiobjective Algorithms with Partial Lamarckian Repair for Multiobjective Knapsack Problems. In Nadia Nedjah, Luiza M. Mourelle, Marley M.B.R. Vellasco, Ajith Abraham, and Mario Köppen, editors, *Fifth International Conference on Hybrid Intelligent Systems (HIS'05)*, pages 265–270, Los Alamitos, California, USA, November 2005. IEEE Computer Society.
- [2927] Hisao Ishibuchi, Kaname Narukawa, and Yusuke Nojima. An Empirical Study on the Handling of Overlapping Solutions in Evolutionary Multiobjective Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 817–824, New York, USA, June 2005. ACM Press.
- [2928] Hisao Ishibuchi, Kaname Narukawa, Noritaka Tsukamoto, and Yusuke Nojima. An empirical study on similarity-based mating for evolutionary multi-objective combinatorial optimization. *European Journal of Operational Research*, 188(1):57–75, July 1 2008.
- [2929] Hisao Ishibuchi and Yusuke Nojima. Performance Evaluation of Evolutionary Multiobjective Approaches to the Design of Fuzzy Rule-Based Ensemble Classifiers. In Nadia Nedjah, Luiza M. Mourelle, Marley M.B.R. Vellasco, Ajith Abraham, and Mario Köppen, editors, *Fifth International Conference on Hybrid Intelligent Systems (HIS'05)*, pages 271–276, Los Alamitos, California, USA, November 2005. IEEE Computer Society.
- [2930] Hisao Ishibuchi and Yusuke Nojima. Fuzzy Ensemble Design through Multi-Objective Fuzzy Rule Selection. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 507–530. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.

- [2931] Hisao Ishibuchi and Yusuke Nojima. Analysis of interpretability-accuracy tradeoff of fuzzy systems by multiobjective fuzzy genetics-based machine learning. *International Journal of Approximate Reasoning*, 44(1):4–31, January 2007.
- [2932] Hisao Ishibuchi and Yusuke Nojima. Optimization of Scalarizing Functions Through Evolutionary Multiobjective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 51–65, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [2933] Hisao Ishibuchi, Yusuke Nojima, and Tsutomu Doi. Comparison between Single-Objective and Multi-Objective Genetic Algorithms: Performance Comparison and Performance Measures. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3959–3966, Vancouver, BC, Canada, July 2006. IEEE.
- [2934] Hisao Ishibuchi, Yusuke Nojima, and Isao Kuwajima. Finding simple fuzzy classification systems with high interpretability through multiobjective rule selection. In *Knowledge-Based Intelligent Information and Engineering Systems, Pt 2, Proceedings*, pages 86–93. Springer, Lecture Notes in Artificial Intelligence Vol. 4252, 2006.
- [2935] Hisao Ishibuchi, Yusuke Nojima, and Isao Kuwajima. Multiobjective Genetic Rule Selection as a Data Mining Postprocessing Procedure. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1591–1592, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [2936] Hisao Ishibuchi, Yusuke Nojima, and Isao Kuwajima. Evolutionary Multiobjective Design of Fuzzy Rule-Based Classifiers. In Lakhmi C. Jain, Vasile Palade, and Dipti Srinivasan, editors, *Computational Intelligence: A Compendium*, pages 641–685. Springer. Studies in Computational Intelligence Vol. 115, 2008.
- [2937] Hisao Ishibuchi, Yusuke Nojima, and Isao Kuwajima. Evolutionary Multiobjective Design of Fuzzy Rule-Based Classifiers. In John Fulcher and L. C. Jain, editors, *Computational Intelligence: A Compendium*, Studies in Computational Intelligence (SCI), pages 642–685. Springer, Berlin, 2008. ISBN 978-3-540-78292-6.
- [2938] Hisao Ishibuchi, Yusuke Nojima, Kaname Narukawa, and Tsutomu Doi. Incorporation of Decision Maker's Preferences into Evolutionary Multiobjective Optimization Algorithms. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 741–742, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.

- [2939] Hisao Ishibuchi, Yusuke Nojima, Noritaka Tsukamoto, and Ken Ohara. Effects of the Use of Non-Geometric Binary Crossover on Evolutionary Multiobjective Optimization. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 829–836, London, UK, July 2007. ACM Press.
- [2940] Hisao Ishibuchi, Yuji Sakane, Noritaka Tsukamoto, and Yusuke Nojima. Adaptation of Scalarizing Functions in MOEA/D: An Adaptive Scalarizing Function-Based Multiobjective Evolutionary Algorithm. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 438–452. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [2941] Hisao Ishibuchi, Yuji Sakane, Noritaka Tsukamoto, and Yusuke Nojima. Effects of Using Two Neighborhood Structures on the Performance of Cellular Evolutionary Algorithms for Many-Objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2508–2515, Trondheim, Norway, May 2009. IEEE Press.
- [2942] Hisao Ishibuchi, Yuji Sakane, Noritaka Tsukamoto, and Yusuke Nojima. Single-objective and multi-objective formulations of solution selection for hypervolume maximization. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1831–1832, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2943] Hisao Ishibuchi, Yuji Sakane, Noritaka Tsukamoto, and Yusuke Nojima. Simultaneous Use of Different Scalarizing Functions in MOEA/D. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 519–526, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [2944] Hisao Ishibuchi, Yuji Sakane, Noritaka Tsukamoto, and Yusuke Nojima. Implementation of cellular genetic algorithms with two neighborhood structures for single-objective and multi-objective optimization. *Soft Computing*, 15(9):1749–1767, September 2011.
- [2945] Hisao Ishibuchi and Youhei Shibata. An Empirical Study on the Effect of Mating Restriction on the Search Ability of EMO Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 433–477, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2946] Hisao Ishibuchi and Youhei Shibata. A Similarity-Based Mating Scheme for Evolutionary Multiobjective Optimization. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 1065–1076. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.

- [2947] Hisao Ishibuchi and Youhei Shibata. Mating Scheme for Controlling the Diversity-Convergence Balance for Multiobjective Optimization. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 1259–1271, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [2948] Hisao Ishibuchi and Youhei Shibata. Single-Objective and Multi-Objective Evolutionary Flowshop Scheduling. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 529–554. World Scientific, Singapore, 2004.
- [2949] Hisao Ishibuchi, Noritaka Tsukamoto, Yasuhiro Hitotsuyanagi, and Yusuke Nojima. Effectiveness of Scalability Improvement Attempts on the Performance of NSGA-II for Many-Objective Problems. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 649–656, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [2950] Hisao Ishibuchi, Noritaka Tsukamoto, and Yusuke Nojima. Iterative Approach to Indicator-Based Multiobjective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3967–3974, Singapore, September 2007. IEEE Press.
- [2951] Hisao Ishibuchi, Noritaka Tsukamoto, and Yusuke Nojima. Evolutionary many-objective optimization: A short review. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2424–2431, Hong Kong, June 2008. IEEE Service Center.
- [2952] Hisao Ishibuchi, Noritaka Tsukamoto, and Yusuke Nojima. Diversity Improvement by Non-Geometric Binary Crossover in Evolutionary Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 14(6):985–998, December 2010.
- [2953] Hisao Ishibuchi, Noritaka Tsukamoto, Yuji Sakane, and Yusuke Nojima. Hypervolume Approximation Using Achievement Scalarizing Functions for Evolutionary Many-Objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 530–537, Trondheim, Norway, May 2009. IEEE Press.
- [2954] Hisao Ishibuchi, Noritaka Tsukamoto, Yuji Sakane, and Yusuke Nojima. Indicator-Based Evolutionary Algorithm with Hypervolume Approximation by Achievement Scalarizing Functions. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 527–534, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [2955] Hisao Ishibuchi and Takashi Yamamoto. Fuzzy Rule Selection by Data Mining Criteria and Genetic Algorithms. In W.B. Langdon, E. Cantú-Paz, K. Mathias,

- R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 399–406, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [2956] Hisao Ishibuchi and Takashi Yamamoto. Effects of Three-Objective Genetic Rule Selection on the Generalization Ability of Fuzzy Rule-Based Systems. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 608–622, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [2957] Hisao Ishibuchi and Takashi Yamamoto. Evolutionary Multiobjective Optimization for Generating an Ensemble of Fuzzy Rule-Based Classifiers. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 1077–1088. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [2958] Hisao Ishibuchi and Takashi Yamamoto. Fuzzy Rule Selection by Multi-Objective Genetic Local Search Algorithms and Rule Evaluation Measures in Data Mining. *Fuzzy Sets and Systems*, 141(1):59–88, January 2004.
- [2959] Hisao Ishibuchi and Tadashi Yoshida. Hybrid Evolutionary Multi-Objective Optimization Algorithms. In A. Abraham, J. Ruiz del Solar, and M. Köppen, editors, *Soft Computing Systems: Design, Management and Applications (Frontiers in Artificial Intelligence and Applications, Volume 87)*, pages 163–172. IOS Press, ISBN 1-58603-297-6, 2002.
- [2960] Hisao Ishibuchi and Tadashi Yoshida. Implementation of Local Search in Hybrid Multi-Objective Genetic Algorithms: A Case Study on Flowshop Scheduling. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 193–197, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [2961] Hisao Ishibuchi, Tadashi Yoshida, and Tadahiko Murata. Balance between Genetic Search and Local Search in Hybrid Evolutionary Multi-Criterion Optimization Algorithms. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 1301–1308, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [2962] Hisao Ishibuchi, Tadashi Yoshida, and Tadahiko Murata. Selection of Initial Solutions for Local Search in Multiobjective Genetic Local Search. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 950–955, Piscataway, New Jersey, May 2002. IEEE Service Center.

- [2963] Hisao Ishibuchi, Tadashi Yoshida, and Tadahiko Murata. Balance Between Genetic Search and Local Search in Memetic Algorithms for Multiobjective Permutation Flowshop Scheduling. *IEEE Transactions on Evolutionary Computation*, 7(2):204–223, April 2003.
- [2964] Celso Y. Ishida, Andre B. de Carvalho, Aurora T.R. Pozo, Elizabeth F.G. Goldberg, and Marco C. Goldberg. Exploring Multi-objective PSO and GRASP-PR for Rule Induction. In Jano van Hemert and Carlos Cotta, editors, *Evolutionary Computation in Combinatorial Optimization, 8th European Conference, EvoCOP 2008*, pages 73–84, Naples, Italy, March 2008. Springer. Lecture Notes in Computer Science Vol. 4972.
- [2965] Toshimasa Ishida, Ikuya Nishimura, Hiromasa Tanino, Masaru Higa, Hiroshi Ito, and Yoshinori Mitamura. Use of a Genetic Algorithm for Multiobjective Design Optimization of the Femoral Stem of a Cemented Total Hip Arthroplasty. *Artificial Organs*, 35(4):404–410, April 2011.
- [2966] Yukari Ishida, Hirotaka Nosato, Eiichi Takahashi, Masahiro Murakawa, Isamu Kajitani, Tatsumi Furuya, and Tetsuya Higuchi. Proposal for LDPC Code Design System Using Multi-Objective Optimization and FPGA-Based Emulation. In Gregory S. Hornby, Lukas Sekanina, and Pauline C. Haddow, editors, *Evolvable Systems: From Biology to Hardware. 8th International Conference (ICES'2008)*, pages 237–248, Prague, Czech Republic, September 21-24 2008. Springer. Lecture Notes in Computer Science, Vol. 5216.
- [2967] Askin T. Isikveren. *Quasi-analytical Modelling and Optimisation Techniques for Transport Aircraft Design*. PhD thesis, Department of Aeronautics, Royal Institute of Technology, Stockholm, Sweden, May 2002.
- [2968] Sk. Minhazul Islam, Saurav Ghosh, Subhrajit Roy, Shizheng Zhao, Ponnuthurai Nagarathnam Suganthan, and Swagatam Das. Synthesis and Design of Thinned Planar Concentric Circular Antenna Array - A Multi-objective Approach. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 182–190, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7077.
- [2969] Fatimah Sham Ismail, Rubiyah Yusof, and Marzuki Khalid. Self Organizing Multi-Objective Optimization Problem. *International Journal of Innovative Computing Information and Control*, 7(1):301–314, January 2011.
- [2970] R. S. H. Istepanian and J. F. Whidborne. Multi-objective design of finite word-length controller structures. In *1999 Congress on Evolutionary Computation*, pages 61–68, Washington, D.C., July 1999. IEEE Service Center.
- [2971] K. Ito, S. Akagi, and M. Nishikawa. A Multiobjective Optimization Approach to a Design Problem of Heat Insulation for Thermal Distribution Piping Network Systems. *Journal of Mechanisms, Transmissions and Automation in Design (Transactions of the ASME)*, 105:206–213, June 1983.

- [2972] Y. Itoh, C. Liu, and A. Hammad. Optimizing Rehabilitation Plan of Concrete Bridge Decks Using Multi-Objective Genetic Algorithm. In *Optimization in Industry*, pages 115–120. American Society of Mechanical Engineers, 1997.
- [2973] Laura Ivanciu, Gabriel Oltean, and Sorin Hintea. Design Illustration of a Symmetric OTA Using Multiobjective Genetic Algorithms. In Andreas König, Andreas Dengel, Knut Hinkelmann, Koichi Kise, Robert J. Howlett, and Lakhmi C. Jain, editors, *Knowledge-Based and Intelligent Information and Engineering Systems, 15th International Conference, KES 2011*, pages 443–452, Kaiserslautern, Germany, September 12-14 2011. Springer. Lecture Notes in Artificial Intelligence Vol. 6883.
- [2974] K Iwamura and BD Liu. Dependent-chance integer programming applied to capital budgeting. *Journal Of The Operations Research Society Of Japan*, 42(2):117–127, June 1999.
- [2975] Joaquin Izquierdo, Idel Montalvo, Rafael Perez-Garcia, and Agustin Matias. On the Complexities of the Design of Water Distribution Networks. *Mathematical Problems in Engineering*, 947961, 2012.
- [2976] K. Izui, S. Nishiwaki, and M. Yoshimura. Swarm algorithms for single- and multi-objective optimization problems incorporating sensitivity analysis. *Engineering Optimization*, 39(8):981–998, December 2007.
- [2977] Kazuhiro Izui, Shinji Nishiwaki, Masataka Yoshimura, Masahiko Nakamura, and John E. Renaud. Enhanced multiobjective particle swarm optimization in combination with adaptive weighted gradient-based searching. *Engineering Optimization*, 40(9):789–804, September 2008.
- [2978] J. Jackiewicz. Assessing Coefficients of the Barlat Yield Criterion for Anisotropic Aluminum Alloy Sheets by Means of the Evolutionary Strategy. *Materials And Manufacturing Processes*, 24(3):375–383, 2009.
- [2979] Jacob T. Jackson, Gregg H. Grunsch, Roger L. Claypoole, and Gary B. Lamont. Blind Steganography Detection Using a Computational Immune System: A Work in Progress. *International Journal of Digital Evidence*, 4(1), Winter 2003.
- [2980] D. M. Jaeggi, G. T. Parks, T. Kipouros, and P. J. Clarkson. The development of a multi-objective Tabu Search algorithm for continuous optimisation problems. *European Journal of Operational Research*, 185(3):1192–1212, 16 March 2008.
- [2981] Daniel Jaeggi, Chris Asselin-Miller, Geoff Parks, Timoleon Kipouros, Theo Bell, and John Clarkson. Multi-objective Parallel Tabu Search. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 732–741, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.

- [2982] Daniel Jaeggi, Geoff Parks, Timoleon Kipouros, and John Clarkson. A Multi-objective Tabu Search Algorithm for Constrained Optimisation Problems. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 490–504, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [2983] Katia Jaffres-Runser, Jean-Marie Gorce, and Stephane Ubeda. Mono- and multi-objective formulations for the indoor wireless LAN planning problem. *Computers & Operations Research*, 35(12):3885–3901, December 2008.
- [2984] Martin Jähne, Xiaodong Li, and Jürgen Branke. Evolutionary algorithms and multi-objectivization for the travelling salesman problem. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 595–602, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [2985] Antonio López Jaimes and Carlos A. Coello Coello. An introduction to multi-objective evolutionary algorithms and some of their potential uses in biology. In Tomasz Smolinski, Mariofanna G. Milanova, and Aboul-Ella Hassanien, editors, *Applications of Computational Intelligence in Biology: Current Trends and Open Problems*, pages 79–102. Springer, Berlin, 2008. ISBN 978-3-540-78533-0.
- [2986] W. Jakob, M. Gorges-Schleuter, and C. Blume. Application of Genetic Algorithms to task planning and learning. In R. Männer and B. Manderick, editors, *Parallel Problem Solving from Nature, 2nd Workshop*, Lecture Notes in Computer Science, pages 291–300, Amsterdam, 1992. North-Holland Publishing Company.
- [2987] Wilfried Jakob, Alexander Quinte, Karl-Uwe Stucky, and Wolfgang Süß. Fast Multi-objective Scheduling of Jobs to Constrained Resources Using a Hybrid Evolutionary Algorithm. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 1031–1040. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [2988] A. Jamali, A. Hajiloo, and N. Nariman-Zadeh. Reliability-based robust Pareto design of linear state feedback controllers using a multi-objective uniform-diversity genetic algorithm (MUGA). *Expert Systems with Applications*, 37(1):401–413, January 2010.
- [2989] A. Jamali, N. Nariman-zadeh, A. Darvizeh, A. Masoumi, and S. Hamrang. Multi-objective evolutionary optimization of polynomial neural networks for modelling and prediction of explosive cutting process. *Engineering Applications of Artificial Intelligence*, 22(4-5):676–687, June 2009.
- [2990] Ahmad Jan, Masahito Yamamoto, and Azuma Ohuchi. Evolutionary Algorithms for Nurse Scheduling Problem. In *2000 Congress on Evolutionary Computation*, volume 1, pages 196–203, Piscataway, New Jersey, July 2000. IEEE Service Center.

- [2991] S.R. Jangam and N. Chakraborti. A novel method for alignment of two nucleic acid sequences using ant colony optimization and genetic algorithms. *Applied Soft Computing*, 7(3):1121–1130, June 2007.
- [2992] G. Janiga and D. Thévenin. Reducing the CO emissions in a laminar burner using different numerical optimization methods. *Proceedings of the Institution of Mechanical Engineers Part A—Journal of Power and Energy*, 221(A5):647–655, August 2007.
- [2993] Gábor Janiga. A Few Illustrative Examples of CFD-based Optimization: Heat Exchanger, Laminar Burner and Turbulence Modeling. In Dominique Thévenin and Gábor Janiga, editors, *Optimization and Computational Fluid Dynamics*, chapter 2, pages 17–59. Springer-Verlag, Berlin, Heidelberg, 2008.
- [2994] Xavier Jannot, Jean-Claude Vannier, Claude Marchand, Mohamed Gabsi, Jacques Saint-Michel, and Daniel Sadarnac. Multiphysic Modeling of a High-Speed Interior Permanent-Magnet Synchronous Machine for a Multiobjective Optimal Design. *IEEE Transactions on Energy Conversion*, 26(2):457–467, June 2011.
- [2995] Stefan Janson, Daniel Mercle, and Martin Middendorf. Molecular docking with multi-objective particle swarm optimization. *Applied Soft Computing*, 8(1):666–675, January 2008.
- [2996] Stefan Janson and Daniel Merkle. A New Multi-objective Particle Swarm Optimization Algorithm Using Clustering Applied to Automated Docking. In María J. Blesa, Christian Blum, Andrea Roli, and Michael Sampels, editors, *Hybrid Metaheuristics, Second International Workshop, HM 2005*, pages 128–142, Barcelona, Spain, August 2005. Springer. Lecture Notes in Computer Science Vol. 3636.
- [2997] Arne Jansson. *Fluid Power System Design—A Simulation Approach*. PhD thesis, Department of Mechanical Engineering, Linköping University, Linköping, Sweden, 1994.
- [2998] Arne Jansson, Petter Krus, and Jan-Ove Palmberg. Optimisation of fluid power systems with two alternative non-derivative methods. Technical Report LiTH-IDA-R-94-29, Department of Mechanical Engineering, Linköping University, S-581 83 Linköping, Sweden, 1994.
- [2999] C. H. Jarvis, N. Stuart, K. Kelsey, and R. H. A. Baker. Towards a Methodology for Selecting a “characteristic” Sample from an Existing Database: An Evolutionary Approach. In *Third International Conference/Workshop on Integrating GIS and Environmental Modeling*, Santa Fe, New Mexico, January 1996. National Center for Geographic Information and Analysis.
- [3000] Roger M. Jarvis, William Rowe, Nicola R. Yaffe, Richard O’Connor, Joshua D. Knowles, Ewan W. Blanch, and Royston Goodacre. Multiobjective evolutionary optimisation for surface-enhanced Raman scattering. *Analytical and Bio-analytical Chemistry*, 397(5):1893–1901, July 2010.

- [3001] Wojciech Jaskowski and Krzysztof Krawiec. Formal Analysis, Hardness, and Algorithms for Extracting Internal Structure of Test-Based Problems. *Evolutionary Computation*, 19(4):639–671, Winter 2011.
- [3002] Andrzej Jaskiewicz. A metaheuristic approach to multiple objective nurse scheduling. *Foundations of Computing and Decision Sciences*, 22(3):169–184, 1997.
- [3003] Andrzej Jaskiewicz. Genetic local search for multiple objective combinatorial optimization. Technical Report RA-014/98, Institute of Computing Science, Poznan University of Technology, 1998.
- [3004] Andrzej Jaskiewicz. On the computational effectiveness of multiple objective metaheuristics. In *Proceedings of the Fourth International Conference on Multi-Objective Programming and Goal Programming MOPGP'00. Theory & Applications*, Berlin–Heidelberg, May 29–June 1 2000. Springer-Verlag.
- [3005] Andrzej Jaskiewicz. On the performance of multiple objective genetic local search on the 0/1 knapsack problem. a comparative experiment. Technical Report RA-002/2000, Institute of Computing Science, Poznan University of Technology, Poznań, Poland, July 2000.
- [3006] Andrzej Jaskiewicz. A comparative study of multiple-objective metaheuristics on the bi-objective set covering problem and the Pareto memetic algorithm. Technical Report RA-003/01, Institute of Computing Science, Poznan University of Technology, Poznan, Poland, 2001.
- [3007] Andrzej Jaskiewicz. Comparison of Local Search-Based Metaheuristics on the Multiple Objective Knapsack Problem. *Foundations of Computing and Decision Sciences*, 26(1):99–120, 2001.
- [3008] Andrzej Jaskiewicz. *Multiple objective metaheuristic algorithms for combinatorial optimization*. Poznan University of Technology, Poznan, Poland, 2001. Habilitation thesis.
- [3009] Andrzej Jaskiewicz. Genetic local search for multiple objective combinatorial optimization. *European Journal of Operational Research*, 137(1):50–71, 2002.
- [3010] Andrzej Jaskiewicz. On the Computational Effectiveness of Multiple Objective Metaheuristics. In T. Traskalik and J. Michnik, editors, *Multiple Objective and Goal Programming. Recent Developments*, pages 86–100. Physica-Verlag, Heidelberg, 2002.
- [3011] Andrzej Jaskiewicz. On the Performance of Multiple-Objective Genetic Local Search on the 0/1 Knapsack Problem—A Comparative Experiment. *IEEE Transactions on Evolutionary Computation*, 6(4):402–412, August 2002.
- [3012] Andrzej Jaskiewicz. Do Multiple-Objective Metaheuristics Deliver on Their Promises? a Computational Experiment on the Set-Covering Problem. *IEEE Transactions on Evolutionary Computation*, 7(2):133–143, April 2003.

- [3013] Andrzej Jaszkiewicz. A Comparative Study of Multiple-Objective Metaheuristics on the Bi-Objective Set Covering Problem and the Pareto Memetic Algorithm. *Annals of Operations Research*, 131(1–4):135–158, October 2004.
- [3014] Andrzej Jaszkiewicz. Evaluation of Multiple Objective Metaheuristics. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T’kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 65–89, Berlin, 2004. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535.
- [3015] Andrzej Jaszkiewicz. On the Computational Efficiency of Multiple Objective Metaheuristics. The Knapsack Problem Case Study. *European Journal of Operational Research*, 158(2):418–433, October 2004.
- [3016] Andrzej Jaszkiewicz and Jürgen Branke. Interactive Multiobjective Evolutionary Algorithms. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 179–193. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [3017] Andrzej Jaszkiewicz, Maciej Hapke, and Pawel Kominek. Performance of Multiple Objective Evolutionary Algorithms on a Distribution System Design Problem—Computational Experiment. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 241–255. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [3018] Andrzej Jaszkiewicz and Piotr Zielniewicz. Pareto memetic algorithm with path relinking for bi-objective traveling salesperson problem. *European Journal of Operational Research*, 193(3):885–890, March 16 2009.
- [3019] Sadaf Naseem Jat and Shengxiang Yang. A Guided Search Non-Dominated Sorting Genetic Algorithm for the Multi-Objective University Course Timetabling Problem. In Peter Merz and Jin-Kao Hao, editors, *Evolutionary Computation in Combinatorial Optimization, 11th European Conference, EvoCOP 2011*, pages 1–13, Torino, Italy, April 27-29 2011. Springer. Lecture Notes in Computer Science Vol. 6622.
- [3020] V. Jayakumar and R. Raju. A Multi-Objective Genetic Algorithm Approach to the Probabilistic Manufacturing Cell Formation Problem. *South African Journal of Industrial Engineering*, 22(1):199–212, May 2011.
- [3021] V. Jayaswal, L. Poladian, and L. S. Jermiin. Single- and Multi-Objective Phylogenetic Analysis of Primate Evolution Using a Genetic Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pages 4146–4154, Singapore, September 2007. IEEE Press.

- [3022] Adel Jedidi, Alexandre Caminada, and Gerd Finke. 2-Objective Optimization of Cells Overlap and Geometry with Evolutionary Algorithms. In Günther R. Raidl et al., editor, *Applications of Evolutionary Computing. Proceedings of Evoworkshops 2004: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 130–139, Coimbra, Portugal, April 2004. Springer. Lecture Notes in Computer Science Vol. 3005.
- [3023] Rabindra Ku. Jena and Prabhat K. Mahanti. Design Space Exploration Of Network-On-Chip: A System Level Approach. *International Journal of Computing and ICT Research*, 2(1):17–25, June 2008.
- [3024] Mikkel T. Jensen. *Robust and Flexible Scheduling with Evolutionary Computation*. PhD thesis, Department of Computer Science. University of Aarhus, Aarhus, Denmark, October 2001.
- [3025] Mikkel T. Jensen. Guiding Single-Objective Optimization Using Multi-objective Methods. In Günther Raidl et al., editor, *Applications of Evolutionary Computing. Evoworkshops 2003: EvoBIO, EvoCOP, EvoIASP, EvoMUSART, EvoROB, and EvoSTIM*, pages 199–210, Essex, UK, April 2003. Springer. Lecture Notes in Computer Science Vol. 2611.
- [3026] Mikkel T. Jensen. Reducing the Run-Time Complexity of Multiobjective EAs: The NSGA-II and Other Algorithms. *IEEE Transactions on Evolutionary Computation*, 7(5):503–515, October 2003.
- [3027] Mikkel T. Jensen. Helper-Objectives: Using Multi-Objective Evolutionary Algorithms for Single-Objective Optimisation. *Journal of Mathematical Modelling and Algorithms*, 3(4):323–347, December 2004.
- [3028] Hyung Seok Jeong and Dulcy M. Abraham. Operational response model for physically attacked water networks using NSGA-II. *Journal of Computing in Civil Engineering*, 20(5):328–338, September - October 2006.
- [3029] Min Joong Jeong, Takashi Kobayashi, and Shinobu Yoshimura. Extraction of Design Characteristics of Multiobjective Optimization—Its Application to Design of Artificial Satellite Heat Pipe. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 561–575, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3030] S. Jeong, S. Obayashi, and Y. Minemura. Application of hybrid evolutionary algorithms to low exhaust emission diesel engine design. *Engineering Optimization*, 40(1):1–16, January 2008.
- [3031] Shinkyu Jeong, Kazuhisa Chiba, and Shigeru Obayashi. Data Mining for Aerodynamic Design Space. *Journal of Aerospace Computing, Information, and Communication*, 2:452–469, November 2005.

- [3032] Shinkyu Jeong, Shoichi Hasegawa, Koji Shimoyama, and Shigeru Obayashi. Development and Investigation of Efficient GA/PSO-Hybrid Algorithm Applicable to Real-World Design Optimization. *IEEE Computational Intelligence Magazine*, 4(3):36–44, August 2009.
- [3033] Shinkyu Jeong, Shoichi Hasegawa, Koji Shimoyama, and Shigeru Obayashi. Development and Investigation of Efficient GA/PSO-Hybrid Algorithm Applicable to Real-World Design Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 777–784, Trondheim, Norway, May 2009. IEEE Press.
- [3034] Shinkyu Jeong and Shigeru Obayashi. Efficient Global Optimization (EGO) for Multi-Objective Problem and Data Mining. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2138–2145, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [3035] L.E. Jeremiah, L.L. Gibson, M. Gen, K. Ida, J. Lee, and J. Kim. Fuzzy Non-linear Goal Programming Using Genetic Algorithm. *Computers and Industrial Engineering*, 33(1):39–42, October 1997.
- [3036] S. Jeyadevi, S. Baskar, C. K. Babulal, and M. Willjuice Iruthayarajan. Solving multiobjective optimal reactive power dispatch using modified NSGA-II. *International Journal of Electrical Power & Energy Systems*, 33(2):219–228, February 2011.
- [3037] Manoj K. Jha and Avijit Maji. A Multi-Objective Genetic Algorithm for Optimizing Highway Alignments. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 261–266, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [3038] Shan-Fan Ji, Wu-Xiong Sheng, and Zhuo-Wang Jing. The Multi-objective Differential Evolution Algorithm Based on Quick Convex Hull Algorithms. In *Fifth International Conference on Natural Computation (ICNC'2009)*, pages 469–473, Tianjian, China, August 2009. IEEE Computer Society.
- [3039] Shan-Fan Ji, Wu-Xiong Sheng, Zhuo-Wang Jing, and Long-Gong Cheng. IMODE: Improving Multi-Objective Differential Evolution Algorithm. In *Fourth International Conference on Natural Computation (ICNC'2008)*, pages 212–216, China, October 2008. IEEE Computer Society.
- [3040] Zhaowang Ji, Anthony Chen, and Kittu Subprasom. Finding Multi-Objective Paths in Stochastic Networks: A Simulation-based Genetic Algorithm Approach. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 174–180, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [3041] Zhen Ji, Huilian Liao, Yiwei Wang, and Q. H. Wu. A Novel Intelligent Particle Optimizer for Global Optimization of Multimodal Functions. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3272–3275, Singapore, September 2007. IEEE Press.

- [3042] Jie Jia, Jian Chen, Guiran Chang, and Zhenhua Tan. Energy efficient coverage control in wireless sensor networks based on multi-objective genetic algorithm. *Computers & Mathematics with Applications*, 57(11-12):1756–1766, June 2009.
- [3043] Zhengyuan Jia and Lihua Gong. Multi-criteria Human Resource Allocation for Optimization Problems Using Multi-objective Particle Swarm Optimization Algorithm. In *2008 International Conference on Computer Science and Software Engineering*, pages 1187–1190, Wuhan, China, December 2008. IEEE Computer Society.
- [3044] C. Jiang and C. Wang. Improved evolutionary programming with dynamic mutation and metropolis criteria for multi-objective reactive power optimisation. *IEE Proceedings—Generation Transmission and Distribution*, 152(2):291–294, March 2005.
- [3045] Hao Jiang, Jin hua Zheng, and liang-jun Chen. Multi-Objective Particle Swarm Optimization Algorithm Based on Enhanced ϵ -Dominance. In *IEEE International Conference on Engineering of Intelligent Systems, 2006*, pages 399–403, Islamabad, Pakistan, April 2006. IEEE Computer Society Press.
- [3046] He Jiang, Shuyan Zhang, and Zhilei Ren. Solving Multiobjective Optimization Problem by Constraint Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 637–646. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [3047] Kai Jiang, Hai xia Chen, and Shen miao Yuan. Multiobjective image recognition algorithm in the fully automatic die bonder. *Frontiers of Mechanical Engineering*, 1(3):313–316, 2006.
- [3048] LiYong Jiang, XiangYin Li, and Jie Zhang. Design of high performance multilayer microwave absorbers using fast Pareto genetic algorithm. *Science in China Series E-Technological Sciences*, 52(9):2749–2757, September 2009.
- [3049] Siwei Jiang and Zhihua Cai. A Novel Hybrid Particle Swarm Optimization for Multi-Objective Problems. In Hepu Deng, Lanzhou Wang, Fu Lee Wang, and Jingsheng Lei, editors, *Artificial Intelligence and Computational Intelligence, International Conference, AICI 2009*, pages 28–37. Springer, Lecture Notes in Artificial Intelligence Vol. 5855, November 7-8 2009.
- [3050] Siwei Jiang and Zhihua Cai. Enhance the Convergence and Diversity for ϵ -MOPSO by Uniform Design and Minimum Reduce Hypervolume. In *Proceedings of the 2009 International Conference on Artificial Intelligence and Computational Intelligence (AICI'09)*, volume 1, pages 129–133, Washington, DC, USA, November 2009. IEEE Computer Society.

- [3051] Siwei Jiang and Zhihua Cai. Faster Convergence and Higher Hypervolume for Multi-objective Evolutionary Algorithms by Orthogonal and Uniform Design. In Zhihua Cai, Chengyu Hu, Zhuo Kang, and Yong Liu, editors, *Advances in Computation and Intelligence, 5th International Symposium, ISICA 2010*, pages 312–328, Wuhan, China, October 22-24 2010. Springer. Lecture Notes in Computer Science Vol. 6382.
- [3052] Siwei Jiang, Jie Zhang, and Yew Soon Ong. Asymmetric Pareto-adaptive Scheme for Multiobjective Optimization. In Dianhui Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 351–360, Perth, Australia, December 5-8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [3053] Xuan Jiang, Deepti Chafekar, and Khaleed Rasheed. Constrained Multi-Objective GA Optimization Using Reduced Models. In Alwyn Barry, editor, *2003 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 174–177, Chicago, Illinois, USA, July 2003. AAAI.
- [3054] Yanjun Jiang, Jianguo Jiang, and Yankui Zhang. A Novel Fuzzy Multiobjective Model Using Adaptive Genetic Algorithm Based on Cloud Theory for Service Restoration of Shipboard Power Systems. *IEEE Transactions on Power Systems*, 27(2):612–620, May 2012.
- [3055] Yi-Min Jiang and Kwang-Ting (Tim) Cheng. Vector Generation for Power Supply Noise Estimation and Verification of Deep Submicron Designs. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 9(2):329–340, April 2001.
- [3056] Yi-Min Jiang, Tak K. Young, and Kwang-Ting Cheng. VIP-An Input Pattern Generator for Identifying Critical Voltage Drop for Deep Sub-Micron Designs. In *Proceedings of the 1999 International Symposium on Low Power Electronics and Design*, pages 156–161. IEEE, 1999.
- [3057] Zhaoliang Jiang, Xuanyuan Sisi, Lin Li, and Zhaoqian Li. Inventory-shortage driven optimisation for product configuration variation. *International Journal of Production Research*, 49(4):1045–1060, 2011.
- [3058] Zhiyu Jiang and Mintong Gu. Optimization of a fender structure for the crash-worthiness design. *Materials & Design*, 31(3):1085–1095, March 2010.
- [3059] Zhong-Zhong Jiang, Zhi-Ping Fan, Chunqiao Tan, and Yuan Yuan. A Matching Approach For One-Shot Multi-Attribute Exchanges With Incomplete Weight Information In E-Brokerage. *International Journal of Innovative Computing Information and Control*, 7(5B):2623–2635, May 2011.
- [3060] Zhong-Zhong Jiang, W. H. Ip, H. C. W. Lau, and Zhi-Ping Fan. Multi-Objective Optimization Matching for One-Shot Multi-Attribute Exchanges With Quantity Discounts in E-Brokerage. *Expert Systems With Applications*, 38(4):4169–4180, April 2011.

- [3061] Licheng Jiao, Maoguo Gong, Wiping Ma, and Ranghua Shang. Multi-Objective Optimization Using Artificial Immune Systems. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 106–147. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [3062] Licheng Jiao, Maoguo Gong, Ronghua Shang, Haifeng Du, and Bin Lu. Clonal Selection with Immune Dominance and Anergy Based Multiobjective Optimization. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 474–489, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3063] Licheng Jiao, Wei Zhang, Ruochen Liu, and Fang Liu. A Hybrid Multiobjective Immune Algorithm with Region Preference for Decision Makers. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 300–307, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3064] F. Jiménez and J. M. Cadenas. An evolutionary program for the multiobjective solid transportation problem with fuzzy goals. *Operations Research and Decisions*, 2:5–20, 1995.
- [3065] F. Jimenez, J.M. Cadenas, G. Sanchez, A.F. Gomez-Skarmeta, and J.L. Verdegay. Multi-objective evolutionary computation and fuzzy optimization. *International Journal of Approximate Reasoning*, 43(1):59–75, September 2006.
- [3066] F. Jiménez, G. Sánchez, J. M. Cadenas, A. F. Gómez-Skarmeta, and J. L. Verdegay. Nonlinear Optimization with Fuzzy Constraints by Multi-Objective Evolutionary Algorithms. In Bernd Reusch, editor, *Computational Intelligence, Theory and Applications*, pages 713–722. Springer. Advances in Soft Computing. Vol. 33, Dortmund, Germany, 2005.
- [3067] F. Jiménez, G. Sánchez, J.M. Cadenas, and J.L. Verdegay A.F. Gómez-Skarmeta. Solving a Fuzzy Nonlinear Optimization Problem by an “ad hoc” Multi-objective Evolutionary Algorithm. In Cengiz Kahraman, editor, *Fuzzy Applications in Industrial Engineering*, pages 521–533. Springer. Studies in Fuzziness and Soft Computing Vol. 201, 2006.
- [3068] F. Jiménez, G. Sánchez, J. M. Juárez, J. M. Alcaraz, and J. F. Sánchez. Fuzzy Classification of Mortality by Infection of Severe Burnt Patients Using Multiobjective Evolutionary Algorithms. In José Mira, José Manuel Ferrández, José R. Álvarez, Félix de la Paz, and F. Javier Toledo, editors, *Methods and Models in Artificial and Natural Computation, Third International Work-Conference on the Interplay Between Natural and Artificial Computation, IWINAC 2009*, pages 447–456, Santiago de Compostela, Spain, June 22-26 2009. Springer. Lecture Notes in Computer Science Vol. 5601.

- [3069] Fernando Jiménez, Antonio F. Gómez-Skarmeta, Gracia Sánchez, and Kalyanmoy Deb. An Evolutionary Algorithm for Constrained Multi-objective Optimization. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1133–1138, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [3070] Fernando Jiménez, Gracia Sánchez, and Antonio Gómez-Skarmeta. A Pareto-Evolutionary Approach for Goal and Priority Based Multi-objective Optimization Problems. In *Proceedings of the 6th Joint Conference on Information Sciences (JCIS 2002), 4th International Workshop on Frontiers in Evolutionary Algorithms*, pages 590–593, 2002.
- [3071] Fernando Jiménez, Gracia Sánchez, Antonio F. Gómez-Skarmeta, H. Roubos, and R. Babuska. Fuzzy modeling with multi-objective neuro-evolutionary algorithms. In *Proceedings of the 2002 IEEE International Conference on Systems, Man and Cybernetics (SMC'02)*. IEEE, 2002.
- [3072] Fernando Jiménez, Gracia Sánchez, José F. Sánchez, and José M. Alcaraz. Fuzzy Classification with Multi-objective Evolutionary Algorithms. In Emilio Corchado, Ajith Abraham, and Witold Pedrycz, editors, *Hybrid Artificial Intelligence Systems. Third International Workshop (HAIS'2008)*, pages 730–738. Springer, Lecture Notes in Computer Science, Vol. 5271, Burgos, Spain, September 24–26 2008. ISBN 978-3-540-87655-7.
- [3073] Fernando Jiménez and José L. Verdegay. Interval multiobjective solid transportation problem via genetic algorithms (IPMU'96). In *Proceedings of Information Processing and Management of Uncertainty in Knowledge-Based Systems*, pages 787–792, Granada, Spain, 1996.
- [3074] Fernando Jiménez and José L. Verdegay. Constrained multiobjective optimization by evolutionary algorithms. In *Proceedings of the International ICSC Symposium on Engineering of Intelligent Systems (EIS'98)*, pages 266–271, University of La Laguna, Tenerife, Spain, 1998.
- [3075] Fernando Jiménez, José L. Verdegay, and Antonio F. Gómez-Skarmeta. Evolutionary Techniques for Constrained Multiobjective Optimization Problems. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 115–116, Orlando, Florida, July 1999.
- [3076] Fernando Jiménez, Antonio F. Gómez-Skarmeta, Hans Roubos, and Robert Babuška. Accurate, Transparent, and Compact Fuzzy Models for Function Approximation and Dynamic Modeling through Multi-objective Evolutionary Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 653–667. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.

- [3077] Huidong Jin and Man-Leung Wong. Adaptive Diversity Maintenance and Convergence Guarantee in Multiobjective Evolutionary Algorithms. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2498–2505, Canberra, Australia, December 2003. IEEE Press.
- [3078] Huidong Jin and Man-Leung Wong. Adaptive, convergent, and diversified archiving strategy for multiobjective evolutionary algorithms. *Expert Systems With Applications*, 37(12):8462–8470, December 2010.
- [3079] Nanbo Jin and Yahya Rahmat-Samii. Advances in particle swarm optimization for antenna designs: Real-number, binary, single-objective and multiobjective implementations. *IEEE Transactions on Antennas and Propagation*, 55(3):556–567, March 2007.
- [3080] Yaochu Jin, editor. *Multi-Objective Machine Learning*. Springer, Berlin, 2006. ISBN 3-540-30676-6.
- [3081] Yaochu Jin, Robin Gruna, Ingo Paenke, and Bernhard Sendhoff. Evolutionary Multi-objective Optimization of Robustness and Innovation in Redundant Genetic Representations. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 38–45, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [3082] Yaochu Jin, Robin Gruna, and Bernhard Sendhoff. Pareto analysis of evolutionary and learning systems. *Frontiers of Computer Science in China*, 3(1):4–17, 2009.
- [3083] Yaochu Jin, Tatsuya Okabe, and Bernhard Sendhoff. Adapting Weighted Aggregation for Multiobjective Evolution Strategies. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 96–110. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [3084] Yaochu Jin, Tatsuya Okabe, and Bernhard Sendhoff. Dynamic Weighted Aggregation for Evolutionary Multi-Objective Optimization: Why Does It Work and How? In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 1042–1049, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [3085] Yaochu Jin, Tatsuya Okabe, and Bernhard Sendhoff. Evolutionary Multi-Objective Optimization Approach to Constructing Neural Network Ensembles for Regression. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 653–673. World Scientific, Singapore, 2004.

- [3086] Yaochu Jin, Tatsuya Okabe, and Bernhard Sendhoff. Neural Network Regularization and Ensembling Using Multi-objective Evolutionary Algorithms. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 1–8, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [3087] Yaochu Jin, Markus Olhofer, and Bernhard Sendhoff. On Evolutionary Optimization with Approximate Fitness Functions. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 786–793, San Francisco, California, 2000. Morgan Kaufmann.
- [3088] Yaochu Jin and Bernhard Sendhoff. Incorporation of Fuzzy Preferences into Evolutionary Multiobjective Optimization. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, page 683, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [3089] Yaochu Jin and Bernhard Sendhoff. Incorporation of Fuzzy Preferences into Evolutionary Multiobjective Optimization. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 26–30, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [3090] Yaochu Jin and Bernhard Sendhoff. Connectedness, Regularity and the Success of Local Search in Evolutionary Multi-objective Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1910–1917, Canberra, Australia, December 2003. IEEE Press.
- [3091] Yaochu Jin and Bernhard Sendhoff. Trade-Off between Performance and Robustness: An Evolutionary Multiobjective Approach. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 237–251, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [3092] Yaochu Jin and Bernhard Sendhoff. Constructing Dynamic Optimization Test Problems Using the Multi-objective Optimization Concept. In Günther R. Raidl et al., editor, *Applications of Evolutionary Computing. Proceedings of Evoworkshops 2004: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 525–536, Coimbra, Portugal, April 2004. Springer. Lecture Notes in Computer Science Vol. 3005.
- [3093] Yaochu Jin and Bernhard Sendhoff. Alleviating Catastrophic Forgetting via Multi-Objective Learning. In *2006 International Joint Conference on Neu-*

ral Networks (IJCNN'2006), pages 6367–6374, Vancouver, BC, Canada, July 2006. IEEE.

- [3094] Yaochu Jin and Bernhard Sendhoff. A Systems Approach to Evolutionary Multiobjective Structural Optimization and Beyond. *IEEE Computational Intelligence Magazine*, 4(3):62–76, August 2009.
- [3095] Yaochu Jin, Bernhard Sendhoff, and Edgar Körner. Evolutionary Multiobjective Optimization for Simultaneous Generation of Signal-Type and Symbol-Type Representations. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 752–766, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3096] Yaochu Jin, Bernhard Sendhoff, and Edgar Körner. Simultaneous Generation of Accurate and Interpretable Neural Network Classifiers. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 291–312. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [3097] Yaochu Jin, Bernhard Sendhoff, and Edgar Körner. Rule Extraction from Compact Pareto-optimal Neural Networks. In Ashish Ghosh, Satchidananda Dehuri, and Susmita Ghosh, editors, *Multi-objective Evolutionary Algorithms for Knowledge Discovery from Data Bases*, pages 71–90. Springer, Berlin, 2008.
- [3098] Yaochu Jin, Werner von Seelen, and Bernhard Sendhoff. On generating flexible, complete, consistent and compact(FC^3) fuzzy rule systems from data using evolution strategies. *IEEE Transactions on Systems, Man, and Cybernetics*, 29(4):829–845, 1999.
- [3099] Yaochu Jin, Aimin Zhou, Qingfu Zhang, Bernhard Sendhoff, and Edward Tsang. Modeling Regularity to Improve Scalability of Model-Based Multiobjective Optimization Algorithms. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 331–355. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [3100] Yaouchu Jin, Markus Olhofer, and Bernhard Sendhoff. Managing Approximate Models in Evolutionary Aerodynamic Design Optimization. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 592–599, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [3101] Liang Jing. *Novel particle swarm optimizers with hybrid, dynamic and adaptive neighborhood structures*. PhD thesis, School of Electrical & Electronic Engineering, Nanyang Technological University, Singapore, 2008.
- [3102] Peerapol Jirapong and Weerakorn Ongsakul. Optimal Placement of Multi-Type FACTS Devices for Total Transfer Capability Enhancement Using Hybrid Evolutionary Algorithm. *Electric Power Components and Systems*, 35(9):981–1005, 2007.

- [3103] J.W. Jo and J.E. Prussing. Procedure for applying second-order conditions in optimal control problems. *Journal Of Guidance Control And Dynamics*, 23(2):241–250, March-April 2000.
- [3104] Matthias John and Max J. Ammann. Antenna Optimization With a Computationally Efficient Multiobjective Evolutionary Algorithm. *IEEE Transactions of Antennas and Propagation*, 57(1):260–263, January 2009.
- [3105] Matt D. Johnson, Daniel R. Tauritz, and Ralph W. Wilkerson. SNDL-MOEA: Stored Non-Domination Level MOEA. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 837–844, London, UK, July 2007. ACM Press.
- [3106] Jeffrey A. Joines, Deepak Gupta, Mahmut Ali Gokce, Russell E. King, and Michael G. Kay. Supply Chain Multi-Objective Simulation Optimization. In E. Yücesan, C.-H. Chen, J.L. Snowdon, and J.M. Charnes, editors, *Proceedings of the 2002 Winter Simulation Conference*, pages 1306–1314, San Diego, California, December 2002.
- [3107] F. Jolai, J. Razmi, and N.K.M. Rostami. A fuzzy goal programming and meta heuristic algorithms for solving integrated production: distribution planning problem. *Central European Journal of Operations Research*, 19(4):547–569, December 2011.
- [3108] Milton Jonathan, Marco Aurélio Cavalcanti Pacheco, Ricardo Salem Zebulum, and Marley B.R. Vellasco. Multiobjective Optimization Techniques: A Study of the Energy Minimization Method and Its Application to the Synthesis of Ota Amplifiers. In *Proceedings of the Second NASA/DoD Workshop on Evolvable Hardware*, pages 133–140. IEEE Computer Society, 2000.
- [3109] Brian R. Jones, William A. Crossley, and Anastasios S. Lyrintzis. Aerodynamic and Aeroacoustic Optimization of Airfoils via a Parallel Genetic Algorithm. In *Proceedings of the 7th AIAA/USAF/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization*, AIAA-98-4811. AIAA, 1998.
- [3110] D. F. Jones, M. Tamiz, and S. K. Mirrazavi. Using Genetic Algorithms to Solve Difficult Goal Programs. In *Proceedings of the Third International Conference on Multi-Objective Programming and Goal Programming: Theory and Applications (MOPGP'98)*, Quebec City, Canada, 1998.
- [3111] D.F. Jones, S.K. Mirrazavi, and M. Tamiz. Multi-objective metaheuristics: An overview of the current state-of-the-art. *European Journal of Operational Research*, 137(1):1–9, February 2002.
- [3112] Gareth Jones, Robert D. Brown, David E. Clark, Peter Willett, and Robert C. Glen. Searching Databases of Two-Dimensional and Three-Dimensional Chemical Structures using Genetic Algorithms. In Stephanie Forrest, editor, *Proceedings of the Fifth International Conference on Genetic Algorithms*, pages 597–602, San Mateo, California, 1993. Morgan Kaufmann.

- [3113] P.M. Jones, A. Tiwari, R. Roy, and J. Corbett. Optimisation of the High Efficiency Deep Grinding Process with Fuzzy Fitness Function and Constraints. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 574–581, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [3114] Elsa Jordaan, Arthur Kordon, Leo Chiang, and Guido Smits. Robust Inferential Sensors Based on Ensemble of Predictors Generated by Genetic Programming. In Xin Yao et al., editor, *Parallel Problem Solving from Nature—PPSN VIII. 8th International Conference*, pages 522–531, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science, Vol. 3242.
- [3115] Shaine Joseph, Hyung W. Kang, and Uday K. Chakraborty. Optical Design with Epsilon-Dominated Multi-objective Evolutionary Algorithm. In Bartlomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms. 8th International Conference (ICANNGA'2007)*, pages 77–84. Springer, Lecture Notes in Computer Science, Vol. 4431, Warsaw, Poland, April 11-14 2007. ISBN 978-3-540-71589-4.
- [3116] Pankaj Joshi, Sameer B. Mulani, Wesley C.H. Slemp, and Rakesh K. Kapania. Vibro-Acoustic Optimization of Turbulent Boundary Layer Excited Panel with Curvilinear Stiffeners. *Journal of Aircraft*, 49(1):52–65, January-February 2012.
- [3117] Damien Bruno Jourdan. *Wireless Sensor Network Planning with Application to UWB Localization in GPS-Denied Environments*. PhD thesis, Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA, June 2006.
- [3118] Laetitia Jourdan, David Corne, Dragan Savic, and Godfrey Walters. Preliminary Investigation of the ‘Learnable Evolution Model’ for Faster/Better Multiobjective Water Systems Design. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 841–855, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3119] Laetitia Jourdan, Oliver Schuetze, Thomas Legrand, El-Ghazali Talbi, and Jean Luc Wojkiewicz. An Analysis of the Effect of Multiple Layers in the Multi-Objective Design of Conducting Polymer Composites. *Materials and Manufacturing Processes*, 24(3):350–357, 2009.
- [3120] Nicolas Jozefowicz. *Modélisation et Résolution Approchée de Problèmes de Tournées Multi-Objectif*. PhD thesis, Université des Sciences et Technologies de Lille, France, December 2004. (In French).
- [3121] Nicolas Jozefowicz, Fred Glover, and Manuel Laguna. Multi-objective Metaheuristics for the Traveling Salesman Problem with Profits. *Journal of Mathematical Modelling and Algorithms*, 7(2):177–195, June 2008.

- [3122] Nicolas Jozefowiez, Frédéric Semet, and El-Ghazali Talbi. Multi-objective vehicle routing problems. *European Journal of Operational Research*, 189(2):293–309, September 1 2008.
- [3123] Nicolas Jozefowiez, Frédéric Semet, and El-Ghazali Talbi. Parallel and Hybrid Models for Multi-objective Optimization: Application to the Vehicle Routing Problem. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 271–280, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [3124] Nicolas Jozefowiez, Frédéric Semet, and El-Ghazali Talbi. A Multi-Objective Evolutionary Algorithm for the Covering Tour Problem. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 247–267. World Scientific, Singapore, 2004.
- [3125] Nicolas Jozefowiez, Frédéric Semet, and El-Ghazali Talbi. Enhancements of NSGA II and Its Application to the Vehicle Routing Problem with Route Balancing. In El-Ghazali Talbi, Pierre Liardet, Pierre Collet, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution, 7th International Conference, Evolution Artificielle, EA 2005*, pages 131–142. Springer. Lecture Notes in Computer Science Vol. 3871, Lille, France, October 2005.
- [3126] Nicolas Jozefowiez, Frederic Semet, and El-Ghazali Talbi. Target aiming Pareto Search and its application to the vehicle routing problem with route balancing. *Journal of Heuristics*, 13(5):455–469, October 2007.
- [3127] Nicolas Jozefowiez, Frederic Semet, and El-Ghazali Talbi. An evolutionary algorithm for the vehicle routing problem with route balancing. *European Journal of Operational Research*, 195(3):761–769, June 16 2009.
- [3128] Xunguang Ju, Xiaogen Shao, Liqing Xiao, Rong Bao, Chengchun Han, and Hongzhen Yu. Applying Interval Exclusion Genetic Algorithm to Finding All Global Solutions of Several Variables and Multimodal Function. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 851–854, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [3129] Y. P. Ju and C. H. Zhang. Multi-point and multi-objective optimization design method for industrial axial compressor cascades. *Proceedings of the Institution of Mechanical Engineers Part C-Journal OF Mechanical Engineering Science*, 225(C6):1481–1493, 2011.
- [3130] M. V. Judy, K. S. Ravichandran, and K. Murugesan. A multi-objective evolutionary algorithm for protein structure prediction with immune operators. *Computer Methods in Biomechanics and Biomedical Engineering*, 12(4):407–413, August 2009.

- [3131] Qin Jun, Jiangqing Wang, and Bo jin Zheng. A Hybrid Multi-objective Algorithm for Dynamic Vehicle Routing Problems. In Marian Bubak, G. Dick van Albada, Jack Dongarra, and Peter M. A. Sloot, editors, *8th International Conference on Computational Science (ICCS'2008)*, pages 674–681. Springer, Lecture Notes in Computer Science, Vol. 5103, Kraków, Poland, 2008. ISBN 978-3-540-69388-8.
- [3132] Hosang Jung and F. Frank Chen. Evolutionary Algorithm Based Corrective Process Control System in Glass Melting Process. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 472–485, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3133] Jae-Yoon Jung. *Evolutionary Design of Artificial Neural Networks Using a Descriptive Encoding Language*. PhD thesis, Department of Computer Science, University of Maryland, College Park, USA, 2007.
- [3134] Sungmoon Jung, Seung-Yong Ok, and Junho Song. Robust structural damage identification based on multi-objective optimization. *International Journal For Numerical Methods In Engineering*, 81(6):786–804, February 5 2010.
- [3135] Peter Dueholm Justesen and Rasmus K. Ursem. Multiobjective Distinct Candidates Optimization (MODCO): A Cluster-Forming Differential Evolution Algorithm. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 525–539. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [3136] Peter Dueholm Justesen and Rasmus K. Ursem. Many-objective Distinct Candidates Optimization using Differential Evolution on centrifugal pump design problems. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3169–3176, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3137] Peter Dueholm Justesen and Rasmus K. Ursem. Preference-Based Multi-Objective Distinct Candidate Optimization. In Bogdan Filipič and Jurij Silč, editors, *Proceedings of the 4th International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2010)*, pages 117–129, Ljubljana, Slovenia, May 20-21 2010. Jozef Stefan Institute Press.
- [3138] Imed Kacem, Slim Hammadi, and Pierre Borne. Approach by Localization and Multiobjective Evolutionary Optimization for Flexible Job-Shop Scheduling Problems. *IEEE Transactions on Systems, Man, and Cybernetics—Part C: Applications and Reviews*, 32(1):1–13, February 2002.
- [3139] Imed Kacem, Slim Hammadi, and Pierre Borne. Pareto-Optimality Approach for Flexible Job-Shop Scheduling Problems: Hybridization of Evolutionary Algorithms and Fuzzy Logic. *Mathematics and Computers in Simulation*, 60:245–276, 2002.

- [3140] R. Kachhap and C. Guria. Multi-objective optimization of a batch copoly(ethylene-polyoxyethylene terephthalate) reactor using different adaptations of nondominated sorting genetic algorithm. *Macromolecular Theory and Simulations*, 14(6):358–373, July 2005.
- [3141] Voratas Kachitvichyanukul and Siriwan Sitthitham. A two-stage genetic algorithm for multi-objective job shop scheduling problems. *Journal of Intelligent Manufacturing*, 22(3):355–365, June 2011.
- [3142] Sofiene Kachroudi. Substitute Domination Relation for high Objective Number Optimization. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pages 314–321. Springer-Verlag, Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18 2010.
- [3143] B. Anthony Kadrovach, Steven R. Michaud, Jesse B. Zydallis, Gary B. Lamont, Barry Secrest, and David Strong. Extending the Simple Genetic Algorithm into Multi-Objective Problems via Mendelian Pressure. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 181–188, San Francisco, California, July 2001.
- [3144] B. Anthony Kadrovach, Jesse B. Zydallis, and Gary B. Lamont. Use of mendelian pressure in a multi-objective genetic algorithm. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 962–967, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [3145] Ahmed Kafafy, Ahmed Bounekkar, and Stéphane Bonnevay. A Hybrid Evolutionary Metaheuristics (HEMH) Applied on 0/1 Multiobjective Knapsack Problems. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 497–504, Dublin, Ireland, July 12-16 2011. ACM Press.
- [3146] Cengiz Kahraman, Orhan Engin, and Mustafa Kerim Yilmaz. A New Artificial Immune System Algorithm for Multiobjective Fuzzy Flow Shop Problems. *International Journal of Computational Intelligence Systems*, 2(3):236–247, October 2009.
- [3147] Shiori Kaige, Tadahiko Murata, and Hisao Ishibuchi. Performance evaluation of memetic EMO algorithms using dominance relation-based replacement rules on MOO test problems. In *Proceedings of the 2003 IEEE International Conference on Systems, Man, and Cybernetics*, volume 1, pages 14–19. IEEE Press, 2003.
- [3148] Hirotaka Kaji. *Automotive Engine Calibration with Experiment-Based Evolutionary Multi-objective Optimization*. PhD thesis, Graduate School of Informatics, Kyoto University, Kyoto, Japan, August 2008.

- [3149] Hirotaka Kaji, Kokolo Ikeda, and Hajime Kita. Acceleration of Parametric Multi-Objective Optimization by an Initialization Technique for Multi-Objective Evolutionary Algorithms. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2291–2297, Hong Kong, June 2008. IEEE Service Center.
- [3150] Hirotaka Kaji, Kokolo Ikeda, and Hajime Kita. Avoidance of Constraint Violation for Experiment-Based Evolutionary Multi-objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2756–2763, Trondheim, Norway, May 2009. IEEE Press.
- [3151] Hirotaka Kaji, Kokolo Ikeda, and Hajime Kita. Uncertainty of Constraint Function in Evolutionary Multi-objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1621–1628, Trondheim, Norway, May 2009. IEEE Press.
- [3152] Hirotaka Kaji and Hajime Kita. Acceleration of Experiment-Based Evolutionary Multi-objective Optimization of Internal-Combustion Engine Controllers Using Fitness Estimation. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1777–1784, Singapore, September 2007. IEEE Press.
- [3153] Hirotaka Kaji and Hajime Kita. Acceleration of Experiment-Based Evolutionary Multi-objective Optimization Using Fitness Estimation. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 818–831, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3154] Hirotaka Kaji and Hajime Kita. Individual Evaluation Scheduling for Experiment-Based Evolutionary Multi-objective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 645–659, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3155] Hirotaka Kaji and Hajime Kita. Individual Evaluation Scheduling for Experiment-Based Evolutionary Multi-objective Optimization. *Electronics and Communications in Japan*, 93(2):12–24, February 2010.
- [3156] Ignacy Kaliszewski and Janusz Miroforidis. Multiple Criteria Decision Making: Efficient Outcome Assessments with Evolutionary Optimization. In Yong Shi, Shouyang Wang, Yi Peng, Jianping Li, and Yong Zeng, editors, *Cutting-Edge Research Topics on Multiple Criteria Decision Making (MCDM'2009)*, pages 25–28. Springer, Communications in Computer and Information Science, Vol. 35, Heidelberg, Germany, 2009.
- [3157] Ignacy Kaliszewski, Janusz Miroforidis, and Dmitry Podkopaev. Interactive Multiple Criteria Decision Making based on preference driven Evolutionary

- Multiobjective Optimization with controllable accuracy. *European Journal of Operational Research*, 216(1):188–199, January 1 2012.
- [3158] Amir Kamali, S.M.T. Fatemi Ghomi, and F. Jolai. A multi-objective quantity discount and joint optimization model for coordination of a single-buyer multi-vendor supply chain. *Computers & Mathematics with Applications*, 62(8):3251–3269, October 2011.
 - [3159] Raffi Kamalian, Hideyuki Takagi, and Alice M. Agogino. Optimized Design of MEMS by Evolutionary Multi-objective Optimization with Interactive Evolutionary Computation. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 1030–1041, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
 - [3160] Raffi R. Kamalian, Ying Zhang, Hideyuki Takagi, and Alice M. Agogino. Evolutionary Synthesis of Micromachines Using Supervisory Multiobjective Interactive Evolutionary Computation. In Daniel S. Yeung, Zhi-Qiang Liu, Xizhao Wang, and Hong Yan, editors, *Advances in Machine Learning and Cybernetics, 4th International Conference, ICMLC 2005*, pages 428–437. Springer. Lecture Notes in Computer Science Vol. 3930, Guangzhou, China, August 18-21 2006.
 - [3161] Raffi Roupén Kamalian. *Evolutionary Synthesis of MEMS*. PhD thesis, Mechanical Engineering, University of California, Berkeley, USA, 2004.
 - [3162] Hesham Kamel, Ramin Sedaghati, and Mamoun Medraj. Crashworthiness improvement of a pickup truck’s chassis frame using the Pareto-Front and genetic algorithm. *International Journal of Heavy Vehicle Systems*, 18(1):83–103, 2011.
 - [3163] Jiro Kamiura, Tomoyuki Hiroyasu, Mitsunori Miki, and Shinya Watanabe. MOGADES: Multi-objective genetic algorithm with distributed environment scheme. In *Computational Intelligence and Applications (Proceedings of the Second International Workshop on Intelligent Systems Design and Applications: ISDA’02)*, pages 143–148, 2002.
 - [3164] Ioannis C. Kambolis and Kyriakos C. Giannakoglou. Distributed evolutionary algorithms with hierarchical evaluation. *Engineering Optimization*, 41(11):1037–1049, November 2009.
 - [3165] Ioannis C. Kambolis and Kyriakos C. Giannakoglou. Synergetic use of different evaluation, parameterization and search tools within a multilevel optimization platform. *Applied Soft Computing*, 11(1):645–651, January 2011.
 - [3166] D. Kanagarajan, R. Karthikeyan, K. Palanikumar, and J. Paulo Davim. Optimization of electrical discharge machining characteristics of WC/Co composites using non-dominated sorting genetic algorithm (NSGA-II). *International Journal of Advanced Manufacturing Technology*, 36(11-12):1124–1132, April 2008.

- [3167] Masahiro Kanazaki, Masashi Morikawa, Shigeru Obayashi, and Kazuhiro Nakahashi. Multiobjective Design Optimization of Merging Configuration for an Exhaust Manifold of a Car Engine. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 281–287, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [3168] Masahiro Kanazaki, Shigeru Obayashi, and Kazuhiro Nakahashi. Exhaust Manifold Design with Tapered Pipes using Divided Range MOGA. *Engineering Optimization*, 36(2):149–163, April 2004.
- [3169] Dusko Kancev, Blaze Gjorgiev, and Marko Cepin. Optimization of test interval for ageing equipment: A multi-objective genetic algorithm approach. *Journal of Loss Prevention in the Process Industries*, 24(4):397–404, July 2011.
- [3170] Amr Kandil, Khaled El-Rayes, and Omar El-Anwar. Optimization Research: Enhancing the Robustness of Large-Scale Multiobjective Optimization in Construction. *Journal of Construction Engineering and Management-ASCE*, 136(1):17–25, January 2010.
- [3171] Tai Kang, G.Y. Cui, and Tapabrata Ray. Design Synthesis of Path Generating Compliant Mechanisms by Evolutionary Optimization of Topology and Shape. In *ASME DETC 2000 Design Automation Conference*, Baltimore, Maryland, 2000.
- [3172] Y. H. Kang and Z. Bien. Introduction of a new concept, age, into the multiobjective evolutionary algorithm in the two dimensional space. *IEICE Transactions on Information and Systems*, E86D(7):1304–1309, July 2003.
- [3173] Zhuo Kang, Lishan Kang, Changhe Li, Yuping Chen, and Minzhong Liu. Convergence Properties of E-Optimality Algorithms for Many Objective Optimization Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 472–476, Hong Kong, June 2008. IEEE Service Center.
- [3174] S. Kannan, S. Baskar, James D. McCalley, and P. Murugan. Application of NSGA-II Algorithm to Generation Expansion Planning. *IEEE Transactions on Power Systems*, 24(1):454–461, February 2009.
- [3175] Hitoshi Kanoh and Kenta Hara. Hybrid Genetic Algorithm for Dynamic Multi-objective Route Planning with Predicted Traffic in a Real-World Road Network. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 657–664, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [3176] Siwadol Kanyakam and Sujin Bureerat. Passive Vibration Suppression of a Walking Tractor Handlebar Structure Using Multiobjective PBIL. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4162–4169, Singapore, September 2007. IEEE Press.

- [3177] Siwadol Kanyakam and Sujin Bureerat. Multiobjective Evolutionary Optimization of Splayed Pin-Fin Heat Sink. *Engineering Applications of Computational Fluid Mechanics*, 5(4):553–565, December 2011.
- [3178] Gio J. Kao and Sheldon H. Jacobson. Finding preferred subsets of pareto optimal solutions. *Computational Optimization and Applications*, 40(1):73–95, May 2008.
- [3179] M. Kapanoglu and W.A. Miller. An evolutionary algorithm-based decision support system for managing flexible manufacturing. *Robotics and Computer-Integrated Manufacturing*, 20(6):529–539, December 2004.
- [3180] Ibrahim Karahan. Preference-based flexible multiobjective evolutionary algorithms. Master’s thesis, Graduate School of Natural and Applied Sciences, Middle East Technical University, Turkey, June 2008.
- [3181] Ibrahim Karahan and Murat Koeksalan. A Territory Defining Multiobjective Evolutionary Algorithms and Preference Incorporation. *IEEE Transactions On Evolutionary Computation*, 14(4):636–664, August 2010.
- [3182] Marios K. Karakasis and Kyriakos C. Giannakoglou. Metamodel-Assisted Multi-Objective Evolutionary Optimization. In R. Schilling, W. Haase, J. Periaux, H. Baier, and G. Bueda, editors, *EUROGEN 2005. Evolutionary Methods for Design, Optimization and Control with Applications to Industrial Problems*, Munich, Germany, 2005.
- [3183] Marios K. Karakasis and Kyriakos C. Giannakoglou. On the use of metamodel-assisted, multi-objective evolutionary algorithms. *Engineering Optimization*, 38(8):941–957, December 2006.
- [3184] Esra Köktener Karasakal and Murat Köksalan. A Simulated Annealing Approach to Bicriteria Scheduling Problems on a Single Machine. *Journal of Heuristics*, 6(3):311–327, August 2000.
- [3185] Naoya Karatsu, Yuichi Nagata, Isao Ono, and Shigenobu Kobayashi. Globally multimodal function optimization by Real-Coded Genetic Algorithms using traps. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 2726–2733, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3186] Idris Karen, Ali Riza Yildiz, Necmettin Kaya, Nursel Öztürk, and Ferruk Öztürk. Hybrid approach for genetic algorithm and taguchi’s method based design optimization in automotive industry. *International Journal of Production Research*, 44(22):4897–4914, 2006.
- [3187] Akbar Karimi, Hadi Nobahari, and Patrick Siarry. Continuous ant colony system and tabu search algorithms hybridized for global minimization of continuous multi-minima functions. *Computational Optimization and Applications*, 45(3):639–661, April 2010.

- [3188] Yigit Karpat and Tugrul Ozel. Multi-objective optimization of turning processes using neural network modeling and dynamic-neighborhood particle swarm optimization. *International Journal of Advanced Manufacturing Technology*, 35(3-4):234–247, December 2007.
- [3189] Yiğit Karpat and Tuğrul Özel. Swarm-Intelligent Neural Network System (SINNS) Based Multi-Objective Optimization of Hard Turning. *Transactions of North American Manufacturing Research Institute*, 34:9–16, 2006.
- [3190] Hossein Karshenas, Roberto Santana, Concha Bielza, and Pedro Larra naga. Multi-objective Optimization with Joint Probabilistic Modeling of Objectives and Variables. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 298–312, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [3191] K.B. Kasat and S.K. Gupta. Multi-objective optimization of an industrial fluidized-bed catalytic cracking unit (FCCU) using genetic algorithm (GA) with the jumping genes operator. *Computers & Chemical Engineering*, 27(12):1785–1800, December 2003.
- [3192] K.B. Kasat, A.K. Ray, and S.K. Gupta. Applications of genetic algorithm in polymer science and engineering. *Materials and Manufacturing Processes*, 18(3):523–532, 2003.
- [3193] R.B. Kasat, D. Kunzru, D.N. Saraf, and S.K. Gupta. Multiobjective optimization of industrial FCC units using elitist nondominated sorting genetic algorithm. *Industrial & Engineering Chemistry Research*, 41(19):4765–4776, September 2002.
- [3194] J. R. Kasprzyk, P. M. Reed, B. R. Kirsch, and G. W. Characklis. Managing population and drought risks using many-objective water portfolio planning under uncertainty. *Water Resources research*, 45, December 3 2009. Article Number: W12401.
- [3195] M. Katebi, H. Tawfik, and S. D. Katebi. Limit Cycle Prediction Based on Evolutionary Multiobjective Formulation. *Mathematical Problems in Engineering*, Article Number 816707, 2009.
- [3196] Kosuke Kato, Cahit Perkgoz, and Masatoshi Sakawa. An Interactive Fuzzy Satisficing Method for Multiobjective Integer Programming Problems through Genetic Algorithms. In Yaochu Jin, editor, *Knowledge Incorporation in Evolutionary Computation*, pages 503–523. Springer, Berlin Heidelberg, 2005. ISBN 3-540-22902-7.
- [3197] Kosuke Kato and Masatoshi Sakawa. Genetic Algorithms with Decomposition Procedures for Fuzzy Multiobjective 0-1 Programming Problems with Block Angular Structure. In *Proceedings of the 1996 International Conference on Evolutionary Computation (ICEC'96)*, pages 706–709, 1996.

- [3198] Kosuke Kato and Masatoshi Sakawa. Interactive Decision Making for Multiobjective Block Angular 0-1 Programming Problems with Fuzzy Parameters Through Genetic Algorithms with Decomposition Procedures. In *Proceedings of the Sixth IEEE Conference on Fuzzy Systems*, pages 1645–1650, 1997.
- [3199] Kosuke Kato and Masatoshi Sakawa. An interactive fuzzy satisficing method for large scale multiobjective 0-1 programming problems with fuzzy parameters through genetic algorithms. *European Journal of Operational Research*, 107(3):590–598, June 1998.
- [3200] Kosuke Kato and Masatoshi Sakawa. Large scale fuzzy multiobjective 0-1 programs through genetic algorithms with decomposition procedures. In L.C. Jain and R.K. Jain, editors, *Second International Conference on Knowledge-Based Intelligent Electronic Systems*, pages 278–284, Adelaide, Australia, 1998. IEEE.
- [3201] Kosuke Kato and Masatoshi Sakawa. Interactive fuzzy programming based on a probability maximization model using genetic algorithms for two-level integer programming problems involving random variable coefficients. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 77–84, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [3202] Kosuke Kato, Masatoshi Sakawa, and Toshinori Ikegame. Interactive Decision Making for Multiobjective Block Angular 0-1 Programming Problems with Fuzzy Parameters Through Genetic Algorithms. *Japanese Journal of Fuzzy Theory and Systems*, 9(1):49–59, 1997.
- [3203] Kosuke Kato, Masatoshi Sakawa, and Toshinori Ikegame. An Interactive Fuzzy Criteria Method for Multiobjective 0-1 Programming Problems with Block Angular Structure Using Genetic Algorithms. *Electronics and Communications in Japan (Part III: Fundamental Electronic Science)*, 81(8):10–17, August 1998.
- [3204] Kosuke Kato, Masatoshi Sakawa, and Toshinori Ikegame. Improvement of genetic algorithms with decomposition procedures for large-scale multiobjective multidimensional 0-1 knapsack problems incorporating fuzzy goals. *Electronics and Communications in Japan Part III-Fundamental Electronic Science*, 83(12):62–69, December 2000.
- [3205] Yuji Katsumata and Takao Terano. Bayesian Optimization Algorithm for Multi-Objective Solutions: Application to Electric Equipment Configuration Problems in a Power Plant. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 1101–1107, Canberra, Australia, December 2003. IEEE Press.
- [3206] Massimiliano Kaucic. *Evolutionary Computations for Trading Systems*. PhD thesis, Università degli Studi di Trieste, Italy, 2008.

- [3207] Massimiliano Kaucic. Investment using evolutionary learning methods and technical rules. *European Journal of Operational Research*, 207(3):1717–1727, December 16 2010.
- [3208] Paul Kaufmann, Tobias Knieper, and Marco Platzner. A Novel Hybrid Evolutionary Strategy and its Periodization with Multi-objective Genetic Optimizers. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 541–548, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3209] Paul Kaufmann and Marco Platzner. MOVES: A Modular Framework for Hardware Evolution. In *Second NASA/ESA Conference on Adaptive Hardware and Systems (AHS 2007)*, pages 447–454, Scotland, United Kingdom, August 2007. IEEE Computer Society.
- [3210] A. Kaveh and K. Laknejadi. A Hybrid Multi-Objective Optimization and Decision Making Procedure for Optimal Design of Truss Structures. *Iranian Journal of Science and Technology–Transactions of Civil Engineering*, 35(C2):137–154, August 2011.
- [3211] A. Kaveh and K. Laknejadi. A novel hybrid charge system search and particle swarm optimization method for multi-objective optimization. *Expert Systems with Applications*, 38(12):15475–15488, November-December 2011.
- [3212] A. Kaveh and M. Shahrouzi. Optimal structural design family by genetic search and ant colony approach. *Engineering Computations*, 25(3–4):268–288, 2008.
- [3213] Ali Kaveh, Karim Laknejadi, and Babak Alinejad. Performance-based multi-objective optimization of large steel structures. *Acta Mechanica*, 223(2):355–369, February 2012.
- [3214] Abdolsaeid Ganjeh Kaviri, Mohammad Nazri Mohd Jaafar, and Tholudin Mat Lazim. Modeling and multi-objective exergy based optimization of a combined cycle power plant using a genetic algorithm. *Energy Conversion and Management*, 58:94–103, June 2012.
- [3215] D. Kavitha, A.F. Zobaa, P. Renuga, and V. Suresh Kumar. NSGA-II Optimized Neural Network Controlled Active Power Line Conditioner Under Non-Sinusoidal Conditions. *International Review of Electrical Engineering-IREE*, 6(5):2604–2610, September-October 2011.
- [3216] K. C. Kavvadias and Z. B. Maroulis. Multi-objective optimization of a trigeneration plant. *Energy Policy*, 38(2):945–954, February 2010.
- [3217] T. Kawabe and T. Tagami. A New Genetic Algorithm using Pareto Partitioning Method for Robust Partial Model Matching PID Design with Two Degrees of Freedom. In *Proceedings of the Third International ICSC (International Computer Science Conventions) Symposia on Intelligent Industrial Automation (IIA'99) and Soft Computing (SOCO'99)*, pages 562–567, Genova, 1999.

- [3218] Hiroshi Kawamura. Fuzzy Multi-Objective and Multistage Optimization—An Application of Fuzzy Theory to Artificial Life. In *International Joint Conference of the Fourth IEEE International Symposium on Fuzzy Systems and the Second International Fuzzy Engineering Symposium*, volume 2, pages 701–708. IEEE, 1995.
- [3219] Masaru Kawarabayashi, Junichi Tsuchiya, and Keiichiro Yasuda. Integrated Optimization by Multi-Objective Particle Swarm Optimization. *IEEE Transactions on Electrical and Electronic Engineering*, 5(1):79–81, January 2010.
- [3220] Mehmet Kaya. Multi-objective genetic algorithm based approaches for mining optimized fuzzy association rules. *Soft Computing: A Fusion of Foundations, Methodologies and Applications*, 10(7):578–586, May 2006.
- [3221] Mehmet Kaya. MOGAMOD: Multi-objective genetic algorithm for motif discovery. *Expert Systems with Applications*, 36(2):1039–1047, March 2009.
- [3222] Mehmet Kaya. Autonomous classifiers with understandable rule using multi-objective genetic algorithms. *Expert Systems with Applications*, 37(4):3489–3494, April 2010.
- [3223] Hilmi G. Kayacik, A. Nur Zincir-Heywood, Malcolm I. Heywood, and Stefan Burschka. Testing Detector Parameterization Using Evolutionary Exploit Generation. In Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alc’azar, Muddassar Farooq, Andreas Fink, and Penousal Machado, editors, *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pages 105–110. Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.
- [3224] A. Kaylani, M. Georgiopoulos, M. Mollaghasemi, and G.C. Anagnostopoulos. MO-GART: Multiobjective Genetic ART Architecture. In *2008 Congress on Evolutionary Computation (CEC’2008)*, pages 1425–1432, Hong Kong, June 2008. IEEE Service Center.
- [3225] A. Kaylani, M. Georgiopoulos, M. Mollaghasemi, and G.C. Anagnostopoulos. AG-ART: An adaptive approach to evolving ART architectures. *Neurocomputing*, 72(10-12):2079–2092, June 2009.
- [3226] Assem Kaylani. *An Adaptive Multiobjective Evolutionary Approach to Optimize ARTMAP Neural Networks*. PhD thesis, School of Electrical Engineering and Computer Science in the College of Engineering and Computer Science at the University of Central Florida, Orlando, Florida, USA, 2008.
- [3227] Assem Kaylani, Michael Georgiopoulos, Mansooreh Mollaghasemi, Georgios C. Anagnostopoulos, Christopher Sentelle, and Mingyu Zhong. An Adaptive Multiobjective Approach to Evolving ART Architectures. *IEEE Transactions on Neural Networks*, 21(4):529–550, April 2010.

- [3228] Bahaa I. Kazem. Multi-Objective Optimization for the Force System of Orthodontic Retraction Spring Using Genetic Algorithms. *Journal of Medical Devices-Transactions of the ASME*, 3(4), December 2009. Article Number: 041006.
- [3229] Ed Keedwell and Ajit Narayanan. Gene Finding and Rule Discovery With a Multi-Objective Neural-Genetic Hybrid. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 428, London, UK, July 2007. ACM Press.
- [3230] Edward Keedwell and Soon-Thiam Khu. Hybrid Genetic Algorithms for Multi-objective Optimisation of Water Distribution Networks. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 1042–1053, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [3231] Edward Keedwell and Soon-Thiam Khu. A novel evolutionary meta-heuristic for the multi-objective optimization of real-world water distribution network. *Engineering Optimization*, 38(3):319–336, April 2006.
- [3232] Nattavut Keerativuttiumrong, Nachol Chaiyaratana, and Vara Varavithya. Multi-objective Co-operative Co-evolutionary Genetic Algorithm. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 288–297, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [3233] Maarten Keijzer. *Scientific Discovery using Genetic Programming*. PhD thesis, Technical University of Denmark, Denmark, 2001.
- [3234] Ridha Kelaiaia, Olivier Company, and Abdelouahab Zaatri. Multiobjective optimization of a linear Delta parallel robot. *Mechanism and Machine Theory*, 50:159–178, April 2012.
- [3235] David Keller. Global Laminate Optimization on Geometrically Partitioned Shell Structures. *Structural and Multidisciplinary Optimization*, 43(3):353–368, March 2011.
- [3236] Vincent Kelner. Développement d’un algorithme génétique et application à des problèmes complexes d’optimisation. Master’s thesis, Université de Liège, Faculté des Sciences Appliquées, Département d’Aéronautique, Spatial, Mécanique et Matériaux, Service de Turbomachines et Propulsion, September 2003.
- [3237] Vincent Kelner, Florin Capitanescu, Olivier Uonard, and Louis Wehenkel. A hybrid optimization technique coupling an evolutionary and a local search algorithm. *Journal of Computational and Applied Mathematics*, 215(2):448–456, June 1 2008.

- [3238] A. Kerkhoff and H. Ling. Design of broadband antenna elements for a low-frequency radio telescope using Pareto genetic algorithm optimization. *Radio Science*, 44, December 3 2009. Article Number RS6006.
- [3239] Petra Kersting and Andreas Zabel. Optimizing NC-tool paths for simultaneous five-axis milling based on multi-population multi-objective evolutionary algorithms. *Advances in Engineering Software*, 40(6):452–463, June 2009.
- [3240] Akin Keskin. *Process Integration and Automated Multi-Objective Optimization Supporting Aerodynamic Compressor Design*. PhD thesis, Brandenburgischen Technischen Universität Cottbus, Berlin, Germany, November 30 2006.
- [3241] Robert H. Kewley and Mark J. Embrechts. Computational Military Tactical Planning System. *IEEE Transactions on Systems, Man, and Cybernetics—Part C: Applications and Reviews*, 32(2):161–171, May 2002.
- [3242] K. Keyvanloo and J. Towfighi. Comparing the catalytic performances of mixed molybdenum with cerium and lanthanide oxides supported on HZSM-5 by multiobjective optimization of catalyst compositions using nondominated sorting genetic algorithm. *Journal of Analytical and Applied Pyrolysis*, 88(2):140–148, July 2010.
- [3243] Mohammed Khabzaoui, Clarisse Dhaenens, and El-Ghazali Talbi. A Multicriteria Genetic Algorithm to analyze DNA microarray data. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1874–1881, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [3244] Mohammed Khabzaoui, Clarisse Dhaenens, and El-Ghazali Talbi. Combining evolutionary algorithms and exact approaches for multi-objective knowledge discovery. *RAIRO—Operations Research*, 42(1):69–83, January–March 2008.
- [3245] Aida Khajavirad, Jeremy J. Michalek, and Timothy W. Simpson. An efficient decomposed multiobjective genetic algorithm for solving the joint product platform selection and product family design problem with generalized commonality. *Structural and Multidisciplinary Optimization*, 39(2):187–201, August 2009.
- [3246] S. Khajehpour. *Optimal Conceptual Design of High-Rise Office Buildings*. PhD thesis, Civil Engineering Department, University of Waterloo, Ontario, Canada, 2001.
- [3247] S. Khajehpour and D. E. Grierson. Profitability versus safety of high-rise office buildings. *Structural and Multidisciplinary Optimization*, 25(4):279–293, October 2003.
- [3248] S. Khajehpour and D.E. Grierson. Conceptual Design using Adaptive Computing. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 62–67, San Francisco, California, July 2001.

- [3249] S. Khajepour and D.E. Grierson. Study of Safety of High-Rise Buildings using Evolutionary Search. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 153–161. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [3250] S. Khajepour and A. Sarkar. Development of optimally disordered critical random excitation. *Journal of Sound and Vibration*, 244(5):871–881, July 2011.
- [3251] A. Khakhali, Nader Nariman-zadeh, A. Darvizeh, A. Masoumi, and B. Notghi. Reliability-based robust multi-objective crashworthiness optimisation of S-shaped box beams with parametric uncertainties. *International Journal of Crashworthiness*, 15(4):443–456, 2010.
- [3252] Ahmed Khalafallah and Khaled El-Rayes. Automated multi-objective optimization system for airport site layouts. *Automation in Construction*, 20(4):313–320, July 2011.
- [3253] Majid Khalili and Reza Tavakkoli-Moghaddam. A multi-objective electromagnetism algorithm for a bi-objective flowshop scheduling problem. *Journal of Manufacturing Systems*, 31(2):232–239, April 2012.
- [3254] Abolfazl Khalkhali, Mehdi Farajpoor, and Hamed Safikhani. Modeling and Multi-Objective Optimization of Forward-Curved Blade Centrifugal Fans Using CFD and Neural Networks. *Transactions of the Canadian Society for Mechanical Engineering*, 35(1):63–79, 2011.
- [3255] Abolfazl Khalkhali, Mohamadhosein Sadafi, Javad Rezapour, and Hamed Safikhani. Pareto Based Multi-Objective Optimization of Solar Thermal Energy Storage Using Genetic Algorithms. *Transactions of the Canadian Society for Mechanical Engineering*, 34(3-4):463–474, 2010.
- [3256] Abolfazl Khalkhali and Hamed Safikhani. Pareto based multi-objective optimization of a cyclone vortex finder using CFD, GMDH type neural networks and genetic algorithms. *Engineering Optimization*, 44(1):105–118, 2012.
- [3257] Junaid A. Khan and Sadiq M. Sait. Fast Fuzzy Force-Directed/Simulated Evolution Metaheuristic for Multiobjective VLSI Cell Placement. *Arabian Journal for Science and Engineering*, 32(2B):263–280, October 2007.
- [3258] Junaid A. Khan, Sadiq M. Sait, and Mahmood R. Minhas. Fuzzy Biased Simulated Evolution for Multiobjective VLSI Placement. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1642–1647, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [3259] Nazan Khan. Bayesian Optimization Algorithms for Multiobjective and Hierarchically Difficult Problems. Master's thesis, Graduate College of the University of Illinois at Urbana-Champaign, Urbana, Illinois, USA, 2003.

- [3260] Nazan Khan, David E. Goldberg, and Martin Pelikan. Multi-Objective Bayesian Optimization Algorithm. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, page 684, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [3261] Nazan Khan, David E. Goldberg, and Martin Pelikan. Multi-Objective Bayesian Optimization Algorithm. Technical Report 2002009, Illinois Genetic Algorithms Laboratory, University of Illinois at Urbana-Champaign, Urbana, Illinois, March 2002.
- [3262] Sahnan A. Khan and Andries P. Engelbrecht. A new fuzzy operator and its application to topology design of distributed local area networks. *Information Sciences*, 177(13):2692–2711, July 1 2007.
- [3263] Saif Khan, Vinod Bhakuni, Vandana Praveen, R. Tewari, C.K.M. Tripathi, and V.D. Gupta. Maximizing the native concentration and shelf life of protein: a multiobjective optimization to reduce aggregation. *Applied Microbiology and Biotechnology*, 89(1):99–108, January 2011.
- [3264] Salman A. Khan and Andries P. Engelbrecht. A Fuzzy Ant Colony Optimization Algorithm for Topology Design of Distributed Local Area Networks. In *IEEE Swarm Intelligence Symposium 2008*, St. Louis, Missouri, USA, September 2008. IEEE Press.
- [3265] Salman A. Khan and Andries P. Engelbrecht. Application of Ordered Weighted Averaging and Unified And-Or Operators to Multi-objective Particle Swarm Optimization Algorithm. In *Sixth International Conference on Fuzzy Systems and Knowledge Discovery (FSKD '09)*, pages 176–180, Tianjin, China, August 2009. IEEE Computer Society.
- [3266] Salman A. Khan and Andries P. Engelbrecht. Fuzzy hybrid simulated annealing algorithms for topology design of switched local area networks. *Soft Computing*, 13(1):45–61, January 2009.
- [3267] Salman A. Khan and Andries P. Engelbrecht. A fuzzy particle swarm optimization algorithm for computer communication network topology design. *Applied Intelligence*, 36(1):161–177, January 2012.
- [3268] V. Khare, X. Yao, and K. Deb. Performance Scaling of Multi-objective Evolutionary Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 376–390, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.

- [3269] Vineet Khare. Performance Scaling of Multi-Objective Evolutionary Algorithms. Master's thesis, School of Computer Science, The University of Birmingham, Edgbaston, Birmingham, UK, September 2002.
- [3270] Wael Khatib and Peter J. Fleming. An Introduction to Evolutionary Computing for Multidisciplinary Optimization. In *Genetic Algorithms in Engineering Systems: Innovations and Applications*, pages 7–12. IEE, 1997.
- [3271] H. M. Khodr and J. Martinez-Crespo. Integral methodology for distribution systems reconfiguration based on optimal power flow using Benders decomposition technique. *IET Generation Transmission & Distribution*, 3(6):521–534, June 2009.
- [3272] H. M. Khodr, J. Martinez-Crespo, M. A. Matos, and J. Pereira. Distribution Systems Reconfiguration Based on OPF Using Benders Decomposition. *IEEE Transactions on Power Delivery*, 24(4):2166–2176, October 2009.
- [3273] L. P. Khoo and L. Y. Zhai. A prototype genetic algorithm-enhanced rough set-based rule induction system. *Computers in Industry*, 16(2):131–138, 2000.
- [3274] E. F. Khor, K. C. Tan, and T. H. Lee. Learning the Search Range for Evolutionary Optimization in Dynamic Environments. *Knowledge and Information Systems*, 4(2):228–255, April 2002.
- [3275] E.F. Khor, K.C. Tan, and T.H. Lee. Multi-Objective Evolutionary Algorithm with Non-Stationary Search Space. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 527–535, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [3276] E.F. Khor, K.C. Tan, and T.H. Lee. Tabu-Based Exploratory Evolutionary Algorithm for Effective Multi-objective Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 344–358. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [3277] E.F. Khor, K.C. Tan, T.H. Lee, and C.K. Goh. A study on distribution preservation mechanism in evolutionary multi-objective optimization. *Artificial Intelligence Review*, 23(1):31–56, May 2005.
- [3278] E.F. Khor, K.C. Tan, M.L. Wang, and T.H. Lee. Evolutionary Algorithm with Dynamic Population Size for Multi-Objective Optimization. In *26th Annual Conference of the IEEE Industrial Electronics Society*, volume 3, pages 1686–1691. IEEE, 2000.
- [3279] E.F. Khor, K.C. Tan, and Y.J. Yang. An Evolutionary Algorithm with Tabu Restriction and Heuristic Reasoning for Multiobjective Optimization. In Yaochu Jin, editor, *Knowledge Incorporation in Evolutionary Computation*, pages 255–277. Springer, Berlin Heidelberg, 2005. ISBN 3-540-22902-7.

- [3280] M. Khorshidi, M. Soheilypour, M. Peyro, A. Atai, and M. Shariat Panahi. Optimal design of four-bar mechanisms using a hybrid multi-objective GA with adaptive local search. *Mechanism and Machine Theory*, 46(10):1453–1465, October 2011.
- [3281] Reza Khorshidi. An Efficient Hybrid Evolutionary Optimization Algorithm for Multi-Objective Distribution Feeder Reconfiguration. *International Review of Electrical Engineering-IREE*, 4(6):1318–1325, November-December 2009.
- [3282] Taghi Khoshgoftaar, Yi Liu, and Naeem Seliya. A Multiobjective Module-Order Model for Software Quality Enhancement. *IEEE Transactions on Evolutionary Computation*, 8(6):593–608, 2004.
- [3283] Taghi M. Khoshgoftaar, Yi Liu, and Naeem Seliya. Genetic Programming-Based Decision Trees for Software Quality Classification. In *Proceedings of the Fifteenth International Conference on Tools with Artificial Intelligence (ICTAI 03)*, pages 374–383, Los Alamitos, California, November 2003. IEEE Computer Society.
- [3284] M. R. Khoshravan and M. Hosseinzadeh. Optimization of a Sandwich Structure Using a Genetic Algorithm. *CMES-Computer Modeling in Engineering & Sciences*, 45(2):179–206, May 2009.
- [3285] Dinesh K. Khosla, Santosh K. Gupta, and Deoki N. Saraf. Multi-objective optimization of fuel oil blending using the jumping gene adaptation of genetic algorithm. *Fuel Processing Technology*, 88(1):51–63, January 2007.
- [3286] Soon-Thiam Khu. Automatic Calibration of NAM Model with Multi-Objectives Consideration. Technical Report 1298-1, National University of Singapore/Danish Hydraulic Institute, December 1998.
- [3287] Soon-Thiam Khu, Henrik Madsen, and Francesco di Pierro. Incorporating multiple observations for distributed hydrologic model calibration: An approach using a multi-objective evolutionary algorithm and clustering. *Advances in Water Resources*, 31(10):1387–1398, October 2008.
- [3288] A. A. Khwaja, M. O. Rahman, and M.G. Wagner. Inverse Kinematics of Arbitrary Robotic Manipulators using Genetic Algorithms. In J. Lenarcic and M. L. Justy, editors, *Advances in Robot Kinematics: Analysis and Control*, pages 375–382. Kluwer Academic Publishers, 1998.
- [3289] Rafal Kicinger, Shigeru Obayashi, and Tomasz Arciszewski. Evolutionary Multiobjective Optimization of Steel Structural Systems in Tall Buildings. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 604–618, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.

- [3290] Rafal P. Kicingier. *Emergent Engineering Design: Design Creativity and Optimality Inspired by Nature*. PhD thesis, Department of Civil, Environmental and Infrastructure Engineering, George Mason University, Fairfax, Virginia, USA, 2004.
- [3291] Yasuhiro Kida, Hiroshi Kawamura, Akinori Tani, and Atsushi Takizawa. Multi-Objective Optimization of Spatial Truss Structures by Genetic Algorithm. *Forma*, 15(2):133–139, 2000.
- [3292] Juha Kilkki. *Automated Formulation of Optimisation Models for Steel Beam Structures*. PhD thesis, Lappeenranta University of Technology, Lappeenranta, Finland, November 2002.
- [3293] B. Kim, E. S. Gel, W. M. Carlyle, and J. W. Fowler. A new technique to compare algorithms for bi-criteria combinatorial optimization problems. In *Multiple Criteria Decision Making In The New Millennium*, pages 113–123. Springer. Lecture Notes In Economics And Mathematical Systems. Vol. 507, 2001.
- [3294] Bosun Kim. *Evaluation of Non-Dominated Solution Sets for Multiple Objective Optimization Problems*. PhD thesis, Arizona State University, August 2003.
- [3295] DaeEun Kim. Structural Risk Minimization on Decision Trees Using an Evolutionary Multiobjective Optimization. In Maarten Keijzer, Una-May O’Reilly, Simon M. Lucas, Ernesto Costa, and Terence Soule, editors, *Genetic Programming, 7th European Conference, EuroGP 2004*, pages 338–348, Coimbra, Portugal, April 2004. Springer. Lecture Notes in Computer Science, Vol. 3003.
- [3296] DaeEun Kim. Minimizing Structural Risk on Decision Tree Classification. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 241–260. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [3297] DaeEun Kim. A Quantitative Analysis of Memory Requirement and Generalization Performance for Robotic Tasks. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO’2007)*, volume 1, pages 285–292, London, UK, July 2007. ACM Press.
- [3298] Dongmin Kim, Soo-Yong Shin, In-Hee Lee, and Byoung-Tak Zhang. NACST/Seq: A Sequence Design System with Multiobjective Optimization. In Masami Hagiya and Azuma Ohuchi, editors, *DNA Computing, 8th International Workshop on DNA Based Computers (DNA8). Lecture Notes in Computer Science. Volume 2568*, pages 242–251, Sapporo, Japan, 2003. Springer.
- [3299] Gi-Hwa Kim. *Multicriteria structural optimization by genetic algorithm*. PhD thesis, Seoul National University, 1994. (In Korean).
- [3300] H.S. Kim and P.N. Roschke. Fuzzy control of base-isolation system using multi-objective genetic algorithm. *Computer-Aided Civil and Infrastructure Engineering*, 21(6):436–449, August 2006.

- [3301] Hyun-Min Kim, Mi-Ae Moon, and Kwang-Yong Kim. Multi-objective optimization of a cooling channel with staggered elliptic dimples. *Energy*, 36(5):3419–3428, May 2011.
- [3302] J. H. Kim, J. H. Choi, A. Husain, and K. Y. Kim. Multi-objective optimization of a centrifugal compressor impeller through evolutionary algorithms. *Proceedings of the Institution of Mechanical Engineers Part A-Journal of Power and Energy*, 224(A5):711–721, 2010.
- [3303] J.-H. Kim and K.-C. Kim. Multicriteria Fuzzy Control Using Evolutionary Programming. *Information Sciences*, 103(1):71–86, December 1997.
- [3304] Jong-Hwan Kim, Ji-Hyeong Han, Ye-Hoon Kim, Seung-Hwan Choi, and Eun-Soo Kim. Preference-Based Solution Selection Algorithm for Evolutionary Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 16(1):20–34, February 2012.
- [3305] Jong-Hwan Kim, Ye-Hoon Kim, Seung-Hwan Choi, and In-Won Park. Evolutionary Multi-Objective Optimization in Robot Soccer System for Education. *IEEE Computational Intelligence Magazine*, 4(1):31–41, February 2009.
- [3306] Jong-Ryul Kim and Dohoon Kim. Enhancing Internet Network Reliability with Integrated Framework of Multi-objective Genetic Algorithm and Monte Carlo Simulation. *Asia-Pacific Journal of Operational Research*, 25(6):837–846, December 2008.
- [3307] Kamyoun Kim, Alan T. Murray, and Ningchuan Xiao. A multiobjective evolutionary algorithm for surveillance sensor placement. *Environment and Planning B-Planning and Design*, 35(5):935–948, September 2008.
- [3308] Keehyung Kim, R. I. (Bob) McKay, and Byung-Ro Moon. Multiobjective Evolutionary Algorithms for Dynamic Social Network Clustering. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1179–1186, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [3309] K.J. Kim and R. L. Smith. Parallel multiobjective evolutionary algorithms for waste solvent recycling. *Industrial & Engineering Chemistry Research*, 43(11):2669–2679, May 26 2004.
- [3310] K.J. Kim and R.L. Smith. Systematic procedure for designing processes with multiple environmental objectives. *Environmental Science & Technology*, 39(7):2394–2405, April 2005.
- [3311] Mifa Kim, Tomoyuki Hiroyasu, Mitsunori Miki, and Shinya Watanabe. SPEA2+: Improving the Performance of the Strength Pareto Evolutionary Algorithm 2. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 742–751, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.

- [3312] Min-Kyu Kim, Cheol-Gyun Lee, and Hyun-Kyo Jung. Multiobjective Optimal Design of Three-Phase Induction Motor Using Improved Evolution Strategy. *IEEE Transactions on Magnetics*, 34(5):2980–2983, September 1998.
- [3313] S. Kim and H.S. Chung. Multiobjective optimization using adjoint gradient enhanced approximation models for genetic algorithms. In *Computational Science and Its Applications—ICCSA 2006, Part 5*, pages 491–502. Springer-Verlag, Lecture Notes in Computer Science Vol. 3984, 2006.
- [3314] Taesoon Kim, Jun-Haeng Heo, Deg-Hyo Bae, and Jin-Hoon Kim. Single-reservoir operating rules for a year using multiobjective genetic algorithm. *Journal of Hydroinformatics*, 10(2):163–179, April 2008.
- [3315] Y. Kim and E. K. Walton. Automobile conformal antenna design using non-dominated sorting genetic algorithm (NSGA). *IEE Proceedings-Microwaves Antennas and Propagation*, 153(6):579–582, December 2006.
- [3316] Y.-J. Kim and J. Ghaboussi. A New Genetic Algorithm Based Control Method Using State Space Reconstruction. In *Proceedings of the Second World Conference on Struc. Control*, pages 2007–2014, Kyoto, Japan, 1998.
- [3317] Y.-J. Kim and J. Ghaboussi. A New Method of Reduced Order Feedback Control Using Genetic Algorithms. *Earthquake Engineering and Structural Dynamics*, 28(2):193–212, 1999.
- [3318] Ye-Hoon Kim and Jong-Hwan Kim. Multiobjective Quantum-inspired Evolutionary Algorithm for Fuzzy Path Planning of Mobile Robot. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1185–1192, Trondheim, Norway, May 2009. IEEE Press.
- [3319] Yehoon Kim, Jong-Hwan Kim, and Kuk-Hyun Han. Quantum-inspired Multi-objective Evolutionary Algorithm for Multiobjective 0/1 Knapsack Problems. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 9151–9156, Vancouver, BC, Canada, July 2006. IEEE.
- [3320] Yongjin Kim. *Development of automobile antenna design and optimization for FM/GPS/SDARS applications*. PhD thesis, The Ohio State University, 2003.
- [3321] YongSeong Kim. *Feature Selection in Supervised and Unsupervised Learning via Evolutionary Search*. PhD thesis, Graduate College, The University of Iowa, December 2001.
- [3322] YongSeong Kim, W. Nick Street, and Filippo Menczer. An Evolutionary Multi-Objective Local Selection Algorithm for Customer Targeting. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 759–766, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [3323] Y.S. Kim, W.N. Street, and F. Menczer. Feature Selection in Unsupervised Learning via Evolutionary Search. In *Proceedings of the Sixth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 2000.

- [3324] Yunyoung Kim, Koji Gotoh, Masahiro Toyosada, and Jewoong Park. Micro-Genetic Algorithms(μ GAs) for Hard Combinatorial Optimisation Problems. In *The 12th International Offshore and Polar Engineering Conference 2002. (ISOPE 2002)*, pages 230–236, Kitakyushu, Japan, May 26-31 2002. International Society of Offshore and Polar Engineers.
- [3325] Steven O. Kimbrough and Ann Kuo. On Heuristics for Two-Sided Matching: Revisiting the Stable Marriage Problem as a Multiobjective Problem. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1283–1290, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [3326] Chi kin Chow and Hung tat Tsui. Autonomous Agent Response Learning by a Multi-Species Particle Swarm Optimization. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 778–785, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [3327] Robert T. F. Ah King, Harry C.S. Rughooputh, and Kalyanmoy Deb. Stochastic Evolutionary Multiobjective Environmental/Economic Dispatch. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3369–3376, Vancouver, BC, Canada, July 2006. IEEE.
- [3328] Robert T.F. Ah King and Harry C.S. Rughooputh. Elitist Multiobjective Evolutionary Algorithm for Environmental/Economic Dispatch. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 1108–1114, Canberra, Australia, December 2003. IEEE Press.
- [3329] Robert T.F. Ah King, Harry C.S. Rughooputh, and Kalyanmoy Deb. Evolutionary Multi-objective Environmental/Economic Dispatch: Stochastic Versus Deterministic Approaches. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 677–691, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3330] Yuichiro Kinoshita and Heisuke Yokokishizawa. A Tour Route Planning Support System with Consideration of the Preferences of Group Members. In *IEEE International Conference on Systems, Man and Cybernetics, 2008. (SMC'2008)*, pages 150–155, Singapore, October 2008. IEEE Computer Society.
- [3331] T. Kipouros, D.M. Jaeggi, W.N. Dawes, G.T. Parks, A.M. Savill, and P.J. Clarkson. Insight into High-quality Aerodynamic Design Spaces through Multi-objective Optimization. *CMES-Computer Modeling in Engineering & Sciences*, 37(1):1–44, November 2008.
- [3332] T. Kipouros, G.T. Parks, A.M. Savill, and D.M. Jaeggi. Multi-objective Aerodynamic Design Optimisation. In K.C. Giannakoglou and W. Haase, editors, *ERCOF-TAC Design Optimization: Methods and Applications Conference Proceedings. On CD Rom*, page Paper ERCODO2004_239, 2004.

- [3333] Timoleon Kipouros, Daniel Jaeggi, Bill Dawes, Geoff Parks, and Mark Savill. Multi-objective Optimisation of Turbomachinery Blades Using Tabu Search. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 897–910, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3334] Leonid Kirilov and Vassil Guliashki. Interactive Evolutionary Algorithm FIEM for Solving Integer Multiple Objective Problems. *Comptes Rendus de l'Academie Bulgare des Sciences*, 64(2):201–210, 2011.
- [3335] Michael Kirley. MEA: A metapopulation evolutionary algorithm for multi-objective optimisation problems. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 949–956, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [3336] Michael Kirley and Robert Stewart. An Analysis of the Effects of Population Structure on Scalable Multiobjective Optimization Problems. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 845–852, London, UK, July 2007. ACM Press.
- [3337] Michael Kirley and Robert Stewart. Multiobjective Evolutionary Algorithms on Complex Networks. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 81–95, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3338] Marek Kisiel-Dorohinicki, Grzegorz Dobrowolski, and Edward Nawarecki. Evolutionary multi-agent system in multiobjective optimisation. In M. Hamza, editor, *Proceedings of the IASTED International Symposium on Applied Informatics (AI'2001)*, pages 360–365. IASTED/ACTA Press, 2001.
- [3339] Marek Kisiel-Dorohinicki and Krzysztof Socha. Crowding Factor in Evolutionary Multi-Agent System for Multiobjective Optimization. In Hamid R. Arabnia, editor, *Proceedings of the International Conference on Artificial Intelligence (IC-AI'2001)*, pages 695–700, Las Vegas, Nevada, June 2001. CSREA Press.
- [3340] Hajime Kita, Yasuyuki Yabumoto, Naoki Mori, and Yoshikazu Nishikawa. Multi-Objective Optimization by Means of the Thermodynamical Genetic Algorithm. In Hans-Michael Voigt, Werner Ebeling, Ingo Rechenberg, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN IV*, Lecture Notes in Computer Science, pages 504–512, Berlin, Germany, September 1996. Springer-Verlag.
- [3341] Peter Kitak, Adnan Glotic, Igor Ticar, and Joze Pihler. Multiobjective Optimization for Determination of the Electrothermal Parameters in Switchgear Cell Housing. *IEEE Transactions on Magnetics*, 47(5):1302–1305, May 2011.

- [3342] Peter Kitak, Igor Ticar, Joze Pihler, Adnan Glotic, Jelena Popovic, Oszkar Biro, and Kurt Preis. Application of the Hybrid Multiobjective Optimization Methods on the Capacitive Voltage Divider. *IEEE Transactions on Magnetics*, 45(3):1594–1597, March 2009.
- [3343] Syoichi Kitamura, Kazuyuki Mori, Seiichi Shindo, and Yoshio Izui. Modified multiobjective particle swarm optimization method and its application to energy management system for factories. *Electrical Engineering in Japan*, 156(4):33–42, September 2006.
- [3344] T. Kiyota, Y. Tsuji, and E. Kondo. Unsatisfying functions and multiobjective fuzzy satisficing design using genetic algorithms. *IEEE Transactions on Systems, Man, and Cybernetics Part B-Cybernetics*, 33(6):889–897, December 2003.
- [3345] Takanori Kiyota, Yasutaka Tsuji, and Eiji Kondo. New Multiobjective Fuzzy Optimization Method and Its Application. In *Proceedings of the 2000 American Control Conference*, volume 6, pages 4224–4228, Chicago, Illinois, June 2000. IEEE.
- [3346] Kathrin Klamroth and Jorgen Tind. Constrained optimization using multiple objective programming. *Journal of Global Optimization*, 37(3):325–355, March 2007.
- [3347] Mark P. Kleeman, Richard O. Day, and Gary B. Lamont. Analysis of a Parallel MOEA Solving the Multi-objective Quadratic Assignment Problem. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 402–403, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [3348] Mark P. Kleeman, Richard O. Day, and Gary B. Lamont. Multi-Objective Evolutionary Search Performance with Explicit Building-Block Sizes for NPC Problems. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 728–735, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [3349] Mark P. Kleeman and Gary B. Lamont. Solving the Aircraft Engine Maintenance Scheduling Problem Using a Multi-objective Evolutionary Algorithm. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 782–796, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3350] Mark P. Kleeman and Gary B. Lamont. Coevolutionary Multi-Objective EAs: The Next Frontier? In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6190–6199, Vancouver, BC, Canada, July 2006. IEEE.

- [3351] Mark P. Kleeman and Gary B. Lamont. The Multi-Objective Constrained Assignment Problem. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 743–744, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [3352] Mark P. Kleeman and Gary B. Lamont. Scheduling of Flow-Shop, Job-Shop, and Combined Scheduling Problems using MOEAs with Fixed and Variable Length Chromosomes. In Keshav P. Dahal, Kay Chen Tan, and Peter I Cowling, editors, *Evolutionary Scheduling*, Studies in Computational Intelligence (SCI), pages 49–99. Springer, Berlin, 2007. ISBN 3-540-48582-1.
- [3353] Mark P. Kleeman and Gary B. Lamont. Evolutionary Multi-Objective Optimization for Assignment Problems. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 364–387. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [3354] Mark P. Kleeman and Gary B. Lamont. Evolutionary Multi-Objective Optimization in Military Applications. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 388–429. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [3355] Mark P. Kleeman, Gary B. Lamont, Adam Cooney, and Thomas R. Nelson. A Multi-tiered Memetic Multiobjective Evolutionary Algorithm for the Design of Quantum Cascade Lasers. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 186–200, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3356] Mark P. Kleeman, Gary B. Lamont, Kenneth M. Hopkinson, and Scott R. Graham. Multiobjective Evolutionary Algorithms for Designing Capacitated Network Centric Communications. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 905, London, UK, July 2007. ACM Press.
- [3357] Mark P. Kleeman, Gary B. Lamont, Kenneth M. Hopkinson, and Scott R. Graham. Solving Multicommodity Capacitated Network Design Problems using a Multiobjective Evolutionary Algorithm. In *IEEE Symposium on Computational Intelligence in Security and Defense Applications (CISDA 2007)*, pages 33–41. IEEE Press, April 2007.
- [3358] Jan-Willem Klinkenberg, Michael T.M. Emmerich, André H. Deutz, Ofer M. Shir, and Thomas Bäck. A Reduced-Cost SMS-EMOA Using Kriging, Self-Adaptation, and Parallelization. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 301–311. Springer,

- [3359] Mark R. Knarr, Mark N. Goltz, Gary B. Lamont, and Junqi Huang. *In Situ* Bioremediation of Perchlorate-Contaminated Groundwater using a Multi-Objective Parallel Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1604–1611, Canberra, Australia, December 2003. IEEE Press.
- [3360] J. D. Knowles and D. W. Corne. Local Search, Multiobjective Optimization and the Pareto Archived Evolution Strategy. In B. et al. McKay, editor, *Proceedings of Third Australia-Japan Joint Workshop on Intelligent and Evolutionary Systems*, pages 209–216, Ashikaga, Japan, November 1999. Ashikaga Institute of Technology.
- [3361] Joshua Knowles. ParEGO: A Hybrid Algorithm with On-line Landscape Approximation for Expensive Multiobjective Optimization Problems. Technical Report TR-COMPSYSBIO-2004-01, University of Manchester, September 2004.
- [3362] Joshua Knowles. A summary-attainment-surface plotting method for visualizing the performance of stochastic multiobjective optimizers. In *Fifth International Conference on Intelligent Systems Design and Applications (ISDA'2005)*, pages 552–557. IEEE, 2005.
- [3363] Joshua Knowles. ParEGO: A Hybrid Algorithm With On-Line Landscape Approximation for Expensive Multiobjective Optimization Problems. *IEEE Transactions on Evolutionary Computation*, 10(1):50–66, February 2006.
- [3364] Joshua Knowles. Closed-Loop Evolutionary Multiobjective Optimization. *IEEE Computational Intelligence Magazine*, 4(3):77–91, August 2009.
- [3365] Joshua Knowles and David Corne. M-PAES: A Memetic Algorithm for Multi-objective Optimization. In *2000 Congress on Evolutionary Computation*, volume 1, pages 325–332, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [3366] Joshua Knowles and David Corne. On Metrics for Comparing Nondominated Sets. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 711–716, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [3367] Joshua Knowles and David Corne. Towards Landscape Analyses to Inform the Design of Hybrid Local Search for the Multiobjective Quadratic Assignment Problem. In A. Abraham, J. Ruiz del Solar, and M. Köppen, editors, *Soft Computing Systems: Design, Management and Applications*, pages 271–279, Amsterdam, 2002. IOS Press. ISBN 1-58603-297-6.
- [3368] Joshua Knowles and David Corne. Instance Generators and Test Suites for the Multiobjective Quadratic Assignment Problem. In Carlos M. Fonseca, Peter J.

- Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 295–310, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [3369] Joshua Knowles and David Corne. Properties of an Adaptive Archiving Algorithm for Storing Nondominated Vectors. *IEEE Transactions on Evolutionary Computation*, 7(2):100–116, April 2003.
 - [3370] Joshua Knowles and David Corne. Bounded Pareto Archiving: Theory and Practice. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T’kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 39–64, Berlin, 2004. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535.
 - [3371] Joshua Knowles and David Corne. Memetic Algorithms for Multiobjective Optimization: Issues, Methods and Prospects. In William E. Hart, N. Krasnogor, and J.E. Smith, editors, *Recent Advances in Memetic Algorithms*, pages 313–352. Springer. Studies in Fuzziness and Soft Computing, Vol. 166, 2005.
 - [3372] Joshua Knowles and David Corne. Quantifying the Effects of Objective Space Dimension in Evolutionary Multiobjective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 757–771, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
 - [3373] Joshua Knowles, David Corne, and Kalyanmoy Deb. Introduction: Problem Solving, EC and EMO. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 1–28. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
 - [3374] Joshua Knowles, David Corne, and Kalyanmoy Deb, editors. *Multiobjective Problem Solving from Nature. From Concepts to Applications*. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
 - [3375] Joshua Knowles, David Corne, and Alan Reynolds. Noisy Multiobjective Optimization on a Budget of 250 Evaluations. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 36–50. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
 - [3376] Joshua Knowles and Evan J. Hughes. Multiobjective Optimization on a Budget of 250 Evaluations. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 176–190, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [3377] Joshua Knowles and Hirotaka Nakayama. Meta-Modeling in Multiobjective Optimization. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 245–284. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [3378] Joshua Knowles, Lothar Thiele, and Eckart Zitzler. A Tutorial on the Performance Assessment of Stochastic Multiobjective Optimizers. 214, Computer Engineering and Networks Laboratory (TIK), ETH Zurich, Switzerland, feb 2006. revised version.
- [3379] Joshua D. Knowles. *Local-Search and Hybrid Evolutionary Algorithms for Pareto Optimization*. PhD thesis, The University of Reading, Department of Computer Science, Reading, UK, January 2002.
- [3380] Joshua D. Knowles and David W. Corne. Assessing the Performance of the Pareto Archived Evolution Strategy. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 123–124, Orlando, Florida, July 1999.
- [3381] Joshua D. Knowles and David W. Corne. The Pareto Archived Evolution Strategy: A New Baseline Algorithm for Multiobjective Optimisation. In *1999 Congress on Evolutionary Computation*, pages 98–105, Washington, D.C., July 1999. IEEE Service Center.
- [3382] Joshua D. Knowles and David W. Corne. Approximating the Nondominated Front Using the Pareto Archived Evolution Strategy. *Evolutionary Computation*, 8(2):149–172, 2000.
- [3383] Joshua D. Knowles and David W. Corne. A Comparison of Diverse Approaches to Memetic Multiobjective Combinatorial Optimization. In *Proceedings of the 2000 Genetic and Evolutionary Computation Conference Workshop Program*, pages 103–108, Las Vegas, Nevada, July 2000.
- [3384] Joshua D. Knowles and David W. Corne. Benchmark Problem Generators and Results for the Multiobjective Degree-Constrained Minimum Spanning Tree Problem. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 424–431, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [3385] Joshua D. Knowles and David W. Corne. A Comparative Assessment of Memetic, Evolutionary, and Constructive Algorithms for the Multiobjective d -MST Problem. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 162–167, San Francisco, California, July 2001.

- [3386] Joshua D. Knowles and David W. Corne. A Comparison of Encodings and Algorithms for Multiobjective Minimum Spanning Tree Problems. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 544–551, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [3387] Joshua D. Knowles and David W. Corne. Enumeration of Pareto optimal Multi-Criteria Spanning Trees—A Proof of the Incorrectness of Zhou and Gen's Proposed Algorithm. *European Journal of Operational Research*, 143(3):543–547, December 2002.
- [3388] Joshua D. Knowles, David W. Corne, and Mark Fleischer. Bounded Archiving using the Lebesgue Measure. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2490–2497, Canberra, Australia, December 2003. IEEE Press.
- [3389] Joshua D. Knowles, David W. Corne, and Martin J. Oates. On the Assessment of Multiobjective Approaches to the Adaptive Distributed Database Management Problem. In Marc Schoenauer, Kalyanmoy Deb, Günter Rudolph, Xin Yao, Evelynne Lutton, Juan Julian Merelo, and Hans-Paul Schwefel, editors, *Proceedings of the Sixth International Conference on Parallel Problem Solving from Nature (PPSN VI)*, pages 869–878, Berlin, September 2000. Springer.
- [3390] Joshua D. Knowles, David W. Corne, and Martin J. Oates. The Pareto-Envelope based Selection Algorithm for Multiobjective Optimization. In *Proceedings of the Sixth International Conference on Parallel Problem Solving from Nature (PPSN VI)*, pages 839–848, Berlin, September 2000. Springer.
- [3391] Joshua D. Knowles, Martin J. Oates, and David W. Corne. Multiobjective Evolutionary Algorithms Applied to two Problems in Telecommunications. *BT Technology Journal*, 18(4):51–64, October 2000.
- [3392] Joshua D. Knowles, Richard A. Watson, and David W. Corne. Reducing Local Optima in Single-Objective Problems by Multi-objectivization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 268–282. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [3393] Chien-Ho Ko and Shu-Fan Wang. Precast production scheduling using multi-objective genetic algorithms. *Expert Systems With Applications*, 38(7):8293–8302, July 2011.
- [3394] Kenji Kobayashi, Tomoyuki Hiroyasu, and Mitsunori Miki. Mechanism of Multi-Objective Genetic Algorithm for Maintaining the Solution Diversity Using Neural Network. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion*

Optimization, 4th International Conference, EMO 2007, pages 216–226, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.

- [3395] M. H. Kobayashi, H-T. C. Pedro, R. M. Kolonay, and G. W. Reich. On a cellular division method for aircraft structural design. *Aeronautical Journal*, 113(1150):821–831, December 2009.
- [3396] Shigenobu Kobayashi, Koji Yoshida, and Masayuki Asada. Generating a Set of Pareto Optimal Decision Trees by Genetic Algorithms. *Journal of the Japanese Society for Artificial Intelligence*, 11(5):725–732, September 1996.
- [3397] Keyhan Kobravi and Shaahin Filizadeh. An adaptive multi-modal optimization algorithm for simulation-based design of power-electronic circuits. *Engineering Optimization*, 41(10):945–969, October 2009.
- [3398] Patrick Koch, Oliver Kramer, Günter Rudolph, and Nicola Beume. On the hybridization of SMS-EMOA and local search for continuous multiobjective optimization. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 603–610, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [3399] Thomas E. Koch and Andreas Zell. MOCS: Multi-Objective Clustering Selection Evolutionary Algorithm. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 423–430, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [3400] Shyam Prasad Kodali, Rajesh Kudikala, and Kalyanmoy Deb. Multi-Objective Optimization of Surface Grinding Process Using NSGA II. In *First International Conference on Emerging Trends in Engineering and Technology 2008. (ICETET'08)*, pages 763–767, Washington, DC, USA, July 16-18 2008. IEEE Computer Society.
- [3401] Praveen Koduru, Sanjoy Das, Stephen Welch, and Judith L. Roe. Fuzzy Dominance Based Multi-objective GA-Simplex Hybrid Algorithms Applied to Gene Network Models. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 356–367, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [3402] Praveen Koduru, Sanjoy Das, Stephen Welch, and Judith L. Roe. A Multi-objective GA-Simplex Hybrid Approach for Gene Regulatory Network Models. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 2084–2091, Portland, Oregon, USA, June 2004. IEEE Service Center.

- [3403] Praveen Koduru, Sanjoy Das, Stephen Welch, Judith L. Roe, and Zenaida P. Lopez-Dee. A Co-evolutionary Hybrid Algorithm for Multi-Objective Optimization of Gene Regulatory Network Models. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 393–399, New York, USA, June 2005. ACM Press.
- [3404] Praveen Koduru, Sanjoy Das, and Stephen M. Welch. Multi-Objective Hybrid PSO Using ϵ -Fuzzy Dominance. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 853–860, London, UK, July 2007. ACM Press.
- [3405] Praveen Koduru, Sanjoy Das, Stephen M. Welch, Judith L. Roe, and Erika Charbit. A Multiobjective Evolutionary-Simplex Hybrid Approach for the Optimization of Differential Equation Models of Gene Networks. *IEEE Transactions on Evolutionary Computation*, 12(5):572–590, October 2008.
- [3406] Murat Koekalan and Selcen (Pamuk) Phelps. An evolutionary metaheuristic for approximating preference-nondominated solutions. *Inform Journal on Computing*, 19(2):291–301, Spring 2007.
- [3407] Naoki Koizumi, Ikuo Yoshihara, Kunihiro Yamamori, and Moritoshi Yasunaga. Enhancement of the Variable-Length-Transmission-Line Design method for multi-point optimization. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 449–455, Vancouver, BC, Canada, July 2006. IEEE.
- [3408] Ikeda Kokolo, Kita Hajime, and Kobayashi Shigenobu. Failure of Pareto-based MOEAs: Does Non-dominated Really Mean Near to Optimal? In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 957–962, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [3409] Murat Koksalan and Ibrahim Karahan. An Interactive Territory Defining Evolutionary Algorithm: iTDEA. *IEEE Transactions on Evolutionary Computation*, 14(5):702–722, October 2010.
- [3410] Onur Koksoy and Tankut Yalcinoz. Robust Design using Pareto type optimization: A genetic algorithm with arithmetic crossover. *Computers & Industrial Engineering*, 55(1):208–218, August 2008.
- [3411] J.B. Kollat and P.M. Reed. A computational scaling analysis of multiobjective evolutionary algorithms in long-term groundwater monitoring applications. *Advances in Water Resources*, 30(3):408–419, March 2007.
- [3412] J.B. Kollat, P.M. Reed, and J. R. Kasprzyk. A new epsilon-dominance hierarchical Bayesian optimization algorithm for large multiobjective monitoring network design problems. *Advances in Water Resources*, 31(5):828–845, May 2008.
- [3413] J.B. Kollat, P.M. Reed, and R.M. Maxwell. Many-Objective Groundwater Monitoring Network Design Using Bias-Aware Ensemble Kalman Filtering,

Evolutionary Optimization, and Visual Analytics. *Water Resources Research*, 47(W02529), February 18 2011.

- [3414] Joshua B. Kollat and Patrick Reed. A framework for visually interactive decision-making and design using evolutionary multi-objective optimization (VIDEO). *Environmental Modelling & Software*, 22(12):1691–1704, December 2007.
- [3415] Joshua B. Kollat and Patrick M. Reed. The Value of Online Adaptive Search: A Performance Comparison of NSGAI, ϵ -NSGAI and ϵ MOEA. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 386–398, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3416] Joshua B. Kollat and Patrick M. Reed. Comparing state-of-the-art evolutionary multi-objective algorithms for long-term groundwater monitoring design. *Advances in Water Resources*, 29(6):792–807, June 2006.
- [3417] Michael Kolonko and Stefan Voget. Multidimensional Optimization with Genetic Algorithms using Fuzzy Fitness Functions. In *Tagungsband der Fuzzy-Neuro-Systeme*, 1997.
- [3418] Dorothea Kolossa and Georg Grübel. Evolutionary Computation and Nonlinear Programming in Multi-model-robust Control Design. In Stefano Cagnoni et al., editor, *Proceedings of Real World Applications of Evolutionary Computing. EvoWorkshops 2000: EvoIASP, EvoSCONDI, EvoTel, EvoSTIM, EvoRob, and EvoFlight*, pages 147–157, Edinburgh, Scotland, April 2000. Springer. Lecture Notes in Computer Science Vol. 1803.
- [3419] Dorothea Kolossa, Bert-Uwe Köhler, Markus Conrath, and Reinhold Orglmeister. Optimal Permutation Correction by Multiobjective Genetic Algorithms. In T.-W. Lee, T.-P. Jung, S. Makeig, and T.J. Sejnowski, editors, *3rd International Conference on Independent Component Analysis and Blind Signal Separation (ICA'2001)*, San Diego, California, December 2001.
- [3420] Tomiyama Komoto, T. Tomiyama, S. Silvester, and H. Brezet. Analyzing supply chain robustness for OEMs from a life cycle perspective using life cycle simulation. *International Journal of Production Economics*, 134(2):447–457, December 2011.
- [3421] Rie Komuro. *Multi-Objective Evolutionary Algorithms for Ecological Process Models*. PhD thesis, University of Washington, Seattle, Washington, USA, December 2005.
- [3422] Rié Komuro, Joel H. Reynolds, and E. David Ford. Using Multiobjective Evolutionary Algorithms to Assess Biological Simulation Models. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International*

Conference, EMO 2007, pages 560–574, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.

- [3423] Rié Komuro, Joel H. Reynolds, and E. David Ford. Using the Pareto Frontier to Detect Deficiencies in a Biological Simulation Model. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 888–895, Singapore, September 2007. IEEE Press.
- [3424] Abdullah Konak and Alice E. Smith. Capacitated Network Design Considering Survivability: An Evolutionary Approach. *Engineering Optimization*, 36(2):189–205, April 2004.
- [3425] Abdullah Konak and Alice E. Smith. Efficient Optimization of Reliable Two-Node Connected Networks: A Biobjective Approach. *Inform Journal on Computing*, 23(3):430–445, Summer 2011.
- [3426] D. Kondayya and A. Gopala Krishna. An integrated evolutionary approach for modelling and optimization of wire electrical discharge machining. *Proceedings of the Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, 225(B4):549–567, April 2011.
- [3427] Nobuhiko Kondo, Toshiharu Hatanaka, and Katsuji Uosaki. Nonlinear Dynamic System Identification Based on Multiobjectively Selected RBF Networks. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 122–127, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [3428] Tao Kong, Haozhong Cheng, Zechun Hu, and Liangzhong Yao. Multiobjective planning of open-loop MV distribution networks using ComGIS network analysis and MOGA. *Electric Power Systems Research*, 79(2):390–398, February 2009.
- [3429] Andreas Konstantinidis, Christoforos Charalambous, Aimin Zhou, and Qingfu Zhang. Multi-objective mobile agent-based Sensor Network Routing using MOEA/D. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3361–3368, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3430] Andreas Konstantinidis and Kun Yang. Multi-objective K-connected Deployment and Power Assignment in WSNs using a problem-specific constrained evolutionary algorithm based on decomposition. *Computer Communications*, 34(1):83–98, January 15 2011.
- [3431] Andreas Konstantinidis, Kun Yang, Qingfu Zhang, and Demetrios Zeinalipour-Yazti. A multi-objective evolutionary algorithm for the deployment and power assignment problem in wireless sensor networks. *Computer Networks*, 54(6):960–976, April 29 2010.
- [3432] Andreas Konstantinidis, Qingfu Zhang, and Kun Yang. A Subproblem-dependent Heuristic in MOEA/D for the Deployment and Power Assignment

- Problem in Wireless Sensor Networks. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2740–2747, Trondheim, Norway, May 2009. IEEE Press.
- [3433] Sylvain Koos, Jean-Baptiste Mouret, and Stéphane Doncieux. Automatic System Identification Based on Coevolution of Models and Tests. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 560–567, Trondheim, Norway, May 2009. IEEE Press.
 - [3434] Sylvain Koos, Jean-Baptiste Mouret, and Stéphane Doncieux. Crossing the Reality Gap in Evolutionary Robotics by Promoting Transferable Controllers. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 119–126, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
 - [3435] Eric M. Koper, William D. Wood, and Stephen W. Schneider. Aircraft antenna coupling minimization using genetic algorithms and approximations. *IEEE Transactions on Aerospace and Electronic Systems*, 40(2):742–751, April 2004.
 - [3436] Mario Köppen. On the Benchmarking of Multiobjective Optimization Algorithm. In Vasile Palade, Robert J. Howlett, and Lakhmi C. Jain, editors, *Proceedings of the 7th International Conference on Knowledge-Based Intelligent Information and Engineering Systems (KES 2003). Part I*, pages 379–385, Oxford, UK, September 2003. Springer. Lecture Notes on Computer Science Vol. 2773.
 - [3437] Mario Köppen, Katrin Franke, and Bertram Nickolay. Fuzzy-Pareto-Dominance Driven Multiobjective Genetic Algorithm. In *Proceedings of the 10th IFSA World Congress (IFSA 2003)*, pages 450–453, Istanbul, Turkey, June 2003.
 - [3438] Mario Köppen, Yutaka Kinoshita, and Kaori Yoshida. Auxiliary Objectives for the Evolutionary Multi-Objective Principal Color Extraction from Logo Images. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3536–3546, Hong Kong, June 2008. IEEE Service Center.
 - [3439] Mario Köppen and Stephan Rudlof. Multiobjective Optimization by Nussy Algorithm. In R. Roy, T. Furuhashi, and P.K. Chawdhry, editors, *Advances in Soft Computing*, pages 357–368, London, 1998. Springer.
 - [3440] Mario Köppen, Raul Vicente-Garcia, and Bertram Nickolay. The PARETO-Box Problem for the Modelling of Evolutionary Multiobjective Optimization Algorithms. In Bernardete Ribeiro, Rudolf F. Albrecht, Andrej Dobnikar, David W. Pearson, and Nigel C. Steele, editors, *Adaptive and Natural Computing Algorithms*, pages 194–197, Coimbra, Portugal, March 2005. Springer.
 - [3441] Mario Köppen, Raul Vicente-Garcia, and Bertram Nickolay. Fuzzy-Pareto-Dominance and Its Application in Evolutionary Multi-objective Optimization.

- In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 399–412, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3442] Mario Köppen and Kaori Yoshida. Many-Objective Particle Swarm Optimization by Gradual Leader Selection. In Bartłomiej Beliczynski, Andrzej Dzieliniski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA 2007, Part I*, pages 323–331, Warsaw, Poland, April 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4431.
 - [3443] Mario Köppen and Kaori Yoshida. Substitute Distance Assignments in NSGA-II for Handling Many-Objective Optimization Problems. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 727–741, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
 - [3444] T. Korakianitis, I.A. Hamakhan, M.A. Rezaenia, A.P.S. Wheeler, E.J. Avital, and J.J.R. Williams. Design of high-efficiency turbomachinery blades for energy conversion devices with the three-dimensional prescribed surface curvature distribution blade design (CIRCLE) method. *Applied Energy*, 89(1):215–227, January 2012.
 - [3445] H. Kordabadi and A. Jahanmiri. A pseudo-dynamic optimization of a dual-stage methanol synthesis reactor in the face of catalyst deactivation. *Chemical Engineering and Processing*, 46(12):1299–1309, December 2007.
 - [3446] Arthur Kordon, Elsa Jordaan, Lawrence Chew, Guido Smits, Torben Bruck, Keith Haney, and Annika Jenings. Biomass Inferential Sensor Based on Ensemble of Models Generated by Genetic Programming. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 1078–1089, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
 - [3447] Emin Erkan Korkmaz. A Two-Level Clustering Method Using Linear Linkage Encoding. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 681–690. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
 - [3448] Ulrich Korn and To Thanh Binh. The parallel evolution strategy toolbox. *Automatisierungstechnik*, 4:207–208, 1998.
 - [3449] Aris Kornelakis. Multiobjective Particle Swarm Optimization for the optimal design of photovoltaic grid-connected systems. *Solar Energy*, 84(12):2022–2033, December 2010.

- [3450] E. Kornysheva and C. Salinesi. MCDM Techniques Selection Approaches: State of the Art. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 22–29, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [3451] Skander Kort. Schemata-Driven Multi-objective Optimization. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 192–206, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [3452] Jolanta Koszelew and Krzysztof Ostrowski. A Memetic Algorithm for Routing in Urban Public Transportation Networks. In Abdelhamid Bouchachia, editor, *Adaptive and Intelligent Systems, Second International Conference, ICAIS 2011*, pages 368–380, Klagenfurt, Austria, September 6-8 2011. Springer. Lecture Notes in Computer Science Vol. 6943.
- [3453] Mark Kotanchek, Guido Smits, and Ekaterina Vladislavleva. Pursuing the Pareto Paradigm: Tournaments, Algorithm Variations and Ordinal Optimization. In Rick L. Riolo, Terence Soule, and Bill Worzel, editors, *Genetic Programming Theory and Practice IV*, pages 167–185. Springer. Genetic and Evolutionary Computation Vol. 5, Ann Arbor, May 2007.
- [3454] Mark Kotanchek, Guido Smits, and Ekaterina Vladislavleva. Trustable Symbolic Regression Models: Using ensembles, interval arithmetic and Pareto fronts to develop robust and trust-aware models. In Rick L. Riolo, Terence Soule, and Bill Worzel, editors, *Genetic Programming Theory and Practice V*, pages 201–220. Springer. Genetic and Evolutionary Computation Vol. 5, Ann Arbor, May 2007.
- [3455] Ketan Kotecha and Sonal Popat. MultiObjective Genetic Algorithm based Adaptive QoS Routing in MANET. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1423–1428, Singapore, September 2007. IEEE Press.
- [3456] Miltiadis Kotinis. A Particle Swarm Optimizer for Constrained Multi-Objective Engineering Design Problems. *Engineering Optimization*, 42(10):907–926, 2010.
- [3457] Miltiadis Kotinis. Implementing co-evolution and parallelization in a multi-objective particle swarm optimizer. *Engineering Optimization*, 43(6):635–656, 2011.
- [3458] Konstantinos Koukoulakis and Yun Li. Benchmarking Cost-Assignment Schemes for Multi-objective Evolutionary Algorithms. In Stefano Cagnoni et al., editor, *Proceedings of Real World Applications of Evolutionary Computing. EvoWorkshops 2000: EvoIASP, EvoSCONDI, EvoTel, EvoSTIM, EvoRob, and EvoFlight*, pages 158–167, Edinburgh, Scotland, April 2000. Springer. Lecture Notes in Computer Science Vol. 1803.

- [3459] Christos Koukouvinos, Kalliopi Mylona, and Dimitris E. Simos. E(s(2))-optimal and minimax-optimal cyclic supersaturated designs via multi-objective simulated annealing. *Journal of Statistical Planning and Inference*, 138(6):1639–1646, July 1 2008.
- [3460] Stavros Koulouridis, Dimitris Psychoudakis, and John L. Volakis. Multi-objective Optimal Antenna Design Based on Volumetric Material Optimization. *IEEE Transactions on Antennas and Propagation*, 55(3):594–603, March 2007.
- [3461] A.D. Koussis, E. Georgopoulou, A. Kotronarou, D.P. Lalas, P. Restrepo, G. Destouni, C. Prieto, J.J. Rodriguez, J. Rodriguez-Mirasol, T. Cordero, and A. Gomez-Gotor. Cost-efficient Management of Coastal Aquifers Via Recharge with Treated Wastewater and Desalination of Brackish Groundwater: General Framework. *Hydrological Sciences Journal–Journal Des Sciences Hydrologiques*, 55(7):1217–1233, 2010.
- [3462] Z. Kowalczyk and T. Bialaszewski. Improving evolutionary multi-objective optimization using genders. In *Artificial Intelligence and Soft Computing - ICAISC 2006*, pages 390–399. Springer, Lecture Notes in Computer Science Vol. 4029, 2006.
- [3463] John R. Koza, Lee W. Jones, Martin A. Keane, Matthew J. Streeter, and Sameer H. Al-Sakran. Toward Automated Design of Industrial-Strength Analog Circuits by Means of Genetic Programming. In Una-May O’Reilly, Tina Yu, Rick Riolo, and Bill Worzel, editors, *Genetic Programming Theory and Practice II*, pages 120–142. Springer, New York, USA, 2005.
- [3464] E. Kozlovskaya. An algorithm of geophysical data inversion based on non-probabilistic presentation of a priori information and definition of Pareto-optimality. *Inverse Problems*, 16(3):839–861, June 2000.
- [3465] Oliver Kramer and Holger Danielsiek. DBSCAN-Based Multi-Objective Niching to Approximate Equivalent Pareto-Subsets. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO’2010)*, pages 503–510, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [3466] Nissrine Krami, Mohamed A. El-Sharkawi, and Mohamed Akherraz. Multi Objective Particle Swarm Optimization Technique for Reactive Power Planning. In *2006 Swarm Intelligence Symposium (SIS’06)*, pages 170–174, Indianapolis, Indiana, USA, May 2006. IEEE Press.
- [3467] Nissrine Krami, Mohamed A. El-Sharkawi, and Mohamed Akherraz. Pareto Multiobjective Optimization Technique for Reactive Power Planning. In *2008 IEEE Power and Energy Society General Meeting - Conversion and Delivery of Electrical Energy in the 21st Century*, pages 1–6. IEEE Press, July 2008.

- [3468] Darren P. Krasny and David E. Orin. Evolution of a 3D Gallop in a Quadrupedal Model with Biological Characteristics. *Journal of Intelligent & Robotic Systems*, 60(1):59–82, October 2010.
- [3469] Darren Paul Krasny. *Evolving Dynamic Maneuvers in a Quadruped Robot*. PhD thesis, The Ohio State University, USA, 2005.
- [3470] Matthias Krause and Volker Nissen. On Using Penalty Functions and Multi-criteria Optimisation Techniques in Facility Layout. In J. Biethahn and Volker Nissen, editors, *Evolutionary Algorithms in Management Applications*, pages 153–166. Springer-Verlag, Berlin, 1995.
- [3471] Krzysztof Krawiec. Generative learning of visual concepts using multiobjective genetic programming. *Pattern Recognition Letters*, 28(16):2385–2400, December 1 2007.
- [3472] Thomas Kremmel, Jiri Kubalik, and Stefan Biffl. Software project portfolio optimization with advanced multiobjective evolutionary algorithms. *Applied Soft Computing*, 11(1):1416–1426, January 2011.
- [3473] Thomas Kremmel, Jiří Kubalík, and Stefan Biffl. Multiobjective Evolutionary Algorithm for Software Project Portfolio Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1389–1390, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [3474] Stanislaw Krenich. Multicriteria Design Optimization of Robot Gripper Mechanisms. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 207–218. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [3475] Stanislaw Krenich and Andrzej Osyczka. Optimal Design of Multiple Clutch Brakes Using a Multistage Evolutionary Method. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 219–228. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [3476] Johannes Krettek, Jan Braun, Frank Hoffmann, Torsten Bertram, Thomas Ewald, Hans-Georg Schubert, and Horst Lausch. Interactive Evolutionary Multiobjective Optimization for Hydraulic Valve Controller Parameters. In *2009 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2009)*, pages 816–821, Singapore, July 14-17 2009. IEEE Press.
- [3477] Allunu Gopala Krishna and K. Mallikarjuna Rao. Multi-objective optimisation of surface grinding operations using scatter search approach. *International Journal of Advanced Manufacturing Technology*, 29(5):475–480, June 2006.
- [3478] K. R. Krishnanand, Bijaya Ketan Panigrahi, P. K. Rout, and Ankita Mohapatra. Application of Multi-Objective Teaching-Learning-Based Algorithm to

- an Economic Load Dispatch Problem with Incommensurable Objectives. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 697–697, Visakhapatnam, Andhra Pradesh, India, December 19–21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [3479] K.N. Krishnanand and D. Ghose. Glowworm Swarm Optimization for Multi-modal Search Spaces. In Bijaya Ketan Panigrahi, Yuhui Shi, and Meng-Hiot Lim, editors, *Handbook of Swarm Intelligence. Concepts, Principles and Applications*, pages 451–467. Springer-Verlag, Berlin, Germany, 2011. ISBN 978-3-642-17389-9.
- [3480] Vojtech Krmicek and Michèle Sebag. Functional Brain Imaging with Multi-objective Multi-modal Evolutionary Optimization. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 382–391. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [3481] Marcel Kronfeld and Andreas Zell. Towards scalability in niching methods. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4409–4416, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3482] Johannes W. Kruisselbrink, Alexander Aleman, Michael T. M. Emmerich, Ad P. IJzerman, Andreas Bender, Thomas Bäck, and Eelke van der Horst. Enhancing search space diversity in multi-objective evolutionary drug molecule design using niching. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 217–224, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [3483] Johannes W. Kruisselbrink, Thomas Bäck, Ad P. IJzerman, and Eelke van der Horst. Evolutionary Algorithms for Automated Drug Design Towards Target Molecule Properties. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1555–1562, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [3484] Johannes W. Kruisselbrink, Michael T.M. Emmerich, Thomas Bäck, Andreas Bender, Ad P. IJzerman, and Eelke van der Horst. Combining Aggregation with Pareto Optimization: A Case Study in Evolutionary Molecular Design. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 453–467. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [3485] K.K. Kshetrapalapuram and M. Kirley. Mining classification rules using evolutionary multi-objective algorithms. In *Knowledge-Based Intelligent Information and Engineering Systems, Part 3, Proceedings*, pages 959–965. Springer. Lecture Notes in Artificial Intelligence Vol. 3683, 2005.

- [3486] Jiri Kubalik, Richard Mordinyi, and Stefan Biffl. Multiobjective Prototype Optimization with Evolved Improvement Steps. In Jano van Hemert and Carlos Cotta, editors, *Evolutionary Computation in Combinatorial Optimization, 8th European Conference, EvoCOP 2008*, pages 218–229, Naples, Italy, March 2008. Springer. Lecture Notes in Computer Science Vol. 4972.
- [3487] Jiri Kubalik, Pavel Tichy, Radek Sindelar, and Raymond J. Staron. Clustering Methods for Agent Distribution Optimization. *IEEE Transactions on Systems Man and Cybernetics Part C-Applications and Reviews*, 40(1):78–86, January 2010.
- [3488] Naoyuki Kubota. Multi-Objective Design of Neuro-Fuzzy Controllers for Robot Behavior Coordination. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 557–584. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [3489] Rajesh Kudikala, Kalyanmoy Deb, and Bishakh Bhattacharya. Multi-Objective Optimization of Piezoelectric Actuator Placement for Shape Control of Plates Using Genetic Algorithms. *Journal of Mechanical Design*, 131(9), September 2009. Article Number: 091007.
- [3490] Saku Kukkonen. *Generalized Differential Evolution for Global Multi-Objective Optimization with Constraints*. PhD thesis, Lappeenranta University of Technology, Lappeenranta, Finland, May 2012.
- [3491] Saku Kukkonen and Kalyanmoy Deb. A Fast and Effective Method for Pruning of Non-dominated Solutions in Many-Objective Problems. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 553–562. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [3492] Saku Kukkonen and Kalyanmoy Deb. Improved Pruning of Non-Dominated Solutions Based on Crowding Distance for Bi-Objective Optimization Problems. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3995–4002, Vancouver, BC, Canada, July 2006. IEEE.
- [3493] Saku Kukkonen, Sujit R. Jangam, and Nirupam Chakraborti. Solving The Molecular Sequence Alignment Problem with Generalized Differential Evolution 3 (GDE3). In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 302–309, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [3494] Saku Kukkonen and Jouni Lampinen. An Extension of Generalized Differential Evolution for Multi-objective Optimization with Constraints. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 752–761, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.

- [3495] Saku Kukkonen and Jouni Lampinen. Comparison of Generalized Differential Evolution to other Multi-Objective Evolutionary Algorithms. In P. Neittaanmäki, T. Rossi, S. Korotov, E. Onate, J. Périaux, and D. Knörzer, editors, *Proceedings of the 4th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2004)*, Jyväskylä, Finland, 24-28 July 2004. University of Jyväskylä, Department of Mathematical Information Technology.
- [3496] Saku Kukkonen and Jouni Lampinen. Mechanical Component Design for Multiple Objectives Using Generalized Differential Evolution. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture VI*, pages 261–272, London, 2004. Springer.
- [3497] Saku Kukkonen and Jouni Lampinen. An Empirical Study of Control Parameters for Generalized Differential Evolution. In R. Schilling, W. Haase, J. Périaux, H. Baier, and G. Bugeda, editors, *The Sixth Conference on Evolutionary and Deterministic Methods for Design, Optimization and Control with Applications to Industrial and Societal Problems (EUROGEN 2005)*, Munich, Germany, 12-14 September 2005.
- [3498] Saku Kukkonen and Jouni Lampinen. GDE3: The third Evolution Step of Generalized Differential Evolution. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 443–450, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [3499] Saku Kukkonen and Jouni Lampinen. An Empirical Study of Control Parameters for the Third Version of Generalized Differential Evolution (GDE3). In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 7355–7362, Vancouver, BC, Canada, July 2006. IEEE.
- [3500] Saku Kukkonen and Jouni Lampinen. Performance Assessment of Generalized Differential Evolution 3 (GDE3) with a Given Set of Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3593–3600, Singapore, September 2007. IEEE Press.
- [3501] Saku Kukkonen and Jouni Lampinen. Ranking-Dominance and Many-Objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3983–3990, Singapore, September 2007. IEEE Press.
- [3502] Saku Kukkonen and Jouni Lampinen. Generalized Differential Evolution for Constrained Multi-Objective Optimization. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 43–75. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [3503] Saku Kukkonen and Jouni Lampinen. Performance Assessment of Generalized Differential Evolution 3 with a Given Set of Constrained Multi-Objective Test Problems. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1943–1950, Trondheim, Norway, May 2009. IEEE Press.

- [3504] Sadan Kulturel-Konak. *Facility Layout and Relayout under Uncertainty*. PhD thesis, Industrial and Systems Engineering Department, Auburn University, Auburn, Alabama, USA, May 2002.
- [3505] Sadan Kulturel-Konak and David W. Coit. Determination of Pruned Pareto Sets for the Multi-Objective System Redundancy Allocation Problem. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 390–394, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [3506] Sadan Kulturel-Konak, David W. Coit, and Fatema Baheranwala. Pruned Pareto-optimal sets for the system redundancy allocation problem based on multiple prioritized objectives. *Journal of Heuristics*, 14(4):335–357, August 2008.
- [3507] Sadan Kulturel-Konak, Abdullah Konak, and David W. Coit. Multiobjective Metaheuristic Approaches to Reliability Optimization. In Gregory Levitin, editor, *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pages 37–62. Springer, Heidelberg, 2007.
- [3508] Sadan Kulturel-Konak, Alice E. Smith, and Bryan A. Norman. Multi-objective tabu search using a multinomial probability mass function. *European Journal of Operational Research*, 169:918–931, 2006.
- [3509] P. Kulvanit, N. Chaiyaratana, and D. Laowattana. Biped Fast Walking Gait Shaping via Evolutionary Multi-Objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4019–4026, Singapore, September 2007. IEEE Press.
- [3510] Pasan Kulvanit, Theera Piroonratana, Nachol Chaiyaratana, and Djitt Laowattana. Evolutionary Multi-objective Optimisation by Diversity Control. In Dima Grigoriev, John Harrison, and Edward A. Hirsch, editors, *Computer Science – Theory and Applications. First International Computer Science Symposium in Russia (CSR 2006)*, pages 447–456. Springer, Lecture Notes in Computer Science, Vol. 3967, St. Petersburg, Russia, 2006.
- [3511] A. Kumar, D. Sahoo, S. Chakraborty, and N. Chakraborti. Gas injection in steelmaking vessels: Coupling a fluid dynamic analysis with a genetic algorithms-based pareto-optimality. *Materials and Manufacturing Processes*, 20(3):363–379, 2005.
- [3512] Abhay Kumar, Deepak Sharma, and Kalyanmoy Deb. A Hybrid Multi-Objective Optimization Procedure Using PCX Based NSGA-II and Sequential Quadratic Programming. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3011–3018, Singapore, September 2007. IEEE Press.
- [3513] Aman Kumar, Debalay Chakrabarti, and Nirupam Chakraborti. Data-Driven Pareto Optimization for Microalloyed Steels Using Genetic Algorithms. *Steel Research International*, 83(2):169–174, February 2012.

- [3514] D. Nagesh Kumar and M. Janga Reddy. Ant Colony Optimization for multi-purpose reservoir operation. *Water Resources Management*, 20(6):879–898, December 2006.
- [3515] D. Nagesh Kumar and M. Janga Reddy. Multipurpose reservoir operation using particle swarm optimization. *Journal of Water Resources Planning and Management-ASCE*, 133(3):192–201, May-June 2007.
- [3516] G. N. Sashi Kumar, A. K. Mahendra, and G. Gouthaman. Multi-objective shape optimization using ant colony coupled computational fluid dynamics solver. *Computers & Fluids*, 46(1):298–305, July 2011.
- [3517] G. N. Sashi Kumar, A. K. MAhendra, A. Sanyal, and G. Gouthaman. A Hybrid Method for Multi-Objective Shape Optimization. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakroborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 563–567, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [3518] P. Kumar and P. Bauer. Progressive design methodology for complex engineering systems based on multiobjective genetic algorithms and linguistic decision making. *Soft Computing*, 13(7):649–679, May 2009.
- [3519] P. Kumar, D. Gospodaric, and P. Bauer. Improved genetic algorithm inspired by biological evolution. *Soft Computing*, 11(10):923–941, August 2007.
- [3520] Praveen Kumar and Pavol Bauer. Progressive Design Methodology for Design of Engineering Systems. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 571–607. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [3521] R. Kumar and N. Banerjee. Analysis of a multiobjective evolutionary algorithm on the 0-1 knapsack problem. *Theoretical Computer Science*, 358(1):104–120, July 2006.
- [3522] R. Kumar and P.K. Singh. Pareto Evolutionary Algorithm Hybridized with Local Search for Biobjective TSP. In Crina Grosan, Ajith Abraham, and Hisao Ishibuchi, editors, *Hybrid Evolutionary Algorithms*, pages 361–398. Springer, Heidelberg, 2007.
- [3523] Rajeev Kumar. *Feature Selection, Representation and Classification*. PhD thesis, University of Sheffield, Sheffield, UK, 1997.
- [3524] Rajeev Kumar. On Generalisation of Machine Learning with Neural-Evolutionary Computations. In *Proceedings of the Third International Conference on Computational Intelligence and Multimedia Applications (IC-CIMA'99)*, pages 112–116, Los Alamitos, California, 1999. IEEE Computer Society Press.

- [3525] Rajeev Kumar. Codebook Design for Vector Quantisation using Multiobjective Genetic Algorithms. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [3526] Rajeev Kumar. On Machine Learning with Multiobjective Genetic Optimization. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 393–425. World Scientific, Singapore, 2004.
- [3527] Rajeev Kumar, Bipul Kumar Bal, and Peter Rockett. Multiobjective genetic programming approach to evolving heuristics for the bounded diameter minimum spanning tree problem. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 309–316, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [3528] Rajeev Kumar and Nilanjan Banerjee. Multicriteria Network Design Using Evolutionary Algorithm. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 2179–2190. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [3529] Rajeev Kumar and Nilanjan Banerjee. Running time analysis of a multiobjective evolutionary algorithm on simple and hard problems. In Alden H. Wright, Michael D. Vose, Kenneth A. De Jong, and Lothar M. Schmitt, editors, *Foundations of Genetic Algorithms. 8th International Workshop, FOGA 2005*, pages 112–131, Aizu-Wakamatsu City, Japan, January 2005. Springer. Lecture Notes in Computer Science Vol. 3469.
- [3530] Rajeev Kumar and Nilanjan Banerjee. Multiobjective network topology design. *Applied Soft Computing*, 11(8):5120–5128, December 2011.
- [3531] Rajeev Kumar, Ashwin H. Joshi, Krishna K. Banka, and Peter I. Rockett. Evolution of Hyperheuristics for the Biobjective 0/1 Knapsack Problem by Multiobjective Genetic Programming. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1227–1234, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [3532] Rajeev Kumar, V. Prasanna Krishnan, and Kartik S. Santhanakrishnan. Design of an Optimal Communication Network Using Multiobjective Genetic Optimization. In *Proceedings of the IEEE International Conference on Industrial Technology*, volume 1, pages 515–520, 2000.
- [3533] Rajeev Kumar, N. Vinay Kumar, and I. J. Nagrath. Object oriented toolkit for multiobjective genetic optimisation. In *3rd International Conference on Computational Intelligence and Multimedia Applications*, New Delhi, India, September 1999.
- [3534] Rajeev Kumar, Prajna P. Parida, and Mohit Gupta. Topological Design of Communication Networks using Multiobjective Genetic Optimization. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 425–430, Piscataway, New Jersey, May 2002. IEEE Service Center.

- [3535] Rajeev Kumar, S. Prasanth, and M.S. Sudarshan. Topological Design of Mesh Communication Networks using Multiobjective Genetic Optimisation. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [3536] Rajeev Kumar and Peter Rockett. Decomposition of High Dimensional Pattern Spaces for Hierarchical Classification. In *Proceedings of the Workshop on Statistical Techniques in Pattern Recognition*, Prague, Czech Republic, June 1997.
- [3537] Rajeev Kumar and Peter Rockett. Decomposition of High Dimensional Pattern Spaces for Hierarchical Classification. *Kybernetika*, 34(4):435–442, 1998.
- [3538] Rajeev Kumar and Peter Rockett. Multiobjective Genetic Algorithm Partitioning for Hierarchical Learning of High-Dimensional Pattern Spaces: A Learning-Follows-Decomposition Strategy. *IEEE Transactions on Neural Networks*, 9(5):822–830, 1998.
- [3539] Rajeev Kumar and Peter Rockett. Improved Sampling of the Pareto-Front in Multiobjective Genetic Optimizations by Steady-State Evolution: A Pareto Converging Genetic Algorithm. *Evolutionary Computation*, 10(3):283–314, Fall 2002.
- [3540] Rajeev Kumar and Peter Rockett. Evolutionary Multimodal Optimization Revisited. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 1592–1593. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [3541] Rajeev Kumar and Peter Rockett. Effective Evolutionary Multimodal Optimization by Multiobjective Reformulation Without Explicit Niching/Sharing. In Suresh Manandhar, Jim Austin, Uday B. Desai, Yoshio Oyanagi, and Asoke K. Talukder, editors, *Applied Computing, Second Asian Applied Computing Conference, AACC 2004*, pages 1–8, Kathmandu, Nepal, October 29-31 2004. Springer. Lecture Notes in Computer Science Volume 3285.
- [3542] Rajeev Kumar and Peter I. Rockett. Assessing the Convergence of Rank-Based Multiobjective Genetic Algorithms. In *Proceedings of the 2nd IEE/IEEE International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications (GALESIA'97)*, pages 19–23, Glasgow, Scotland, September 1997. IEE.
- [3543] Rajeev Kumar and P. K. Singh. On Quality Performance of Heuristic and Evolutionary Algorithms for Biobjective Minimum Spanning Trees. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, page 2259, London, UK, July 2007. ACM Press.
- [3544] Rajeev Kumar and P. K. Singh. Assessing solution quality of biobjective 0-1 knapsack problem using evolutionary and heuristic algorithms. *Applied Soft Computing*, 10(3):711–718, June 2010.

- [3545] Rajeev Kumar, P. K. Singh, and P. P. Chakrabarti. Improved Quality of Solutions for Multiobjective Spanning Tree Problem Using Distributed Evolutionary Algorithm. In Luc Bougé and Viktor K. Prasanna, editors, *High Performance Computing (HiPC'2004)*, pages 494–503. Springer, Lecture Notes in Computer Science, Vol. 3296, Bangalore, India, 2004.
- [3546] Rajeev Kumar, P.K. Singh, and Bhargab B. Bhattacharya. Biobjective Evolutionary and Heuristic Algorithms for Intersection of Geometric Graphs. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1689–1696, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [3547] Rajeev Kumar, P.K. Singh, and P.P. Chakrabarti. Multiobjective EA Approach for Improved Quality of Solutions for Spanning Tree Problem. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 811–825, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3548] Rajeev Kumar, Paresh Tolay, and Siddharth Tiwary. Enhancing Solution Quality of the Biobjective Graph Coloring Problem Using Hybridization of EA. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 547–554, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [3549] Ranjan Kumar, Kazuhiro Izui, Masataka Yoshimura, and Shinji Nishiwaki. Multi-objective hierarchical genetic algorithms for multilevel redundancy allocation optimization. *Reliability Engineering & System Safety*, 94(4):891–904, April 2009.
- [3550] Sri Krishna Kumar, S.G. Ponnambalam, and M.K. Tiwari. A Multi-Objective Resource Assignment Problem in Product Driven Supply Chain Using Quantum Inspired Particle Swarm Algorithm. In Bijaya Ketan Panigrahi, Yuhui Shi, and Meng-Hiot Lim, editors, *Handbook of Swarm Intelligence. Concepts, Principles and Applications*, pages 269–292. Springer-Verlag, Berlin, Germany, 2011. ISBN 978-3-642-17389-9.
- [3551] Sujay V. Kumar. *Vitri - A Generic Framework for Engineering Decision Support Systems on Heterogeneous Computer Networks*. PhD thesis, Department of Civil Engineering, North Carolina State University, Raleigh, North Carolina, USA, 2002.
- [3552] Sujay V. Kumar and S. Ranji Ranjithan. Evaluation of the Constraint Method-Based Evolutionary Algorithm (CMEA) for a Three-Objective Optimization Problem. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*,

pages 431–438, San Francisco, California, July 2002. Morgan Kaufmann Publishers.

- [3553] V. V. Kumar, M. Tripathi, M. K. Pandey, and M. K. Tiwari. Physical programming and conjoint analysis-based redundancy allocation in multistate systems: a Taguchi embedded algorithm selection and control (TAS&C) approach. *Proceedings Of The Institution of Mechanical Engineers Part O-Journal of Risk And Reliability*, 223(O3):215–232, September 2009.
- [3554] M. Kumral. Application of chance-constrained programming based on multi-objective simulated annealing to solve a mineral blending problem. *Engineering Optimization*, 35(6):661–673, December 2003.
- [3555] Kunakote and Tawatchai Sujin Bureerat. Multi-objective topology optimization using evolutionary algorithms. *Engineering Optimization*, 43(5):541–557, 2011.
- [3556] A. Kundu and P.K. Dan. The Scope of Genetic Algorithms in Dealing with Facility Layout Problems. *South African Journal of Industrial Engineering*, 21(2):39–49, November 2010.
- [3557] Debarati Kundu, Kaushik Suresh, Sayan Ghosh, Swagatam Das, B. K. Panigrahi, and Sanjoy Das. Multi-objective optimization with artificial weed colonies. *Information Sciences*, 181(12):2441–2454, January 15 2011.
- [3558] Sourav Kundu. A multicriteria genetic algorithm to solve optimization problems in structural engineering design. In B. Kumar, editor, *Information Processing in Civil and Structural Engineering Design*, pages 225–233, Glasgow, Scotland, August 1996. Civil-Comp Press Ltd.
- [3559] Sourav Kundu. A Note on Optimality vs. Stability—A Genetic Algorithm based Approach. In *Proceedings of the Third World Congress of Structural and Multidisciplinary Optimization (WCSMO)*, Buffalo, New York, May 1999.
- [3560] Sourav Kundu, S. Kawata, and A. Watanabe. A multicriteria approach to control system design with genetic algorithm. In *Proceedings of the International Federation of Automatic Control (IFAC'96)—13th World Congress*, volume D, pages 315–320, Klidington, UK, 1996. Elsevier Science.
- [3561] Sourav Kundu and Seichi Kawata. AI in Control System Design Using a New Paradigm for Design Representation. In J. S. Gero and F. Sudweeks, editors, *Artificial Intelligence in Design*, pages 135–150. Kluwer Academic Publishers, The Netherlands, 1996.
- [3562] Sourav Kundu and Seichi Kawata. A GA-based state feedback design method using bicriterion performance index and tournament selection. In *Proceedings of the Fifth International Conference on Intelligent Systems*, pages 169–173, Reno, Nevada, 1996. International Society for Computers and Their Applications (ISCA).

- [3563] Sourav Kundu, Seichi Kawata, and A. Watanabe. Optimal control system design using a Pareto genetic algorithm. In *Proceedings of the Joint System and Information '95 Symposium*, pages 53–59, Toyama, Japan, November 1995. SICE.
- [3564] Sourav Kundu and Seiichi Kawata. Evolutionary Multicriteria Optimization for Improved Design of Optimal Control Systems. In I.C. Parmee, editor, *Proceedings of the Fifth International Conference on Adaptive Computing Design and Manufacture (ACDM 2002)*, volume 5, pages 207–218, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
- [3565] Sourav Kundu and Andrzej Osyczka. The effect of genetic algorithm selection mechanisms on multicriteria optimization using the distance method. In *Proceedings of the Fifth International Conference on Intelligent Systems*, pages 164–168, Reno, Nevada, 1996. International Society for Computers and Their Applications (ISCA).
- [3566] Sourav Kundu and Andrzej Osyczka. Genetic multicriteria optimization of structural systems. In *Proceedings of the 19th International Congress on Theoretical and Applied Mechanics (ICTAM 1996)*, page 272, Kyoto, Japan, August 1996. International Union of Theoretical and Applied Mechanics (IUTAM). Volumen of Abstracts.
- [3567] Pascale Kuntz, Rémi Lehn, and Henri Briand. Dynamic rule graph drawing by genetic search. In *IEEE International Conference on Systems, Man, and Cybernetics*, volume 4, pages 2481–2486, 2000.
- [3568] S. Künzli, L. Thiele, and E. Zitzler. Multi-criteria Decision Making in Embedded System Design. In B. M. Al-Hashimi, editor, *System On Chip: Next Generation Electronics*, pages 3–28. IEE Press, London, UK, 2006.
- [3569] Simon Künzli. *Efficient Design Space Exploration for Embedded Systems*. PhD thesis, Swiss Federal Institute of Technology, Zürich, Switzerland, April 2006.
- [3570] Simon Künzli, Stefan Bleuler, Lothar Thiele, and Eckart Zitzler. A Computer Engineering Benchmark Application for Multiobjective Optimizers. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 269–294. World Scientific, Singapore, 2004.
- [3571] Simon Künzli, Lothar Thiele, and Eckart Zitzler. Modular Design Space Exploration Framework for Embedded Systems. *IEE Proceedings Computers and Digital Techniques*, 152(2):183–192, 2005.
- [3572] Cheng Chien Kuo. A neural network based Particle Swarm Optimization for the transformers connections of a primary feeder considering multi-objective programming. In J. Wang, Z. Yi, J. M. Zurada, B. L. Lu, and H. Yin, editors, *Advances in Neural Networks - ISNN 2006, Third International Symposium on Neural Networks*, pages 1317–1323. Springer. Lecture Notes in Computer Science, Vol. 3972, Chengdu, China, 2006. ISBN 3-540-34437-3.

- [3573] Cheng-Chien Kuo. Capacitor placement and scheduling using interactive bi-objective programming with valuable trade off approach. *Energy Conversion and Management*, 50(4):995–1003, April 2009.
- [3574] Way Kuo and Rui Wan. Recent Advances in Optimal Reliability Allocation. In Gregory Levitin, editor, *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pages 1–36. Springer, Heidelberg, 2007.
- [3575] M.A. Kupinski and M.A. Anastasio. Multiobjective Genetic Optimization of Diagnostic Classifiers with Implications for Generating Receiver Operating Characteristic Curves. *IEEE Transactions on Medical Imaging*, 18(8):675–685, August 1999.
- [3576] Setsuya Kurahashi and Takao Terano. A Genetic Algorithm with Tabu Search for Multimodal and Multiobjective Function Optimization. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 291–298, San Francisco, California, 2000. Morgan Kaufmann.
- [3577] A. Kurapati and S. Azarm. Immune network simulation with multiobjective genetic algorithms for multidisciplinary design optimization. *Engineering Optimization*, 33(2):245–260, 2000.
- [3578] Michal Kuraz, Petr Mayer, Matej Leps, and Dagmar Trpkosova. An adaptive time discretization of the classical and the dual porosity model of Richards' equation. *Journal of Computational And Applied Mathematics*, 233(12):3167–3177, April 15 2010.
- [3579] Mohammad H. Kurdi. *Robust Multicriteria Optimization of Surface Location Error and Material Removal Rate in High-Speed Milling Under Uncertainty*. PhD thesis, University of Florida, 2005.
- [3580] S. Kuriakose and M.S. Shunmugam. Multi-objective optimization of wire-electro discharge machining process by Non-Dominated sorting Genetic Algorithm. *Journal of Materials Processing Technology*, 170(1-2):133–141, December 14 2005.
- [3581] Adi Kurniawan and Guowei Ma. Optimization of ballast plan in launch jacket load-out. *Structural and Multidisciplinary Optimization*, 38(3):267–288, May 2009.
- [3582] Krzysztof Kurowski, Ariel Oleksiak, and Jan Weglarz. Multicriteria, multi-user scheduling in grids with advance reservation. *Journal Of Scheduling*, 13(5):493–508, October 2010.
- [3583] A. Kurapati and S. Azarm. Immune Network Simulation with Multiobjective Genetic Algorithms for Multidisciplinary Design Optimization. *Engineering Optimization*, 33:245–260, 2000.

- [3584] A. Kurpati, S. Azarm, and J. Wu. Constraint handling improvements for multi-objective genetic algorithms. *Structural and Multidisciplinary Optimization*, 23(3):204–213, April 2002.
- [3585] Frank Kursawe. A Variant of Evolution Strategies for Vector Optimization. In H. P. Schwefel and R. Männer, editors, *Parallel Problem Solving from Nature. 1st Workshop, PPSN I*, volume 496 of *Lecture Notes in Computer Science Vol. 496*, pages 193–197, Berlin, Germany, October 1991. Springer-Verlag.
- [3586] Frank Kursawe. Evolution strategies for vector optimization. In *Preliminary Proceedings of the Tenth International Conference on Multiple Criteria Decision Making*, pages 187–193, Taipei, China, July 1992. National Chiao Tung University.
- [3587] A.S. Kurup, K. Hidajat, and A.K. Ray. Comparative study of modified simulated moving bed systems at optimal conditions for the separation of ternary mixtures of xylene isomers. *Industrial & Engineering Chemistry Research*, 45(18):6251–6265, August 30 2006.
- [3588] Mary E. Kurz and Sarah Canterbury. Minimizing Total Flowtime and Maximum Earliness on a Single Machine Using Multiple Measures of Fitness. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 803–809, New York, USA, June 2005. ACM Press.
- [3589] Andrew Kusiak. Evolutionary Computation and Data Mining. In B. Gopalakrishnan and A. Gunasekaran, editors, *Proceedings of the SPIE Conference on Intelligent Systems and Advances Manufacturing*, pages 1–10, Boston, Massachusetts, 2000. SPIE.
- [3590] Andrew Kusiak and Haiyang Zheng. Optimization of wind turbine energy and power factor with an evolutionary computation algorithm. *Energy*, 35(3):1324–1332, March 2010.
- [3591] Chung Kwan, Fan Yang, and Che Chang. A Differential Evolution Variant of NSGA II for Real World Multiobjective Optimization. In Marcus Randall, Hussein A. Abbass, and Janet Wiles, editors, *Progress in Artificial Life, Third Australian Conference, ACAL 2007*, pages 345–356, Gold Coast, Australia, December 4-6 2007. Springer. Lecture Notes in Artificial Intelligence Vol. 4828.
- [3592] Chung Min Kwan and C. S. Chang. Timetable synchronization of mass rapid transit system using multiobjective evolutionary approach. *IEEE Transactions on Systems Man and Cybernetics Part C-Applications and Reviews*, 38(5):636–648, September 2008.
- [3593] C.M. Kwan and C.S. Chang. Application of Evolutionary Algorithm on a Transportation Scheduling Problem - The Mass Rapid Transit. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 987–994, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [3594] N. M. Kwok, Q. P. Ha, D. K. Liu, and G. Fang. Intensity-Preserving Contrast Enhancement for Gray-Level Images using Multi-objective Particle Swarm Optimization. In *Proceeding of the 2006 IEEE International Conference on Automation Science and Engineering*, pages 21–26, Shanghai, China, October 7-10 2006. IEEE Computer Society Press.
- [3595] Ngai M. Kwok, Q. P. Ha, Dikai Liu, and Gu Fang. Contrast Enhancement and Intensity Preservation for Gray-Level Images Using Multiobjective Particle Swarm Optimization. *IEEE Transactions on Automation Science and Engineering*, 6(1):145–155, January 2009.
- [3596] C.K. Kwong, X.G. Luo, and J.F. Tang. A Multiobjective Optimization Approach for Product Line Design. *IEEE Transactions on Engineering Management*, 57(5):97–108, February 2011.
- [3597] Sam Kwong and H. W. Chong. A Genetic Algorithm for Joint Optimization of Spare Capacity and Delay in Self-Healing Network. In Kay Chen Tan, Meng Hiot Lim, Xin Yao, and Lipo Wang, editors, *Recent Advances in Simulated Evolution and Learning*, pages 542–561. World Scientific, Singapore, 2004.
- [3598] Sam Kwong and H.W. Chong. A Genetic Algorithm for Joint Optimization of Spare Capacity and Delay in Self-Healing Network. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 2, pages 732–736, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [3599] Abdelaziz Lafa and Mohamed Boudour. Optimal Location of SVC for Voltage Security Enhancement using MOPSO. *Journal of Electrical Systems*, 1:73–78, November 2009.
- [3600] John W. Labadie and Yongshan Wan. Fuzzy optimal control of reservoir-assisted stormwater treatment areas for aquatic ecosystem restoration. *Environmental Modelling & Software*, 25(12):1692–1701, December 2010.
- [3601] Hao C. Lac and Deborah A. Stacey. Feature subset selection via multi-objective genetic algorithm. In *Proceedings of the 2005 IEEE International Joint Conference on Neural Networks*, volume 3, pages 1349–1354. IEEE Press, 31 July–4 August 2005.
- [3602] Bakir Lacevic and Edoardo Amaldi. Entropy of diversity measures for populations in Euclidean space. *Information Sciences*, 181(11):2316–2339, June 1 2011.
- [3603] Bakir Lacevic, Samim Konjicija, and Zikrija Avdagic. Population Diversity Measure Based on Singular Values of the Distance Matrix. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1863–1869, Singapore, September 2007. IEEE Press.

- [3604] P. Lacomme, C. Prins, and M. Sevaux. Multiobjective Capacitated Arc Routing Problem. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 550–564, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [3605] P. Lacomme, C. Prins, and M. Sevaux. A genetic algorithm for a bi-objective capacitated arc routing problem. *Computers & Operations Research*, 33(12):3473–3493, December 2006.
- [3606] N.D. Lagaros, V. Plevris, and M. Papadrakakis. Multi-objective design optimization using cascade evolutionary computations. *Computer Methods in Applied Mechanics and Engineering*, 194(30–33):3496–3515, 2005.
- [3607] Nikos D. Lagaros and Michalis Fragiadakis. Robust performance-based design optimization of steel moment resisting frames. *International Journal of Earthquake Engineering*, 11(5):752–772, September 2007.
- [3608] Nikos D. Lagaros and Manolis Papadrakakis. Robust seismic design optimization of steel structures. *Structural and Multidisciplinary Optimization*, 33(6):457–469, June 2007.
- [3609] Nikos D. Lagaros and Manolis Papadrakakis. Seismic design of RC structures: A critical assessment in the framework of multi-objective optimization. *Earthquake Engineering & Structural Dynamics*, 36(12):1623–1639, October 10 2007.
- [3610] Nikos D. Lagaros, Manolis Papadrakakis, and Vagelis Plevris. Multiobjective Optimization of Space Structures under Static and Seismic Loading Conditions. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 273–300. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [3611] M. Laguna, J. Molina, F. Perez, R. Caballero, and A. G. Hernandez-Diaz. The challenge of optimizing expensive black boxes: a scatter search/rough set theory approach. *Journal of the Operational Research Society*, 61(1):53–67, January 2010.
- [3612] José Ruben Felipe Lagunas Jiménez. *Sintonización de controladores PID mediante un algoritmo genético multiobjetivo (NSGA-II)*. PhD thesis, Departamento de Control Automático, CINVESTAV-IPN, México, D.F., April 2004. (in Spanish).
- [3613] M. Lahanas, D. Baltas, and S. Giannouli. Global convergence analysis of fast multiobjective gradient based dose optimization algorithms for high-dose-rate brachytherapy. *Physics in Medicine and Biology*, 48(5):599–617, March 2003.
- [3614] Michael Lahanas. Anatomy-based three-dimensional dose optimization in brachytherapy using multiobjective genetic algorithms. *Medical Physics*, 26(9):1904–1918, September 1999.

- [3615] Michael Lahanas. Application of Multiobjective Evolutionary Optimization Algorithms in Medicine. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 365–391. World Scientific, Singapore, 2004.
- [3616] Michael Lahanas, Natasa Milickovic, Dimos Baltas, and Nikolaos Zamboglou. Application of Multiobjective Evolutionary Algorithms for Dose Optimization Problems in Brachytherapy. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 574–587. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [3617] Michael Lahanas, Eduard Schreibmann, and Dimos Baltas. Multiobjective inverse planning for intensity modulated radiotherapy with constraint-free gradient-based optimization algorithms. *Physics in Medicine and Biology*, 48:2843–2871, September 2003.
- [3618] Michael Lahanas, Eduard Schreibmann, Natasa Milickovic, and Dimos Baltas. Intensity Modulated Beam Radiation Therapy Dose Optimization with Multiobjective Evolutionary Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 648–661, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [3619] Adel Lahsasna, Raja N. Ainon, and Teh Y. Wah. Enhancement of transparency and accuracy of credit scoring models through genetic fuzzy classifier. *Maejo International Journal of Science and Technology*, 4(1):136–158, January-April 2010.
- [3620] A. Laifa and M. Boudour. Multi-Objective Particle Swarm Optimization for FACTS Allocation to Enhance Voltage Security. *International Review of Electrical Engineering-IREE*, 4(5):994–1004, September-October 2009. Part B.
- [3621] N. Lakshminarasimman, S. Baskar, A. Alphones, and M. Willjuice Iruthayaran. Evolutionary multiobjective optimization of cellular base station locations using modified NSGA-II. *Wireless Networks*, 17(3):597–609, April 2011.
- [3622] C. Lakshminarayana and M. R. Mohan. A genetic algorithm multi-objective approach for efficient operational planning technique of distribution systems. *European Transactions on Electrical Power*, 19(2):186–208, March 2009.
- [3623] Thu Bui Lam, Zbigniew Michalewicz, Eddy Parkinson, and Manuel Blanco Abello. Adaptation in Dynamic Environments: A Case Study in Mission Planning. *IEEE Transactions on Evolutionary Computation*, 16(2):190–209, April 2012.
- [3624] X.B. Lam, Y.S. Kim, A.D. Hoang, and C.W. Park. Coupled Aerostructural Design Optimization Using the Kriging Model and Integrated Multiobjective

- Optimization Algorithm. *Journal of Optimization Theory and Applications*, 142(3):533–556, September 2009.
- [3625] Franklin Antonio Mendoza Lameda. *Diseño Multiobjetivo y Multietapa de Sistemas de Distribución de Energía Eléctrica Aplicando Algoritmos Evolutivos*. PhD thesis, Departamento de Ingeniería Eléctrica, Universidad de Zaragoza, Spain, April 2010. (In Spanish).
 - [3626] Gary B. Lamont, Mark P. Kleeman, and Richard O. Day. Multi-Objective Evolutionary Algorithms for Computer Science Applications. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 451–481. World Scientific, Singapore, 2004.
 - [3627] Gary B. Lamont, James N. Slear, and Kenneth Melendez. UAV Swarm Mission Planning and Routing using Multi-Objective Evolutionary Algorithms. In *IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM 2007)*, pages 10–20. IEEE Press, April 2007.
 - [3628] Ricardo Landa Becerra. *Use of Domain Information to Improve the Performance of an Evolutionary Algorithm*. PhD thesis, Computer Science Department, CINVESTAV-IPN, Mexico City, Mexico, June 2007.
 - [3629] Ricardo Landa Becerra and Carlos A. Coello Coello. Solving Hard Multiobjective Optimization Problems Using ϵ -Constraint with Cultured Differential Evolution. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 543–552. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
 - [3630] Ricardo Landa Becerra, Carlos A. Coello Coello, Alfredo G. Hernández-Díaz, Rafael Caballero, and Julián Molina. Alternative Techniques to Solve Hard Multi-Objective Optimization Problems. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 757–764, London, UK, July 2007. ACM Press.
 - [3631] Ricardo Landa-Becerra, Luis V. Santana-Quintero, and Carlos A. Coello Coello. Knowledge Incorporation in Multi-Objective Evolutionary Algorithms. In Ashish Ghosh, Satchidananda Dehuri, and Susmita Ghosh, editors, *Multi-objective Evolutionary Algorithms for Knowledge Discovery from Data Bases*, pages 23–46. Springer, Berlin, 2008.
 - [3632] J. Dario Landa Silva, Edmund K. Burke, and Sanja Petrovic. An Introduction to Multiobjective Metaheuristics for Scheduling and Timetabling. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T'kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 91–129. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535, Berlin, 2004.

- [3633] J.D. Landa Silva and E.K. Burke. Using Diversity to Guide the Search in Multi-Objective Optimization. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 727–751. World Scientific, Singapore, 2004.
- [3634] Jesus Dario Landa Silva. *Metaheuristic and Multiobjective Approaches for Space Allocation*. PhD thesis, School of Computer Science and Information Technology, University of Nottingham, UK, November 2003.
- [3635] Birger Landwehr. A Genetic Algorithm based Approach for Multi-Objective Data-Flow Graph Optimization. In *Proceedings of the Asia and South Pacific Design Automation Conference 1999 (ASP-DAC'99)*, pages 355–358, Wanchai, Hong Kong, January 1999. IEEE.
- [3636] P.C.R. Lane and F. Gobet. Discovering predictive variables when evolving cognitive models. In *Pattern Recognition and Data Mining, Pt 1, Proceedings*, pages 108–117. Springer. Lecture Notes in Computer Science Vol. 3686, 2005.
- [3637] W. B. Langdon. *Data Structures and Genetic Programming*. PhD thesis, University College, London, September 1996.
- [3638] W. B. Langdon. Scheduling Maintenance of Electrical Power Transmission Networks Using Genetic Programming. In *The 1st Online Workshop on Soft Computing (WSC1)*. Research Group on EComp of the Society of Fuzzy Theory and Systems (SOFT), Nagoya University, Japan, August 1996.
- [3639] W. B. Langdon. Scheduling Planned Maintenance of Electrical Power Transmission Networks Using Genetic Algorithms. In Gennady K. Voronovsky and Serguey A. Sergeev, editors, *Artificial Neural Networks and Genetic Algorithms in Power Engineering*. OSNOVA, Ukraine, 1997. (in Russian).
- [3640] W. B. Langdon and P. C. Treleaven. Scheduling Maintenance of Electrical Power Transmission Networks Using Genetic Programming. In Kevin Warwick, Arthur Ekwue, and Raj Aggarwal, editors, *Artificial Intelligence Techniques in Power Systems*, chapter 10, pages 220–237. IEE, 1997.
- [3641] William B. Langdon. *Data Structures and Genetic Programming*. Research Note RN/95/70, University College London, Gower Street, London WC1E 6BT, UK, September 1995.
- [3642] William B. Langdon. Evolving data structures using genetic programming. In Larry Eshelman, editor, *Proceedings of the Sixth International Conference on Genetic Algorithms (ICGA'95)*, pages 295–302, Pittsburgh, PA, July 1995. Morgan Kaufmann.
- [3643] William B. Langdon. Evolving data structures using genetic programming. Research Note RN/95/1, University College London, Gower Street, London WC1E 6BT, UK, January 1995.

- [3644] William B. Langdon. Pareto, Population Partitioning, Price and Genetic Programming. Research Note RN/95/29, University College London, Gower Street, London WC1E 6BT, UK, April 1995.
- [3645] William B. Langdon. Data structures and genetic programming. In Peter J. Angeline and Kenneth E. Kinneer, Jr., editors, *Advances in Genetic Programming* 2, chapter 20, pages 395–414. MIT Press, Cambridge, MA, USA, 1996.
- [3646] William B. Langdon. Scheduling Maintenance of Electrical Power Transmission Networks Using Genetic Programming. Research Note RN/96/49, University College London, Gower Street, London WC1E 6BT, UK, June 1996.
- [3647] William B. Langdon. Scheduling Maintenance of Electrical Power Transmission Networks Using Genetic Programming. In John R. Koza, editor, *Late Breaking Papers at the GP-96 Conference*, pages 107–116, Stanford, CA, USA, 28–31 July 1996. Stanford Bookstore.
- [3648] William B. Langdon. Using Data Structures within Genetic Programming. In John R. Koza, David E. Goldberg, David B. Fogel, and Rick L. Riolo, editors, *Genetic Programming 1996: Proceedings of the First Annual Conference*, pages 141–148, Stanford University, CA, USA, 28–31 July 1996. MIT Press.
- [3649] William B. Langdon. Using Data Structures within Genetic Programming. Research Note RN/96/1, University College London, Gower Street, London WC1E 6BT, UK, January 1996.
- [3650] William B. Langdon. *Data Structures and Genetic Programming: Genetic Programming + Data Structures = Automatic Programming!* Kluwer, Boston, April 1998.
- [3651] William B. Langdon, Mark Harman, and Yue Jia. Multi objective higher order mutation testing with GP. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1945–1946, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [3652] Grecia Lapizco-Encinas, Carl Kingsford, and James Reggia. Particle Swarm Optimization for multimodal combinatorial problems and its application to protein design. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3735–3742, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3653] Adriana Lara, Carlos A. Coello Coello, and Oliver Schütze. Using Gradient-Based Information to Deal with Scalability in Multi-objective Evolutionary Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 16–23, Trondheim, Norway, May 2009. IEEE Press.
- [3654] Adriana Lara, Gustavo Sanchez, Carlos A. Coello Coello, and Oliver Schütze. HCS: A New Local Search Strategy for Memetic Multi-Objective Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 14(1):112–132, February 2010.

- [3655] Oscar D. Lara and Miguel A. Labrador. A Multiobjective Ant Colony-based Optimization Algorithm for the Bin Packing Problem with Load Balancing. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 450–457, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3656] M. Laraia, M. Manna, S. Colantuoni, and P. Di Martino. A multi-objective design optimization strategy as applied to pre-mixed pre-vaporized injection systems for low emission combustors. *Combustion Theory and Modelling*, 14(2):203–233, 2010.
- [3657] S.P. Larcombe, D.J. Prendergast, N.A. Thacker, and P.A. Ivey. Initial Development of a Genetic Algorithm to Automate System Implementation in a Novel Electronic Packaging Technology. In *Proceedings of GALEZIA'97*, Glasgow, September 1997.
- [3658] S.P. Larcombe and N.A. Thacker. Using Genetic Algorithms to Automate System Implementation in a Novel Three-Dimensional Packaging Technology. In *Proceedings of IEEE ICCD*, 1996.
- [3659] J.W. Large, D.F. Jones, and M. Tamiz. Hyper-spherical inversion transformations in multi-objective evolutionary optimization. *European Journal of Operational Research*, 177(3):1678–1702, March 16 2007.
- [3660] Fiacc Larkin and Conor Ryan. Modesty Is the Best Policy: Automatic Discovery of Viable Forecasting Goals in Financial Data. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Marc Ebner, Muddassar Farooq, Andreas Fink, Jörn Grahl, Gary Greenfield, Penousal Machado, Michael O'Neill, Ernesto Tarantino, and Neil Urquhard, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMNET, EvoENVIRONMENT, EvoFIN, EvoMUSART and EvoTRANSLOG*, pages 202–211, Istanbul, Turkey, April 7–9 2010. Springer. Lecture Notes in Computer Science Vol. 6025.
- [3661] H. C. W. Lau, T. M. Chan, W. T. Tsui, F. T. S. Chan, G. T. S. Ho, and K. L. Choy. A Fuzzy guided multi-objective evolutionary algorithm model for solving transportation problems. *Expert Systems with Applications*, 36(4):8255–8268, May 2009.
- [3662] Daniele Laucelli and Orazio Giustolisi. Scour Depth Modelling by a Multi-Objective Evolutionary Paradigm. *Environmental Modelling & Software*, 26(4):498–509, April 2011.
- [3663] M. Laumanns and N. Laumanns. Evolutionary multiobjective design in automotive development. *Applied Intelligence*, 23(1):55–70, July 2005.
- [3664] M. Laumanns, L. Thiele, and E. Zitzler. Running Time Analysis of Evolutionary Algorithms on Vector-Valued Pseudo-Boolean Functions. Technical Report 165, Computer Engineering and Networks Laboratory, ETH Zurich, May 2003.

- [3665] M. Laumanns, L. Thiele, E. Zitzler, E. Welzl, and K. Deb. Running time analysis of a multi-objective evolutionary algorithm on a simple discrete optimization problem. Technical Report 123, Computer Engineering and Networks Laboratory, ETH Zurich, January 2002.
- [3666] Marco Laumanns. *Analysis and Applications of Evolutionary Multiobjective Optimization Algorithms*. PhD thesis, Swiss Federal Institute of Technology, Zürich, Switzerland, 2003.
- [3667] Marco Laumanns. Self Adaptation and Convergence of Multiobjective Evolutionary Algorithms in Continuous Search Spaces. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 33–53. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [3668] Marco Laumanns and Jiri Ocenasek. Bayesian Optimization Algorithms for Multi-objective Optimization. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 298–307, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [3669] Marco Laumanns, Günter Rudolph, and Hans-Paul Schwefel. A Spatial Predator-Prey Approach to Multi-Objective Optimization: A Preliminary Study. In A. E. Eiben, M. Schoenauer, and H.-P. Schwefel, editors, *Parallel Problem Solving From Nature — PPSN V*, pages 241–249, Amsterdam, Holland, 1998. Springer-Verlag.
- [3670] Marco Laumanns, Günter Rudolph, and Hans-Paul Schwefel. Approximating the Pareto Set: Concepts, Diversity Issues, and Performance Assessment. Technical Report CI-72/99, Dortmund: Department of Computer Science/LS11, University of Dortmund, Germany, March 1999. ISSN 1433-3325.
- [3671] Marco Laumanns, Günter Rudolph, and Hans-Paul Schwefel. Adaptive Mutation Control in Panmictic and Spatially Distributed Multi-Objective Evolutionary Algorithms. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [3672] Marco Laumanns, Günter Rudolph, and Hans-Paul Schwefel. Mutation Control and Convergence in Evolutionary Multi-Objective Optimization. In *Proceedings of the 7th International Mendel Conference on Soft Computing (MENDEL 2001)*, Brno, Czech Republic, June 2001.
- [3673] Marco Laumanns, Lothar Thiele, Kalyanmoy Deb, and Eckart Zitzler. On the Convergence and Diversity-Preservation Properties of Multi-Objective Evolutionary Algorithms. Technical Report 108, Computer Engineering and Networks Laboratory (TIK), Swiss Federal Institute of Technology (ETH) Zurich, Gloriastrasse 35, CH-8092 Zurich, Switzerland, May 2001.

- [3674] Marco Laumanns, Lothar Thiele, Kalyanmoy Deb, and Eckart Zitzler. Combining Convergence and Diversity in Evolutionary Multi-objective Optimization. *Evolutionary Computation*, 10(3):263–282, Fall 2002.
- [3675] Marco Laumanns, Lothar Thiele, and Eckart Zitzler. Running Time Analysis of Evolutionary Algorithms on a Simplified Multiobjective Knapsack Problem. *Natural Computing*, 3(1):37–51, 2004.
- [3676] Marco Laumanns, Lothar Thiele, and Eckart Zitzler. Running Time Analysis of Multiobjective Evolutionary Algorithms on Pseudo-Boolean Functions. *IEEE Transactions on Evolutionary Computation*, 8(2):170–182, April 2004.
- [3677] Marco Laumanns, Lothar Thiele, and Eckart Zitzler. An efficient, adaptive parameter variation scheme for metaheuristics based on the epsilon-constraint method. *European Journal of Operational Research*, 169:932–942, 2006.
- [3678] Marco Laumanns, Lothar Thiele, Eckart Zitzler, and Kalyanmoy Deb. Archiving with Guaranteed Convergence and Diversity in Multi-Objective Optimization. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 439–447, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [3679] Marco Laumanns, Lothar Thiele, Eckart Zitzler, Emo Welzl, and Kalyanmoy Deb. Running Time Analysis of Multi-objective Evolutionary Algorithms on a Simple Discrete Optimization Problem. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 44–53, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [3680] Marco Laumanns and Rico Zenklusen. Stochastic convergence of random search methods to fixed size Pareto front approximations. *European Journal of Operational Research*, 213(2):414–421, September 1 2011.
- [3681] Marco Laumanns, Eckart Zitzler, and Lothar Thiele. A Unified Model for Multi-Objective Evolutionary Algorithms with Elitism. In *2000 Congress on Evolutionary Computation*, volume 1, pages 46–53, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [3682] Marco Laumanns, Eckart Zitzler, and Lothar Thiele. On the Effects of Archiving, Elitism, and Density Based Selection in Evolutionary Multi-objective Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 181–196. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.

- [3683] Marco Laumanns, Eckart Zitzler, and Lothar Thiele. Multiple Criteria Decision Support by Evolutionary Computation. In L.M. Hilty and P.W. Gilgen, editors, *Sustainability in the Information Society, 15th International Symposium Informatics for Environmental Protection*, Zurich, October 2001. Verlag.
- [3684] Nando Laumanns, Marco Laumanns, and Harmut Kitterer. Evolutionary Multi-Objective Integer Programming for the Design of Adaptive Cruise Control Systems. In Tim Hendtlass and Moonis Ali, editors, *Proceedings of the Fifteenth International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems (IEA/AIE-2002)*, pages 200–210, Cairns, Australia, June 2002. Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 2358.
- [3685] Nando Laumanns, Marco Laumanns, and Dirk Neunzig. Multi-objective Design Space Exploration of Road Trains with Evolutionary Algorithms. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 612–623. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [3686] M. Lavagna, A. Povoleri, and A.E. Finzi. Interplanetary mission design with aero-assisted manoeuvres multi-objective evolutive optimization. *Acta Astronautica*, 57(2–8):498–509, July–October 2005.
- [3687] Michèle R. Lavagna. Multi-Objective PSO for Interplanetary Trajectory Design. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 175, London, UK, July 2007. ACM Press.
- [3688] Michelle R. Lavagna and Amalia Ercoli Finzi. Concurrent Processes within Preliminary Spacecraft Design: An Autonomous Decisional Support Based on Genetic Algorithms and Analytic Hierarchical Process. In *Proceedings of the 17th International Symposium on Space Flight Dynamics*, Moscow, Russia, June 2003.
- [3689] Oren Lavan and Gary F. Dargush. Multi-Objective Evolutionary Seismic Design with Passive Energy Dissipation Systems. *Journal of Earthquake Engineering*, 13(6):758–790, 2009.
- [3690] Michael Lawrence. Multiobjective Genetic Algorithms for Materialized View Selection in OLAP Data Warehouses. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 699–706, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [3691] A. Lazzaretto and A. Toffolo. Energy, economy and environment as objectives in multi-criterion optimization of thermal systems design. *Energy*, 29(8):1139–1157, June 2004.

- [3692] Beatrice Lazzerini, Francesco Marcelloni, and Massimo Vecchio. A multi-evolutionary approach to image quality/compression trade-off in JPEG baseline algorithm. *Applied Soft Computing*, 10(2):548–561, March 2010.
- [3693] Khoi Le and Dario Landa-Silva. Adaptive and Assortative Mating Scheme for Evolutionary Multi-Objective Algorithms. In Nicolas Monmarché, El-Ghazali Talbi, Pierre Collet, Marc Schoenauer, and Evelyne Lutton, editors, *Artificial Evolution. 8th International Conference Evolution Artificielle (EA 2007)*, pages 172–183, Tours, France, October 2007. Springer. Lecture Notes in Computer Science. Vol. 4926.
- [3694] Khoi Le and Dario Landa-Silva. Obtaining Better Non-Dominated Sets Using Volume Dominance. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3119–3126, Singapore, September 2007. IEEE Press.
- [3695] Khoi Le, Dario Landa-Silva, and Hui Li. An Improved Version of Volume Dominance for Multi-Objective Optimisation. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 231–245. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [3696] J. Le Besnerais, V. Lanfranchi, M. Hecquet, and P. Brochet. Multiobjective optimization of induction machines including mixed variables and noise minimization. *IEEE Transactions on Magnetics*, 44(6):1102–1105, June 2008.
- [3697] Jean Le Besnerais, Aurelie Fasquelle, Vincent Lanfranchi, Michel Hecquet, and Pascal Brochet. Mixed-Variable Optimal Design of Induction Motors Including Efficiency, Noise and Thermal Criteria. *Optimization and Engineering*, 12(1-2):55–72, March 2011.
- [3698] Quan Le-Trung and Gabriele Kotsis. A Network Model for MANET Nodes and Actors Collaboration to Optimize Processing in Event Areas. In *International Workshop on Modeling Analysis and Simulation of Wireless and Mobile Systems (PE-WASUN'07)*, pages 87–91, Chania, Crete Island, Greece, October 22 2007. ACM Press.
- [3699] Chi-Ho Lee, Ye-Hoon Kim, and Jong-Hwan Kim. Multiobjective Evolutionary Algorithm Reinforcing Specific Objective. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2894–2898, Hong Kong, June 2008. IEEE Service Center.
- [3700] Chi-Ho Lee, Kang-Hee Lee, and Jong-Hwan Kim. Evolutionary Multi-Objective Optimization for Generating Artificial Creature's Personality. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2450–2455, Singapore, September 2007. IEEE Press.
- [3701] D. Lee and S. Y. Kim. A knowledge-based expert system as a pre-post processor in engineering optimization. *Expert Systems With Applications*, 11(1):79–87, 1996.

- [3702] D. S. Lee, L. F. Gonzalez, J. Periaux, and K. Srinivas. Efficient Hybrid-Game Strategies Coupled to Evolutionary Algorithms for Robust Multidisciplinary Design Optimization in Aerospace Engineering. *IEEE Transactions on Evolutionary Computation*, 15(2):133–150, April 2011.
- [3703] D. S. Lee, J. Periaux, E. Onate, L.F. Gonzalez, and N. Qin. Active Transonic Aerofoil Design Optimization Using Robust Multiobjective Evolutionary Algorithms. *Journal of Aircraft*, 48(3):1084–1094, May-June 2011.
- [3704] Dongkon Lee. Multiobjective Design of a Marine Vehicle with Aid of Design Knowledge. *International Journal for Numerical Methods in Engineering*, 40:2665–2677, 1997.
- [3705] DongSeop Lee, Jacques Periaux, Jordi Pons-Prats, Gabriel Begeda, and Eugenio Onate. Double Shock Control Bump Design Optimization using Hybridised Evolutionary Algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1959–1966, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3706] Elaine Su-Qin Lee and G. P. Rangaiah. Optimization of Recovery Processes for Multiple Economic and Environmental Objectives. *Industrial & Engineering Chemistry Research*, 48(16):7662–7681, August 2009.
- [3707] Elaine Su-Qin Lee, Gade Pandu Rangaiah, and Naveen Agrawal. Optimal Design of Chemical Processes for Multiple Economic and Environmental Objectives. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 10, pages 301–338. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [3708] Fook Choon Lee, Gade Pandu Rangaiah, and Dong-Yup Lee. Optimization of a Multi-Product Microbial Cell Factory for Multiple Objectives - A Paradigm for Metabolic Pathway Recipe. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 13, pages 401–428. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [3709] In-Hee Lee, Sun Kim, and Byoung-Tak Zhang. Multi-objective Evolutionary Probe Design Based on Thermodynamic Criteria for HPV Detection. In Chengqi Zhang, Hans W. Guesgen, and Wai K. Yeap, editors, *Trends in Artificial Intelligence. 8th Pacific Rim International Conference on Artificial Intelligence (PRICAI'2004)*, pages 742–750. Springer, Lecture Notes in Computer Science, Vol. 3157, Auckland, New Zealand, August 9-13 2004. ISBN 978-3-540-22817-2.
- [3710] In-Hee Lee, Soo-Yong Shin, and Byoung-Tak Zhang. DNA Sequence Optimization Using Constrained Multi-Objective Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2270–2276, Canberra, Australia, December 2003. IEEE Press.

- [3711] In-Hee Lee, Soo-Yong Shin, and Byoung-Tak Zhang. Multiplex PCR Assay Design by Hybrid Multiobjective Evolutionary Algorithm. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 376–385, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3712] J. Lee and J. Lee. Gate positioning design of injection mould using bi-objective micro genetic algorithm. *Proceedings of the Institution of Mechanical Engineers Part B–Journal of Engineering Manufacture*, 222(6):687–699, June 2008.
- [3713] Jongsoo Lee and Prabhat Hajela. Parallel Genetic Algorithm Implementation in Multidisciplinary Rotor Blade Design. *Journal of Aircraft*, 33(5):962–969, September–October 1996.
- [3714] Kuo-Ming Lee, Ming-Ren Hsu, Jyh-Horng Chou, and Ching-Yi Guo. Improved differential evolution approach for optimization of surface grinding process. *Expert Systems With Applications*, 38(5):5680–5686, May 2011.
- [3715] M. A. Lee and H. Esbensen. Constructing Fuzzy/Evolutionary Multiobjective Optimization Algorithms. In *Proceedings of the 1996 IEEE Conference on Fuzzy Systems (FUZZ-IEEE’96)*, New Orleans, Louisiana, USA, 1996. IEEE.
- [3716] M. A. Lee and H. Esbensen. Multiobjective Optimization using Fuzzy/Evolutionary Algorithms. In *Proceedings of the International Society for Computers and Their Applications (ISCA’96)*, San Francisco, California, 1996.
- [3717] M. A. Lee and H. Esbensen. Set Quality Measures for Characterizing Multi-objective Optimization Algorithm Behavior. In *Proceedings of the North American Fuzzy Information Processing Society (NAFIPS’96)*, Berkeley, California, 1996.
- [3718] M. A. Lee and H. Esbensen. Fuzzy/Multiobjective Genetic Systems for Intelligent Systems Design Tools and Components. In Witold Pedrycz, editor, *Fuzzy Evolutionary Computation*, pages 57–80. Kluwer Academic Publishers, Boston, Massachusetts, 1997.
- [3719] M. A. Lee and R. Hartani. A Multiobjective Evolutionary Algorithms Approach to Fuzzy Modelling. In *Proceedings of the Second Annual Joint Conference on Information Sciences (JCIS’95)*, pages 460–463, Wrightsville Beach, North Carolina, 1995.
- [3720] Michael A. Lee and Henrik Esbensen. Automatic Construction of Fuzzy Controllers for Evolutionary Multiobjective Optimization Algorithms. In *Proceedings of the Fifth IEEE International Conference on Fuzzy Systems*, volume 2, pages 1518–1523, 1996.

- [3721] Michael A. Lee and Henrik Esbensen. Evolutionary Algorithms Based Multiobjective Optimization Techniques for Intelligent Systems Design. In *1996 Biennial Conference of the North America Fuzzy Information Processing Society (NAFIPS'96)*, pages 360–364, 1996.
- [3722] Michael A. Lee, Henrik Esbensen, and Laurent Lemaitre. The Design of Hybrid Fuzzy/Evolutionary Multiobjective Optimization Algorithms. In *Proceedings of the 1995 IEEE/Nagoya University World Wiseperson Workshop*, pages 118–125, Nagoya, Japan, 1995.
- [3723] Sang-Moon Lee and Kwang-Yong Kim. Multiobjective Design Optimization of the Upper Plenum of a Pbmr-Type Gas-Cooled Nuclear Reactor. *Nuclear Technology*, 175(2):361–370, August 2011.
- [3724] Sun-Young Lee, Wonsuk Park, Seung-Yong Ok, and Hyun-Moo Koh. Preference-based maintenance planning for deteriorating bridges under multi-objective optimisation framework. *Structure and Infrastructure Engineering*, 7(7-8):633–644, 2011.
- [3725] T.H. Lee, K.C. Tan, and E.F. Khor. Control System Design Unification and Automation—A Way Forward in CACSD via Evolutionary Computation. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 152–161, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [3726] Zne-Jung Lee, Shih-Wei Lin, Shun-Feng Su, and Chun-Yen Lin. A hybrid watermarking technique applied to digital images. *Applied Soft Computing*, 8(1):798–808, January 2008.
- [3727] C. Leer, F. W. J. van Hattum, A. Gaspar-Cunha, O. S. Carneiro, and C. A. Bernardo. Tailored shear extrusion of carbon nanofibre/polyamide composites and its effect on electrical percolation threshold. *Plastics Rubber and Composites*, 35(6-7):268–275, September 2006.
- [3728] Pakorn Leesutthipornchai, Chalernpol Charnsripinyo, and Naruemon Wattanapongsakorn. Solving multi-objective routing and wavelength assignment in WDM network using hybrid evolutionary computation approach. *Computer Communications*, 33(18):2246–2259, December 15 2010.
- [3729] Yann Lefablec. Optimisation par algorithmes génétiques parallèles et multi-objectifs. Thesis, 1995. (in French).
- [3730] Patrick Christopher Leger. *Automated Synthesis and Optimization of Robot Configurations: An Evolutionary Approach*. PhD thesis, The Robotics Institute, Carnegie Mellon University, Pittsburgh, Pennsylvania, December 1999.
- [3731] Guillermo Leguizamón and Carlos A. Coello Coello. Multi-Objective Ant Colony Optimization: A Taxonomy and Review of Approaches. In Satchidananda Dehuri, Susmita Ghosh, and Sung Bae Cho, editors, *Integration of*

Swarm Intelligence and Artificial Neural Network, chapter 3, pages 67–94. World Scientific, Singapore, 2011. ISBN 978-981-4280-14-3.

- [3732] Joel Lehman and Kenneth O. Stanley. Evolving Diversity of Creatures Through Novelty Search and Local Competition. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 211–218, Dublin, Ireland, July 12–16 2011. ACM Press.
- [3733] Deming Lei. A Pareto archive particle swarm optimization for multi-objective job shop scheduling. *Computers & Industrial Engineering*, 54(4):960–971, May 2008.
- [3734] Deming Lei. Pareto archive particle swarm optimization for multi-objective fuzzy job shop scheduling problems. *International Journal of Manufacturing Technology*, 37(1-2):157–165, April 2008.
- [3735] Deming Lei. Multi-objective production scheduling: a survey. *International Journal of Advanced Manufacturing Technology*, 43(9-10):926–938, August 2009.
- [3736] Deming Lei and Zhiming Wu. Crowding-measure-based multiobjective evolutionary algorithm for job shop scheduling. *International Journal of Advanced Manufacturing Technology*, 30(1-2):112–117, August 2006.
- [3737] Tian Lei, Liu Lieli, Liyan Han, and Hai Huang. A Genetic Algorithm-Based Double-Objective Multi-constraint Optimal Cross-Region Cross-Sector Public Investment Model. In Licheng Jiao, Lipo Wang, Xinbo Gao, Jing Liu, and Feng Wu, editors, *Advances in Natural Computation, Second International Conference, ICNC 2006*, pages 470–479, Xi'an, China, September 24–28 2006. Springer. Lecture Notes in Computer Science Volume 4222.
- [3738] Matthias Leipold, Sven Gruetzmänn, and Georg Fieg. An evolutionary approach for multi-objective dynamic optimization applied to middle vessel batch distillation. *Computers & Chemical Engineering*, 33(4):857–870, April 21 2009.
- [3739] Héctor A. Leiva, Susana C. Esquivel, and Raúl H. Gallard. Multiplicity and Local Search in Evolutionary Algorithms to Build the Pareto Front. In *Proceedings of the XX International Conference of the Chilean Computer Science Society*, pages 7–13, Piscataway, New Jersey, 2000. IEEE Computer Society Press.
- [3740] Michal Lemczyk and Malcolm I. Heywood. Training Binary GP Classifiers Efficiently: A Pareto-coevolutionary Approach. In Marc Ebner, Michael O'Neill, Anikó Ekárt, Leonardo Vanneschi, and Anna Isabel Esparcia-Alcázar, editors, *Genetic Programming, 10th European Conference, EuroGP 2007*, pages 229–240, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4445.

- [3741] Jamie Lennon. *An Architecture for the Autonomous Generation of Preference-Optimized Trajectories*. PhD thesis, Department of Aerospace Engineering, University of Maryland, College Park, USA, 2006.
- [3742] I. Jerin Leno, S. Saravana Sankar, M. Victor Raj, and S. G. Ponnambalam. Bicriteria Optimization in Integrated Layout Design of Cellular Manufacturing Systems Using a Genetic Algorithm. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 323–331, Visakhapatnam, Andhra Pradesh, India, December 19–21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [3743] Coromoto León, Gara Miranda, Eduardo Segredo, and Carlos Segura. Parallel Library of Multi-objective Evolutionary Algorithms. In Didier El Baz, François Spies, and Tom Gross, editors, *Proceedings of the 17th Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP 2009)*, pages 28–35, Weimar, Germany, February 2009. IEEE Computer Society.
- [3744] Coromoto León, Gara Miranda, and Carlos Segura. Parallel Skeleton for Multi-Objective Optimization. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 906, London, UK, July 2007. ACM Press.
- [3745] Coromoto León, Gara Miranda, and Carlos Segura. Parallel Hyperheuristic: A Self-Adaptive Island-Based Model for Multi-Objective Optimization. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 757–758, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [3746] Coromoto Leon, Gara Miranda, and Carlos Segura. METCO: A Parallel Plugin-Based Framework For Multi-Objective Optimization. *International Journal on Artificial Intelligence Tools*, 18(4):569–588, August 2009.
- [3747] Wen-Fung Leong and Gary G. Yen. Dynamic Population size in PSO-based Multiobjective Optimization. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6182–6189, Vancouver, BC, Canada, July 2006. IEEE.
- [3748] Wen-Fung Leong and Gary G. Yen. Dynamic Swarms in PSO-Based Multi-objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3172–3179, Singapore, September 2007. IEEE Press.
- [3749] Wen-Fung Leong and Gary G. Yen. Impact of Tuning Parameters on Dynamic Swarms in PSO-Based Multiobjective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1317–1324, Hong Kong, June 2008. IEEE Service Center.

- [3750] Wen-Fung Leong and Gary G. Yen. PSO-Based Multiobjective Optimization with Dynamic Population Size and Adaptive Local Archives. *IEEE Transactions on Systems, Man, and Cybernetics—Part B: Cybernetics*, 38(5):1270–1293, October 2008.
- [3751] Matěj Lepš. Single and Multi-Objective Optimization in Civil Engineering. In William Annicchiarico, Jacques Périaux, Miguel Cerrolaza, and Gabriel Winter, editors, *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization*, pages 322–342. WIT Press, CIMNE Barcelona, Southampton, Boston, 2005. ISBN 1-84564-038-1.
- [3752] Teodor Leuca and Mihaela Novac. Optimization of Eddy-Current Heating Process Using Genetic Algorithms. *Revue Roumaine Des Sciences Techniques-Serie Electrotechnique Et Energetique*, 4(4):355–363, October-December 2009.
- [3753] Kwong-Sak Leung and Yong Liang. Adaptive Elitist-Population Based Genetic Algorithm for Multimodal Function Optimization. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 1160–1171. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [3754] S.Y.S. Leung, W.K. Wong, and P.Y. Mok. Multiple-objective genetic optimization of the spatial design for packing and distribution carton boxes. *Computers & Industrial Engineering*, 54(4):889–902, May 2008.
- [3755] Yiu-Wing Leung and Yuping Wang. Multiobjective Programming Using Uniform Design and Genetic Algorithm. *IEEE Transactions on Systems, Man, and Cybernetics—Part C: Applications and Reviews*, 30(3):293–304, August 2000.
- [3756] F. Levi, M. Gobbi, G. Mastinu, and M. Farina. Multi-Objective Design and Selection of One Single Optimal Solution. In *Proceedings of IMECE 2004: 2004 International Mechanical Engineering Congress and R&D Expo*, Anaheim, California, USA, November 2004.
- [3757] Jung-Ho Lew. A Spotlight Search Method for Multi-Criteria Optimization Problems. In *Proceedings of the 9th AIAA/ISSMO Symposium on Multidisciplinary Analysis and Optimization*, Atlanta, Georgia, September 2002. American Institute of Aeronautics and Astronautics. AIAA 2002-5432.
- [3758] Andrew Lewis. *Parallel Optimisation Algorithms for Continuous, Non-Linear Numerical Simulations*. PhD thesis, School of Computing and Information Technology, University of Newcastle, Brisbane, Australia, May 2004.
- [3759] Andrew Lewis. LoCost: a Spatial Social Network Algorithm for Multi-Objective Optimisation. In *2009 IEEE Congress on Evolutionary Computation (CEC’2009)*, pages 2866–2870, Trondheim, Norway, May 2009. IEEE Press.

- [3760] Andrew Lewis and David Abramson. An Evolutionary Programming Algorithm for Multi-Objective Optimisation. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1926–1932, Canberra, Australia, December 2003. IEEE Press.
- [3761] Andrew Lewis and David Ireland. Automated Solution Selection in Multi-Objective Optimisation. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2163–2169, Hong Kong, June 2008. IEEE Service Center.
- [3762] Andrew Lewis, Sanaz Mostaghim, and Marcus Randall. Evolutionary Population Dynamics and Multi-Objective Optimisation Problems. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 185–206. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [3763] Andrew Lewis, Sanaz Mostaghim, and Ian Scriven. Asynchronous Multi-Objective Optimisation in Unreliable Distributed Environments. In Andrew Lewis, Sanaz Mostaghim, and Marcus Randall, editors, *Biologically-Inspired Optimisation Methods*, pages 51–78. Springer, 2009. ISBN 978-3-642-01261-7.
- [3764] Andrew Lewis, Marcus Randall, Amir Galehdar, David Thiel, and Gerhard Weis. Using Ant Colony Optimisation to Construct Meander-Line RFID Antennas. In Andrew Lewis, Sanaz Mostaghim, and Marcus Randall, editors, *Biologically-Inspired Optimisation Methods*, pages 189–217. Springer, 2009. ISBN 978-3-642-01261-7.
- [3765] Andrew Lewis, Gerhard Weis, Marcus Randall, Amir Galehdar, and David Thiel. Optimising Efficiency and Gain of Small Meander Line RFID Antennas using Ant Colony System. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1486–1492, Trondheim, Norway, May 2009. IEEE Press.
- [3766] Geoff Leyland. *Multi-Objective Optimisation Applied to Industrial Energy Problems*. PhD thesis, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, May 2002.
- [3767] J.C. Leyva and E. Fernández. A genetic algorithm for deriving final ranking from a fuzzy outranking relation. *Foundations of Computing and Decision Sciences*, 24(1):33–47, 1999.
- [3768] Juan Carlos Leyva-Lopez and Miguel Angel Aguilera-Contreras. A Multiobjective Evolutionary Algorithm for Deriving Final Ranking from a Fuzzy Outranking Relation. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 235–249, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [3769] Juan Carlos Leyva-López and Eduardo Fernández-González. A new method for group decision support based on ELECTRE III methodology. *European Journal of Operational Research*, 148(1):14–27, July 2003.
- [3770] Christian Lezcano, Diego Pinto, and Benjamín Barán. Team Algorithms Based on Ant Colony Optimization - A New Multi-Objective Optimization Approach. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 773–783. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [3771] Bin-Bin Li and Ling Wang. A hybrid quantum-inspired genetic algorithm for multiobjective flow shop scheduling. *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, 37(3):576–591, June 2007.
- [3772] Bin-Bin Li, Ling Wang, and Bo Liu. An effective PSO-based hybrid algorithm for multiobjective permutation flow shop scheduling. *IEEE Transactions on Systems Man and Cybernetics Part A-Systems and Humans*, 38(4):818–831, July 2008.
- [3773] Bing Li, Pei lin Zhang, Hao Tian, Shuang shan Mi, Dong sheng Liu, and Guo quan Ren. A new feature extraction and selection scheme for hybrid fault diagnosis of gearbox. *Expert Systems With Applications*, 38(8):10000–10009, August 2011.
- [3774] Chenfei Li, Qunxiong Zhu, and Zhiqiang Geng. Multi-objective particle swarm optimization hybrid algorithm: An application on industrial cracking furnace. *Industrial & Engineering Chemistry Research*, 46(11):3602–3609, May 23 2007.
- [3775] ChengFei Li and DeMing Zuo. Fuzzy Multi-objective Particle Swarm Optimization Algorithm using Industrial Purified Terephthalic Acid Solvent Dehydration Process. In *2009 WRI World Congress on Computer Science and Information Engineering*, pages 215–219, Los Angeles, California, USA, March-April 2009. IEEE Computer Society.
- [3776] G. Li, M. Li, S. Azarm, J. Rambo, and Y. Joshi. Optimizing thermal design of data center cabinets with a new multi-objective genetic algorithm. *Distributed and Parallel Databases*, 21(2–3):167–192, June 2007.
- [3777] Genzi Li. *Online and Offline Approximations for Population Based Multi-Objective Optimization*. PhD thesis, Department of Mechanical Engineering, University of Maryland, College Park, USA, 2007.
- [3778] H. Li and D. Landa-Silva. An Adaptive Evolutionary Multi-Objective Approach Based on Simulated Annealing. *Evolutionary Computation*, 19(4):561–595, Winter 2011.

- [3779] Haiyan Li, Mingxu Ma, and Yuanwei Jing. A new method based on LPP and NSGA-II for multiobjective robust collaborative optimization. *Journal of Mechanical Science and Technology*, 25(5):1071–1079, May 2011.
- [3780] Honglin Li, Hailei Zhang, Mingyue Zheng, Jie Luo, Ling Kang, Xiaofeng Liu, Xicheng Wang, and Hualiang Jiang. An effective docking strategy for virtual screening based on multi-objective optimization algorithm. *BMC Bioinformatics*, 10, February 11 2009. Article Number: 58.
- [3781] Hui Li and Dario Landa-Silva. Evolutionary Multi-Objective Simulated Annealing with Adaptive and Competitive Search Direction. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3310–3317, Hong Kong, June 2008. IEEE Service Center.
- [3782] Hui Li and Dario Landa-Silva. An Elitist GRASP Metaheuristic for the Multi-Objective Quadratic Assignment Problem. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 481–494. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [3783] Hui Li, Dario Landa-Silva, and Xavier Gandibleux. Evolutionary multi-objective optimization algorithms with probabilistic representation based on pheromone trails. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2307–2314, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3784] Hui Li and Qingfu Zhang. A Multiobjective Differential Evolution Based on Decomposition for Multiobjective Optimization with Variable Linkages. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 583–592. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [3785] Hui Li and Qingfu Zhang. Multiobjective Optimization Problems With Complicated Pareto Sets, MOEA/D and NSGA-II. *IEEE Transactions on Evolutionary Computation*, 13(2):284–302, April 2009.
- [3786] Hui Li, Qingfu Zhang, Edward Tsang, and John A. Ford. Hybrid Estimation of Distribution Algorithm for Multiobjective Knapsack Problem. In Jens Gottlieb and Günter R. Raidl, editors, *Evolutionary Computation in Combinatorial Optimization, Proceedings of the 4th European Conference, EvoCOP 2004*, pages 145–154. Springer. Lecture Notes in Computer Science, Vol. 3004, April 2004.
- [3787] J. Li and N. Satofuka. Optimization design of a compressor cascade airfoil using a Navier-stokes solver and genetic algorithms. *Proceedings of the Institution of Mechanical Engineering Part A—Journal of Power and Energy*, 216(A2):195–202, 2002.

- [3788] Jian-Ping Li, Marton E. Balazs, Geoffrey T. Parks, and P. John Clarkson. A Species Conserving Genetic Algorithm for Multimodal Function Optimization. *Evolutionary Computation*, 10(3):207–234, Fall 2002.
- [3789] Jian-Ping Li, Xiao-Dong Li, and Alastair Wood. Species based evolutionary algorithms for multimodal optimization: A brief review. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4156–4163, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3790] Jin Li and Sope Taiwo. Enhancing Financial Decision Making Using Multi-Objective Financial Genetic Programming. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 7935–7942, Vancouver, BC, Canada, July 2006. IEEE.
- [3791] J.P. Li and A. Wood. Random Search with Species Conservation for Multimodal Functions. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 3164–3171, Trondheim, Norway, May 2009. IEEE Press.
- [3792] Jun Li. Compromise Approach-Based Genetic Algorithm for Constrained Multiobjective Portfolio Selection Model. In Yong Shi, Shouyang Wang, Yi Peng, Jianping Li, and Yong Zeng, editors, *Cutting-Edge Research Topics on Multiple Criteria Decision Making (MCDM'2009)*, pages 697–704. Springer, Communications in Computer and Information Science, Vol. 35, Heidelberg, Germany, 2009.
- [3793] Jun Li and Bo Gao. On chance maximization model in fuzzy random decision systems. *Mathematical and Computer Modelling*, 50(3-4):453–464, August 2009.
- [3794] Jun Li, Huping Xu, and Mitsuo Gen. A class of multiobjective linear programming model with fuzzy random coefficients. *Mathematical and Computer Modelling*, 44(11-12):1097–1113, December 2006.
- [3795] Junqing Li and Quanke Pan. A hybrid Pareto-based local search for multi-objective flexible job shop scheduling problem. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 316–320, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3796] Kangshun Li, Weifeng Pan, Wensheng Zhang, and Zhangxin Chen. A Sequence Cipher Producing Method Based on Two-Layer Ranking Multi-Objective Evolutionary Algorithm. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 169–173, Hong Kong, June 2008. IEEE Service Center.
- [3797] Ke li, Álvaro Fialho, and Sam Kwong. Multi-Objective Differential Evolution with Adaptive Control of Parameters and Operators. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 473–487, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.

- [3798] Ke Li, Sam Kwong, Jingjing Cao, Miqing Li, Jinhua Zheng, and Ruimin Shen. Achieving balance between proximity and diversity in multi-objective evolutionary algorithm. *Information Sciences*, 182(1):220–242, January 1 2012.
- [3799] Kejing Li and Xiaobing Zhang. Multi-Objective Optimization of Interior Ballistic Performance Using NSGA-II. *Propellants Explosives Pyrotechnics*, 36(3):282–290, June 2011.
- [3800] L. Li and G. Q. Huang. Multiobjective Evolutionary Optimisation for Adaptive Product Family Design. *International Journal of Computer Integrated Manufacturing*, 22(4):299–314, 2009.
- [3801] L. Li and G. Q. Huang. Multiobjective evolutionary optimisation for adaptive product family design. *International Journal of Computer Integrated Manufacturing*, 22(4):299–314, 2009.
- [3802] Li Li, Li Hong-Qi, and Xie Shao-Long. Particle Swarm Multi_optimizer for Locating all Local Solutions. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1040–1046, Hong Kong, June 2008. IEEE Service Center.
- [3803] Li Li, F. Qiao, and Q.D. Wu. ACO-based multi-objective scheduling of parallel batch processing machines with advanced process control constraints. *International Journal of Advanced Manufacturing Technology*, 44(9-10):985–994, October 2009.
- [3804] Lijuan Li and Feng Liu. *Group Search Optimization for Applications in Structural Design*. Springer-Verlag, Berlin, Germany, 2011. ISBN 978-3-642-20535-4.
- [3805] Lily D. Li, Xiaodong Li, and Xinghuo Yu. A Multi-Objective Constraint-Handling Method with PSO Algorithm for Constrained Engineering Optimization Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1528–1535, Hong Kong, June 2008. IEEE Service Center.
- [3806] M. Li, S. Azarm, N. Williams, S. Al Hashimi, A. Almansoori, and N. Al Qasas. Integrated multi-objective robust optimization and sensitivity analysis with irreducible and reducible interval uncertainty. *Engineering Optimization*, 41(10):889–908, October 2009.
- [3807] M. Li, G. Li, and S. Azarm. A kriging metamodel assisted multi-objective genetic algorithm for design optimization. *Journal of Mechanical Design*, 130(3), March 2008. article number 031401.
- [3808] Mian Li, Shapour Azarm, and Vikrant Aute. A Multi-Objective Genetic Algorithm for Robust Design Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 771–778, New York, USA, June 2005. ACM Press.

- [3809] Minqiang Li, Dan Lin, and Shouyang Wang. Solving a type of biobjective bilevel programming problem using NSGA-II. *Computers & Mathematics with Applications*, 59(2):706–715, January 2010.
- [3810] Minqiang Li, Liu Liu, and Dan Lin. A Fast Steady-state Epsilon-dominance Multi-objective Evolutionary Algorithm. *Computational Optimization and Applications*, 48(1):109–138, January 2011.
- [3811] Miqing Li and Jinhua Zheng. Spread Assessment for Evolutionary Multi-Objective Optimization. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 216–230. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [3812] Miqing Li, Jinhua Zheng, Ke Li, Qizhao Yuan, and Ruimin Shen. Enhancing Diversity for Average Ranking Method in Evolutionary Many-Objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 647–656. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [3813] Miqing Li, Jinhua Zheng, Ruimin Shen, Ke Li, and Qizhao Yuan. A Grid-Based Fitness Strategy for Evolutionary Many-Objective Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 463–470, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [3814] Miqing Li, Jinhua Zheng, and Jun Wu. Improving NSGA-II Algorithm Based on Minimum Spanning Tree. In Xiaodong Li, Michael Kirley, Mengjie Zhang, David G. Green, Victor Ciesielski, Hussein A. Abbass, Zbigniew Michalewicz, Tim Hendtlass, Kalyanmoy Deb, Kay Chen Tan, Jürgen Branke, and Yuhui Shi, editors, *Simulated Evolution and Learning (SEAL 2008)*, pages 170–179, Melbourne, Australia, December 2008. Springer. Lecture Notes in Computer Science, Vol. 5361.
- [3815] Miqing Li, Jinhua Zheng, and Guixia Xiao. An Efficient Multi-Objective Evolutionary Algorithm Based on Minimum Spanning Tree. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 617–624, Hong Kong, June 2008. IEEE Service Center.
- [3816] Miqing Li, Jinhua Zheng, and Guixia Xiao. Uniformity Assessment for Evolutionary Multi-Objective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 625–632, Hong Kong, June 2008. IEEE Service Center.
- [3817] Qian Li, Linyan Sun, and Liang Bao. Enhanced index tracking based on multi-objective immune algorithm. *Expert Systems with Applications*, 38(5):6101–6106, May 2011.

- [3818] Rong Li, Timothy R. Mersch, Oriana X. Wen, Assem Kaylani, and Georgios C. Anagnostopoulos. Multi-objective memetic evolution of ART-based classifiers. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3353–3360, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3819] Rui Li, Jeroen Eggermont, Ofer M. Shir, Michael T. M. Emmerich, Thomas Bäck, Juke Dijkstra, and Johan H. C. Reiber. Mixed-Integer Evolution Strategies with Dynamic Niching. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 246–255. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [3820] Seereeram Li, Ravichandran Mehra, Robert Smith, and Randal Beard. Multi-spacecraft Trajectory Optimization and Control using Genetic Algorithm Techniques. In *IEEE Aerospace Conference Proceedings*, volume 7, pages 99–108. IEEE, 2000.
- [3821] Sheng-Tun Li, Chih-Chuan Chen, and Jian Wei Li. A Multi-objective Particle Swarm Optimization Algorithm for Rule Discovery. In *Third International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP 2007)*, pages 597–600, Washington, DC, USA, November 26-28 2007. IEEE Computer Society.
- [3822] Weihong Li, Lijuan Liu, and Weiguo Gong. Multi-objective uniform design as a SVM model selection tool for face recognition. *Expert Systems With Applications*, 38(6):6689–6695, June 2011.
- [3823] Weiqi Li. Finding Pareto-Optimal Set by Merging Attractors for a Bi-objective Traveling Salesmen Problem. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 797–810, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3824] Xi-Ping Li, Guo-Qun Zhao, Yan-Jin Guan, and Ming-Xing Ma. Multi-objective optimization of heating channels for rapid heating cycle injection mold using Pareto-based genetic algorithm. *Polymers for Advanced Technologies*, 21(9):669–678, September 2010.
- [3825] Xiaodong Li. A Non-dominated Sorting Particle Swarm Optimizer for Multi-objective Optimization. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 37–48. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [3826] Xiaodong Li. A Real-Coded Predator-Prey Genetic Algorithm for Multiobjective Optimization. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 207–221, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.

- [3827] Xiaodong Li. Adaptively choosing neighbourhood bests using species in a particle swarm optimizer for multimodal function optimization. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 105–116, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [3828] Xiaodong Li. Better Spread and Convergence: Particle Swarm Multiobjective Optimization Using the Maximin Fitness Function. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 117–128, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [3829] Xiaodong Li. Niching Without Niching Parameters: Particle Swarm Optimization Using a Ring Topology. *IEEE Transactions on Evolutionary Computation*, 14(1):150–169, February 2010.
- [3830] Xiaodong Li. Developing Niching Algorithms in Particle Swarm Optimization. In Bijaya Ketan Panigrahi, Yuhui Shi, and Meng-Hiot Lim, editors, *Handbook of Swarm Intelligence. Concepts, Principles and Applications*, pages 67–88. Springer-Verlag, Berlin, Germany, 2011. ISBN 978-3-642-17389-9.
- [3831] Xiaodong Li, Jürgen Branke, and Michael Kirley. On Performance Metrics and Particle Swarm Methods for Dynamic Multiobjective Optimization Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 576–583, Singapore, September 2007. IEEE Press.
- [3832] Xiaodong Li, Jürgen Branke, and Michael Kirley. Performance Measures and Particle Swarm Methods for Dynamic Multiobjective Optimization Problems. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 907, London, UK, July 2007. ACM Press.
- [3833] Xiaodong Li and Kalyanmoy Deb. Comparing lbest PSO niching algorithms using different position update rules. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1564–1571, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3834] Xiaodong Li, Tianzi Jiang, and D. J. Evans. Medical Image Reconstruction Using a Multi-objective Genetic Local Search Algorithm. *International Journal on Computer Mathematics*, 74(301–314), 2000.
- [3835] Xuebin Li. Multiobjective Optimization and Multiattribute Decision Making Study of Ship's Principal Parameters in Conceptual Design. *Journal of Ship Research*, 53(2):83–92, June 2009.
- [3836] Xuebin Li. Study of Multi-objective Optimization and Multi-attribute Decision-making for Dynamic Economic Emission Dispatch. *Electric Power Components and Systems*, 37(10):1133–1148, 2009.

- [3837] Xuebin Li. Study of multi-objective optimization and multi-attribute decision-making for economic and environmental power dispatch. *Electric Power Systems Research*, 79(5):789–795, May 2009.
- [3838] Y. Li and K.F. Man. Scheduling and Planning Problem in Manufacturing Systems with Multiobjective Genetic Algorithm. In *Proceedings of the 24th Annual Conference on the IEEE Industrial Electronics Society*, volume 1, pages 274–279, 1998.
- [3839] Yinghai Li, Jianzhong Zhou, Hui Qin, Youlin Lu, and Junjie Yang. Adaptive Niche Multi-Objective Particle Swarm Optimization Algorithm. In *Fourth International Conference on Natural Computation (ICNC 2008)*, pages 418–422, Jinan, Shandong, China, October 18–20 2008. IEEE Computer Society Press.
- [3840] Yinghai Li, Jianzhong Zhou, Yongchuan Zhang, Hui Qin, and Li Liu. Novel Multiobjective Shuffled Frog Leaping Algorithm with Application to Reservoir Flood Control Operation. *Journal of Water Resources Planning and Management-ASCE*, 136(2):217–226, March-April 2010.
- [3841] Yinzhen Li, Mitsuo Gen, and Kenichi Ida. Evolutionary Computation for Multicriteria Solid Transportation Problem with Fuzzy Numbers. In Thomas Bäck, Zbigniew Michalewicz, and Hiroaki Kitano, editors, *Proceedings of the Third IEEE Conference on Evolutionary Computation*, pages 596–601, Piscataway, New Jersey, 1996. IEEE Service Center.
- [3842] Yinzhen Li, Kenichi Ida, and Mitsuo Gen. Evolutionary program for multicriteria solid transportation problem with fuzzy numbers. In *IEEE International Conference on Systems, Man and Cybernetics*, volume 3, pages 1960–1965. IEEE, 1996.
- [3843] Yinzhen Li, Kenichi Ida, and Mitsuo Gen. Improved Genetic Algorithm for Solving Multiobjective Solid Transportation Problem with Fuzzy Numbers. *Computers & Industrial Engineering*, 33(3-4):589–592, 1997.
- [3844] Yongming Li and Xiaoping Zeng. Sequential multi-criteria feature selection algorithm based on agent genetic algorithm. *Applied Intelligence*, 33(2):117–131, October 2010.
- [3845] Zhaojun Li, Haitao Liao, and David W. Coit. A two-stage approach for multi-objective decision making with applications to system reliability optimization. *Reliability Engineering & System Safety*, 94(10):1585–1592, October 2009.
- [3846] Zhihuan Li, Yinhong Li, and Xianzhong Duan. Multiobjective Optimal Reactive Power Flow Using Elitist Nondominated Sorting Genetic Algorithm: Comparison and Improvement. *Journal of Electrical Engineering & Technology*, 5(1):70–78, March 2010.
- [3847] Zhiyong Li, Songbing Liu, Degui Xiao, Jun Chen, and Kenli Li. Multi-Objective Particle Swarm Optimization Algorithm Based on Game Strategies.

In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 287–294, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.

- [3848] Zhiyong Li and Günter Rudolph. A Framework of Quantum-inspired Multi-objective Evolutionary Algorithms and its Convergence Condition. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 908, London, UK, July 2007. ACM Press.
- [3849] Zhiyong Li, Günter Rudolph, and Kenli Li. Convergence performance comparison of quantum-inspired multi-objective evolutionary algorithms. *Computers & Mathematics with Applications*, 57(11-12):1843–1854, June 2009.
- [3850] Zhongkai Li, Yixiong Feng, Jianrong Tan, and Zhe Wei. A methodology to support product platform optimization using multi-objective evolutionary algorithm. *Transactions of the Institute of Measurement and Control*, 30(3-4):295–312, August-October 2008.
- [3851] Y.S. Lian and M.S. Liou. Multi-objective optimization of transonic compressor blade using evolutionary algorithm. *Journal of Propulsion and Power*, 21(6):979–987, November-December 2005.
- [3852] Y.S. Lian and M.S. Liou. Multiobjective optimization using coupled response surface model and evolutionary algorithm. *AIAA Journal*, 43(6):1316–1325, June 2005.
- [3853] Zhigang Lian. A united search particle swarm optimization algorithm for multiobjective scheduling problem. *Applied Mathematical Modelling*, 34(11):3518–3526, November 2010.
- [3854] Simon J. Liang and John M. Lewis. Job Shop Scheduling Using Multiple Criteria. In *Proceedings of the Joint Hungarian-British Mechatronic Conference*, pages 77–82. Computational Mechanics, September 1994.
- [3855] Yu Liang, XiaoQuan Cheng, ZhengNeng Li, and JinWu Xiang. Effect of cavity flame holder configuration on combustion flow field performance of integrated hypersonic vehicle. *Science China-Technological Sciences*, 53(10):2708–2717, October 2010.
- [3856] Yu Liang, XiaoQuan Cheng, ZhengNeng Li, and JinWu Xiang. Multi-objective robust airfoil optimization based on non-uniform rational B-spline (NURBS) representation. *Science China-Technological Sciences*, 53(10):2708–2717, October 2010.
- [3857] Yu Liang, Xiao quan Cheng, Zheng neng Li, and Jin wu Xiang. Robust Multi-Objective Wing Design Optimization Via CFD Approximation Model. *Engineering Applications of Computational Fluid Mechanics*, 5(2):286–300, June 2011.

- [3858] Yun-Chia Liang and Min-Hua Lo. Multi-objective redundancy allocation optimization using a variable neighborhood search algorithm. *Journal of Heuristics*, 16(3):511–535, June 2011.
- [3859] H.L. Liao and Q.H. Wu. Multi-objective optimization by reinforcement learning. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3374–3381, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3860] Shu-Hsien Liao and Chia-Lin Hsieh. Integrated Location-Inventory REtail Supply Chain Design: A Multi-Objective Evolutionary Approach. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 533–542, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [3861] Shu-Hsien Liao, Chia-Lin Hsieh, and Peng-Jen Lai. An Evolutionary Approach for Multi-Objective Optimization of the Integrated Location-Inventory Distribution Network Problem in Vendor-Managed Inventory. *Expert Systems With Applications*, 38(6):6768–6776, June 2011.
- [3862] Shu-Hsien Liao, Chia-Lin Hsieh, and Yu-Siang Lin. A multi-objective evolutionary optimization approach for an integrated location-inventory distribution network problem under vendor-managed inventory systems. *Annals of Operations Research*, 186(1):213–229, June 2011.
- [3863] T. Warren Liao, P. J. Egbelu, B. R. Sarker, and S. S. Leu. Metaheuristics for project and construction management - A state-of-the-art review. *Automation in Construction*, 20(5):491–505, August 2011.
- [3864] Zhiying Liao and Jens Rittscher. A multi-objective supplier selection model under stochastic demand conditions. *International Journal of Production Economics*, 105(1):150–159, January 2007.
- [3865] Peter Lichodziejewski and Malcolm I. Heywood. Pareto-Coevolutionary Genetic Programming for Problem Decomposition in Multi-class Classification. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 464–471, London, UK, July 2007. ACM Press.
- [3866] Thomas Liddle, Mark Johnston, and Mengjie Zhang. Multi-Objective Genetic Programming for object detection. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3345–3352, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3867] A. Liefvooghe, L. Jourdan, and E. G. Talbi. Metaheuristics and cooperative approaches for the Bi-objective Ring Star Problem. *Computers & Operations Research*, 37(6):1033–1044, June 2010.

- [3868] Arnaud Liefooghe. Metaheuristics for multiobjective optimisation. *4OR-A Quarterly Journal of Operations Research*, 9(2):219–222, June 2011.
- [3869] Arnaud Liefooghe, Matthieu Basseur, Laetitia Jourdan, and El-Ghazali Talbi. Combinatorial Optimization of Stochastic Multi-objective Problems: An Application to the Flow-Shop Scheduling Problem. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 457–471, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3870] Arnaud Liefooghe, Matthieu Basseur, Laetitia Jourdan, and El-Ghazali Talbi. ParadisEO-MOEO: A Framework for Evolutionary Multi-objective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 386–400, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [3871] Arnaud Liefooghe, Laetitia Jourdan, Matthieu Basseur, El-Ghazali Talbi, and Edmund K. Burke. Metaheuristics for the Bi-objective Ring Star Problem. In Jano van Hemert and Carlos Cotta, editors, *Evolutionary Computation in Combinatorial Optimization, 8th European Conference, EvoCOP 2008*, pages 206–217, Naples, Italy, March 2008. Springer. Lecture Notes in Computer Science Vol. 4972.
- [3872] Arnaud Liefooghe, Laetitia Jourdan, Thomas Legrand, Jérémie Humeau, and El-Ghazali Talbi. ParadisEO-MOEO: A Software Framework for Evolutionary Multi-Objective Optimization. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 5, pages 87–117. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.
- [3873] Arnaud Liefooghe, Laetitia Jourdan, and El-Ghazali Talbi. A Unified Model for Evolutionary Multi-objective Optimization and its Implementation in a General Purpose Software Framework. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 88–95, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [3874] Arnaud Liefooghe, Laetitia Jourdan, and El-Ghazali Talbi. A software framework based on a conceptual unified model for evolutionary multiobjective optimization: ParadisEO-MOEO. *European Journal of Operational Research*, 209(2):104–112, March 1 2011.
- [3875] Arnaud Liefooghe, Luís Paquete, Marcos Simoes, and José R. Figueira. Connectedness and Local Search for Bicriteria Knapsack Problems. In Peter Merz and Jin-Kao Hao, editors, *Evolutionary Computation in Combinatorial Optimization, 11th European Conference, EvoCOP 2011*, pages 48–59, Torino,

Italy, April 27-29 2011. Springer. Lecture Notes in Computer Science Vol. 6622.

- [3876] G. E. Liepins, M. R. Hilliard, J. Richardson, and M. Palmer. Genetic algorithms application to set covering and travelling salesman problems. In D. E. Brown and C. C. White, editors, *Operations research and Artificial Intelligence: The integration of problem-solving strategies*, pages 29–57. Kluwer Academic, Norwell, Massachusetts, 1990.
- [3877] Dudy Lim, Yaochu Jin, Yew-Soon Ong, and Bernhard Sendhoff. Generalizing Surrogate-Assisted Evolutionary Computation. *IEEE Transactions On Evolutionary Computation*, 14(3):329–355, June 2010.
- [3878] Dudy Lim, Yew-Soon Ong, Yaochu Jin, Bernhard Sendhoff, and Bu Sung Lee. Inverse multi-objective evolutionary design. *Genetic Programming and Evolvable Machines*, 7(4):383–404, December 2006.
- [3879] Dudy Lim, Yew-Soon Ong, Yaochu Jin, Bernhard Sendhoff, and Bu-Sung Lee. Efficient Hierarchical Parallel Genetic Algorithms using Grid Computing. *Future Generation Computer Systems*, 23(4):658–670, May 2007.
- [3880] Dudy Lim, Yew-Soon Ong, Meng-Hiot Lim, and Yaochu Jin. Single/Multi-objective Inverse Robust Evolutionary Design Methodology in the Presence of Uncertainty. In Shengxiang Yang, Yew Soon Ong, and Yaochu Jin, editors, *Evolutionary Computation in Dynamic and Uncertain Environments*, pages 437–456. Springer, 2007. ISBN 978-3-540-49772-1.
- [3881] P. Limbourg and D. Germann. Reliability Assessment and Optimization under Uncertainty in the Dempster-Shafer Framework. In *27th ESReDA SEMINAR*, Glasgow, UK, 2004.
- [3882] Philipp Limbourg. Multi-objective Optimization of Problems with Epistemic Uncertainty. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 413–427, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [3883] Philipp Limbourg and Hans-Dieter Kochs. Multi-objective optimization of generalized reliability design problems using feature models - A concept for early design stages. *Reliability Engineering & System Safety*, 93(6):815–828, June 2008.
- [3884] Philipp Limbourg and Daniel E. Salazar Aponte. An Optimization Algorithm for Imprecise Multi-Objective Problem Functions. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 459–466, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [3885] C. L. Lin and H. Y. Jan. Multiobjective PID control for a linear brushless DC motor: an evolutionary approach. *IEE Proceedings-Electric Power Applications*, 149(6):397–406, November 2002.

- [3886] Chi-Ming Lin. Multicriteria-multistage planning for the optimal path selection using hybrid genetic algorithms. *Applied Mathematics and Computation*, 180(2):549–558, September 15 2006.
- [3887] Chi-Ming Lin and Mitsuo Gen. Multi-criteria human resource allocation for solving multistage combinatorial optimization problems using multiobjective hybrid genetic algorithm. *Expert Systems With Applications*, 34(4):2480–2490, May 4 2008.
- [3888] C.K.Y. Lin and R.C.W. Kwok. Multi-objective metaheuristics for a location-routing problem with multiple use of vehicles on real data and simulated data. *European Journal of Operational Research*, 175(3):1833–1849, December 16 2006.
- [3889] Dan Lin, Shouyang Wang, and Hong Yan. A multiobjective genetic algorithm for portfolio selection. Working Paper, Institute of Systems Science, Academy of Mathematics and Systems Science Chinese Academy of Sciences, Beijing, China, 2001.
- [3890] Dan Lin, Shouyang Wang, and Hong Yan. A multiobjective genetic algorithm for portfolio selection. In *Proceedings of ICOTA 2001*, Hong Kong, December 2001.
- [3891] Jian-Yi Lin, Chun-Tian Cheng, and Tao Lin. A Pareto Strength SCE-UA Algorithm for Reservoir Optimization Operation. In *Fourth International Conference on Natural Computation (ICNC 2008)*, pages 406–412, Jinan, Shandong, China, October 18–20 2008. IEEE Computer Society Press.
- [3892] Lin Lin and Mitsuo Gen. A Bicriteria Shortest Path Routing Problems by Hybrid Genetic Algorithm in Communication Networks. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4577–4582, Singapore, September 2007. IEEE Press.
- [3893] Yi-Kuei Lin and Cheng-Ta Yeh. Multi-objective optimization for stochastic computer networks using NSGA-II and TOPSIS. *European Journal of Operational Research*, 218(3):735–746, May 1 2012.
- [3894] Hai lin Liu and Xueqiang Li. The multiobjective evolutionary algorithm based on determined weight and sub-regional search. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1928–1934, Trondheim, Norway, May 2009. IEEE Press.
- [3895] Hai lin Liu, Xueqiang Li, and Yuqing Chen. Multi-Objective Evolutionary Algorithm Based on Dynamical Crossover and Mutation. In *2008 International Conference on Computational Intelligence and Security (CIS'2008)*, pages 150–155, Suzhou, China, December 2008. IEEE Computer Society.
- [3896] Derek A. Linkens and H. Okola Nyongesa. A distributed genetic algorithm for multivariable fuzzy control. In *IEE Colloquium on Genetic Algorithms for Control Systems Engineering*, pages 9/1–9/3. IEE, 1993.

- [3897] Isis Didier Lins and Enrique Lopez Droguett. Redundancy allocation problems considering systems with imperfect repairs using multi-objective genetic algorithms and discrete event simulation. *Simulation Modelling Practice and Theory*, 19(1):362–381, January 2011.
- [3898] Shie-Yui Liong, Soon-Thiam Khu, and Weng Tat Chan. Derivation of Pareto Front with Accelerated Convergence Genetic Algorithm (ACGA). In V. Babovic and L. C. Larsen, editors, *Proceedings of the Third Hydroinformatics Conference*, 1998.
- [3899] Shie-Yui Liong, Soon-Thiam Khu, and Weng Tat Chan. Novel Application of Genetic Algorithm and Neural Network in Water Resources: Development of Pareto Front. In *Eleventh Congress of the International Association for Hydraulic Research—Asia and Pacific Division*, pages 185–194, Yogyakarta, Indonesia, 1998.
- [3900] SY Liong, ST Khu, and WT Chan. Derivation of Pareto front with genetic algorithm and neural network. *Journal Of Hydrologic Engineering*, 6(1):52–61, January-February 2001.
- [3901] Noureddine Liouane, Hedi Yahia, and Pierre Borne. Multi-objective Scheduling onto Heterogeneous Processors System Using Ant System & Fuzzy Logic Controller. *Studies in Informatics and Control*, 17(1):95–106, March 2008.
- [3902] A. Lipej and C. Poloni. Design of Kaplan runner using multiobjective genetic algorithm optimization. *Journal Of Hydraulic Research*, 38(1):73–79, 2000.
- [3903] Joanna Lis and A. E. Eiben. A Multi-Sexual Genetic Algorithm for Multiobjective Optimization. In Toshio Fukuda and Takeshi Furuhashi, editors, *Proceedings of the 1996 International Conference on Evolutionary Computation*, pages 59–64, Nagoya, Japan, 1996. IEEE.
- [3904] Tamas R. Liszkai and Anne M. Raich. Solving Inverse Problems in Structural Damage Identification Using Advanced Genetic Algorithm Representations. In *6th World Congress of Structural and Multidisciplinary Optimization*, Rio de Janeiro, Brazil, June 2005.
- [3905] Tamás Róbert Liszkai. *Modern Heuristics in Structural Damage Detection using Frequency Response Functions*. PhD thesis, Civil Engineering Department, Texas A&M University, USA, August 2003.
- [3906] BD Liu. Dependent-chance programming: A class of stochastic optimization. *Computers & Mathematics With Applications*, 34(12):89–104, December 1997.
- [3907] BD Liu. Minimax chance constrained programming models for fuzzy decision systems. *Information Sciences*, 112(1-4):25–38, December 1998.
- [3908] BD Liu. Dependent-chance programming with fuzzy decisions. *IEEE Transactions On Fuzzy Systems*, 7(3):354–360, June 1999.

- [3909] BD Liu. Dependent-chance programming in fuzzy environments. *Fuzzy Sets And Systems*, 109(1):97–106, January 1 2000.
- [3910] BD Liu and K Iwamura. Modelling stochastic decision systems using dependent-chance programming. *European Journal Of Operational Research*, 101(1):193–203, August 16 1997.
- [3911] BD Liu and K. Iwamura. A note on chance constrained programming with fuzzy coefficients . *Fuzzy Sets And Systems*, 100(1-3):229–233, November 16 1998.
- [3912] BD Liu and K. Iwamura. Fuzzy programming with fuzzy decisions and fuzzy simulation-based genetic algorithm. *Fuzzy Sets And Systems*, 122(2):253–262, September 1 2001.
- [3913] Bo Liu, Francisco V. Fernández, Qingfu Zhang, Murat Pak, Suha Sipahi, and Georges Gielen. An enhanced MOEA/D-DE and its application to multiobjective analog cell sizing. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 960–966, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3914] Chun-An Liu. New Multiobjective PSO Algorithm for Nonlinear Constrained Programming Problems. In Rubin Wang, Fanji Gu, and Enhua Shen, editors, *Advances in Cognitive Neurodynamics ICCN 2007*, pages 955–962. Springer., June 2008.
- [3915] Chun-An Liu. New Multiobjective PSO Algorithm for Nonlinear Constrained Programming Problems. In Rubin Wang, Fanji Gu, and Enhua Shen, editors, *Advances in Cognitive Neurodynamics (ICCN 2007)*, pages 955–962. Springer, June 2008.
- [3916] Chun-An Liu. New Multiobjective PSO Algorithm for Nonlinear Constrained Programming Problems. In Rubin Wang and Fanji Gu amd Enhua Shen, editors, *Advances in Cognitive Neurodynamics, Proceedings of the International Conference on Cognitive Neurodynamics - 2007*, pages 955–962. Springer, Berlin, 2008. ISBN 978-1-4020-8386-0.
- [3917] Chun-An Liu and Yuping Wang. A new dynamic multi-objective optimization evolutionary algorithm. *International Journal of Innovative Computing Information and Control*, 4(8):2087–2096, August 2008.
- [3918] Chun'an Liu and Yunping Wang. Multiobjective evolutionary algorithm for dynamic nonlinear constrained optimization problems. *Journal of Systems Engineering and Electronics*, 20(1):204–210, February 2009.
- [3919] Chunlu Liu, Amin Hammad, and Yoshito Itoh. Multiobjective Optimization of Bridge Deck Rehabilitation Using a Genetic Algorithm. *Journal of Computer-Aided Civil and Infrastructure Engineering*, 12(3):431–443, November 1997.

- [3920] D. S. Liu, K. C. Tan, C. K. Goh, and W. K. Ho. On Solving Multiobjective Bin Packing Problems using Particle Swarm Optimization. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 7448–7455, Vancouver, BC, Canada, July 2006. IEEE.
- [3921] D. S. Liu, K. C. Tan, and W. K. Ho. A Distributed Co-Evolutionary Particle Swarm Optimization Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3831–3838, Singapore, September 2007. IEEE Press.
- [3922] D. S. Liu, K. C. Tan, S. Y. Huang, C. X. Goh, and W. K. Ho. On Solving Multi-objective Bin Packing Problems Using Evolutionary Particle Swarm Optimization. *European Journal of Operational Research*, 190(2):357–382, October 16 2008.
- [3923] Dasheng Liu, K. C. Tan, C. K. Goh, and W. K. Ho. A multiobjective memetic algorithm based on particle swarm optimization. *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, 37(1):42–50, February 2007.
- [3924] Dedi Liu, Shenglian Guo, Xiaohong Chen, Quanxi Shao, Qihua Ran, Xingyuan Song, and Zhaoli Wang. A macro-evolutionary multi-objective immune algorithm with application to optimal allocation of water resources in Dongjiang River basins, South China. *Stochastic Environmental Research and Risk Assessment*, 26(4):491–507, May 2012.
- [3925] Fang Liu, Maoguo Gong, Jingjing Ma, Licheng Jiao, and Wei Zhang. Optimizing detector distribution in V-detector negative selection using a constrained multiobjective immune algorithm. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3643–3650, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3926] G.P. Liu and V. Kadirkamanathan. Learning with multi-objective criteria. In *Fourth International Conference on Artificial Neural Networks*, pages 53–58. IEEE, 1995.
- [3927] G.P. Liu and V. Kadirkamanathan. Multiobjective criteria for neural network structure selection and identification of nonlinear systems using genetic algorithms. *IEE Proceedings on Control Theory and Applications*, 146(5):373–382, September 1999.
- [3928] G.P. Liu, J.B. Yang, and J.F. Whidborne. *Multiobjective Optimisation and Control*. Research Studies Press Ltd., Baldock, England, 2003.
- [3929] Hai-Lin Liu, Yuping Wang, and Yiu-Ming Cheung. A Multi-Objective Evolutionary Algorithm Using Min-Max Strategy and Sphere Coordinate Transformation. *Intelligent Automation and Soft Computing*, 15(3):361–384, 2009.
- [3930] Hong Liu, Qishan Zhang, and Ligang Yao. Multi-objective Particle Swarm Optimization Algorithm Based on Grey Relational Analysis with Entropy Weight. *Journal of Grey System*, 22(3):265–274, 2010.

- [3931] Hongbo Liu, Ajith Abraham, Okkyung Choi, and Seong Hwan Moon. Variable Neighborhood Particle Swarm Optimization for Multi-objective Flexible Job-Shop Scheduling Problems. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein A. Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006, Proceedings*, pages 197–204, Hefei, China, October 2006. Springer. Lecture Notes in Computer Science Vol. 4247.
- [3932] Hongwu Liu and Ji Li. A particle swarm optimization-based multiuser detection for receive-diversity-aided STBC systems. *IEEE Signal Processing Letters*, 15:29–32, 2008.
- [3933] J.-L. Liu and T.-F. Lee. A Modified Non-Dominated Sorting Genetic Algorithm with Fractional Factorial Design for Multi-Objective Optimization Problems. *Journal of Mechanics*, 26(2):143–156, June 2010.
- [3934] Jenn-Long Liu and Jiann-Horng Lin. Hostile area for facility monitoring with an optimal wireless sensor network deployment. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2824–2831, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3935] Jing Liu, Weicai Zhong, Hussein A. Abbass, and David G. Green. Separated and Overlapping Community Detection in Complex Networks using multiobjective Evolutionary Algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4049–4055, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3936] Jing Liu, Weicai Zhong, Li cheng Jiao, and Fang Liu. Multiobjective Optimization Based on Coevolutionary Algorithm. In Shusaku Tsumoto, Roman Slowinski, Jan Komorowski, and Jerzy W. Grzymala-Busse, editors, *Rough Sets and Current Trends in Computing. 4th International Conference (RSCTC'04)*, pages 774–779. Springer, Lecture Notes in Computer Science, Vol. 3066, Uppsala, Sweden, 2004.
- [3937] Juan Liu and Hitoshi Iba. Selecting Informative Genes Using a Multiobjective Evolutionary Algorithm. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 297–302, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [3938] Junwan Liu, Zhoujun Li, and Yiming Chen. Microarray Data Biclustering with Multi-Objective Immune Algorithm. In Haiying Wang, Kay Soon Low, Kexin Wei, and Junqing Sun, editors, *Fifth International Conference on Natural Computation (ICNC'2009)*, pages 200–204, Tianjian, China, August 14-16 2009. IEEE Computer Society.
- [3939] Junwan Liu, Zhoujun Li, Xiaohua Hu, and Yiming Chen. Biclustering of microarray data with MOSPO based on crowding distance. *BMC Bioinformatics*, 10, April 29 2009. Suppl. 4. Art. Number S9.

- [3940] Kun-Hong Liu, Bo Li, Jun Zhang, and Ji-Xiang Du. Ensemble Component Selection for Improving ICA Based Microarray Data Prediction Models. *Pattern Recognition*, 42(7):1274–1283, July 2009.
- [3941] Lei Liu, Junwei Lu, Shiyong Yang, and Guangzheng Ni. Multi-objective design optimization of an inverted-S antenna. *International Journal of Applied Electromagnetics and Mechanics*, 33(3-4):1049–1055, 2010.
- [3942] Li Liu and Wenbo Xu. A cooperative artificial immune network with particle swarm behavior for multimodal function optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1550–1555, Hong Kong, June 2008. IEEE Service Center.
- [3943] Li-Lan Liu, Gai-Ping Zhao, Shu-Sheng Ou'Yang, and Ying-Jie Yang. Integrating theory of constraints and particle swarm optimization in order planning and scheduling for machine tool production. *International Journal of Advanced Manufacturing Technology*, 57(1-4):285–296, November 2011.
- [3944] Liqin Liu, Xueliang Zhang, Liming Xie, and Juan Du. A Novel Multi-Objective Particle Swarm Optimization based on Dynamic Crowding Distance. In *2009 IEEE International Conference on Intelligent Computing and Intelligent Systems (ICIS 2009)*, pages 481–485, Shanghai, China, November 22-24 2009. IEEE Computer Society.
- [3945] Liu Liu, Minqiang Li, and Lin Dan. An Exploratory Study on Dominance Resistant Solutions in Many Objectives Optimization. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 353–360, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [3946] Min Liu. *Development of Multiobjective Optimization Procedures for Seismic Design of Steel Moment Frame Structures*. PhD thesis, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA, 2003.
- [3947] Min Liu and Dan M. Frangopol. Optimizing bridge network maintenance management under uncertainty with conflicting criteria: Life-cycle maintenance, failure, and user costs. *Journal of Structural Engineering-ASCE*, 132(11):1835–1845, November 2006.
- [3948] Minzhong Liu, Xiufen Zou, Yu Chen, and Zhijian Wu. Performance Assessment of DMOEA-DD with CEC 2009 MOEA Competition Test Instances. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2913–2918, Trondheim, Norway, May 2009. IEEE Press.
- [3949] Nan Liu, Bo Huang, and Xiaohong H. Pan. Using the Ant Algorithm to Derive Pareto Fronts for Multiobjective Siting of Emergency Service Facilities. *Transportation Research Record: Journal of the Transportation Research Board*, 1935:120–129, 2005.

- [3950] Rui Liu, Sang you Zeng, Lixin Ding, Lishan Kang, Hui Li, Yuping Chen, Yong Liu, and Yueping Han. An Efficient Multi-Objective Evolutionary Algorithm for Combinational Circuit Design. In *AHS'06: Proceedings of the first NASA/ESA conference on Adaptive Hardware and Systems*, pages 215–221, Istanbul, Turkey, June 2006. IEEE Computer Society.
- [3951] Ruochen Liu, Wei Zhang, Licheng Jiao, Fang Liu, and Jingjing Ma. A Sphere-Dominance Based Preference Immune-Inspired Algorithm for Dynamic Multi-Objective Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 423–430, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [3952] Tung-Kuan Liu, Chiu-Hung Chen, and Jyh-Horng Chou. Optimization of short-haul aircraft schedule recovery problems using a hybrid multiobjective genetic algorithm. *Expert Systems with Applications*, 37(3):2307–2315, March 15 2010.
- [3953] Tung-Kuan Liu, Chiu-Hung Chen, Zu-Shu Li, and Jyh-Horng Chou. Method of Inequalities-based Multiobjective Genetic Algorithm for Optimizing a Cart-double-pendulum System. *International Journal of Automation and Computing*, 6(1):29–37, February 2009.
- [3954] Tung-Kuan Liu, Chi-Ruey, and Yu-Hern Chang. Disruption Management of an Inequality-Based Multi-Fleet Airline Scheduling by a Multi-Objective Genetic Algorithm. *Transportation Planning and Technology*, 31(6):613–639, December 2008.
- [3955] Tung-Kuan Liu, Tadashi Ishihara, and Hikaru Inooka. Multiobjective Control Systems Design by Genetic Algorithms. In *Proceedings of the 34th Society of Instrument and Control Engineers Annual Conference*, pages 1521–1526, 1995.
- [3956] Tung-Kuan Liu, Tadashi Ishihara, and Hikaru Inooka. Design of Discrete-Time Control Systems by Multiobjective Genetic Algorithms. In Toshio Fukuda and Takeshi Furuhashi, editors, *Proceedings of the 1996 IEEE IECON 22nd International Conference on Industrial Electronics, Control, and Instrumentation*, volume 3, pages 1618–1623. IEEE, 1996.
- [3957] Wei Liu and Ming Liang. A Particle Swarm Optimization Approach to a Multi-objective Reconfigurable Machine Tool Design Problem. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 7986–7993, Vancouver, BC, Canada, July 2006. IEEE.
- [3958] Wei Liu and Yuying Yang. Multi-objective optimization of sheet metal forming process using Pareto-based genetic algorithm. *Journal of Materials Processing Technology*, 208(1-3):499–506, November 21 2008.
- [3959] Wei Liu, Yuying Yang, Zhongwen Xing, and Lihong Zhao. Springback control of sheet metal forming based on the response-surface method and multi-objective genetic algorithm. *Materials Science and Engineering A-Structural*

Materials Properties Microstructure and Processing, 499(1-2):325–328, January 15 2009.

- [3960] Wudong Liu, Qingfu Zhang, Edward Tsang, and Botond Virginas. Tchebycheff Approximation in Gaussian Process Model Composition for Multi-Objective Expensive Black Box. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3065–3070, Hong Kong, June 2008. IEEE Service Center.
- [3961] Xiaofeng Liu, Fang Bai, Sisheng Ouyang, Xicheng Wang, Honglin Li, and Huangling Jiang. Cyndi: a multi-objective evolution algorithm based method for bioactive molecular conformational generation. *BMC Bioinformatics*, 10(101), March 31 2009.
- [3962] Xiaojian Liu, D. W. Begg, and R. J. Fishwick. Genetic approach to optimal topology/controller design of adaptive structures. *International Journal for Numerical Methods in Engineering*, 41:815–830, 1998.
- [3963] Xuemei Liu, Xiao-Hui Zhang, and Jin Yuan. Relevance vector machine and fuzzy system based multi-objective dynamic design optimization: A case study. *Expert Systems With Applications*, 37(5):3598–3604, May 2010.
- [3964] Y. Liu, C. Zhou, and W.J. Ye. A Fast Optimization Method of Using Nondominated Sorting Genetic Algorithm (NSGA-II) and 1-Nearest Neighbor (1NN) Classifier for Numerical Model Calibration. In *2005 IEEE International Conference on Granular Computing*, volume 2, pages 544–549. IEEE Press, July 2005.
- [3965] Yanbing Liu and Jun Huang. A Novel Fast Multi-objective Evolutionary Algorithm for QoS Multicast Routing in MANET. *International Journal of Computational Intelligence Systems*, 2(3):288–297, October 2009.
- [3966] Yang Liu. Automatic calibration of a rainfall-runoff model using a fast and elitist multi-objective particle swarm algorithm. *Expert Systems with Applications*, 36(5):9533–9538, July 2009.
- [3967] Yang Liu, Soon-Thiam Khu, and Dragon Savic. A Hybrid Optimization Method of Multi-objective Genetic Algorithm (MOGA) and K-Nearest Neighbor (KNN) Classifier for Hydrological Model Calibration. In Zheng Rong Yang, Richard Everson, and Hujun Yin, editors, *Intelligent Data Engineering and Automated Learning – IDEAL 2004, 5th International Conference*, pages 546–551, Exeter, UK, August 25-27 2004. Springer. Lecture Notes in Computer Science Vol. 3177.
- [3968] Yang Liu and Fan Sun. Sensitivity Analysis and Automatic Calibration of a Rainfall-runoff Model Using Multi-objectives. *Ecological Informatics*, 5(4):304–310, July 2010.
- [3969] Yi Liu. *Software Reliability Engineering with Genetic Programming*. PhD thesis, Florida Atlantic University, Boca Raton, Florida, USA, August 2003.

- [3970] Ying Liu, Sudha Ram, Robert F. Lusch, and Michael Brusco. Multicriterion Market Segmentation: A New Model, Implementation, and Evaluation. *Marketing Science*, 29(5):880–894, September–October 2010.
- [3971] Yue Liu, Gang-Len Chang, and Jie Yu. An Integrated Control Model for Free-way Corridor Under Nonrecurrent Congestion. *IEEE Transactions on Vehicular Technology*, 60(4):1404–1418, May 2011.
- [3972] Giovanni Lizárraga, Arturo Hernández, and Salvador Botello. A Set of Test Cases for Performance Measures in Multiobjective Optimization. In Alexander F. Gelbukh and Eduardo F. Morales, editors, *MICAI 2008: Advances in Artificial Intelligence, 7th Mexican International Conference on Artificial Intelligence*, pages 429–439, Atizapán de Zaragoza, Mexico, October 27–31 2008. Springer. Lecture Notes in Computer Science Vol. 5317.
- [3973] Giovanni Lizárraga, Arturo Hernández, and Salvador Botello. Some Demonstrations about the Cardinality of Important Sets of Non-dominated Sets. In Alexander F. Gelbukh and Eduardo F. Morales, editors, *MICAI 2008: Advances in Artificial Intelligence, 7th Mexican International Conference on Artificial Intelligence*, pages 440–450, Atizapán de Zaragoza, Mexico, October 27–31 2008. Springer. Lecture Notes in Computer Science Vol. 5317.
- [3974] Giovanni Lizárraga, Arturo Hernández, and Salvador Botello. A benchmark for quality indicators in multi-objective optimization. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1833–1834, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [3975] Giovanni Lizárraga, Marco Jimenez Gomez, Mauricio Garza Castañón, Jorge Acevedo-Davila, and Salvador Botello Rionda. Why Unary Quality Indicators Are Not Inferior to Binary Quality Indicators. In Arturo Hernández Aguirre, Raúl Monroy Borja, and Carlos Alberto Reyes García, editors, *MICAI 2009: Advances in Artificial Intelligence. 8th Mexican International Conference on Artificial Intelligence*, pages 646–657, Guanajuato, México, November 2009. Springer. Lecture Notes in Artificial Intelligence Vol. 5845.
- [3976] Giovanni Lizárraga Lizárraga, Arturo Hernández Aguirre, and Salvador Botello Rionda. GMetric: an Unary Quality Indicator for the Evaluation of Non-dominated Sets. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 665–672, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [3977] Giovanni Lizárraga Lizárraga, Arturo Hernández Aguirre, and Salvador Botello Rionda. On the Possibility to Create a CompatibleComplete Unary Comparison Method for Evolutionary Multiobjective Algorithms. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 759–760, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.

- [3978] Giovanni Lizárraga Lizárraga. *On the Evaluation of the Quality of Non-dominated Sets*. PhD thesis, Center for Research in Mathematics A.C., Computer Science Area, Guanajuato, México, April 2009.
- [3979] Javier Llamas-Galilea, Oliver C. Gobin, and Ferdi Schueth. Comparison of Single- And Multiobjective Design of Experiment in Combinatorial Chemistry for the Selective Dehydrogenation of Propane. *Journal Of Combinatorial Chemistry*, 11(5):907–913, September-October 2009.
- [3980] X. Llorà, D.E. Goldberg, I. Traus, and E. Bernadó. Accuracy, parsimony, and generality in evolutionary learning systems via multiobjective selection. In *Learning Classifier Systems*, pages 118–142. Springer. Lecture Notes in Artificial Intelligence Vol. 2661, 2002.
- [3981] Xavier Llorà and David E. Goldberg. Bounding the Effect of Noise in Multiobjective Learning Classifier Systems. *Evolutionary Computation*, 11(3):279–298, Fall 2003.
- [3982] Xavier Llorà, Kumara Sastry, David E. Goldberg, Abhimanyu Gupta, and Lalitha Lakshmi. Combating User Fatigue in iGAs: Partial Ordering, Support Vector Machines, and Synthetic Fitness. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1363–1370, New York, USA, June 2005. ACM Press.
- [3983] Chi-Chun Lo and Wei-Hsin Chang. A Multiobjective Hybrid Genetic Algorithm for the Capacitated Multipoint Network Design Problem. In *1999 IEEE International Conference on Communications*, volume 3, pages 1573–1576, 1999.
- [3984] Chi-Chun Lo and Wei-Hsin Chang. A Multiobjective Hybrid Genetic Algorithm for Capacitated Multipoint Network Design Problem. *IEEE Transactions on Systems, Man, and Cybernetics Part B: Cybernetics*, 30(3):461–470, June 2000.
- [3985] Darrell F. Lochtefeld and Frank W. Ciarallo. Deterministic Helper-Objective Sequences Applied to Job-Shop Scheduling. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 431–438, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [3986] Darrell F. Lochtefeld and Frank W. Ciarallo. Helper-objective optimization strategies for the Job-Shop Scheduling Problem. *Applied Soft Computing*, 11(6):4161–4174, September 2011.
- [3987] F. Logist, P. M. M. Van Erdeghem, and J. F. Van Impe. Efficient deterministic multiple objective optimal control of (bio)chemical processes. *Chemical Engineering Science*, 64(11):2527–2538, June 2009.

- [3988] Jason D. Lohn, William F. Kraus, and Gary L. Haith. Comparing a Coevolutionary Genetic Algorithm for Multiobjective Optimization. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1157–1162, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [3989] Jason D. Lohn, William F. Kraus, and Gregory S. Hornby. Automated Design of a MEMS Resonator. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3486–3491, Singapore, September 2007. IEEE Press.
- [3990] Adriana Lara López, Carlos A. Coello Coello, and Oliver Schuetze. A Painless Gradient-Assisted Multi-Objective Memetic Mechanism for Solving Continuous Bi-objective Optimization Problems. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 577–584, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [3991] Alberto Herreros López. *Diseño de Controladores Robustos Multiobjetivo por Medio de Algoritmos Genéticos*. PhD thesis, Departamento de Ingeniería de Sistemas y Automática, Universidad de Valladolid, Valladolid, España, Septiembre 2000. (In Spanish).
- [3992] A. G. Lopez-Herrera and E. Herrera-Viedma. A Study of the Use of Multi-Objective Evolutionary Algorithms to Learn Boolean Queries: A Comparative Study. *Journal of the American Society for Information Science and Technology*, 60(6):1192–1207, June 2009.
- [3993] A. G. Lopez-Herrera, E. Herrera-Viedma, and F. Herrera. Applying multi-objective evolutionary algorithms to the automatic learning of extended Boolean queries in fuzzy ordinal linguistic information retrieval systems. *Fuzzy Sets and Systems*, 160(15):2192–2205, August 1 2009.
- [3994] A.G. Lopez-Herrera, E. Herrera-Viedma, F. Herrera, C. Porcel, and S. Alonso. Multi-objective Evolutionary Algorithms in the Automatic Learning of Boolean Queries: A Comparative Study. In Oscar Castillo, Patricia Melin, Oscar Montiel Ross, Roberto Sepúlveda Cruz, Witold Pedrycz, and Janusz Kacprzyk, editors, *Theoretical Advances and Applications of Fuzzy Logic and Soft Computing*, pages 71–80. Springer-Verlag, Berlin, 2007.
- [3995] Antonio López Jaimes, Hernán Aguirre, Kiyoshi Tanaka, and Carlos A. Coello Coello. Objective Space Partitioning Using Conflict Information for Many-Objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 657–666. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [3996] Antonio López-Jaimes and Carlos Coello Coello. MRMOGA: Parallel Evolutionary Multiobjective Optimization using Multiple Resolutions. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2294–2301, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [3997] Antonio López Jaimes and Carlos A. Coello Coello. MRMOGA: A New Parallel Multi-Objective Evolutionary Algorithm Based on the Use of Multiple Resolutions. *Concurrency and Computation: Practice and Experience*, 19(4):397–441, March 2007.
- [3998] Antonio López Jaimes and Carlos A. Coello Coello. Applications of Parallel Platforms and Models in Evolutionary Multi-Objective Optimization. In Andrew Lewis, Sanaz Mostaghim, and Marcus Randall, editors, *Biologically-Inspired Optimisation Methods*, pages 23–49. Springer, 2009. ISBN 978-3-642-01261-7.
- [3999] Antonio López Jaimes and Carlos A. Coello Coello. Multi-Objective Evolutionary Algorithms: A Review of the State-of-the-Art and some of their Applications in Chemical Engineering. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 3, pages 61–90. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [4000] Antonio López Jaimes and Carlos A. Coello Coello. Study of Preference Relations in Many-Objective Optimization. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 611–618, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4001] Antonio López Jaimes, Carlos A. Coello Coello, Hernán Aguirre, and Kiyoshi Tanaka. Adaptive Objective Space Partitioning Using Conflict Information for Many-Objective Optimization. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 151–165, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4002] Antonio López Jaimes, Carlos A. Coello Coello, and Debrup Chakraborty. Objective Reduction Using a Feature Selection Technique. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 674–680, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [4003] Antonio López Jaimes, Carlos A. Coello Coello, and Jesús E. Urías Barrientos. Online Objective Reduction to Deal with Many-Objective Problems. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 423–437. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [4004] Antonio López-Jaimes, Alfredo Arias-Montaño, and Carlos A. Coello Coello. Preference Incorporation to Solve Many-Objective Airfoil Design Problems. In *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pages 1605–1612, New Orleans, Louisiana, USA, 5-8 June 2011. IEEE Service Center.

- [4005] Antonio López Jaimes, Luis Vicente Santana Quintero, and Carlos A. Coello Coello. Ranking methods in many-objective evolutionary algorithms. In Raymond Chiong, editor, *Nature-Inspired Algorithms for Optimisation*, pages 413–434. Springer, Berlin, 2009. ISBN 978-3-642-00266-3.
- [4006] Antonio López Jaimes, Saúl Zapotecas Martínez, and Carlos A. Coello Coello. An Introduction to Multiobjective Optimization Techniques. In António Gaspar-Cunha and José António Covas, editors, *Optimization in Polymer Processing*, chapter 3, pages 29–57. Nova Science Publishers, New York, USA, 2011. ISBN 978-1-61122-818-2.
- [4007] A. Loraschi, A. Tettamanzi, M. Tomassini, and P. Verda. Distributed genetic algorithms with an application to portfolio selection problems. In N.C. Steele and R.F. Albrecht, editors, *Artificial Neural Networks and Genetic Algorithms (ICANNGA'95)*, pages 384–387, Wien, 1995. Springer.
- [4008] Ilya Loshchilov, Marc Schoenauer, and Michèle Sebag. Dominance-Based Pareto-Surrogate for Multi-Objective Optimization. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakroborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 230–239, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [4009] Ilya Loshchilov, Marc Schoenauer, and Michèle Sebag. A Mono Surrogate for Multiobjective Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 471–478, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [4010] Ilya Loshchilov, Marc Schoenauer, and Michèle Sebag. Not All Parents Are Equal For MO-CMA-ES. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 31–45, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4011] Alexander V. Lotov, Vladimir A. Bushenkov, and Georgy K. Kamenev. *Interactive Decision Maps. Approximation and Visualization of Pareto Frontier*. Kluwer Academic Publishers, Boston, Massachusetts, February 2004. ISBN 1-4020-7631-2.
- [4012] Alexander V. Lotov and Kaisa Miettinen. Visualizing the Pareto Frontier. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 213–243. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.

- [4013] Daniel H. Loughlin and S. Ranjithan. The Neighborhood constraint method: A Genetic Algorithm-Based Multiobjective Optimization Technique. In Thomas Bäck, editor, *Proceedings of the Seventh International Conference on Genetic Algorithms*, pages 666–673, San Mateo, California, July 1997. Michigan State University, Morgan Kaufmann Publishers.
- [4014] Daniel H. Loughlin, S. Ranji Ranjithan, E. Downey Brill Jr., and John W. Baugh Jr. Genetic Algorithm Approaches for Addressing Unmodeled Objectives in Optimization Problems. *Engineering Optimization*, 33:549–569, 2001.
- [4015] Daniel Hopkins Loughlin. *Genetic Algorithm-Based Optimization in the Development of Tropospheric Ozone Control Strategies: Least Cost, Multiobjective, Alternative Generation, and Chance-Constrained Applications (Air Quality Management)*. PhD thesis, North Carolina State University, February 1998.
- [4016] D.H. Loughlin, S.R. Ranjithan, J.W. Baugh, and E.D. Brill. Application of genetic algorithms for the design of ozone control strategies. *Journal Of The Air & Waste Management Association*, 50(6):1050–1063, June 2000.
- [4017] Sushil J. Louis. *Genetic Algorithms as a Computational Tool for Design*. PhD thesis, Department of Computer Science, Indiana University, aug 1993.
- [4018] Sushil J. Louis and Gregory J. E. Rawlins. Pareto Optimality, GA-easiness and Deception. In Stephanie Forrest, editor, *Proceedings of the Fifth International Conference on Genetic Algorithms*, pages 118–123, University of Illinois at Urbana-Champaign, 1993. Morgan Kaufmann Publishers.
- [4019] T. Loukil, J. Teghem, and D. Tuytens. Solving multi-objective production scheduling problems using metaheuristics. *European Journal of Operational Research*, 161(1):42–61, February 16 2004.
- [4020] T. Loukil, J. Teghem, and D. Tuytens. Solving multi-objective production scheduling problems using metaheuristics. *European Journal of Operational Research*, 161(1):42–61, February 16 2005.
- [4021] Taicir Loukil, Jacques Teghem, and Philippe Fortemps. A multi-objective production scheduling case study solved by simulated annealing. *European Journal of Operational Research*, 179(3):709–722, June 2007.
- [4022] H.R. Lourenço, J.P. Paix ao, and R. Portugal. Multiobjective metaheuristics for the bus-driver scheduling problem. *Transportation Science*, 35(3):331–343, August 2001.
- [4023] C. Low, Y. Yip, and T. H. Wu. Modelling and heuristics of FMS scheduling with multiple objectives. *Computers & Operations Research*, 33(3):674–694, March 2006.
- [4024] Kay-Soon Low and Tze-Shyan Wong. A multiobjective genetic algorithm for optimizing the performance of hard disk drive motion control system. *IEEE Transactions on Industrial Electronics*, 54(3):1716–1725, June 2007.

- [4025] Michael B. Lowry and Richard J. Balling. An approach to land-use and transportation planning that facilitates city and region cooperation. *Environment and Planning B-Planning & Design*, 36(3):487–504, May 2009.
- [4026] B. Loyer and L. Jezequel. Robust design of a passive linear quarter car suspension system using a multi-objective evolutionary algorithm and analytical robustness indexes. *Vehicle System Dynamics*, 47(10):1253–1270, 2009.
- [4027] C. Lu, H. Z. Huang, J. Y. H. Fuh, and Y. S. Wong. A multi-objective disassembly planning approach with ant colony optimization algorithm. *Proceedings of the Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, 222(11):1465–1474, November 2008.
- [4028] Chun Lu, Qiangfu Zhao, Wenjiang Pei, and Zhenya He. A Multiple Objective Optimization Based GA for Designing Interpretable and Comprehensible Neural Network Trees. In *Proceedings of the IEEE International Conference on Neural Networks and Signal Processing (ICNNSP03)*, pages 518–521. IEEE, December 2003.
- [4029] Haiming Lu. *State-of-the-art Multiobjective Evolutionary Algorithms—Pareto Ranking, Density Estimation and Dynamic Population*. PhD thesis, Oklahoma State University, Stillwater, Oklahoma, August 2002.
- [4030] Haiming Lu and Gary G. Yen. Multiobjective Optimization Design via Genetic Algorithm. In *Proceedings of the 2001 International Conference on Control Applications*, pages 1190–1195. IEEE, 2001.
- [4031] Haiming Lu and Gary G. Yen. Dynamic Population Size in Multiobjective Evolutionary Algorithms. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1648–1653, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [4032] Haiming Lu and Gary G. Yen. Rank-Density Based Multiobjective Genetic Algorithm. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 944–949, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [4033] Haiming Lu and Gary G. Yen. Rank-Density-Based Multiobjective Genetic Algorithm and Benchmark Test Function Study. *IEEE Transactions on Evolutionary Computation*, 7(4):325–343, August 2003.
- [4034] N. Lu, L.C. Jiao, H.G. Du, and M.G. Gong. IFMOA: Immune Forgetting Multiobjective Optimization Algorithm. In *Proceedings of the First International Conference on Advances in Natural Computation, ICNC 2005, Part III*, pages 399–408, Changsha, China, August 2005. Springer. Lecture Notes in Computer Science Vol. 3612.
- [4035] Youlin Lu, Jianzhong Zhou, Hui Qin, Ying Wang, and Yongchuan Zhang. A hybrid multi-objective cultural algorithm for short-term environmental/economic hydrothermal scheduling. *Energy Conversion and Management*, 52(5):2121–2134, May 2011.

- [4036] J.M. Lucas, H. Martinez, and F. Jimenez. Fuzzy Tuning for the Docking Maneuver Controller of an Automated Guided Vehicle. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 585–600. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [4037] Martin Luerssen and David Powers. Fast Grammar-Based Evolution Using Memoization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part II*, pages 502–511. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [4038] Martin H. Luerssen and David M.W. Powers. Evolving encapsulated programs as shared grammars. *Genetic Programming and Evolvable Machines*, 9(3):203–228, September 2008.
- [4039] GC Luh and CH Chueh. Multi-modal topological optimization of structure using immune algorithm. *Computer Methods in Applied Mechanics and Engineering*, 193(36–38):4035–4055, 2004.
- [4040] Guan-Chun Luh and Chung-Huei Chueh. Multi-objective optimal design of truss structure with immune algorithm. *Computers and Structures*, 82:829–844, 2004.
- [4041] Guan-Chun Luh and Chung-Huei Chueh. A multi-modal immune algorithm for the job-shop scheduling problem. *Information Sciences*, 179(10):1516–1532, April 29 2009.
- [4042] Guan-Chun Luh, Chung-Huei Chueh, and Wei-Wen Liu. MOIA: Multi-Objective Immune Algorithm. *Engineering Optimization*, 35(2):143–164, April 2003.
- [4043] Martin Lukasiewicz, Michael Glaß, Christian Haubelt, and Jürgen Teich. Symbolic Archive Representation for a Fast Nondominance Test. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 111–125, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [4044] Martin Lukasiewicz, Michael Glaß, Felix Reimann, and Jürgen Teich. Opt4j - A Modular Framework for Meta-heuristic Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO’2011)*, pages 1723–1730, Dublin, Ireland, July 12-16 2011. ACM Press.
- [4045] Sean Luke and Liviu Panait. Lexicographic Parsimony Pressure. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO’2002)*, pages 829–836, San Francisco, California, July 2002. Morgan Kaufmann Publishers.

- [4046] Kai-Yew Lum, Pierre-Marie Jacquart, and Mourad Sefrioui. Constrained Optimization of Multilayered Anti-Reflection Coatings using Genetic Algorithms. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 172–177, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [4047] Kai-Yew Lum, Pierre-Marie Jacquart, and Mourad Sefrioui. Constrained Optimization of Multilayered Anti-reflection Coatings Using Genetic Algorithms. In Kay Chen Tan, Meng Hiot Lim, Xin Yao, and Lipo Wang, editors, *Recent Advances in Simulated Evolution and Learning*, pages 603–322. World Scientific, Singapore, 2004.
- [4048] Erika Hernández Luna and Carlos A. Coello Coello. Using a Particle Swarm Optimizer with a Multi-Objective Selection Scheme to Design Combinational Logic Circuits. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 101–124. World Scientific, Singapore, 2004.
- [4049] Erika Hernández Luna, Carlos A. Coello Coello, and Arturo Hernández Aguirre. On the Use of a Population-Based Particle Swarm Optimizer to Design Combinational Logic Circuits. In Ricardo S. Zebulum, David Gwaltney, Gregory Hornby, Didier Keymeulen, Jason Lohn, and Adrian Stoica, editors, *Proceedings of the 2004 NASA/DoD Conference on Evolvable Hardware*, pages 183–190, Los Alamitos, California, USA, June 2004. IEEE Computer Society.
- [4050] F. Luna, A.J. Nebro, and E. Alba. Observations in using grid-enabled technologies for solving multi-objective optimization problems. *Parallel Computing*, 32(5–6):377–393, June 2006.
- [4051] F. Luna, A.J. Nebro, B. Dorronsoro, E. Alba, P. Bouvry, and L. Hogie. Optimal Broadcasting in Metropolitan MANETs Using Multiobjective Scatter Search. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 255–266, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.
- [4052] Francisco Luna, Juan J. Durillo, Antonio J. Nebro, and Enrique Alba. Evolutionary algorithms for solving the automatic cell planning problem: a survey. *Engineering Optimization*, 42(7):671–690, 2010.
- [4053] Francisco Luna, Antonio J. Nebro, and Enrique Alba. Parallel Evolutionary Multiobjective Optimization. In N. Nedjah, E. Alba, and L. de Macedo Mourelle, editors, *Parallel Evolutionary Computations*, pages 33–56. Springer, Berlin Heidelberg, 2006.
- [4054] José María Luna, José Raúl Romero, and Sebastián Ventura. G3PARM: A Grammar Guided Genetic Programming Algorithm for Mining Association

- Rules. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2586–2593, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4055] Rodica Lung and D. Dumitrescu. A New Evolutionary Model for Detecting Multiple Optima. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 1296–1303, London, UK, July 2007. ACM Press.
- [4056] Biao Luo and Jinhua Zheng. A New Methodology for Searching Robust Pareto Optimal Solutions with MOEAs. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 580–586, Hong Kong, June 2008. IEEE Service Center.
- [4057] Biao Luo, Jinhua Zheng, Jiongliang Xie, and Jun Wu. Dynamic Crowding Distance – A New Diversity Maintenance Strategy for MOEAs. In *Fourth International Conference on Natural Computation (ICNC 2008)*, pages 580–585, Jinan, Shandong, China, IEEE Computer Society Press 2008.
- [4058] L. Luo, P.K. Kannan, B. Besharati, and S. Azarm. Design of robust new products under variability: Marketing meets design. *Journal of Product Innovation Management*, 22(2):177–192, March 2005.
- [4059] Lan Luo. *Essays on New Product Development*. PhD thesis, University of Maryland, College Park, USA, 2005.
- [4060] Pei Luo, Qian Ma, and Hui xian Huang. Urban Trunk Road Traffic Signal Coordinated Control Based on Multi-Objective Immune Algorithm. In *2009 International Asia Conference on Informatics in Control, Automation and Robotics*, pages 72–76, Bangkok, Thailand, February 2009. IEEE Computer Society.
- [4061] Ya-Zhong Luo, Guo-Jin Tang, and Yong-Jun Lei. Optimal multi-objective linearized impulsive rendezvous. *Journal of Guidance Control and Dynamics*, 30(2):383–389, March - April 2007.
- [4062] Youxin Luo and Degang Liao. High Dimensional Multi-objective Grey Optimization of Planetary Gears Type AA with Hybrid Discrete Variable. In *2009 International Conference on Computational Intelligence and Natural Computing*, volume 2, pages 178–181, Los Alamitos, California, USA, 6-7 June 2009. IEEE Computer Society Press.
- [4063] Panta Lučić and Dušan Teodorović. Simulated annealing for the multi-objective aircrew rostering problem. *Transportation Research Part A*, 33:19–45, 1999.
- [4064] María Luque, Oscar Cordón, and Enrique Herrera-Viedma. A Multi-Objective Genetic Algorithm for Learning Linguistic Persistent Queries in Text Retrieval Environments. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 601–627. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.

- [4065] Thibaut Lust. Speed-up Techniques for Solving Large-scale bTSP with the Two-Phase Pareto Local Search. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 761–762, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [4066] Thibaut Lust and Jacques Teghem. Two phase stochastic local search algorithms for the biobjective traveling salesman problem. In Enda Ridge, Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors, *Proceedings of SLS-DS 2007, Doctoral Symposium on Engineering Stochastic Local Search Algorithms*, pages 21–25. IRIDIA–Université Libre de Bruxelles, Brussels, Belgium, 2007.
- [4067] Thibaut Lust and Jacques Teghem. MEMOTS: a memetic algorithm integrating tabu search for combinatorial multiobjective optimization. *RAIRO Operations Research*, 42:3–33, 2008.
- [4068] Thibaut Lust and Jacques Teghem. Multiobjective Decomposition of Positive Integer Matrix: Application to Ratiotherapy. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 335–349. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [4069] Thibaut Lust and Jacques Teghem. The Multiobjective Traveling Salesman Problem: A Survey and a New Approach. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 6, pages 119–141. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.
- [4070] Thibaut Lust, Jacques Teghem, and Daniel Tuytens. Very Large-Scale Neighborhood Search for Solving Multiobjective Combinatorial Optimization Problems. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 254–268, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4071] HongGuang Lv and Cong Lu. An assembly sequence planning approach with a discrete particle swarm optimization algorithm. *International Journal Of Advanced Manufacturing Technology*, 50(5-8):761–770, September 2010.
- [4072] Robert J. Lygoe, Mark Cary, and Peter J. Fleming. A Many-Objective Optimisation Decision-Making Process Applied to Automotive Diesel Engine Calibration. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakroborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 638–646, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.

- [4073] Robert John Lygoe. *Complexity Reduction in High-Dimensional Multi-Objective Optimisation*. PhD thesis, Department of Automatic Control & Systems Engineering, The University of Sheffield, Sheffield, UK, May 2010.
- [4074] Ke-Shiuan Lynn, Li-Lan Li, Yen-Ju Lin, Chiuen-Huei Wang, Shu-Hui Sheng, Ju-Hwa Lin, Wayne Liao, Wen-Lian Hsu, and Wen-Harn Pan. A neural network model for constructing endophenotypes of common complex diseases: an application to male young-onset hypertension microarray data. *Bioinformatics*, 25(8):981–988, April 15 2009.
- [4075] N. Lyu and K. Saitou. Decomposition-based assembly synthesis of a three-dimensional body-in-white model for structural stiffness. *Journal of Mechanical Design*, 127(1):34–48, January 2005.
- [4076] N. Lyu and K. Saitou. Topology optimization of multicomponent beam structure via decomposition-based assembly synthesis. *Journal of Mechanical Design*, 127(2):170–183, March 2005.
- [4077] Naesung Lyu. *Decomposition-Based Assembly Synthesis Based on Structural Considerations*. PhD thesis, The University of Michigan, USA, 2004.
- [4078] Naesung Lyu and Kazuhiro Saitou. Decomposition-Based Assembly Synthesis of a 3D Body-in-White Model for Structural Stiffness. In *Proceedings of the 2003 ASME International Mechanical Engineering Congress (IMECE'03)*, Washington, D.C., USA, November 2003. ASME Press.
- [4079] Naesung Lyu and Kazuhiro Saitou. Topology Optimization of Multi-Component Structures Via Decomposition-Based Assembly Synthesis. In *Proceedings of the ASME 2003 Design Engineering Technical Conferences and Computers and Information in Engineering Conference (DETC'2003)*, Chicago, Illinois, September 2003.
- [4080] J.T. Ma and L.L. Lai. Evolutionary programming approach to reactive power planning. *IEE Proceedings on Generation, Transmission and Distribution*, 143(4):365–370, July 1996.
- [4081] M. Ma, L.B. Zhang, J. Ma, and C.G. Zhou. Fuzzy neural network optimization by a particle swarm optimization algorithm. In *Advances in Neural Networks—ISSN 2006, Part 1*, pages 752–761. Springer, Lecture Notes in Computer Science Vol. 3971, 2006.
- [4082] Wenping Ma, Licheng Jiao, and Maoguo Gong. Immunodominance and clonal selection inspired multiobjective clustering. *Progress in Natural Science*, 19(6):751–758, June 10 2009.
- [4083] Wenping Ma, Licheng Jiao, Maoguo Gong, and Fang Liu. An Novel Artificial Immune System Multi-objective Optimization algorithm for 0/1 knapsack problems. In Yue Hao et al., editor, *Computational Intelligence and Security. International Conference, CIS 2005*, pages 793–798, Xi'an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.

- [4084] Hakim Mabed, Alexandre Caminada, and Jin-Kao Hao. Impact of tradeoff between blocking and interference on TDMA cell capacity planning. *International Journal on Mobile Network Design and Innovation*, 1(1):24–33, 2005.
- [4085] Mohammed Hakim Mabed, Malek Rahoual, El-Ghazali Talbi, and Clarisse Dhaenens. Using Genetic Algorithms to schedule multicriteria Flow-shop. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [4086] A. Machado, E. Tejera, M. Cruz-Monteagudo, and I. Rebelo. Application of desirability-based multi(bi)-objective optimization in the design of selective arylpiperazine derivates for the 5-HT_{1A} serotonin receptor. *European Journal of Medicinal Chemistry*, 44(12):5045–5054, December 2009.
- [4087] A.T. Machwe and I.C. Parmee. Multi-objective analysis of a component-based representation within an interactive evolutionary design system. *Engineering Optimization*, 39(5):591–613, July 2007.
- [4088] Azahar T. Machwe and Ian C. Parmee. Multi-Objective Analysis of a Component Based Representation within an Interactive Evolutionary Design System. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture 2006. Proceedings of the Seventh International Conference*, pages 217–222, Bristol, UK, April 2006. The Institute for People-centred Computation.
- [4089] Núria Macià, Albert Orriols-Puig, and Ester Bernadó-Mansilla. In Search of Targeted-Complexity Problems. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO’2010)*, pages 1055–1062, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [4090] Núria Macià, Albert Orriols-Puig, and Ester Bernardó-Mansilla. EMO Shines a Light on the Holes of Complexity Space. In *2009 Genetic and Evolutionary Computation Conference (GECCO’2009)*, pages 1907–1908, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4091] Yolanda Mack, Tushar Goel, Wei Shyy, and Raphael Haftka. Surrogate Model-Based Optimization Framework: A Case Study in Aerospace Design. In Shengxiang Yang, Yew Soon Ong, and Yaochu Jin, editors, *Evolutionary Computation in Dynamic and Uncertain Environments*, pages 323–342. Springer, 2007. ISBN 978-3-540-49772-1.
- [4092] Kenneth J. Mackin and Eiichiro Tazaki. Unsupervised training of Multiobjective Agent Communication using Genetic Programming. In *Proceedings of the Fourth International Conference on Knowledge-Based Intelligent Engineering Systems and Allied Technology*, volume 2, pages 738–741, Brighton, UK, 2000. IEEE.
- [4093] Nateri K. Madavan. Multiobjective Optimization Using a Pareto Differential Evolution Approach. In *Congress on Evolutionary Computation (CEC’2002)*,

volume 2, pages 1145–1150, Piscataway, New Jersey, May 2002. IEEE Service Center.

- [4094] Christie Alisa Maddock and Massimiliano Vasile. Design of optimal spacecraft-asteroid formations through a hybrid global optimization approach. *International Journal of Intelligent Computing and Cybernetics*, 1(2):239–268, 2008.
- [4095] J. Aguilar Madeira, H. C. Rodrigues, and H. Pina. Multiobjective topology optimization of structures using genetic algorithms with chromosome repairing. *Structural and Multidisciplinary Optimization*, 32(1):31–39, July 2006.
- [4096] J.F. Aguilar Madeira, H. Rodrigues, and Heitor Pina. Genetic Methods in Multi-objective Optimization of Structures with an Equality Constraint on Volume. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 767–781, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [4097] Laurent Magnier and Fariborz Haghighat. Multiobjective optimization of building design using TRNSYS simulations, genetic algorithm, and Artificial Neural Network. *Building and Environment*, 45(3):739–746, March 2010.
- [4098] Nirmal Kumar Mahapatra, Asoke Kumar Bhunia, and Manoranjan Maiti. A Multiobjective Model of Wholesaler-Retailers’ Problem via Genetic Algorithm. *Journal of Applied Mathematics and Computing*, 19(1–2):397–414, 2005.
- [4099] B. Mahdad, T. Bouktir, and K. Srairi. OPF with Environmental Constraints with Multi Shunt Dynamic Controllers using Decomposed Parallel GA: Application to the Algerian Network. *Journal of Electrical Engineering & Technology*, 4(1):55–65, March 2009.
- [4100] Iraj Mahdavi, Babak Javadi, Navid Sahebjamnia, and Nezam Mahdavi-Amiri. A two-phase linear programming methodology for fuzzy multi-objective mixed-model assembly line problem. *International Journal of Advanced Manufacturing Technology*, 44(9-10):1010–1023, October 2009.
- [4101] A. K. Mahendra, A. Sanyal, and G. Gouthaman. Simulation and optimization of sludge hygienization research irradiator. *Computers & Fluids*, 46(1):333–340, July 2011.
- [4102] M. Mahfouf, M. F. Abbod, and D. A. Linkens. Multi-Objective Genetic Optimization of the Performance Index of Self-Organizing Fuzzy Logic Control Algorithm Using a Fuzzy Ranking Approach. In H. J. Zimmerman, editor, *Proceedings of the Sixth European Congress on Intelligent Techniques and Soft Computing*, pages 1799–1808, Aachen, 1998. Verlag Mainz.

- [4103] M. Mahfouf, M. Jamei, and D.A. Linkens. Optimal design of alloy steels using multiobjective genetic algorithms. *Materials and Manufacturing Processes*, 20(3):553–567, 2005.
- [4104] M. Mahfouf, M. Jamei, D.A. Linkens, and J. Tenner. Inverse modelling for optimal metal design using fuzzy specified multi-objective fitness functions. *Control Engineering Practice*, 16(2):179–191, February 2008.
- [4105] M. Mahfouf, D.A. Linkens, and M.F. Abbod. Multi-objective genetic optimisation of GPC and SOFLC tuning parameters using a fuzzy-based ranking method. *IEEE Proceedings on Control Theory and Applications*, 147(3):344–354, May 2000.
- [4106] Mahdi Mahfouf, Min-You Chen, and Derek Arturh Linkens. Adaptive Weighted Particle Swarm Optimisation for Multi-objective Optimal Design of Alloy Steels. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 762–771, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [4107] M.J. Mahmoodabadi, A. Bagheri, S. Arabani Mostaghim, and M. Bisheban. Simulation of stability using Java application for Pareto design of controllers based on a new multi-objective particle swarm optimization. *Mathematical and Computer Modelling*, 54(5-6):1584–1607, September 2011.
- [4108] Mehdi Mahnam, Mohammad Reza Yadallahpour, Vahid Famil-Dardashti, and Seyed Reza. Supply chain modeling in uncertain environment with bi-objective approach. *Computers & Industrial Engineering*, 56(4):1535–1544, May 2009.
- [4109] Paulo Maia, Isabel Rocha, Eugénio C. Ferreira, and Miguel Rocha. Evaluating Evolutionary Multiobjective Algorithms for the *in silico* Optimization of Mutant Strains. In *8th IEEE International Conference on BioInformatics and BioEngineering, 2008 (BIBE'2008)*, pages 1–6, Athens, Greece, October 8-10 2008. IEEE Computer Society Press.
- [4110] Soumen K. Maiti, Anna Eliasson Lantz, Mani Bhushan, and Pramod P. Wangikar. Multi-objective optimization of glycopeptide antibiotic production in batch and fed batch processes. *Bioresource Technology*, 102(13):6951–6958, July 2011.
- [4111] Avijit Maji and Manoj K. Jha. Multi-Objective Highway Alignment Optimization Using A Genetic Algorithm. *Journal of Advanced Transportation*, 43(4):481–504, 2009.
- [4112] S. Majumdar, k. Mitra, and S. Raha. Optimized species growth in epoxy polymerization with real-coded NSGA-II. *Polymer*, 46(25):11858–11869, November 28 2005.
- [4113] S. Majumdar, K. Mitra, and G. Sardar. Kinetic Analysis & Optimization for the Catalytic Esterification Step of PPT Polymerization. *Macromolecular Theory and Simulations*, 14:49–59, 2005.

- [4114] R. Mäkinen, P. Neittaanmäki, J. Periaux, M. Sefrioui, and J. Toivanen. Parallel genetic solution for multiobjective MDO. In A. Schiano, A. Ecer, J. Périaux, and N. Satofuka, editors, *Parallel CFD'96 Conference*, pages 352–359, Capri, 1996. Elsevier.
- [4115] R. Mäkinen, P. Neittaanmäki, J. Périaux, and J. Toivanen. A genetic Algorithm for Multiobjective Design Optimization in Aerodynamics and Electromagnetics. In K. D. Papailiou et al., editor, *Computational Fluid Dynamics '98, Proceedings of the ECCOMAS 98 Conference*, volume 2, pages 418–422, Athens, Greece, September 1998. Wiley.
- [4116] Raino A.E. Mäkinen, Jacques Periaux, and Jari Toivanen. Multidisciplinary shape optimization in aerodynamics and electromagnetics using genetic algorithms. *International Journal for Numerical Methods in Fluids*, 30(2):149–159, May 1999.
- [4117] Dimitrios Makris. *Etude et réalisation d'un système déclaratif de modélisation et de génération de styles par algorithmes génétiques. Application à la création architecturale*. PhD thesis, Faculté de Science, Université de Limoges, France, 2005.
- [4118] B. Malakooti, J. Wang, and E.C. Tandler. A sensor-based accelerated approach for multi-attribute machinability and tool life evaluation. *International Journal of Production Research*, 28:23–73, 1990.
- [4119] J.M. Malard, A. Heredia-Langner, D.J. Baxter, K.H. Jarman, and W.R. Cannon. Constrained De Novo Peptide Identification via Multi-objective Optimization. In *Online Proceedings of the Third IEEE International Workshop on High Performance Computational Biology (HiCOMB 2004)*, Santa Fe, New Mexico, April 2004.
- [4120] J.M. Malard, A. Heredia-Langner, W.R. Cannon, R. Mooney, and D.J. Baxter. Peptide identification via constrained multi-objective optimization: Pareto-based genetic algorithms. *Computation & Concurrency: Practice and Experience*, 17(14):1687–1704, December 2005.
- [4121] Joël M. Malard. A role for Pareto optimality in mining performance data. *Computation & Concurrency: Practice and Experience*, 17(1):1–21, January 2005.
- [4122] Bahram Malekmohammadi, Banafsheh Zahraie, and Reza Kerachian. Ranking solutions of multi-objective reservoir operation optimization models using multi-criteria decision analysis. *Expert Systems with Applications*, 38(6):7851–7863, June 2011.
- [4123] Fermín Mallor-Giménez, Rosa Blanco, and Cristina Azcárate. Combining Linear Programming and Multiobjective Evolutionary Computation for Solving a Type of Stochastic Knapsack Problem. In Shigeru Obayashi, Kalyanmoy Deb,

- Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 531–545, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [4124] K. F. Man, K. S. Tang, and S. Kwong. *Genetic Algorithms. Concepts and Designs*. Springer-Verlag, New York, second edition, 1999.
 - [4125] R.C. Mancini, S.J. Louis, I.E. Golovkin, L.A. Welser, Y. Ochi, K. Fujita, H. Nishimura, J.A. Koch, R.W. Lee, J.A. Delettrez, F.J. Marshall, I. Uschmann, E. Foerster, and L. Klein. Multi-Objective Spectroscopic Data Analysis of Inertial Confinement Fusion Implosion Cores: Plasma Gradient Determination. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 341–364. World Scientific, Singapore, 2004.
 - [4126] Kuntinee Maneeratana, Kittipong Boonlong, and Nachol Chaiyaratana. Multi-objective Optimisation by Co-operative Co-evolution. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 772–781, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
 - [4127] Kuntinee Maneeratana, Kittipong Boonlong, and Nachol Chaiyaratana. Compressed-Objective Genetic Algorithm. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 473–482. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
 - [4128] M. H. Khoshgoftar Manesh, M. Amidpour, and M. H. Hamed. Optimization of the coupling of pressurized water nuclear reactors and multistage flash desalination plant by evolutionary algorithms and thermoeconomic method. *International Journal of Energy Research*, 33(1):77–99, January 2009.
 - [4129] M. H. Khoshgoftar Manesh and Majid Amidpour. Multi-objective thermoeconomic optimization of coupling MSF desalination with PWR nuclear power plant through evolutionary algorithms. *Desalination*, 249(3):1332–1344, December 25 2009.
 - [4130] Andrew Manikas and Yih-Long Chang. Multi-criteria sequence-dependent job shop scheduling using genetic algorithms. *Computers & Industrial Engineering*, 56(1):179–185, February 2009.
 - [4131] Edward P. Manning. Using Resource-Limited Nash Memory to Improve an Othello Evaluation Function. *IEEE Transactions on Computational Intelligence and AI in Games*, 2(1):40–53, March 2010.
 - [4132] Steven Manos and Leon Poladian. Novel Fibre Bragg Grating design using Multiobjective Evolutionary Algorithms. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2089–2095, Canberra, Australia, December 2003. IEEE Press.

- [4133] Steven Manos, Leon Poladian, Peter Bentley, and Maryanne Large. Photonic Device Design Using Multiobjective Evolutionary Algorithms. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 636–650, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4134] Nashat Mansour, Vatche Isahakian, and Iman Ghalayini. Scatter Search Technique for Exam Timetabling. *Applied Intelligence*, 34(2):299–310, April 2011.
- [4135] S. Afshin Mansouri. *Manufacturing Cell Design in a Multi-Criterion Environment*. PhD thesis, Amirkabir University of Technology, Tehran, Iran, January 2001.
- [4136] S. Afshin Mansouri. Elimination of Exceptional Elements in Cellular Manufacturing Systems using Multi-Objective Genetic Algorithms. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 505–527. World Scientific, Singapore, 2004.
- [4137] S. Afshin Mansouri. Coordination of set-ups between two stages of a supply chain using multi-objective genetic algorithms. *International Journal of Production Research*, 43(15):3163–3180, 2005.
- [4138] S. Afshin Mansouri. A Multi-Objective Genetic Algorithm for mixed-model sequencing on JIT assembly lines. *European Journal of Operational Research*, 167(3):696–716, 2005.
- [4139] S. Afshin Mansouri, David Gallea, and Mohammad H. Askariadz. Decision support for build-to-order supply chain management through multiobjective optimization. *International Journal of Production Economics*, 135(1):24–36, January 2012.
- [4140] S. Afshin Mansouri, S. Hamed Hendizadeh, and Nasser Salmasi. Bicriteria Two-Machine Flowshop Scheduling using Metaheuristics. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 909, London, UK, July 2007. ACM Press.
- [4141] S. Afshin Mansouri, S. Hamed Hendizadeh, and Nasser Salmasi. Bicriteria scheduling of a two-machine flowshop with sequence-dependent setup times. *International Journal of Advanced Manufacturing Technology*, 40(11-12):1216–1226, February 2009.
- [4142] S.A. Mansouri, S.M. Moattar-Husseini, and S.T. Newman. A review of the modern approaches to multi-criteria cell design. *International Journal of Production Research*, 38(5):1201–1218, March 20 2000.
- [4143] S.A. Mansouri, S.M. Moattar-Husseini, and S.H. Zegordi. Multi-criterion Tackling Bottleneck Machines and Exceptional Parts in Cell Formation Using Genetic Algorithms. In I.C. Parmee, editor, *Proceedings of the Fifth International Conference on Adaptive Computing Design and Manufacture (ACDM*

2002), volume 5, pages 181–192, University of Exeter, Devon, UK, April 2002. Springer-Verlag.

- [4144] S.A. Mansouri, S.M. Moattar-Husseini, and S.H. Zegordi. A genetic algorithm for multiple objective dealing with exceptional elements in cellular manufacturing. *Production Planning & Control*, 14(5):437–446, 2003.
- [4145] Marco Manzan, Enrico Nobile, Stefano Pieri, and Francesco Pinto. Multi-objective Optimization for Problems Involving Convective Heat Transfer. In Dominique Thévenin and Gábor Janiga, editors, *Optimization and Computational Fluid Dynamics*, chapter 8, pages 217–266. Springer-Verlag, Berlin, 2008.
- [4146] Jiangming Mao, Kotaro Hirasawa, Jinglu Hu, and Junichi Murata. Genetic Symbiosis Algorithm for Multiobjective Optimization Problem. In *Proceedings of the 9th IEEE International Workshop on Robot and Human Interactive Communication (RO-MAN 2000)*, pages 137–142. IEEE, 2000.
- [4147] Jiangming Mao, Kotaro Hirasawa, Jinglu Hu, and Junichi Murata. Genetic Symbiosis Algorithm for Multiobjective Optimization Problems. In *Proceedings of the 2001 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 267–274, San Francisco, California, July 2001.
- [4148] Jiangming Mao, Kotaro Hirasawa, Jinglu Hu, and Junichi Murata. Genetic Symbiosis Algorithm for Multiobjective Optimization Problems. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshek, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, page 771, San Francisco, California, July 2001. Morgan Kaufmann Publishers.
- [4149] Giuseppe Carlo Marano. Multiobjective optimization criteria for linear structures subject to random vibrations. *The Open Civil Engineering Journal*, 8(2):75–87, 2008.
- [4150] Giuseppe Carlo Marano. Reliability based multiobjective optimization for design of structures subject to random vibrations. *Journal of Zhejiang University–Science A*, 9(1):15–25, January 2008.
- [4151] Giuseppe Carlo Marano and Rita Greco. Robust optimization for TMD with uncertain bounded system parameters and stochastic excitation. *Asian Journal of Civil Engineering*, 9(5):433–455, 2008.
- [4152] Giuseppe Carlo Marano, Rita Greco, and Giuseppe Palombella. Stochastic optimum design of linear tuned mass dampers for seismic protection of high towers. *Structural Engineering and Mechanics*, 29(6):603–622, August 20 2008.

- [4153] Giuseppe Carlo Marano and Giuseppe Quaranta. Fuzzy-based robust structural optimization. *International Journal of Solids and Structures*, 45(11–12):3544–3557, June 15 2008.
- [4154] Giuseppe Carlo Marano, Giuseppe Quaranta, and Rita Greco. Multi-objective optimization by genetic algorithm of structural systems subject to random vibrations. *Structural and Multidisciplinary Optimization*, 39(4):385–399, October 2009.
- [4155] Giuseppe Carlo Marano, Sara Sgobba, Rita Greco, and Mauro Mezzina. Robust optimum design of tuned mass dampers devices in random vibrations mitigation. *Journal of Sound and Vibration*, 313(3–5):472–492, June 17 2008.
- [4156] Darío Maravall and Javier de Lope. Multi-objective dynamic optimization with genetic algorithms for automatic parking. *Soft Computing*, 11(3):249–257, February 2007.
- [4157] Darío Maravall, Javier de Lope, and Miguel Ángel Patricio. Competitive Goal Coordination in Automatic Parking. In Günther R. Raidl et al., editor, *Applications of Evolutionary Computing. Proceedings of Evoworkshops 2004: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 537–548, Coimbra, Portugal, April 2004. Springer. Lecture Notes in Computer Science Vol. 3005.
- [4158] Francesco Marcelloni and Massimo Vecchio. Enabling energy-efficient and lossy-aware data compression in wireless sensor networks by multi-objective evolutionary optimization. *Information Sciences*, 180(10):1924–1941, May 15 2010.
- [4159] N. Marco, S. Lanteri, J.-A. Desideri, and J. Périaux. A Parallel Genetic Algorithm for Multi-Objective Optimization in Computational Fluid Dynamics. In Kaisa Miettinen, Marko M. Mäkelä, Pekka Neittaanmäki, and Jacques Périaux, editors, *Evolutionary Algorithms in Engineering and Computer Science*, chapter 22, pages 445–456. John Wiley & Sons, Ltd, Chichester, UK, 1999.
- [4160] Anna Marconato, Michele Gubian, Andrea Boni, Bruno G. Caprile, and Dario Petri. Accurate and resource-aware classification based on measurement data. *IEEE Transactions on Instrumentation and Measurement*, 57(9):2044–2051, September 2008.
- [4161] Michaël Marcozzi, Federico Divina, Jesús S. Aguilar-Ruiz, and Wim Vanhoof. A Novel Probabilistic Encoding for EAs Applied to Biclustering of Microarray Data. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 339–346, Dublin, Ireland, July 12–16 2011. ACM Press.
- [4162] T. Marcu, L. Ferariu, and P. M. Frank. Genetic Evolving of Dynamic Neural Networks with Application to Process Fault Diagnosis. In *Proceedings of the EUCA/IFAC/IEEE European Control Conference ECC'99*, Karlsruhe, Germany, 1999. CD-ROM, F-1046,1.

- [4163] Teodor Marcu. A multiobjective evolutionary approach to pattern recognition for robust diagnosis of process faults. In R. J. Patton and J. Chen, editors, *IFAC Symposium on Fault Detection, Supervision and Safety for Technical Processes: SAFEPROCESS'97*, pages 1183–1188, Kington Upon Hull, United Kingdom, August 1997.
- [4164] Teodor Marcu and Paul M. Frank. Parallel Evolutionary Approach to System Identification for Process Fault Diagnosis. In Prasad S. Dhurjati and Sylvie Cauvin, editors, *Proceedings of the IFAC Workshop on 'On-line Fault Detection and Supervision in the Chemical Process Industries'*, pages 113–118, Solaize (Lyon), France, 1998.
- [4165] Simon Mardle, Sean Pascoe, and Mehrdad Tamiz. An investigation of genetic algorithms for the optimisation of multi-objective fisheries bioeconomic models. Technical Report 136, Centre for the Economics and Management of Aquatic Resources, University of Portsmouth, 1998.
- [4166] Simon Mardle, Sean Pascoe, and Mehrdad Tamiz. An Investigation of Genetic Algorithms for the Optimization of Multiobjective Fisheries Bioeconomic Models. In *Proceedings of the Third International Conference on Multi-Objective Programming and Goal Programming: Theory and Applications (MOPGP'98)*, Quebec City, Canada, 1998.
- [4167] Simon Mardle, Sean Pascoe, and Mehrdad Tamiz. An investigation of genetic algorithms for the optimisation of multi-objective fisheries bioeconomic models. *International Transactions of Operations Research*, 7(1):33–49, 2000.
- [4168] Richard Marett and Mike Wright. A Comparison of Neighborhood Search Techniques for Multi-Objective Combinatorial Problems. *Computers and Operations Research*, 23(5):465–483, 1996.
- [4169] Jose Maria Pangilinan and Gerrit K. Janssens. Pareto-optimality of oblique decision trees from evolutionary algorithms. *Journal of Global Optimization*, 51(2):301–311, October 2011.
- [4170] Carlos E. Mariano, Víctor H. Alcocer, and Eduardo Morales. Design of water-using Systems through a Multiobjective Approach. In Alwyn Barry, editor, *2003 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 186–189, Chicago, Illinois, USA, July 2003. AAAI.
- [4171] Carlos E. Mariano and Eduardo Morales. A Multiple Objective Ant-Q Algorithm for the Design of Water Distribution Irrigation Networks. Technical Report HC-9904, Instituto Mexicano de Tecnología del Agua, June 1999.
- [4172] Carlos E. Mariano and Eduardo Morales. A New Distributed Reinforcement Learning Algorithm for Multiple Objective Optimization Problems. Technical Report HC-200001, Instituto Mexicano de Tecnología del Agua, January 2000.

- [4173] Carlos E. Mariano and Eduardo F. Morales. Distributed Reinforcement Learning for Multiple Objective Optimization Problems. In *2000 Congress on Evolutionary Computation*, volume 1, pages 188–195, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [4174] Carlos E. Mariano and Eduardo F. Morales. MDQL: A Reinforcement Learning Approach for the Solution of Multiple Objective Optimization Problems. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [4175] C. Mariano-Romero, V. Alcocer-Yamanaka, and E.F. Morales. Incremental Refinement of Solutions for Multiple Objective Optimization Problems. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 910, London, UK, July 2007. ACM Press.
- [4176] Carlos E. Mariano-Romero, Víctor Alcocer-Yamanaka, and Eduardo F. Morales. Multiobjective Water Pinch Analysis of the Cuernavaca City Water Distribution Network. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 870–884, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4177] Carlos E. Mariano-Romero, Víctor H. Alcocer-Yamanaka, and Eduardo F. Morales. Multi-objective optimization of water-using systems. *European Journal of Operational Research*, 181(3):1691–1707, 16 September 2007.
- [4178] Carlos Eduardo Mariano-Romero and Víctor Hugo Alcocer-Yamanaka. Multiobjective Optimization of Water-Using Systems. In Nadia Nedjah and Luiza de Macedo Mourelle, editors, *Real-World Multi-Objective System Engineering*, pages 163–192. Nova Science Publishers, New York, 2005.
- [4179] Magdalene Marinaki, Yannis Marinakis, and Georgios E. Stavroulakis. Fuzzy Control Optimized by a Multi-Objective Particle Swarm Optimization Algorithm for Vibration Suppression of Smart Structures. *Structural and Multidisciplinary Optimization*, 43(1):29–42, January 2011.
- [4180] Chetan Maringanti, Indrajeet Chaubey, Mazdak Arabi, and Bernard Engel. Application of a Multi-Objective Optimization Method to Provide Least Cost Alternatives for NPS Pollution Control. *Environmental Management*, 48(3):448–461, September 2011.
- [4181] Chetan Maringanti, Indrajeet Chaubey, and Jennie Popp. Development of a multiobjective optimization tool for the selection and placement of best management practices for nonpoint source pollution control. *Water Resources Research*, 45, June 11 2009. Art. number: W06406.
- [4182] B. D. Marjavaara, S. Ebermark, and T. S. Lundstrom. Compression moulding simulations of SMC using a multiobjective surrogate-based inverse modeling approach. *Mechanics of Composite Materials*, 45(5):503–514, September 2009.

- [4183] Urszula Markowska-Kaczmar and Krystyna Mularczyk. GA-Based Pareto Optimization for Rule Extraction from Neural Networks. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 313–338. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [4184] Urszula Markowska-Kaczmar and Pawel Wnuk-Lipinski. Rule Extraction from Neural Network by Genetic Algorithm with Pareto Optimization. In Leszek Rutkowski, Jörg H. Siekmann, Ryszard Tadeusiewicz, and Lotfi A. Zadeh, editors, *Artificial Intelligence and Soft Computing - ICAISC 2004, 7th International Conference. Proceedings*, pages 450–455, Zakopane, Poland, June 2004. Springer. Lecture Notes in Computer Science. Volume 3070.
- [4185] R. T. Marler and J. S. Arora. Survey of multi-objective optimization methods for engineering. *Structural and Multidisciplinary Optimization*, 26(6):369–395, April 2004.
- [4186] Antonio Márquez, Francisco Alfredo Márquez, and Antonio Peregrín. Cooperation between the Inference System and the Rule Base by Using Multiobjective Genetic Algorithms. In Emilio Corchado, Ajith Abraham, and Witold Pedrycz, editors, *Hybrid Artificial Intelligence Systems, Third International Workshop, HAIS 2008*, pages 739–746, Burgos, Spain, September 24–26 2008. Springer. Lecture Notes in Artificial Intelligence Vol. 5271.
- [4187] Antonio L. Marquez, Raul Banos, Consolacion Gil, Maria G. Montoya, Francisco Manzano-Agugliaro, and Francisco G. Montoya. Multi-objective crop planning using pareto-based evolutionary algorithms. *Agricultural Economics*, 42(6):649–656, November 2011.
- [4188] M. Marseguerra, E. Zio, and L. Podofillini. Condition-based maintenance optimization by means of genetic algorithms and Monte Carlo simulation. *Reliability Engineering & System Safety*, 77(2):151–165, July 2002.
- [4189] M. Marseguerra, E. Zio, and L. Podofillini. Optimal reliability/availability of uncertain systems via multi-objective genetic algorithms. *IEEE Transactions on Reliability*, 53(3):424–434, September 2004.
- [4190] Marzio Marseguerra, Enrico Zato, and Luca Podofillini. Genetic Algorithms and Monte Carlo Simulation for the Optimization of System Design and Operation. In Gregory Levitin, editor, *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pages 101–150. Springer, Heidelberg, 2007.
- [4191] Marzio Marseguerra, Enrico Zio, and Maruizio Cipollone. Designing optimal degradation tests via multi-objective genetic algorithms. *Reliability Engineering & System Safety*, 79(1):87–94, January 2003.
- [4192] Marzio Marseguerra, Enrico Zio, Luca Podofillini, and David W. Coit. Optimal design of reliable network systems in presence of uncertainty. *IEEE Transactions on Reliability*, 54(2):243–253, June 2005.

- [4193] J. A. R. Marshall, A. Dornhaus, N. R. Franks, and T. Kovacs. Noise, cost and speed-accuracy trade-offs: decision-making in a decentralized system. *Journal of the Royal Society Interface*, 3(7):243–254, April 22 2006.
- [4194] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. A Cumulative Evidential Stopping Criterion for Multiobjective Optimization Evolutionary Algorithms. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 911, London, UK, July 2007. ACM Press.
- [4195] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. Introducing MONEDA: Scalable Multiobjective Optimization with a Neural Estimation of Distribution Algorithm. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 689–696, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [4196] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. Model-Building Algorithms for Multiobjective EDAs: Directions for Improvement. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2848–2855, Hong Kong, June 2008. IEEE Service Center.
- [4197] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. Scalable Continuous Multiobjective Optimization with a Neural Network-Based Estimation of Distribution Algorithm. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC, and EvoTransLog*, pages 535–544. Springer. Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
- [4198] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. An Approach to Stopping Criteria for Multiobjective Optimization Evolutionary Algorithms: The MGBM Criterion. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1263–1270, Trondheim, Norway, May 2009. IEEE Press.
- [4199] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. Solving complex high-dimensional problems with the multi-objective neural estimation of distribution algorithm. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 619–626, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4200] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. A Progress Indicator for Detecting Success and Failure in Evolutionary Multi-Objective Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 638–645, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4201] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. Advancing Model-Building for Many-Objective Optimization Estimation of Distribution Algorithms. In Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner,

- Anikó Ekárt, Anna I. Esparcia-Alcazar, Chi-Keong Goh, Juan J. Merelo, Ferrante Neri, Mike Preuss, Julian Togelius, and Georgios N. Yannakakis, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM and EvoSTOC*, pages 512–521, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6024.
- [4202] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. Moving Away From Error-Based Learning in Multi-Objective Estimation of Distribution Algorithms. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 545–546, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
 - [4203] Luis Martí, Jesús García, Antonio Berlanga, and José M. Molina. Multi-Objective Optimization with an Adaptive Resonance Theory-Based Estimation of Distribution algorithm: A Comparative Study. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 458–472, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
 - [4204] Rafael Marti, Jose Luis Gonzalez Velarde, and Abraham Duarte. Heuristics for the bi-objective path dissimilarity problem. *Computers & Operations Research*, 36(11):2905–2912, November 2009.
 - [4205] Heikki Ilmari Martikka and Ilkka Pöllänen. Multi-objective optimization by technical laws and heuristics. *Memetic Computing*, 1(3):229–238, November 2009.
 - [4206] E.T. Martin, R.A. Hassan, and W.A. Crossley. Comparing the N-branch genetic algorithm and the multi-objective genetic algorithm. *AIAA Journal*, 42(7):1495–1500, July 2004.
 - [4207] J. Martin, C. Bielza, and D.R. Insua. Approximating nondominated sets in continuous multiobjective optimization problems. *Naval Research Logistics*, 52(5):469–480, August 2005.
 - [4208] M. Martinez, S. Garcia-Nieto, J. Sanchis, and X. Blasco. Genetic algorithms optimization for normalized normal constraint method under Pareto construction. *Advances in Engineering Software*, 40(4):260–267, April 2009.
 - [4209] M.A. Martinez, J. Sanchis, and X. Blasco. Genetic algorithms for multiobjective controller design. In *Artificial Intelligence and Knowledge Engineering Applications: A Bioinspired Approach. Part 2. Proceedings*, pages 242–251. Springer-Verlag. Lecture Notes in Computer Science Vol. 3562, 2005.
 - [4210] Saúl Zapotecas Martínez and Carlos A. Coello Coello. An Archive Strategy Based on the Convex Hull of Individual Minima for MOEAs. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 912–919, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [4211] A.N. Martinez-Garcia and J. Anderson. Carnico-ICSPEA2 - A metaheuristic co-evolutionary navigator for a complex co-evolutionary farming system. *European Journal of Operational Research*, 179(3):634–655, June 16 2007.
- [4212] Flávio V. C. Martins, Eduardo G. Carrano, Elizabeth F. Wanner, Ricardo H. C. Takahashi, and Geraldo R. Mateus. A Dynamic Multiobjective Hybrid Approach for Designing Wireless Sensor Networks. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1145–1152, Trondheim, Norway, May 2009. IEEE Press.
- [4213] Flavio V.C. Martins, Eduardo G. Carrano, Elizabeth F. Wanner, Ricardo H.C. Takahashi, and Geraldo R. Mateus. A hybrid multiobjective evolutionary approach for improving the performance of wireless sensor networks. *IEEE Sensors Journal*, 11(3):545–554, March 2011.
- [4214] Jean Paulo Martins, Antonio Helson Mineiro Soares, Danilo Vasconcellos Vargas, and Alexandre Cláudio Botazzo Delbem. Multi-objective Phylogenetic Algorithm: Solving Multi-objective Decomposable Deceptive Problems. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 285–297, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4215] Marcelo Ramos Martins and Diego F. Sarzosa Burgos. Multi-Objective Optimization Design of Tanker Ships via a Genetic Algorithm. *Journal of Offshore Mechanics and Arctic Engineering-Transactions of the ASME*, 133(4), November 2011. Article Number: 041303.
- [4216] S. Martorell, S. Carlos, J. F. Villanueva, A. I. Sanchez, B. Galvan, D. Salazar, and M. Cepin. Use of multiple objective evolutionary algorithms in optimizing surveillance requirements. *Reliability Engineering & System Safety*, 91(9):1027–1038, September 2006.
- [4217] S. Martorell, A. Sanchez, S. Carlos, and V. Serradell. Simultaneous and multi-criteria optimization of TS requirements and maintenance at NPPs. *Annals of Nuclear Energy*, 29(2):147–168, January 2002.
- [4218] S. Martorell, A. Sanchez, S. Carlos, and V. Serradell. Alternatives and challenges in optimizing industrial safety using genetic algorithms. *Reliability Engineering & System Safety*, 86(1):25–38, October 2004.
- [4219] S. Martorell, J.F. Villanueva, S. Carlos, Y. Nebot, A. Sanchez, J.L. Pitarch, and V. Serradell. RAMS+C informed decision-making with application to multi-objective optimization of technical specifications and maintenance using genetic algorithms. *Reliability Engineering & System Safety*, 87(1):65–75, January 2005.
- [4220] Sebastián Martorell, Sofía Carlos, José F. Villanueva, and Ana Sánchez. Genetic Algorithm Applications in Surveillance and Maintenance Optimization.

In Gregory Levitin, editor, *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pages 63–99. Springer, Heidelberg, 2007.

- [4221] Nick Marvin, Mark Bower, and Jonathan E. Rowe. An evolutionary approach to constructing prognostic models. *Artificial Intelligence in Medicine*, 15(2):155–165, February 1999.
- [4222] Shivanajay Marwaha, Dipti Srinivasan, Chen Khong Tham, and Athanasios Vasilakos. Evolutionary Fuzzy Multi-Objective Routing For Wireless Mobile Ad Hoc Networks. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1964–1971, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4223] Javad Marzbanrad and Mohammad Reza Ebrahimi. Multi-Objective Optimization of aluminum hollow tubes for vehicle crash energy absorption using a genetic algorithm and neural networks. *Thin-Walled Structures*, 49(12):1605–1615, December 2011.
- [4224] Mohamed Marzouk, Hisham Said, and Moheeb El-Said. Framework for Multi-objective Optimization of Launching Girder Bridges. *Journal of Construction Engineering and Management-ASCE*, 135(8):791–800, August 2009.
- [4225] Yamamoto Masafumi, Yoshikawa Tomohiro, and Furuhashi Takeshi. Study on effect of MOGA with interactive island model using visualization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4196–4201, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4226] Tezuka Masaru and Hiji Masahiro. Genetic Algorithm for Supply Planning Optimization under Uncertain Demand. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 2337–2346. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [4227] Ellips Masehian and Davoud Sedighizadeh. Multi-objective robot motion planning using a particle swarm optimization model. *Journal Of Zhejiang University-Science C-Computers & Electronics*, 11(8):607–619, August 2010.
- [4228] W. Mason, V. Coverstone-Carroll, and J. Hartmann. Optimal Earth Orbiting Satellite Constellations via a Pareto Genetic Algorithm. In *1998 AIAA/AAS Astrodynamics Specialist Conference and Exhibit*, pages 169–177, Boston, Massachusetts, August 1998. Paper No. AIAA 98-4381.
- [4229] William J. Mason. Satellite Constellation Design Via Evolutionary Computation. Master's thesis, Department of Aeronautical and Astronautical Engineering, University of Illinois at Urbana Champaign, December 2000. (In process).
- [4230] F. Masoumi and R. Kerachian. Assessment of the groundwater salinity monitoring network of the Tehran region : application of the discrete entropy theory. *Water Science and Technology*, 58(4):765–771, 2008.

- [4231] Fariborz Masoumi and Reza Kerachian. Optimal redesign of groundwater quality monitoring networks: a case study. *Environmental Monitoring and Assessment*, 161(1-4):247–257, February 2010.
- [4232] Silvère Massebeuf, Christian Fonteix, Laszlo N. Kiss, Ivan Marc, Fernand Pla, and Kazimierz Zaras. Multicriteria Optimization and Decision Engineering of an Extrusion Process Aided by a Diploid Genetic Algorithm. In *1999 Congress on Evolutionary Computation*, pages 14–21, Washington, D.C., July 1999. IEEE Service Center.
- [4233] G.R.M. Mastinu and M. Gobbi. On the optimal design of railway passenger vehicles. *Proceedings Of The Institution Of Mechanical Engineers Part F-Journal Of Rail And Rapid Transit*, 215(2):111–124, 2001.
- [4234] Kazuaki Masuda and Kenzo Kurihara. A constrained global optimization method based on multi-objective particle swarm optimization. *Electronics and Communications in Japan*, 95(1):43–54, January 2012.
- [4235] Masuduzzaman and G.P. Rangaiah. Multi-Objective Optimization Applications in Chemical Engineering. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 2, pages 27–59. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [4236] Nobukazu Matake and Tomoyuki Hiroyasu. Multiobjective Clustering with Automatic k -determination for Large-scale Data. Scalable automatic determination of the number of clusters. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 861–868, London, UK, July 2007. ACM Press.
- [4237] P.M. Mateo and I. Alberto. Re-implementing NSGA-II and SPEA2 using Pareto based Operators. In L.M. Esteban, B. Lacruz, F.J. López, P.M. Mateo, A. Pérez-Palomares, G. Sanz, and C. Paroissin, editors, *The Pyrenees International Workshop and Summer School on Statistics, Probability and Operations Research SPO 2009*, Monografías Matemáticas “García de Galdeano” No. 36, pages 99–108. Universidad de Zaragoza, Spain, December 2010. ISBN 978-84-15031-92-5.
- [4238] Alfonso Mateos and Antonio Jiménez. A Trapezoidal Fuzzy Numbers-Based Approach for Aggregating Group Preferences and Ranking Decision Alternatives in MCDM. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 365–379. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [4239] N.H. Mateou, M. Moiseos, and A.S. Andreou. Multi-Objective Evolutionary Fuzzy Cognitive Maps for Decision Support. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 824–830, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [4240] M.A. Matos and Paulo Melo. Multiobjective Reconfiguration for Loss Reduction and Service Restoring Using Simulated Annealing. In *International Conference on Electric Power Engineering, 1999. PowerTech Budapest 99*, pages 213–218, Budapest, Hungary, 1999. IEEE.
- [4241] Takeshi Matsui, Masatoshi Sakawa, Kosuke Kato, Takeshi Uno, and Koichi Tamada. An interactive fuzzy satisficing method through particle swarm optimization for multiobjective nonlinear programming problems. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 71–76, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [4242] Yasuo Matsuyama. Harmonic competition: A self-organizing multiple criteria optimization. *IEEE Transactions on Neural Networks*, 7(3):652–668, May 1996.
- [4243] K.B. Matthews, K. Buchan, A.R. Sibbald, and S. Craw. Combining deliberative and computer-based methods for multi-objective land-use planning. *Agricultural Systems*, 87(1):18–37, January 2006.
- [4244] K.B. Matthews, K. Buchan, A.R. Sibbald, and Susan Craw. Using soft-systems methods to evaluate the outputs from multi-objective land use planning tools. In *Proceedings of the 2002 iEMSs International Meeting*, volume 3, pages 247–252, Lugano, Switzerland, June 2002. International Environmental Modelling and Software Society.
- [4245] Keith B. Matthews. *Applying Genetic Algorithms to Multi-objective Land-Use Planning*. PhD thesis, School of Computing, The Robert Gordon University, Aberdeen, United Kingdom, October 2001.
- [4246] Keith B. Matthews, Susan Craw, Stewart Elder, Alan R. Sibbald, and Ian MacKenzie. Applying Genetic Algorithms to Multi-Objective Land Use Planning. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 613–620, San Francisco, California, 2000. Morgan Kaufmann.
- [4247] Stephen G. Matthews, Mario A. Gongora, and Adrian A. Hopgood. Evolving Temporal Fuzzy Association Rules from Quantitative Data with a Multi-Objective Evolutionary Algorithm. In Emilio Corchado, Marek Kurzyński, and Michal Woźniak, editors, *Hybrid Artificial Intelligent Systems, 6th International Conference, HAIS 2011*, pages 198–205, Wroclaw, Poland, May 23-25 2011. Springer. Lecture Notes in Computer Science Vol. 6678.
- [4248] Ujjwal Maulik, Sanghamitra Bandyopadhyay, and Anirban Mukhopadhyay. *Multiobjective Genetic Algorithms for Clustering. Applications in Data Mining and Bioinformatics*. Springer, Berlin, Germany, 2011. ISBN 978-3-642-16614-3.

- [4249] Ujjwal Maulik, Sanghamitra Bandyopadhyay, and Indrajit Saha. Integrating Clustering and Supervised Learning for Categorical Data Analysis. *IEEE Transactions on Systems, Man and Cybernetics, Part A—Systems and Humans*, 40(4):664–675, July 2010.
- [4250] Ujjwal Maulik, Anirban Mukhopadhyay, and Sanghamitra Bandyopadhyay. Combining Pareto-optimal clusters using supervised learning for identifying co-expressed genes. *BMC Bioinformatics*, 10(27):1–16, January 20 2009. <http://www.biomedcentral.com/1471-2105/10/27>.
- [4251] Ujjwal Maulik, Anirban Mukhopadhyay, and Sanghamitra Bandyopadhyay. Finding Multiple Coherent Biclusters in Microarray Data Using Variable String Length Multiobjective Genetic Algorithm. *IEEE Transactions on Information Technology in Biomedicine*, 13(6):969–975, November 2009.
- [4252] Ujjwal Maulik, Anirban Mukhopadhyay, Sanghamitra Bandyopadhyay, Michael Q. Zhang, and Xuegong Zhang. Multiobjective Fuzzy Biclustering in Microarray Data: Method and a New Performance Measure. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1536–1543, Hong Kong, June 2008. IEEE Service Center.
- [4253] Ujjwal Maulik and Anasua Sarkar. Evolutionary Rough Parallel Multi-Objective Optimization Algorithm. *Fundamenta Informaticae*, 99(1):13–27, 2010.
- [4254] Mohammad Mahdavi Mazdeh, Farzad Zaerpour, Abalfazl Zareei, and Ali Hajinezhad. Parallel Machines Scheduling to Minimize Job Tardiness and Machine Deteriorating Cost with Deteriorating Jobs. *Applied Mathematical Modelling*, 34(6):1498–1510, June 2010.
- [4255] Jahirul Mazumder, Jingxu Zhu, Amarjeet S. Bassi, and Ajay K. Ray. Multiobjective Optimization of the Operation of a Liquid-Solid Circulating Fluidized Bed Ion-Exchange System for Continuous Protein Recovery. *Biotechnology and Bioengineering*, 103(5):873–890, August 1 2009.
- [4256] V. Mazur. Fuzzy thermoeconomic optimization of energy-transforming systems. *Applied Energy*, 84(7–8):749–762, July-August 2007.
- [4257] Michael Mazurek and Slawomir Wesolkowski. Fleet Mix Computation Using Evolutionary Multiobjective Optimization. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 46–50, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [4258] Kent McClymont and Ed Keedwell. Optimising multi-modal polynomial mutation operators for multi-objective problem classes. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3586–3593, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [4259] Kent McClymont and Ed Keedwell. Deductive Sort and Climbing Sort: New Methods for Non-Dominated Sorting. *Evolutionary Computation*, 20(1):1–26, Spring 2012.
- [4260] Kent McClymont and Ed C. Keedwell. Markov Chain hyper-Heuristic (MCHH): an Online Selective Hyper-Heuristic for Multi-Objective Continuous Problems. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 2003–2010, Dublin, Ireland, July 12-16 2011. ACM Press.
- [4261] Trent McConaghy and Georges G. E. Gielen. Template-Free Symbolic Performance Modeling of Analog Circuits via Canonical-Form Functions and Genetic Programming. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 28(8):1162–1175, August 2009.
- [4262] Trent McConaghy, Pieter Palmers, Georges Gielen, and Michiel Steyaert. Simultaneous multi-topology multi-objective sizing across thousands of analog circuit topologies. In *Proceedings of the 44th annual conference on Design automation (DAC'07)*, pages 944–947, San Diego, California, USA, 2007. ACM Press.
- [4263] Trent McConaghy, Pieter Palmers, Michiel Steyaert, and Georges G. E. Gielen. Trustworthy Genetic Programming-Based Synthesis of Analog Circuit Topologies Using Hierarchical Domain-Specific Building Blocks. *IEEE Transactions on Evolutionary Computation*, 15(4):557–570, August 2011.
- [4264] Christopher McCubbin, David Scheidt, Oliver Bandte, Steven Marshall, and Iavor Trifonov. Using Genetic Algorithms for Naval Subsystem Damage Assessment and Design Improvements. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 2114–2121, London, UK, July 2007. ACM Press.
- [4265] Seamus M. McGovern and Surendra M. Gupta. Ant Colony Optimization for Disassembly Sequencing with Multiple Objectives. *International Journal of Advanced Manufacturing Technology*, 30(5-6):481–496, September 2006.
- [4266] Semus M. McGovern and Surendra M. Gupta. Lexicographic Goal Programming and Assessment Tools for a Combinatorial Production Problem. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 148–184. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [4267] Andrew McIntyre and Malcolm Heywood. MOGE: GP Classification Problem Decomposition using Multi-objective Optimization. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 863–870, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.

- [4268] Andrew R. McIntyre and Malcolm Heywood. Cooperative Problem Decomposition in Pareto Competitive Classifier Models of Coevolution. In Michael O'Neill, Leonardo Vanneschi, Steven Gustafson, Anna Isabel Esparcia Alcázar, Ivanoe De Falco, Antonio Della Cioppa, and Ernesto Tarantino, editors, *Genetic Programming, 11th European Conference, EuroGP 2008*, pages 289–300. Springer. Lecture Notes in Computer Science Vol. 4971, Naples, Italy, March 2008.
- [4269] Andrew R. McIntyre and Malcolm I. Heywood. Classification as Clustering: A Pareto Cooperative-Competitive GP Approach. *Evolutionary Computation*, 19(1):137–166, Spring, 2011.
- [4270] P. R. McMullen and P. Tarasewich. Multi-objective assembly line balancing via a modified ant colony optimization technique. *International Journal of Production Research*, 44(1):27–42, January 1 2006.
- [4271] Patrick R. McMullen. An ant colony optimization approach to addressing a JIT sequencing problem with multiple objectives. *Artificial Intelligence in Engineering*, 15:309–317, 2001.
- [4272] P.R. McMullen and G.V. Frazier. Using simulated annealing to solve a multi-objective assembly line balancing problem with parallel workstations. *International Journal of Production Research*, 36(10):2717–2741, October 1998.
- [4273] Michelle McPartland, Stefano Nolfi, and Hussein A. Abbass. Emergence of Communication in Competitive Multi-Agent Systems: A Pareto Multi-Objective Approach. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 51–58, New York, USA, June 2005. ACM Press.
- [4274] A. L. Medaglia. An evolutionary algorithm for project selection problems based on stochastic multiobjective linearly constrained optimization. In S.B. Graves and J.L. Ringuest, editors, *Models and methods for project selection: concepts from management science, finance, and information technology*, pages 163–189. Kluwer Academic Publishers, Boston, USA, 2003.
- [4275] A.L. Medaglia, S.-C. Fang, and H.L.W. Nuttle. Fuzzy controlled simulation optimization. *Fuzzy Sets and Systems*, 127(1):65–84, 2002.
- [4276] Andrés L. Medaglia. *Simulation Optimization Using Soft Computing*. PhD thesis, North Carolina State University, USA, 2000.
- [4277] Andrés L. Medaglia and Shu-Chern Fang. A genetic-based framework for solving (multi-criteria) weighted matching problems. *European Journal of Operational Research*, 149(1):77–101, August 2003.
- [4278] Andres L. Medaglia, Samuel B. Graves, and Jeffrey L. Ringuest. A multiobjective evolutionary approach for linearly constrained project selection under uncertainty. *European Journal of Operational Research*, 179(3):869–894, June 16 2007.

- [4279] Andrés L. Medaglia, Eliécer Gutiérrez, and Juan Guillermo Villegas. Solving Facility Location Problems with a Tool for Rapid Development of Multi-Objective Evolutionary Algorithms (MOEAs). In Jean-Philippe Rennard, editor, *Handbook of Research on Nature Inspired Computing for Economy and Management*, volume 2, pages 642–660, Hershey, UK, 2006. Idea Group Reference. ISBN 1-59140-984-5.
- [4280] Andres L. Medaglia, Juan G. Villegas, and Diana M. Rodriguez-Coca. Hybrid biobjective evolutionary algorithms for the design of a hospital waste management network. *Journal of Heuristics*, 15(2):153–176, April 2009.
- [4281] Indika Meedeniya, Barbora Buhnova, Aldeida Aleti, and Lars Grunske. Reliability-driven deployment optimization for embedded systems. *Journal of Systems and Software*, 84(5):835–846, May 2011.
- [4282] J. Mehnen, Th. Michelitsch, Th. Bartz-Beilstein, and N. Henkenjohann. Systematic Analyses of Multi-objective Evolutionary Algorithms Applied to Real-World Problems Using Statistical Design of Experiments. In *Intelligent Computation in Manufacturing Engineering, 4th CIRP International Seminar on Intelligent Computation in Manufacturing Engineering (CIRP ICME'04)*, pages 171–178, Sorrento, Naples, Italy, July 2004.
- [4283] J. Mehnen, T. Micheltisch, T. Bartz-Beielstein, and K. Schmitt. Evolutionary optimization of mould temperature control strategies: encoding and solving the multiobjective problem with standard evolution strategy and kit for evolution algorithms. *Proceedings of the Institution of Mechanical Engineers Part B—Journal of Engineering Manufacture*, 218(6):657–665, June 2004.
- [4284] Jörn Mehnen. *Mehrkrterielle Optimierungsverfahren für produktionstechnische Prozesse*. Habilitation Thesis, Vulkan Verlag, Essen, Germany, 2005. ISBN 3-8027-8760-9 (in German).
- [4285] Jörn Mehnen, Thomas Michelitsch, Christian Lasarczyk, and Thomas Bartz-Beielstein. Multi-objective evolutionary design of mold temperature control using DACE for parameter optimization. *International Journal of Applied Electromagnetics and Mechanics*, 25(1–4):661–667, 2007.
- [4286] Jörn Mehnen, Thomas Michelitsch, Karlheinz Schmitt, and Torsten Kohlen. pMOHypEA: Parallel Evolutionary Multiobjective Optimization using Hypergraphs. Technical Report Reihe CI-189/04, SFB 531, University of Dortmund, ISSN 1433-3325, 2004.
- [4287] Jörn Mehnen, Rajkumar Roy, Petra Kersting, and Tobias Wagner. ICSPEA: Evolutionary Five-Axis Milling Path Optimisation. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 2122–2128, London, UK, July 2007. ACM Press.
- [4288] Jörn Mehnen and Heike Trautmann. Integration of expert preferences in pareto optimization by desirability function techniques. In R. Teti, editor, *Proceedings*

of the 5th CIRP international seminar on intelligent computation in manufacturing engineering (CIRP ICME'06), pages 293–298, Ischia, Italy, July 2006.

- [4289] Jörn Mehnen, Heike Trautmann, and Ashutosh Tiwari. Introducing User Preference using Desirability Functions in Multiobjective Evolutionary Optimisation of Noisy Processes. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2687–2694, Singapore, September 2007. IEEE Press.
- [4290] M. Saidi Mehrabad and A. Pahlavani. A fuzzy multi-objective programming for scheduling of weighted jobs on a single machine. *International Journal of Advanced Manufacturing Technology*, 45(1-2):122–139, November 2009.
- [4291] T.X. Mei and R.M. Goodall. Use of multiobjective genetic algorithms to optimize inter-vehicle active suspensions. *Proceedings of The Institution of Mechanical Engineers Part F-Journal of Rail and Rapid Transit*, 216(1):53–63, 2002.
- [4292] Yi Mei, Ke Tang, and Xin Yao. Decomposition-Based Memetic Algorithm for Multiobjective Capacitated Arc Routing Problem. *IEEE Transactions on Evolutionary Computation*, 15(2):151–165, April 2011.
- [4293] Thorsten Meinl and Michael R. Berthold. Crossover operators for multiobjective k-subset selection. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1809–1810, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4294] N. Melab, M. Mezmaiz, and E.-G. Talbi. Parallel Cooperative Meta-Heuristics on the Computational Grid. A Case Study: The Bi-Objective Flow-Shop Problem. *Parallel Computing*, 32(9):643–469, October 2006.
- [4295] C. Meloni, D. Naso, and B. Turchiano. Multi-objective evolutionary algorithms for a class of sequencing problems in manufacturing environments. In *Proceedings of the 2003 IEEE International Conference on Systems, Man and Cybernetics*, volume 1, pages 8–13. IEEE, October 2003.
- [4296] Adriana Menchaca-Mendez and Carlos A. Coello Coello. A New Proposal to Hybridize the Nelder-Mead Method to a Differential Evolution Algorithm for Constrained Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2598–2605, Trondheim, Norway, May 2009. IEEE Press.
- [4297] F. Menczer, W.N. Street, and M. Degeratu. Evolving heterogeneous neural agents by local selection. In V. Honavar, M. Patel, and K. Balakrishnan, editors, *Advances in the Evolutionary Synthesis of Neural Systems*. MIT Press, Cambridge, MA, 2000.
- [4298] Filippo Menczer, Melania Degeratu, and W. Nick Street. Efficient and Scalable Pareto Optimization by Evolutionary Local Selection Algorithms. *Evolutionary Computation*, 8(2):223–247, Summer 2000.

- [4299] Alexandre Mendes and Natashia Boland. Multi-objective Optimisation of Power Restoration in Electricity Distribution Systems. In Dianhui Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 779–788, Perth, Australia, December 5-8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [4300] Luís Mendes, Eduardo J. Solteiro Pires, Paulo B. de Moura Oliveira, José A. Tenreiro Machado, Nuno M. Fonseca Ferreira, João Caldinhas Vaz, and Maria J. Rosário. Design Optimization of Radio Frequency Discrete Tuning Varactors. In Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alcázar, Muddassar Farooq, Andreas Fink, and Penousal Machado, editors, *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pages 343–352. Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.
- [4301] Máximo Méndez and Blas Galván. Multi-Objective Evolutionary Algorithms Using the Working Point and the TOPSIS Method. In Roberto Moreno-Díaz, Franz Pichler, and Alexis Quesada-Arencibia, editors, *Computer Aided Systems Theory - EUROCAST 2007. 11th International Conference on Computer Aided Systems Theory*, pages 796–803. Springer, Lecture Notes in Computer Science, Vol. 4739, Las Palmas de Gran Canaria, Spain, February 12-16 2007. ISBN 978-3-540-75866-2.
- [4302] Máximo Méndez, Blas Galván, Daniel Salazar, and David Greiner. Multiple-Objective Genetic Algorithm Using the Multiple Criteria Decision Making Method TOPSIS. In Vincent Barichard, Matthias Ehrgott, Xavier Gandibleux, and Vincent T'Kindt, editors, *Multiobjective Programming and Goal Programming. Theoretical Results and Practical Applications*, pages 145–154. Springer, Lecture Notes in Economics and Mathematical Systems, Vol. 618, 2009. ISBN 978-3-540-85645-0.
- [4303] Bernadete M. Mendonça Neta, Gustavo H.D. Araújo, Federico G. Guimarães, and Renato C. Mesquita. A Multiobjective Genetic Algorithm for Automatic Orthogonal Graph Drawing. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 925–932, Dublin, Ireland, July 12-16 2011. ACM Press.
- [4304] Franklin Mendoza, Jose L. Bernal-Agustin, and Jose A. Dominguez Navarro. NSGA and SPEA applied to multiobjective design of power distribution systems. *IEEE Transactions on Power Systems*, 21(4):1938–1945, November 2006.
- [4305] J. E. Mendoza, L. A. Villaleiva, M. A. Castro, and E. A. Lopez. Multi-Objective Evolutionary Algorithms for Decision-Making in Reconfiguration Problems Applied to the Electric Distribution Networks. *Studies in Informatics and Control*, 18(4):325–336, December 2009.
- [4306] J.E. Mendoza, M.E. López, C.A. Coello Coello, and E.A. López. Microgenetic multiobjective reconfiguration algorithm considering power losses and

reliability indices for medium voltage distribution network. *IET Generation, Transmission & Distribution*, 3(9):825–840, September 2009.

- [4307] Jorge Mendoza, Dario Morales, Rodrigo López, Enrique López, Jean-Claude Vannier, and Carlos A. Coello Coello. Multi-objective Location of Automatic Voltage Regulators in a Radial Distribution Network Using a Micro Genetic Algorithm. *IEEE Transactions on Power Systems*, 22(1):404–411, February 2007.
- [4308] G. Meneghetti, V. Pediroda, and C. Poloni. Application of a Multi Objective Genetic Algorithm and a Neural Network to the Optimisation of Foundry Processes. In Kaisa Miettinen, Marko M. Mäkelä, Pekka Neittaanmäki, and Jacques Périaux, editors, *Evolutionary Algorithms in Engineering and Computer Science*, chapter 23, pages 457–470. John Wiley & Sons, Ltd, Chichester, UK, 1999.
- [4309] H.Y. Meng, X.H. Zhang, and S.Y. Liu. A co-evolutionary particle swarm optimization-based method for multiobjective optimization. In S. Zhang and R. Jarvis, editors, *AI 2005: Advances in Artificial Intelligence*, pages 349–359. Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 3809, 2005.
- [4310] H.Y. Meng, X.H. Zhang, and S.Y. Liu. Intelligent multiobjective particle swarm optimization based on AER model. In *Progress in Artificial Intelligence, Proceedings*, pages 178–189. Springer, Lecture Notes in Artificial Intelligence, Vol. 3808, 2005.
- [4311] Li Meng and Dingy Xue. Design of an optimal fractional-order PID controller using Multi-Objective GA optimization. In *Chinese Control and Decision Conference, 2009 (CCDC'09)*, pages 3849–3853, Shanghai, China, June 17-19 2009. IEEE Computer Society Press.
- [4312] Qiang Meng and Hooi Ling Khoo. A Pareto-optimization approach for a fair ramp metering. *Transportation Research Part C-Emerging Technologies*, 18(4):489–506, August 2010.
- [4313] Ole J. Mengshoel and David E. Goldberg. The Crowding Approach to Niching in Genetic Algorithms. *Evolutionary Computation*, 16(3):315–354, Fall 2008.
- [4314] P. P. Menon, I. Postlethwaite, S. Bennani, A. Marcos, and D. G. Bates. Robustness analysis of a reusable launch vehicle flight control law. *Control Engineering Practice*, 17(7):751–765, July 2009.
- [4315] Olaf Mersmann, Heike Trautmann, Boris Naujoks, and Claus Weihs. Benchmarking evolutionary multiobjective optimization algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1311–1318, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4316] Mohammad Mesgarpour, Nureddin Kirkavak, and Hakan Ozaktas. Bicriteria Scheduling Problem on the Two-Machine Flowshop Using Simulated Annealing. In Peter Cowling and Peter Merz, editors, *Evolutionary Computation in*

Combinatorial Optimization. 10th European Conference, EvoCOP 2010, pages 166–177. Springer. Lecture Notes in Computer Science, Vol. 6022, Istanbul, Turkey, April 2010.

- [4317] K. Mesghouni, P. Pesin, D. Trentesaux, S. Hammadi, C. Tahon, and P. Borne. Hybrid approach to decision-making for job-shop scheduling. *Production Planning & Control*, 10(7):690–706, October - November 1999.
- [4318] S. Meshoul and M. Batouche. Aligning Images with Multiple Objectives. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2067–2072, Hong Kong, June 2008. IEEE Service Center.
- [4319] S. Meshoul, K. Mahdi, and M. Batouche. A quantum inspired evolutionary framework for multi-objective optimization. In *Progress in Artificial Intelligence, Proceedings*, pages 190–201. Springer, Lecture Notes in Artificial Intelligence, Vol. 3808, 2005.
- [4320] F. Messine, B. Nogarede, and J. L. Lagouanelle. Optimal design of electromechanical actuators: A new method based on global optimization. *IEEE Transactions On Magnetics*, 34(1):299–308, January 1998.
- [4321] Haritha Metta. Adaptive, multi-objective job shop scheduling using genetic algorithms. Master's thesis, The Graduate School, University of Kentucky, USA, 2008.
- [4322] Herve Meunier, El-Ghazali Talbi, and Philippe Reininger. A Multiobjective Genetic Algorithm for Radio Network Optimization. In *2000 Congress on Evolutionary Computation*, volume 1, pages 317–324, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [4323] Jose L. Ceciliano Meza, Mehmet Bayram Yildirim, and Abu. S. M. Masud. A multiobjective Evolutionary Programming Algorithm and Its Applications to Power Generation Expansion Planning. *IEEE Transactions on Systems Man and Cybernetics Part A-Systems and Humans*, 39(5):1086–1096, September 2009.
- [4324] Mohand Mezma, Young Choon Lee, Nouredine Melab, El-Ghazali Talbi, and Albert Y. Zomaya. A Bi-objective Hybrid Genetic Algorithm to Minimize Energy Consumption and Makespan for Precedence-constrained Applications Using Dynamic Voltage Scaling. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 25–32, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4325] Efrén Mezura Montes. Uso de la Técnica Multiobjetivo NPGA para el Manejo de Restricciones en Algoritmos Genéticos. Master's thesis, Maestría en Inteligencia Artificial, Universidad Veracruzana, Xalapa, Veracruz, México, August 2001. (In Spanish).

- [4326] Efrén Mezura-Montes and Carlos A. Coello Coello. Use of Multiobjective Optimization Concepts to Handle Constraints in Genetic Algorithms. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 229–254. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [4327] Efrén Mezura-Montes and Carlos A. Coello Coello. Constrained Optimization via Multiobjective Evolutionary Algorithms. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 53–75. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [4328] Efrén Mezura-Montes, Edgar A. Portilla-Flores, Carlos A. Coello Coello, Jaime Alvarez-Gallegos, and Carlos A. Cruz-Villar. An Evolutionary Approach to Solve a Novel Mechatronic Multiobjective Optimization Problem. In Patrick Siarry and Zbigniew Michalewicz, editors, *Advances in Metaheuristic Methods for Hard Optimization*, pages 329–351. Springer, Berlin, 2008. ISBN 978-3-540-72959-4.
- [4329] Efrén Mezura-Montes, Margarita Reyes-Sierra, and Carlos A. Coello Coello. Multi-Objective Optimization using Differential Evolution: A Survey of the State-of-the-Art. In Uday K. Chakraborty, editor, *Advances in Differential Evolution*, pages 173–196. Springer, Berlin, 2008. ISBN 978-3-540-68827-3.
- [4330] X. R. Miao, P. M. Zhang, Z. H. Xu, and C. H. Chen. Multi-objective Genetic Algorithm in IHSACC Optimization Design. In *Artificial Intelligence and Soft Computing (ASC'99)*, Honolulu, Hawaii, August 1999. ACTA Press.
- [4331] Konstantinos Michail. *Optimised configuration of sensing elements for control and fault tolerance applied to an electro-magnetic suspension system*. PhD thesis, Loughborough University, UK, October 2009.
- [4332] Konstantinos Michail, Yimin Zhou, Argyrios Zolotas, Roger Goodall, and George Halikias. Optimised Sensor Configurations with Reduced Order Controllers Applied to an EMS System. In *Proceedings of the 29th Chinese Control Conference*, pages 3595–3600, Beijing, China, 29-31 July 2010. IEEE Press.
- [4333] Konstantinos Michail, Argyrios Zolotas, and Roger Goodall. An Optimum Sensor Selection Design Framework Applied to an Electro-Magnetic Suspension System. In *IEEE Conference on Control and Fault-Tolerant Systems*, pages 684–689, Nice, France, 6–8 October 2010. IEEE Press.
- [4334] Konstantinos Michail, Argyrios C. Zolotas, and Roger M. Goodall. Optimised sensor configurations for a Maglev suspension. In *17th IFAC World Congress*, Seoul, Korea, July 6-11 2008. The International Federation of Automatic Control (IFAC).
- [4335] Konstantinos Michail, Argyrios C. Zolotas, Roger M. Goodall, and John T. Pearson. MAGLEV suspensions - a sensor optimisation framework. In

16th Mediterranean Conference on Control and Automation (MED'08), pages 1514–1519, Ajaccio, Corsica, France, June 25-27 2008. IEEE.

- [4336] Konstantinos Michail, Argyrios C. Zolotas, Roger M. Goodall, and John T. Pearson. Sensor optimisation via H_∞ applied to a MAGLEV suspension system. In *WASET ICCAS 2008: International Conference on Control, Automation and Systems*, Prague, Czech Republic, July 25-27 2008. World Academy of Science, Engineering and Technology.
- [4337] Zbigniew Michalewicz. *Genetic Algorithms + Data Structures = Evolution Programs*. Springer-Verlag, third edition, 1996.
- [4338] Zbigniew Michalewicz. Evolutionary Algorithms in Engineering Optimization. In William Annicchiarico, Jacques Périaux, Miguel Cerrolaza, and Gabriel Winter, editors, *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization*, pages 26–51. WIT Press, CIMNE Barcelona, Southampton, Boston, 2005. ISBN 1-84564-038-1.
- [4339] E. Michielssen, J. M. Sajer, and R. Mittra. Pareto-optimal design of broadband microwave absorbers using genetic algorithms. In *Proceedings of the IEEE Antennas and Propagation Society International Symposium*, volume 3, pages 1167–1170, Ann Arbor, Michigan, June 1993. IEEE.
- [4340] E. Michielssen and D. S. Weile. Electromagnetic System Design using Genetic Algorithms. In *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science*, pages 267–288. John Wiley and Sons, England, 1995.
- [4341] Ingo Mierswa. Incorporating Fuzzy Knowledge Into Fitness: Multiobjective Evolutionary 3D Design of Process Plants. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1985–1992, New York, USA, June 2005. ACM Press.
- [4342] Ingo Mierswa. Controlling Overfitting with Multi-objective Support Vector Machines. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 1830–1837, London, UK, July 2007. ACM Press.
- [4343] Ingo Mierswa and Michael Wurst. Information Preserving Multi-Objective Feature Selection for Unsupervised Learning. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1545–1552, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [4344] Timothy S. Mierzwicki. Risk Index for Multi-Objective Design Optimization of Naval Ships. Master's thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA, April 2003.
- [4345] Kaisa Miettinen. Using Interactive Multiobjective Optimization in Continuous Casting of Steel. *Materials and Manufacturing Processes*, 22(5):585–593, 2007.

- [4346] Kaisa Miettinen, Kalyanmoy Deb, Johannes Jahn, Wlodzimierz Ogryczak, Koji Shimoyama, and Rudolf Vetschera. Future Challenges. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 435–461. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [4347] Kaisa Miettinen and Jussi Hakanen. Why Use Interactive Multi-Objective Optimization in Chemical Process Design? In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 6, pages 153–188. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [4348] Javier Sanchis Miguel A. Martinez and Xavier Blasco. Multiobjective controller design handling human preferences. *Engineering Applications of Artificial Intelligence*, 19(8):927–938, December 2006.
- [4349] Ludmil Mikhailov and Joshua Knowles. Priority Elicitation in the AHP by a Pareto Envelope-Based Selection Algorithm. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 249–257. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.
- [4350] N. Milickovic, M. Lahanas, M. Papagiannopoulou, N. Zamboglou, and D. Baltas. Multiobjective anatomy-based dose optimization for HDR-brachytherapy with constraint free deterministic algorithms. *Physics in Medicine and Biology*, 47(13):2263–2280, July 7 2002.
- [4351] Natasa Milickovic, Michael Lahanas, Dimos Baltas, and Nikolaos Zamboglou. Comparison of Evolutionary and Deterministic Multiobjective Algorithms for Dose Optimization in Brachytherapy. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 167–180. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [4352] Natasa B. Milickovic, Michael Lahanas, Maria Papagiannopoulou, Kostas Karovzakis, Dimos Baltas, and Nikolakus Zamboglou. Application of Multiobjective Genetic Algorithms in Anatomy Based Dose Optimization in Brachytherapy and its Comparison with Deterministic Algorithms. In *2001 Proceedings of the 23rd Annual EMBS International Conference*, pages 3919–3922, Isbanbul, Turkey, October 2001. IEEE.
- [4353] B. Milosevic and M. Begovic. Nondominated sorting genetic algorithm for optimal phasor measurement placement. *IEEE Transactions on Power Systems*, 18(1):69–75, February 2003.

- [4354] Yang Shu Min, Shao Dong Guo, and Luo Yang Jie. Dynamic Archive Evolution Strategy for Multiobjective Optimization. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 135–149, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4355] Gerardo Minella, Ruben Ruiz, and Michele Ciavotta. A review and evaluation of multiobjective algorithms for the flowshop scheduling problem. *Inform Journal of Computing*, 20(3):451–471, Summer 2008.
- [4356] Gerardo Minella, Ruben Ruiz, and Michele Ciavotta. Restarted Iterated Pareto Greedy algorithm for multi-objective flowshop scheduling problems. *Computers & Operations Research*, 38(11):1521–1533, November 2011.
- [4357] M.R. Minhas and S.M. Sait. A parallel tabu search algorithm for optimizing multiobjective VLSI placement. *Computational Science and Its Applications - ICCSA 2005. International Conference. Proceedings, Part IV (Lecture Notes in Computer Science Vol. 3483)*, 3483:587–595, 2005.
- [4358] E.A. Minisci and G. Avanzini. Orbit Transfer Manoeuvres as a Test Benchmark for Comparison Metrics of Evolutionary Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 350–357, Trondheim, Norway, May 2009. IEEE Press.
- [4359] Edmondo Minisci and Massimiliano Vasile. Robust Design of a Re-Entry Unmanned Space Vehicle by Multi-Fidelity Evolution Control. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 689–696, Dublin, Ireland, July 12-16 2011. ACM Press.
- [4360] Fernanda L. Minku and Teresa B. Ludermit. EFuNN Ensembles Construction Using a Clustering Method and a Coevolutionary Multi-objective Genetic Algorithm. In Irwin King, Jun Wang, Laiwan Chan, and DeLiang L. Wang, editors, *Neural Information Processing. 13th International Conference (ICONIP 2006)*, pages 884–891. Springer, Lecture Notes in Computer Science, Vol. 4234, Hong Kong, China, October 3-6 2006. ISBN 3-540-46484-0.
- [4361] Gara Miranda, Jesica de Armas, Carlos Segura, and Coromoto Leon. Hyperheuristic codification for the multi-objective 2D Guillotine Strip Packing Problem. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2883–2890, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4362] Matteo Miraz, Pier Luca Lanzi, and Luciano Baresi. TestFul: using a Hybrid Evolutionary Algorithm for Testing Stateful Systems. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1947–1948, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.

- [4363] Seyed Mohammed Mirghorbani, Masoud Rabbani, Reza Tavakkoli-Moghaddam, and Alireza R. Rahimi-Vahed. A Multi-Objective Particle Swarm for a Mixed-Model Assembly Line Sequencing. In Karl Heinz Waldmann and Ulrike M. Stocker, editors, *Operations Research Proceedings 2006*, pages 181–186, Saarbücken, Germany, 2007. Springer.
- [4364] S.K. Mirrazavi, D.F. Jones, and M. Tamiz. A comparison of genetic and conventional methods for the solution of integer goal programmes. *European Journal of Operational Research*, 132(3):594–602, August 2001.
- [4365] S.K. Mirrazavi, D.F. Jones, and M. Tamiz. MultiGen: an integrated multiple-objective solution system. *Decision Support Systems*, 36(2):177–187, October 2003.
- [4366] S.K. Mirrazavi, S.J. Mardle, and M. Tamiz. A two-phase multiple objective approach to university timetabling utilising optimisation and evolutionary solution methodologies. *Journal of the Operational Research Society*, 54(11):1155–1166, November 2003.
- [4367] B. Mirzaei, M. Moallem, V. Tahani, and C. Lucas. Multiobjective Optimization Method Based on a Genetic Algorithm for Switched Reluctance Motor Design. *IEEE Transactions on Magnetics*, 38(3):1524–1527, May 2002.
- [4368] K. K. Mishra, Brajesh Kumar Singh, Akash Punhani, and Lavkush Sharma. Optimizing Melting Rate and Fuel Consumption of Rotary Furnace Using NSGA-II. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3784–3788, Hong Kong, June 2008. IEEE Service Center.
- [4369] Sudhansu Kumar Mishra, Ganapati Panda, Sukadev Meher, and Ritanjali Majhi. Multiobjective Evolutionary Algorithms for Financial Portfolio Design. In *International Joint Conference on Information and Communication Technology (IJICT-2010)*, Bhubaneswar, India, January 9-10 2010. Interscience Institute of Management & Technology.
- [4370] George G. Mitchell, Diarmuid O'Donoghue, and Adrian Trenaman. A New Operator for Efficient Evolutionary Solutions to the Travelling Salesman Problem. In *IASTED. Applied Informatics*, pages 98–103, Innsbruck, Austria, 2000.
- [4371] K. Mitra, Kalyanmoy Deb, and Santosh K. Gupta. Multiobjective Dynamic Optimization of an Industrial Nylon 6 Semibatch Reactor Using Genetic Algorithm. *Journal of Applied Polymer Science*, 69(1):69–87, 1998.
- [4372] K. Mitra and R. Gopinath. Multiobjective Optimization of an Industrial Grinding Operation Using Elitist Nondominated Sorting Genetic Algorithm. *Chemical Engineering Science*, 59(2):385–396, 2004.
- [4373] K. Mitra, S. Majumdar, and S. Raha. Multiobjective Dynamic Optimization of Epoxy Polymerization Process. *Computers and Chemical Engineering*, 28(12):2583–2594, 2004.

- [4374] K. Mitra, S. Majumdar, and S. Raha. Multiobjective optimization of a semi-batch epoxy polymerization process using the elitist genetic algorithm. *Industrial & Engineering Chemistry Research*, 43(19):6055–6063, September 2004.
- [4375] Kishalay Mitra. Multiobjective optimization of an industrial grinding operation under uncertainty. *Chemical Engineering Science*, 64(23):5043–5056, December 1 2009.
- [4376] Kishalay Mitra. Handling Uncertainty in Kinetic Parameters in Optimal Operation of a Polymerization Reactor. *Materials and Manufacturing Processes*, 26(3):446–454, 2011.
- [4377] Kishalay Mitra and Sudipto Ghosh. Unveiling Salient Operating Principles for Reducing Meniscus Level Fluctuation in an Industrial Thin Slab Caster Using Evolutionary Multicriteria Pareto Optimization. *Materials and Manufacturing Processes*, 24(1):88–99, January 2009.
- [4378] Kishalay Mitra and Saptarishi Majumdar. Multicriteria Optimal Control of Polypropylene Terephthalate Polymerization Reactor. *Materials and Manufacturing Processes*, 22(5):532–540, 2007.
- [4379] Kishalay Mitra and Sushanta Majumder. Successive approximate model based multi-objective optimization for an industrial straight grate iron ore induration process using evolutionary algorithm. *Chemical Engineering Science*, 66(15):3471–3481, August 1 2011.
- [4380] Kishalay Mitra, Sushanta Majumder, and Venkataramana Runkana. Multiobjective Pareto Optimization of an Industrial Straight Grate Iron Ore Induration Process Using an Evolutionary Algorithm. *Materials and Manufacturing Processes*, 24(3):331–342, March 2009.
- [4381] Pinaki Mitra and Ganesh Kumar Venayagamoorthy. Implementation of an Intelligent Reconfiguration Algorithm for an Electric Ship’s Power System. *IEEE Transactions on Industry Applications*, 47(5):2292–2300, September-October 2011.
- [4382] Ramkrishna Mitra and Sanghamitra Bandyopadhyay. MultiMiTar: A Novel Multi Objective Optimization based miRNA-Target Prediction Method. *Plos One*, 6(9), September 15 2011. Article Number: e24583.
- [4383] Sushmita Mitra and Haider Banka. Multi-objective evolutionary biclustering of gene expression data. *Pattern Recognition*, 39(12):2464–2477, December 2006.
- [4384] Sushmita Mitra, Ranajit Das, Haider Banka, and Subhasis Mukhopadhyay. Gene interaction - An evolutionary biclustering approach. *Information Fusion*, 10(3):242–249, July 2009.

- [4385] Hajime Kita Mitsuhiro Shibuya and Shigenobu Kobayashi. Integration of multi-objective and interactive genetic algorithms and its application to animation design. In *Proceedings of IEEE Systems, Man, and Cybernetics*, volume III, pages 646–651, 1999.
- [4386] Shashi Mittal and Kalyanmoy Deb. Three-Dimensional Offline Path Planning for UAVs Using Multiobjective Evolutionary Algorithms. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3195–3202, Singapore, September 2007. IEEE Press.
- [4387] Shashi Mittal and Kalyanmoy Deb. Optimal Strategies of the Iterated Prisoner's Dilemma Problem for Multiple Conflicting Objectives. *IEEE Transactions on Evolutionary Computation*, 13(3):554–565, July 2009.
- [4388] Tomoyuki Miyamoto, So Noguchi, and Hideo Yamashita. Selection of an optimal solution for multiobjective electromagnetic apparatus design based on Game Theory. *IEEE Transactions on Magnetics*, 44(6):1026–1029, June 2008.
- [4389] Susanna Mocci. *Modelli e Algoritmi Multiobiettivo Per La Pianificazione Delle Reti Attive Di Distribuzione*. PhD thesis, Dipartimento di Ingegneria Elettrica ed Elettronica, Università Degli Studi di Cagliari, Italy, February 2005. (In Italian).
- [4390] A. Moeini, H. Yassami, M. Banejad, M. Owladi, A. Bagheri, and M. Ghadiri. Flexible Distributed Generation Planning in Distribution Systems Considering the Plans Assessment. *International Review of Electrical Engineering-IREE*, 5(6):2737–2744, November - December 2010.
- [4391] Hans J.F. Moen and Harald Hovland. Spanning the Pareto Front of a Counter Radar Detection Problem. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1835–1841, Dublin, Ireland, July 12-16 2011. ACM Press.
- [4392] Amir Hassan Moghadasi, Hossein Heydari, and Mustafa Farhadi. Pareto Optimality for the Design of SMES Solenoid Coils Verified by Magnetic Field Analysis. *IEEE Transactions on Applied Superconductivity*, 21(1):13–20, February 2011.
- [4393] Amjad Anvari Moghaddam, Alireza Seifi, and Taher Niknam. Multi-operation management of a typical micro-grids using Particle Swarm Optimization: A comparative study. *Renewable & Sustainable Energy Reviews*, 16(2):1268–1281, February 2012.
- [4394] Amjad Anvari Moghaddam, Alireza Seifi, Taher Niknam, and Mohammad Reza Alizadeh Pahlavani. Multi-objective operation management of a renewable MG (micro-grid) with back-up micro-turbine/fuel cell/battery hybrid power source. *Energy*, 36(11):6490–6507, November 2011.

- [4395] Atefeh Moghaddam, Farouk Yalaoui, and Lionel Amodeo. Lorenz versus Pareto Dominance in a Single Machine Scheduling Problem with Rejection. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 520–534, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4396] F. A. Mohamed and H. N. Koivo. Multiobjective Genetic Algorithms for On-line Management Problem of Microgrid. *International Review of Electrical Engineering-IREE*, 3(1):46–54, January-February 2008.
- [4397] Wahed Mohamed, Ibrahim Wesam, and Effat Ahmed. Finding an optimization of the plate element of Egyptian research reactor using genetic algorithm. *Nuclear Science and Techniques*, 19(5):314–320, October 20 2008.
- [4398] F. A. Mohammed and H.N. Kolvo. Multiobjective Genetic Algorithms for Online Management Problem of Microgrid. *International Review of Electrical Engineering-IREE*, 3(1):46–54, January-February 2009.
- [4399] O. A. Mohammed and G. F. Üler. Genetic Algorithms for the Optimal Design of Electromagnetic Devices. In *Conference on the Annual Review of Progress in Applied Computational Electromagnetics*, volume 11, pages 386–393, 1995.
- [4400] Chilukuri K. Mohan and Kishan G. Mehrotra. Reference Set Metrics for Multi-Objective Algorithms. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 723–730, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [4401] Debashis Mohanty, Arnab Chandra, and Nirupam Chakraborti. Genetic algorithms based multi-objective optimization of an iron making rotary kiln. *Computational Materials Science*, 45(1):181–188, March 2009.
- [4402] Itishree Mohanty, Debashish Bhattacharjee, and Shubhabrata Datta. Designing cold rolled IF steel sheets with optimized tensile properties using ANN and GA. *Computational Materials Science*, 50(8):2331–2337, June 2011.
- [4403] D. Mokeddem and A. Khellaf. Multicriteria Optimization of Multiproduct Batch Chemical Process Using Genetic Algorithm. *Journal of Food Process Engineering*, 33(6):979–991, December 2010.
- [4404] D. Mokeddem and A. Khellaf. Optimal feeding profile in fed-batch bioreactors using a genetic algorithm. *International Journal of Production Research*, 48(20):6125–6135, 2010.
- [4405] D. Mokeddem and A. Khellaf. Tuning of a Proportional-Integral-Derivative Controller Using a Multiobjective Genetic Algorithm Nondominated Sorting

- Genetic Algorithm-II Applied to a pH Process. *Journal of Food Process Engineering*, 33:253–267, February 2010.
- [4406] D. Mokeddem and A. Khellaf. Optimal feeding profile for a fuzzy logic controller in a bioreactors using genetic algorithm. *Nonlinear Dynamics*, 67(4):2835–2845, March 2012.
 - [4407] Diab Mokeddem and Abdelhafid Khellaf. Optimal Solutions of Multiproduct Batch Chemical Process Using Multiobjective Genetic Algorithm with Expert Decision System. *Journal of Automated Methods & Management in Chemistry*, 2009(927426), 2009.
 - [4408] E. E. Mokotoff. Multi-objective Simulated Annealing for Permutation Flow Shop Problems. In Uday K. Chakraborty, editor, *Computational Intelligence in Flow Shop and Job Shop Scheduling*, Studies in Computational Intelligence (SCI), pages 101–150. Springer, Berlin, 2009. ISBN 978-3-642-02835-9.
 - [4409] Ethel Mokotoff. Algorithms for Bicriteria Minimization in the Permutation Flow Shop Scheduling Problem. *Journal of Industrial and Management Optimization*, 7(1):253–282, February 2011.
 - [4410] Guillermo Molina, Enrique Alba, and El-Ghazali Talbi. Optimal Sensor Network Layout Using Multi-Objective Metaheuristics. *Journal of Universal Computer Science*, 14(15):2549–2565, 2008.
 - [4411] Guillermo Molina, Francisco Luna, Antonio J. Nebro, and Enrique Alba. An efficient local improvement operator for the multi-objective wireless sensor network deployment problem. *Engineering Optimization*, 43(10):1115–1139, 2011.
 - [4412] Julian Molina, Manuel Laguna, Rafael Martí, and Rafael Caballero. SSPMO: A Scatter Tabu Search Procedure for Non-Linear Multiobjective Optimization. *INFORMS Journal on Computing*, 19(1):91–100, January 2007.
 - [4413] Julián Molina, Luis V. Santana, Alfredo G. Hernández-Díaz, Carlos A. Coello Coello, and Rafael Caballero. g-dominance: Reference point based dominance for MultiObjective Metaheuristics. *European Journal of Operational Research*, 197(2):685–692, September 2009.
 - [4414] A. Molina-Cristobal, I. A. Griffin, P. J. Fleming, and D. H. Owens. Linear matrix inequalities and evolutionary optimization in multiobjective control. *International Journal of Systems Science*, 37(8):513–522, June 20 2006.
 - [4415] A. Molina-Cristobal, I.A. Griffin, P.J. Fleming, and D.H. Owens. Multiobjective Control: A Comparative Study of a Multiobjective Genetic Algorithm and Linear Matrix Inequalities. In *Proceedings of the Sixth Portuguese Conference on Automatic Control, CONTROLO 2004*, Faro, Portugal, June 2004.

- [4416] A. Molina-Cristobal, I.A. Griffin, P.J. Fleming, and D.H. Owens. Multiobjective Controller Design: Optimising Controller Structure with Genetic Algorithms. In *Proceedings of the 2005 IFAC World Congress on Automatic Control*, Prague, Czech Republic, July 2005.
- [4417] A. Molina-Cristobal, C. Papageorgiou, G.T. Parks, M.C. Smith, and P.J. Clarkson. Multi-objective Controller Design: Evolutionary Algorithms and Bilinear Matrix Inequalities for a Passive Suspension. In *Proceedings of the 13th IFAC Workshop on Control Applications of Optimisation*, pages 386–391, Paris-Cachan, France, April 2006.
- [4418] Arturo Molina Cristóbal. *Multiobjective Control: Linear Matrix Inequality Techniques and Genetic Algorithms Approach*. PhD thesis, Department of Automatic Control and Systems Engineering. The University of Sheffield, Sheffield, UK, April 2005.
- [4419] MM Mollah and T Yahagi. Estimation of 2-D noncausal AR parameters for image restoration using genetic algorithm. *IEICE Transactions On Fundamentals Of Electronics Communications And Computer Sciences*, E81A(8):1676–1682, August 1998.
- [4420] A. Molyneaux, G. Leyland, and D. Favrat. Environomic multi-objective optimisation of a district heating network considering centralized and decentralized heat pumps. *Energy*, 35(2):751–758, February 2010.
- [4421] A.K. Molyneaux, G.B. Leyland, and D.Favrat. A New, Clustering Evolutionary Multi-Objective Optimisation Technique. In *Proceedings of the Third International Symposium on Adaptive Systems—Evolutionary Computation and Probabilistic Graphical Models*, pages 41–47, Havana, Cuba, March 19–23 2001. Institute of Cybernetics, Mathematics and Physics.
- [4422] Luis A. Moncayo Martinez and David Z. Zhang. Multi-objective ant colony optimisation: A meta-heuristic approach to supply chain design. *International Journal of Production Economics*, 131(1):407–420, May 2011.
- [4423] Debanga Nandan Mondal, Kadambini Sarangi, Frank Pettersson, Prodip Kumar Sen, Henrik Saxen, and Nirupam Chakraborti. Cu-Zn separation by supported liquid membrane analyzed through Multi-objective Genetic Algorithms. *Hydrometallurgy*, 107(3-4):112–123, May 2011.
- [4424] M. Davoodi Monfared, A. Mohades, and J. Rezaei. Convex hull ranking algorithm for multi-objective evolutionary algorithms. *Scientia Iranica*, 18(6):1435–1442, December 2011.
- [4425] D. Mongus, B. Repnik, M. Mernik, and B. Zalik. A hybrid evolutionary algorithm for tuning a cloth-simulation model. *Applied Soft Computing*, 12(1):266–273, January 2012.

- [4426] Idel Montalvo, Joaquin Izquierdo, Silvia Schwarze, and Rafael Perez-Garcia. Multi-objective particle swarm optimization applied to water distribution systems design: An approach with human interaction. *Mathematical and Computer Modelling*, 52(7-8):1219–1227, October 2010.
- [4427] David Montana, Garrett Bidwell, Gordon Vidaver, and Jose Herrero. Scheduling and Route Selection for Military Land Moves Using Genetic Algorithms. In *1999 Congress on Evolutionary Computation*, volume 2, pages 1118–1123, Washington, D.C., July 1999. IEEE Service Center.
- [4428] David Montana, Marshall Brinn, Sean Moore, and Garrett Bidwell. Genetic Algorithms for Complex, Real-Time Scheduling. In *Proceedings of the 1998 IEEE International Conference on Systems, Man, and Cybernetics*, pages 2213–2218, La Jolla, California, October 1998. IEEE.
- [4429] David Montana and Jason Radi. Optimizing Parameters of a Mobile Ad Hoc Network Protocol with a Genetic Algorithm. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1993–1998, New York, USA, June 2005. ACM Press.
- [4430] Sílvia M. D. Monteiro, Elizabeth F. G. Goldberg, and Marco C. Goldberg. A New Transgenetic Approach for the Biobjective Spanning Tree Problem. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 519–526, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4431] Sílvia M.D. Monteiro, Elizabeth F.G. Goldberg, and Marco C. Goldberg. A Plasmid Based Transgenetic Algorithm for the Biobjective Minimum Spanning Tree Problem. In Carlos Cotta and Peter Cowling, editors, *Evolutionary Computation in Combinatorial Optimization. 9th European Conference, EvoCOP 2009*, pages 49–60. Springer. Lecture Notes in Computer Science, Vol. 5482, Tübingen, Germany, April 2009.
- [4432] James Montgomery and Marcus Randall. Anti-pheromone as a Tool for Better Exploration of Search Space. In Marco Dorigo, Gianni Di Caro, and Michael Sampels, editors, *Ant Algorithms. Proceedings of the Third International Workshop, ANTS 2002*, pages 100–110, Brussels, Belgium, September 2002. Springer. Lecture Notes in Computer Science, Vol. 2463.
- [4433] James Montgomery, Marcus Randall, and Andrew Lewis. Differential Evolution for RFID Antenna Design A Comparison with Ant Colony Optimisation. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 673–680, Dublin, Ireland, July 12–16 2011. ACM Press.
- [4434] Gilberto Montibeller and Hugo Yoshizaki. A Framework for Locating Logistic Facilities with Multi-Criteria Decision Analysis. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 505–519, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.

- [4435] Jerzy Montusiewicz. Ranking pareto optimal solutions in genetic algorithm by using the undifferentiation interval method. In Tadeusz Burczyński and Andrzej Osyczka, editors, *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 265–276. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
- [4436] Chiung Moon, Yin-Zhen Lin, and Mitsuo Gen. Evolutionary Algorithm for Flexible Process Sequencing with Multiple Objectives. In David B. Fogel, editor, *Proceedings of the 1998 International Conference on Evolutionary Computation*, pages 27–32, Piscataway, New Jersey, 1998. IEEE.
- [4437] Mi-Ae Moon, Afzal Husain, and Kwang-Yong Kim. Multi-objective optimization of a rotating cooling channel with staggered pin-fins for heat transfer augmentation. *International Journal for Numerical Methods in Fluids*, 68(7):922–938, March 10 2012.
- [4438] Jacqueline Moore and Richard Chapman. Application of Particle Swarm to Multiobjective Optimization. Department of Computer Science and Software Engineering, Auburn University. (Unpublished manuscript), 1999.
- [4439] Jacqueline Moore, Richard Chapman, and Gerry Dozier. Multiobjective Particle Swarm Optimization. In A. Joe Turner, editor, *Proceedings of the 38th Annual Southeast Regional Conference, 2000*, pages 56–57, Clemson, South Carolina, USA, April 7-8 2000. ACM Press.
- [4440] Jason H. Moore and Bill C. White. Genome-wide genetic analysis using genetic programming: The critical need for expert knowledge. In Rick Riolo, Terence Soule, and Bill Worzel, editors, *Genetic Programming Theory and Practice IV*, pages 11–28. Springer, New York, USA, 2007.
- [4441] A. M. Mora, J. J. Merelo, P. A. Castillo, J. L. J. Laredo, and C. Cotta. Influence of Parameters on the Performance of a MOACO Algorithm for Solving the Bi-Criteria Military Path-Finding Problem. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3506–3513, Hong Kong, June 2008. IEEE Service Center.
- [4442] A. M. Mora, J. J. Merelo, J. L. J. Laredo, C. Millan, and J. Torrecillas. CHAC, AMOACO Algorithm for Computation of Bi-Criteria Military Unit Path in the Battlefield: Presentation and First Results. *International Journal of Intelligent Systems*, 24(7):818–843, July 2009.
- [4443] A. M. Mora, J. J. Merelo, C. Millan, J. Torrecillas, J.L.J. Laredo, and P.A. Castillo. Enhancing a MOACO for Solving the Bi-criteria Pathfinding Problem for a Military Unit in a Realistic Battlefield. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2007: EvoCOMNET, EvoFIN, EvoIASP, EvoINTERACTION, EvoMUSART, EvoSTOC and EvoTRANSLOG*, pages 712–721, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4448.

- [4444] A.M. Mora, J.J. Merelo, J.L.J. Laredo, P.A. Castillo, P.G. Sánchez, J.P. Sevilla, C. Millán, and J. Torrecillas. hCHAC-4, an ACO Algorithm for Solving the Four-Criteria Military Path-finding Problem. In Natalio Krasnogor, Giuseppe Nicosia, Mario Pavone, and David Pelta, editors, *Nature Inspired Cooperative Strategies for Optimization*, pages 73–84. Springer, Berlin, 2008. ISBN 978-3-540-78986-4.
- [4445] A.M. Mora, J.J. Merelo, C. Millan, J. Torrecillas, and J.L.J. Laredo. CHAC. A MOACO Algorithm for Computation of Bi-Criteria Military Unit Path in the Battlefield. In D.A. Pelta and N. Krasnogor, editors, *Proceedings of the First Workshop in Nature Inspired Cooperative Strategies for Optimization (NICSO'06)*, pages 85–96, Granada, Spain, June 2006.
- [4446] Antonio Miguel Mora, Juan Julián Merelo Guervós, Cristian Millán, Juan Torrecillas, Juan Luís Jiménez Laredo, and Pedro A. Castillo Valdivieso. Comparing ACO Algorithms for Solving the Bi-criteria Military Path-Finding Problem. In Fernando Almeida e Costa, Luis Mateus Rocha, Ernesto Costa, Inman Harvey, and António Coutinho, editors, *Advances in Artificial Life. 9th European Conference (ECAL'2007)*, pages 665–674. Springer, Lecture Notes in Computer Science, Vol. 4648, Lisbon, Portugal, September 10-14 2007. ISBN 978-3-540-74912-7.
- [4447] Antonio Miguel Mora García. *Resolución del Problema Militar de Búsqueda de Camino Óptimo Multiobjetivo Mediante el Uso de Algoritmos de Optimización Basados en Colonias de Hormigas*. PhD thesis, Departamento de Arquitectura y Tecnología de Computadores, Universidad de Granada, Spain, March 2009. (In Spanish).
- [4448] E. Moradi, S.M.T. Fatemi Ghomi, and M. Zandieh. Bi-Objective Optimization Research on Integrated Fixed Time Interval Preventive Maintenance and Production for Scheduling Flexible Job-Shop Problem. *Expert Systems with Applications*, 38(6):7169–7178, June 2011.
- [4449] H. Moradi, M. Zandieh, and Iraj Mahdavi. Non-dominated ranked genetic algorithm for a multi-objective mixed-model assembly line sequencing problem. *International Journal of Production Research*, 49(12):3479–3499, 2011.
- [4450] M. Davis Moradkhan and Will N. Browne. A Knowledge-Based Evolution Strategy for the Multi-Objective Minimum Spanning Tree Problem. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 5540–5547, Vancouver, BC, Canada, July 2006. IEEE.
- [4451] Ramon J. Moral and George S. Dulikravich. Multi-objective hybrid, evolutionary optimization with automatic switching among constituent algorithms. *AIAA Journal*, 46(3):673–681, March 2008.
- [4452] Hiroyuki Mori and Yoshinori Yamada. An efficient Multi-objective Meta-heuristic Method for Distribution Network Expansion Planning. In *2007 IEEE*

- Lausanne Power Tech*, pages 374–379, Lausanne, Switzerland, July 2007. IEEE Computer Society.
- [4453] Naoki Mori, Junji Yoshida, Hisashi Tamaki, Hajime Kita, and Yoshikazu Nishikawa. Thermodynamical Selection Rule for the Genetic Algorithm. In David B. Fogel, editor, *Proceedings of the Second IEEE Conference on Evolutionary Computation*, pages 188–192, Piscataway, New Jersey, 1995. IEEE Service Center.
 - [4454] Katharina Morik, Andreas Kaspari, Michael Wurst, and Marcin Skrzynski. Multi-objective frequent termset clustering. *Knowledge and Information Systems*, 30(3):715–738, March 2012.
 - [4455] Hiroyuki Morita, Xavier Gandibleux, and Naoki Katoh. Experimental feedback on biobjective permutation scheduling problems solved with a population heuristic. *Foundations of Computing and Decision Sciences*, 26(1):23–50, 2001.
 - [4456] M. Morita, R. Sabourin, F. Bortolozzi, and C.Y. Suen. Unsupervised Feature Selection Using Multi-Objective Genetic Algorithm for Handwritten Word Recognition. In *Proceedings of the 7th International Conference on Document Analysis and Recognition (ICDAR’2003)*, pages 666–670, Edinburgh, Scotland, August 2003.
 - [4457] Marisa Emika Morita. *Automatic Recognition of Handwritten Dates on Brazilian Bank Cheques*. PhD thesis, École de Technologie Supérieure, Université du Québec, Montreal, Canada, June 2003.
 - [4458] Irene Moser and James Montgomery. Population-ACO for the Automotive Deployment Problem. In *2011 Genetic and Evolutionary Computation Conference (GECCO’2011)*, pages 777–784, Dublin, Ireland, July 12–16 2011. ACM Press.
 - [4459] Irene Moser and Sanaz Mostaghim. The automotive deployment problem: A practical application for constrained multiobjective evolutionary optimisation. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 4272–4279, Barcelona, Spain, July 18–23 2010. IEEE Press.
 - [4460] Amiram Moshaiov. Multi-competence Cybernetics: The Study of Multiobjective Artificial Systems and Multi-fitness Natural Systems. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 285–304. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
 - [4461] Amiram Moshaiov and Ariela AshramWittenberg. Multi-objective Evolution of Robot Neuro-Controllers. In *2009 IEEE Congress on Evolutionary Computation (CEC’2009)*, pages 1093–1100, Trondheim, Norway, May 2009. IEEE Press.

- [4462] Amiram Moshaiov and Gideon Avigad. Concept-based IEC for Multi-objective Search with Robustness to Human Preference Uncertainty. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6784–6791, Vancouver, BC, Canada, July 2006. IEEE.
- [4463] J. Moshtagh, A. Jalali, and K. Karimizadeh. Optimum Placement and Sizing of DG Using Binary PSO Algorithm to Achieve the Minimum Electricity Cost for Consumers. *International Review of Electrical Engineering-IREE, Part B*, 5(6):2873–2881, November–December 2010.
- [4464] Ghasem Moslehi and Mehdi Mahnam. A Pareto Approach to Multi-Objective Flexible Job-Shop Scheduling Problem Using Particle Swarm Optimization and Local Search. *International Journal of Production Economics*, 129(1):14–22, January 2011.
- [4465] H. Moslemi and M. Zandieh. Comparisons of some improving strategies on MOPSO for multi-objective (r, Q) inventory system. *Expert Systems with Applications*, 38(10):12051–12057, September 15 2011.
- [4466] David Mosnier, Frédéric Gillot, Antoine Ducloux, and Mohamed Ichchou. Integrated Pre-Design Step Methodology Based on Multi-Objective Evolutionary Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1317–1318, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [4467] S. Mostaghim, M. Hoffmann, P.H. König, Th. Frauenheim, and J. Teich. Molecular Force Field Parametrization using Multi-Objective Evolutionary Algorithms. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 212–219, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4468] Sanaz Mostaghim. *Multi-Objective Evolutionary Algorithms. Data Structures, Convergence, and Diversity*. PhD thesis, Fakultät Elektrotechnik, Informatik und Mathematik der Universität Paderborn, Paderborn, Germany, November 2004.
- [4469] Sanaz Mostaghim. Parallel Multi-objective Optimization Using Self-organized Heterogeneous Resources. In Francisco Fernández de Vega and Erick Cantú-Paz, editors, *Parallel and Distributed Computational Intelligence*, pages 165–179. Springer, Berlin, Germany, 2010.
- [4470] Sanaz Mostaghim, Jürgen Branke, and Hartmut Schmeck. Multi-Objective Particle Swarm Optimization on Computer Grids. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 869–875, London, UK, July 2007. ACM Press.
- [4471] Sanaz Mostaghim, Werner Halter, and Anja Wille. Linear Multi-Objective Particle Swarm Optimization. In Ajith Abraham, Crina Grosan, and Vitorino Ramos, editors, *Stigmergic Optimization*, pages 209–328. Springer. Studies in Computational Intelligence Vol. 31, 2006.

- [4472] Sanaz Mostaghim, Andrew Lewis Jürgen Branke, and Hartmut Schneck. Parallel Multi-Objective Optimization using Master-Slave Model on Heterogeneous Resources. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1981–1987, Hong Kong, June 2008. IEEE Service Center.
- [4473] Sanaz Mostaghim and Hartmut Schneck. Distance Based Ranking in Many-Objective Particle Swarm Optimization. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature–PPSN X*, pages 753–762. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [4474] Sanaz Mostaghim and Jürgen Teich. The Role of ε -dominance in Multi Objective Particle Swarm Optimization Methods. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1764–1771, Canberra, Australia, December 2003. IEEE Press.
- [4475] Sanaz Mostaghim and Jürgen Teich. Strategies for Finding Good Local Guides in Multi-objective Particle Swarm Optimization (MOPSO). In *2003 IEEE Swarm Intelligence Symposium Proceedings*, pages 26–33, Indianapolis, Indiana, USA, April 2003. IEEE Service Center.
- [4476] Sanaz Mostaghim and Jürgen Teich. Covering Pareto-optimal Fronts by Subswarms in Multi-objective Particle Swarm Optimization. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1404–1411, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4477] Sanaz Mostaghim and Jürgen Teich. Quad-trees: A Data Structure for Storing Pareto Sets in Multiobjective Evolutionary Algorithms with Elitism. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 81–104. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [4478] Sanaz Mostaghim, Jürgen Teich, and Ambrish Tyagi. Comparison of Data Structures for Storing Pareto-sets in MOEAs. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 843–848, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [4479] Sanaz Mostaghim, Heike Trautmann, and Olaf Mersmann. Preference-Based Multi-Objective Particle Swarm Optimization Using Desirabilities. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part II*, pages 101–110. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [4480] Noura Al Moubayed, Andrei Petrovski, and John McCall. A Novel Smart Multi-Objective Particle Swarm Optimisation Using Decomposition. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference*,

Proceedings, Part II, pages 1–10. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.

- [4481] Walid El Moudani, Carlos Alberto Nunes Cosenza, Marc de Coligny, and Félix Mora-Camino. A Bi-Criterion Approach for the Airlines Crew Rostering Problem. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 486–500. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [4482] Riad Ben Mouhoub and Omar Hammami. MOCDEX: Multiprocessor on Chip Multiobjective Design Space Exploration with Direct Execution. *EURASIP Journal on Embedded Systems*, 2006:1–14, 2006. article ID 54074.
- [4483] Christina Moulton. Hierarchical Clustering of Evolutionary Multiobjective Programming Results to Inform Land Use Planning. Master’s thesis, University of Waterloo, Waterloo, Ontario, Canada, 2007.
- [4484] Ana Moura. A Multi-Objective Genetic Algorithm for the Vehicle Routing with Time Windows and Loading Problem. In A. Bortfeldt, J. Homberger, H. Kopfer, G. Pankratz, and R. Strangmeier, editors, *Intelligent Decision Support - Current Challenges and Approaches*, pages 187–201. Gabler Edition Wissenschaft, Weisbaden, 2008.
- [4485] Ana Moura, Rui Rijo, Pedro Silva, and Sidonio Crespo. A multi-objective genetic algorithm applied to autonomous underwater vehicles for sewage outfall plume dispersion observations. *Applied Soft Computing*, 10(4):1119–1126, September 2010.
- [4486] J. B. Mouret and S. Doncieux. Encouraging Behavioral Diversity in Evolutionary Robotics: An Empirical Study. *Evolutionary Computation*, 20(1):91–133, Spring 2012.
- [4487] Jean-Baptiste Mouret. Novelty-based Multiobjectivization. In *Exploring New Horizons in Evolutionary Design of Robots*, St. Louis, Missouri, USA, October 11 2009.
- [4488] Jean-Baptiste Mouret and Stéphane Doncieux. Incremental Evolution of Animats’ Behaviors as a Multi-objective Optimization. In Minoru Asada, John C. T. Hallam, Jean-Arcady Meyer, and Jun Tani, editors, *From Animals to Animats 10, 10th International Conference on Simulation of Adaptive Behavior (SAB 2008)*, pages 210–219. Springer, Lecture Notes in Computer Science, Vol. 5040, Osaka, Japan, July 7-12 2008. ISBN 978-3-540-69133-4.
- [4489] Jean-Baptiste Mouret and Stéphane Doncieux. Overcoming the bootstrap problem in evolutionary robotics using behavioral diversity. In *2009 IEEE Congress on Evolutionary Computation (CEC’2009)*, pages 1161–1168, Trondheim, Norway, May 2009. IEEE Press.

- [4490] Jean-Baptiste Mouret and Stéphane Doncieux. Using behavioral exploration objectives to solve deceptive problems in neuro-evolution. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 627–634, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4491] Jean-Baptiste Mouret and Stéphane Doncieux. Sferes_{v2}: Evolv' in the Multi-Core World. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4079–4086, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4492] Monjur Mourshed, Shariful Shikder, and Andrew D. F. Price. Phi-array: A novel method for fitness visualization and decision making in evolutionary design optimization. *Advanced Engineering Informatics*, 25(4):676–687, October 2011.
- [4493] A.A. Mousa, Wael F. Abd El-Wahed, and R.M. Rizk-Allaha. A Hybrid Ant Colony Optimization Approach Based Local Search Scheme for Multiobjective Design Optimizations. *Electric Power Systems Research*, 81(4):1014–1023, April 2011.
- [4494] Shengjing Mu, Hongye Su, Tao Jia, Yong Gu, and Jian Chu. Scalable multi-objective optimization of industrial purified terephthalic acid (PTA) oxidation process. *Computers & Chemical Engineering*, 28(11):2219–2231, October 2004.
- [4495] S.J. Mu, H.Y. Su, Y. Gu, and J. Chu. Multi-objective optimization of industrial purified terephthalic acid oxidation process. *Chinese Journal of Chemical Engineering*, 11(5):536–541, October 2003.
- [4496] Yue Mu, Guoqun Zhao, Xianghong Wu, and Chengrui Zhang. An optimization strategy for die design in the low-density polyethylene annular extrusion process based on FES/BPNN/NSGA-II. *International Journal Of Advanced Manufacturing Technology*, 50(5-8):517–532, September 2010.
- [4497] Angel E. Muñoz Zavala, Enrique R. Villa Diharce, and Arturo Hernández Aguirre. Particle Evolutionary Swarm for Design Reliability Optimization. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 856–869, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4498] Annette Muetze. A neglected stepchild. *IEEE Industry Applications Magazine*, 14(2):14–22, March-April 2008.
- [4499] Amitabha Mukerjee, Rita Biswas, Kalyanmoy Deb, and Amrit P. Mathur. Multi-objective evolutionary algorithms for the risk-return trade-off in bank-load management. *International Transactions in Operational Research*, 9(5):583–597, September 2002.

- [4500] Amitabha Mukerjee and Madan Mohan Dabbeeru. Multi-objective functional analysis for product portfolio optimization. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 96–103, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [4501] Anirban Mukhopadhyay, Sanghamitra Bandyopadhyay, and Ujjwal Maulik. Combining Multiobjective Fuzzy Clustering and Probabilistic ANN Classifier for Unsupervised Pattern Classification: Application to Satellite Image Segmentation. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 877–883, Hong Kong, June 2008. IEEE Service Center.
- [4502] Anirban Mukhopadhyay, Sanghamitra Bandyopadhyay, and Ujjwal Maulik. Analysis of Microarray Data using Multiobjective Variable String Length Genetic Fuzzy Clustering. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1313–1319, Trondheim, Norway, May 2009. IEEE Press.
- [4503] Anirban Mukhopadhyay and Ujjwal Maulik. Multiobjective Approach to Categorical Data Clustering. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1296–1303, Singapore, September 2007. IEEE Press.
- [4504] Anirban Mukhopadhyay and Ujjwal Maulik. Unsupervised Pixel Classification in Satellite Imagery Using Multiobjective Fuzzy Clustering Combined With SVM Classifier. *IEEE Transactions on Geoscience and Remote Sensing*, 47(4):1132–1138, April 2009.
- [4505] Anirban Mukhopadhyay, Ujjwal Maulik, and Sanghamitra Bandyopadhyay. Improving Multi-objective Clustering Through Support Vector Machine: Application to Gene Expression Data. In IEEE Press, editor, *IEEE Region 10 Conference TENCN 2008 (TENCN'08)*, pages 1–6. IEEE Press, November 19-21 2008. ISBN 978-1-4244-2408-5.
- [4506] Anirban Mukhopadhyay, Ujjwal Maulik, and Sanghamitra Bandyopadhyay. Multiobjective Genetic Clustering with Ensemble Among Pareto Front Solutions: Application to MRI Brain Image Segmentation. In *2009 Seventh International Conference on Advances in Pattern Recognition (ICAPR '09)*, pages 236–239, Los Alamitos, CA, USA, February 4-6 2009. IEEE Computer Society Press.
- [4507] Anirban Mukhopadhyay, Ujjwal Maulik, and Sanghamitra Bandyopadhyay. Unsupervised Cancer Classification through SVM-Boosted Multiobjective Fuzzy Clustering with Majority Voting Ensemble. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 255–261, Trondheim, Norway, May 2009. IEEE Press.
- [4508] Anirban Mukhopadhyay, Ujjwal Maulik, and Sanghamitra Bandyopadhyay. Simultaneous informative gene selection and clustering through multiobjective optimization. In *2010 IEEE Congress on Evolutionary Computation*

- (CEC'2010), pages 4110–4117, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4509] Anirban Mukhopadhyay, Ujjwal Maulik, and Shanghamitra Bandyopadhyay. Multiobjective Genetic Algorithm-Based Fuzzy Clustering of Categorical Attributes. *IEEE Transactions on Evolutionary Computation*, 13(5):991–1005, October 2009.
 - [4510] Misgana K. Muleta. *A Decision Support System for the Management of Non-Point Source Pollution from Watersheds*. PhD thesis, College of Engineering, Southern Illinois University Carbondale, February 2003.
 - [4511] Silla Mullei and Peter Beling. Hybrid Evolutionary Algorithms for a Multi-objective Financial Problem. In *Proceedings of the 1998 IEEE International Conference on Systems, Man, and Cybernetics*, volume 4, pages 3925–3930. IEEE, October 1998.
 - [4512] H. Müller, D. Biermann, P. Kersting, T. Michelitsch, C. Begau, C. Heuel, R. Joliet, J. Kolanski, M. Kröller, C. Moritz, D. Niggemann, M. Stöber, T. Stönnner, J. Varwig, and D. Zhai. Intuitive Visualization and Interactive Analysis of Pareto Sets Applied on Production Engineering Systems. In Ang Yang, Yin Shan, and Lam Thu Bui, editors, *Success in Evolutionary Computation*, pages 189–214. Springer. Studies in Computational Intelligence Vol. 92, 2008.
 - [4513] Juliane Muller. Approximate solutions to the bicriterion Vehicle Routing Problem with Time Windows. *European Journal of Operational Research*, 202(1):223–231, April 1 2010.
 - [4514] Sibylle D. Müller, Ivo F. Sbalzarini, Jens H. Walther, and Petros D. Koumoutsakos. Evolution Strategies for the Optimization of Microdevices. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 302–309, Piscataway, New Jersey, May 2001. IEEE Service Center.
 - [4515] Christine Mumford. A Hierarchical Solve-and-Merge Framework for Multi-Objective Optimization. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2241–2247, Edinburgh, Scotland, September 2005. IEEE Service Center.
 - [4516] Christine L. Mumford. Comparing Representations and Recombination Operators for the Multi-Objective 0/1 Knapsack Problem. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 854–861, Canberra, Australia, December 2003. IEEE Press.
 - [4517] Christine L. Mumford. A Hierarchical Evolutionary Approach to Multi-Objective Optimization. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1944–1951, Portland, Oregon, USA, June 2004. IEEE Service Center.

- [4518] Christine L. Mumford. Simple Population Replacement Strategies for a Steady-State Multi-objective Evolutionary Algorithm. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 1389–1400, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [4519] Christine L. Mumford. A Simple Approach to Evolutionary Multiobjective Optimization. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 55–79. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [4520] Sungyong Mun. Effect of a partial-feeding application on product purities and throughput of a five-zone simulated moving bed process for the separation of a ternary nucleoside mixture. *Process Biochemistry*, 46(4):977–986, April 2011.
- [4521] Rafael Munoz-Salinas, Eugenio Aguirre, Oscar Cordon, and Miguel Garcia-Silvente. Automatic tuning of a fuzzy visual system using evolutionary-algorithms: Single-objective versus multiobjective approaches. *IEEE Transactions on Fuzzy Systems*, 16(2):485–501, April 2008.
- [4522] Adernar Muraro, Jr., Angelo Passaro, Nancy Mieke Abe, Airam Jonatas Preto, and Stephen Stephany. Design of electrooptic modulators using a multi-objective optimization approach. *Journal of Lightwave Technology*, 26(13–16):2969–2976, July–August 2008.
- [4523] Tadahiko Murata. *Genetic Algorithms for Multi-Objective Optimization*. PhD thesis, Osaka Prefecture University, Japan, 1997.
- [4524] Tadahiko Murata and Hisao Ishibuchi. MOGA: Multi-Objective Genetic Algorithms. In *Proceedings of the 2nd IEEE International Conference on Evolutionary Computing*, pages 289–294, Perth, Australia, November 1995.
- [4525] Tadahiko Murata and Hisao Ishibuchi. Application of Two-Objective Genetic Algorithm to Flowshop Scheduling Problems with Interval Processing Time. In *Proceedings of EUFIT’96*, pages 443–447, Aachen, Germany, September 1996.
- [4526] Tadahiko Murata and Hisao Ishibuchi. Performance of Multi-Objective Genetic Algorithms for Flowshop Scheduling Problems. In *Proceedings of the 14th International Conference on Production Research*, pages 498–501, Osaka, Japan, August 1997.
- [4527] Tadahiko Murata and Hisao Ishibuchi. Constructing Multi-Objective Genetic Local Search Algorithms for Multi-Objective Flowshop Scheduling Problems. In *Proceedings of the 1998 Japan-USA Symposium on Flexible Automation*, pages 1353–1356, Ohtsu, Japan, July 1998.

- [4528] Tadahiko Murata, Hisao Ishibuchi, and Mitsuo Gen. Random Weights in Multi-Objective Genetic Algorithms. In *Proceedings of the 2nd International Conference on Engineering Design and Automation*, Maui, Hawaii, August 1998. Only CD-ROM Proceedings available.
- [4529] Tadahiko Murata, Hisao Ishibuchi, and Mitsuo Gen. Specification of Local Search Directions in Genetic Local Search Algorithms for Multi-Objective Optimization Problems. In W. Banzhaf, J. Daida, A. E. Eiben, M. H. Garzon, V. Honavar, M. Jakiela, and R. E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, pages 441–448, San Francisco, California, July 1999. Morgan Kaufmann.
- [4530] Tadahiko Murata, Hisao Ishibuchi, and Mitsuo Gen. Cellular Genetic Local Search for Multi-Objective Optimization. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 307–314, San Francisco, California, 2000. Morgan Kaufmann.
- [4531] Tadahiko Murata, Hisao Ishibuchi, and Mitsuo Gen. Specification of Genetic Search Directions in Cellular Multi-objective Genetic Algorithms. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 82–95. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [4532] Tadahiko Murata, Hisao Ishibuchi, and Hideo Tanaka. Multi-Objective Genetic Algorithm and Its Application to Flowshop Scheduling. *Computers and Industrial Engineering*, 30(4):957–968, September 1996.
- [4533] Tadahiko Murata and Ryota Itai. Multi-objective Vehicle Routing Problems using Two-Fold EMO Algorithms to Enhance Solution Similarity on Non-dominated Solutions. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 885–896, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4534] Tadahiko Murata and Ryota Itai. Local Search in Two-Fold EMO Algorithm to Enhance Solution Similarity for Multi-objective Vehicle Routing Problems. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 201–215, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [4535] Tadahiko Murata, Shiori Kaige, and Hisao Ishibuchi. Generalization of Dominance Relation-Based Replacement Rules for Memetic EMO Algorithms. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 1234–1245. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.

- [4536] Tadahiko Murata, Shiori Kaige, and Hisao Ishibuchi. Local Search Direction for Multi-Objective Optimization Using Memetic EMO Algorithms. In Yaochu Jin, editor, *Knowledge Incorporation in Evolutionary Computation*, pages 385–410. Springer, Berlin Heidelberg, 2005. ISBN 3-540-22902-7.
- [4537] Tadahiko Murata, Shihei Kawakami, Hiroyuki Nozawa, Mitsuo Gen, and Hisao Ishibuchi. Three-Objective Genetic Algorithms for Designing Compact Fuzzy Rule-Based Systems for Pattern Classification Problems. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 485–492, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [4538] Tadahiko Murata, Hiroyuki Nozawa, Hisao Ishibuchi, and Mitsuo Gen. Modifications of Local Search Directions for Non-dominated Solutions in Cellular Multiobjective Genetic Algorithms for Pattern Classification Problems. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 593–607, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [4539] Tadahiko Murata, Hiroyuki Nozawa, Yasuhiro Tsujimura, Mitsuo Gen, and Hisao Ishibuchi. Effect of Local Search on the Performance of Cellular Multi-Objective Genetic Algorithms for Designing Fuzzy Rule-based Classification Systems. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 663–668, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [4540] Tadahiko Murata and Akinori Taki. Many-Objective Optimization for Knapsack Problems Using Correlation-Based Weighted Sum Approach. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 468–480. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [4541] Tadahiko Murata and Akinori Taki. Examination of the Performance of Objective Reduction Using Correlation-Based Weighted-Sum for Many Objective Knapsack Problems. In *2010 10th International Conference on Hybrid Intelligent Systems (HIS'2010)*, pages 175–180, Atlanta, Georgia, USA, 23-25 August 2010. IEEE Press.
- [4542] R. Murr, H. Thieriot, A. Zoughaib, and D. Clodic. Multi-objective optimization of a multi water-to-water heat pump system using evolutionary algorithm. *Applied Energy*, 88(11):3580–3591, November 2011.
- [4543] M. Narasimha Murty, Babaria Rashmin, and Chiranjib Bhattacharyya. Clustering Based on Genetic Algorithms. In Ashish Ghosh, Satchidananda Dehuri, and Susmita Ghosh, editors, *Multi-objective Evolutionary Algorithms*

- for *Knowledge Discovery from Data Bases*, pages 137–159. Springer, Berlin, 2008.
- [4544] P. Murugan, S. Kannan, and S. Baskar. Application of NSGA-II Algorithm to Single-Objective Transmission Constrained Generation Expansion Planning. *IEEE Transactions on Power Systems*, 24(4):1790–1797, November 2009.
 - [4545] P. Murugan, S. Kannan, and S. Baskar. NSGA-II algorithm for multi-objective generation expansion planning problem. *Electric Power Systems Research*, 79(4):622–628, April 2009.
 - [4546] M. Murugananth. Metaheuristic multiobjective optimization in steel welds. *Materials and Manufacturing Processes*, 24(2):230–239, February 2009.
 - [4547] D. Muschalla. Optimization of integrated urban wastewater systems using multi-objective evolution strategies. *Urban Water Journal*, 5(1):57–65, 2008.
 - [4548] D. Muschalla, S. Schneider, V. Gamerith, G. Gruber, and K. Schroter. Sewer modelling based on highly distributed calibration data sets and multi-objective auto-calibration schemes. *Water Science and Technology*, 57(10):1547–1554, 2008.
 - [4549] Marco Mussetta, Paola Pirinoli, Stefano Selleri, and Riccardo E. Zich. Meta-PSO for Multi-Objective EM Problems. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*, chapter 6, pages 125–150. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.
 - [4550] S. R. Nabavi, G. P. Rangaiah, A. Niaei, and D. Salari. Multiobjective Optimization of an Industrial LPG Thermal Cracker using a First Principles Model. *Industrial & Engineering Chemistry Research*, 48(21):9523–9533, November 4 2009.
 - [4551] Karl Nachtigall and Stefan Voget. Minimizing Waiting Times in Integrated Fixed Interval Timetables by Upgrading Railway Tracks. *European Journal of Operational Research*, 103:610–627, 1997.
 - [4552] A. Nag, D. Roy Mahapatra, and S. Gopalakrishnan. Identification of delamination in composite beams using spectral estimation and a genetic algorithm. *Smart Materials and Structures*, 11(6):899–908, 2002.
 - [4553] T. Nagayama, R. C. Mancini, L. A. Welser, S. Louis, I. E. Golovkin, R. Tomasini, J. A. Koch, N. Izumi, J. Delettrez, F. J. Marshall, S. P. Regan, V. Smalyuk, D. Haynes, and G. Kyrala. Multiobjective method for fitting pinhole image intensity profiles of implosion cores driven by a Pareto genetic algorithm. *Review of Scientific Instruments*, 77(10), October 2006. Article Number: 10F525.

- [4554] G. Narayana Naik. *Development and Design Optimization of Laminated Composite Structures using Failure Mechanism Based Failure Criterion*. PhD thesis, Department of Aerospace Engineering, Indian Institute of Science, Bangalore, India, January 2007.
- [4555] G. Narayana Naik, S. N. Omkar, Dheevatsa Mudigere, and S. Gopalakrishnan. Nature inspired optimization techniques for the design optimization of laminated composite structures using failure criteria. *Expert Systems With Applications*, 38(3):2489–2499, March 2011.
- [4556] P. K. S. Nain, S. Sharma, and J. M. Giri. Non-dimensional Multi-Objective Performance Optimization of Single Stage Thermoelectric Cooler. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 404–413, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [4557] Pawan K.S. Nain and Kalyanmoy Deb. Computationally Effective Search and Optimization Procedure Using Coarse to Fine Approximations. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2081–2088, Canberra, Australia, December 2003. IEEE Press.
- [4558] P.K.S. Nain, J.M. Giri, S. Sharma, and K. Deb. Multi-Objective Performance Optimization of Thermo-Electric Coolers Using Dimensional Structural Parameters. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pages 607–614. Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18 2010.
- [4559] Prasanth B. Nair and Andrew J. Keane. Coevolutionary architecture for distributed optimization of complex coupled systems. *AIAA Journal*, 40(7):1434–1443, July 2002.
- [4560] Hamidreza Najafi and Behzad Najafi. Multi-objective optimization of a plate and frame heat exchanger via genetic algorithm. *Heat and Mass Transfer*, 46(6):639–647, June 2011.
- [4561] Hamidreza Najafi, Behzad Najafi, and Pooya Hoseinpoori. Energy and cost optimization of a plate and fin heat exchanger using genetic algorithm. *Applied Thermal Engineering*, 31(10):1839–1847, July 2011.
- [4562] Abel Garcia Najera and John A. Bullinaria. Bi-objective Optimization for the Vehicle Routing Problem with Time Windows: Using Route Similarity to Enhance Performance. In Matthias Ehrgott, Carlos M. Fonseca, Xavier

- Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 275–289. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [4563] Hirotaka Nakayama, Masao Arakawa, and Ye Boon Yu. Data Envelopment Analysis in Multicriteria Decision Making. In Matthias Ehrgott and Xavier Gandibleux, editors, *Multiple Criteria Optimization: State of the Art Annotated Bibliographic Surveys*, pages 333–368. Kluwer Academic Publishers, Boston, 2002.
 - [4564] Hirotaka Nakayama and Yeboon Yun. Generating Support Vector Machines Using Multi-Objective Optimization and Goal Programming. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 173–198. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
 - [4565] Hirotaka Nakayama and Yeboon Yun. Combining Aspiration Level Methods in Multi-objective Programming and Sequential Approximate Optimization using Computational Intelligence. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 319–324, Honolulu, Hawaii, USA, April 2007. IEEE Press.
 - [4566] Hirotaka Nakayama, Yeboon Yun, and Masakazu Shirakawa. Multi-objective Model Predictive Control Using Computational Intelligence. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 249–264. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
 - [4567] O.B. Nakhjavani and M. Ghoreishi. Multi Criteria Optimization of Laser Percussion Drilling Process Using Artificial Neural Network with Genetic Algorithm. *Materials and Manufacturing Processes*, 21:11–18, 2006.
 - [4568] A. Nakib, H. Oulhadj, and P. Siarry. Image thresholding based on Pareto multiobjective optimization. *Engineering Applications of Artificial Intelligence*, 23(3):313–320, April 2010.
 - [4569] Dongkyung Nam and Cheol Hoon Park. Multiobjective Simulated Annealing: A Comparative Study to Evolutionary Algorithms. *International Journal of Fuzzy Systems*, 2(2):87–97, 2000.
 - [4570] Dongkyung Nam and Cheol Hoon Park. Pareto-Based Cost Simulated Annealing for Multiobjective Optimization. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 2, pages 522–526, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
 - [4571] Dongkyung Nam, Yun Deuk Seo, Lae-Jeong Park, Cheol Hoon Park, and Bum-sup Kim. Parameter Optimization of a Voltage Reference Circuit using EP.

In David B. Fogel, editor, *Proceedings of the 1998 International Conference on Evolutionary Computation*, pages 245–266, Piscataway, New Jersey, 1998. IEEE.

- [4572] Hee-Geun Nam, Min-Gyeong Han, Sung Chul Yi, Yong Keun Chang, Sungyong Mun, and Jin-Hyun Kim. Optimization of productivity in a four-zone simulated moving bed process for separation of succinic acid and lactic acid. *Chemical Engineering Journal*, 171(1):92–103, June 15 2011.
- [4573] Jin-Wu Nam, In-Hee Lee, Kyu-Baek Hwang, Seong-Bae Park, and Byoung-Tak Zhang. Dinucleotide Step Parameterization of Pre-miRNAs Using Multi-objective Evolutionary Algorithms. In Elena Marchiori, Jason H. Moore, and Jagath C. Rajapakse, editors, *Evolutionary Computation, Machine Learning and Data Mining in Bioinformatics, 5th European Conference, EvoBIO 2007*, pages 176–186. Springer. Lecture Notes in Computer Science Vol. 4447, Valencia, Spain, April 2007.
- [4574] Nikolaos Nanas and Anne De Roeck. Multimodal Dynamic Optimization: From Evolutionary Algorithms to Artificial Immune Systems. In Leandro Nunes de Castro, Fernando José Von Zuben, and Helder Knidel, editors, *Artificial Immune Systems, 6th International Conference, ICARIS 2007*, pages 13–24. Springer. Lecture Notes in Computer Science Vol. 4628, Santos, Brazil, August 2007.
- [4575] D. P. T. Nanayakkara, K. Watanabe, K. Kiguchi, and K. Izumi. Evolutionary learning of a fuzzy behavior based controller for a nonholonomic mobile robot in a class of dynamic environments. *Journal of Intelligent & Robotic Systems*, 32(3):255–277, November 2001.
- [4576] R. Nandan, R. Rai, R. Jayakanth, S. Moitra, N. Chakraborti, and A. Mukhopadhyay. Regulating crown and flatness during hot rolling: A multiobjective optimization study using genetic algorithms. *Materials and Manufacturing Processes*, 20(3):459–478, 2005.
- [4577] A. D. Nandasana, A. K. Ray, and S. K. Gupta. Dynamic model of an industrial steam reformer and its use for multiobjective optimization. *Industrial & Engineering Chemistry Research*, 42(17):4028–4042, August 20 2003.
- [4578] Arup Kumar Nandi and Shubhabrata Datta. Multi-Objective optimization of Particle Reinforced Silicone Rubber Mould Material for Soft Tooling Process. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 414–423, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [4579] Arup Kumar Nandi, Shubhabrata Datta, and Kalyanmoy Deb. Investigating the Role of Nonmetallic Fillers in Particulate-Reinforced Mold Composites using EAs. *Materials and Manufacturing Processes*, 26(3):541–549, 2011.

- [4580] Arup Kumar Nandi, Kalyanmoy Deb, Subhas Ganguly, and Shubhabrata Datta. Investigating the role of metallic fillers in particulate reinforced flexible mould material composites using evolutionary algorithms. *Applied Soft Computing*, 12(1):28–39, January 2012.
- [4581] Lakshminarasimman Narayanan, Baskar Subramanian, Alphones Arokiaswami, and M. Willjuice Iruthayarajan. Optimal placement of mobile antenna in an urban area using evolutionary multiobjective optimization. *Microwave and Optical Technology Letters*, 54(3):737–743, March 2012.
- [4582] S. Narayanan and S. Azarm. On Improving Multiobjective Genetic Algorithms for Design Optimization. In *Proceedings of the Third World Congress of Structural and Multidisciplinary Optimization (WCSMO)*, Buffalo, New York, May 1999.
- [4583] S. Narayanan and S. Azarm. On Improving Multiobjective Genetic Algorithms for Design Optimization. *Structural Optimization*, 18:146–155, 1999.
- [4584] Sanjay Narayanan and Shapour Azarm. A Multiobjective Interactive Sequential Hybrid Optimization Technique for Design Decision Making. *Engineering Optimization*, 32:485–500, 2000.
- [4585] N. Nariman-Zadeh, K. Atashkari, A. Jamali, A. Pilechi, and X. Yao. Inverse modelling of multi-objective thermodynamically optimized turbojet engines using GMDH-type neural networks and evolutionary algorithms. *Engineering Optimization*, 37(5):437–462, July 2005.
- [4586] N. Nariman-Zadeh, A. Darvizeh, and A. Jamali. Pareto optimization of energy absorption of square aluminium columns using multi-objective genetic algorithms. *Proceedings of the Institution of Mechanical Engineers Part B—Journal of Engineering Manufacture*, 220(2):213–224, February 2006.
- [4587] N. Nariman-Zadeh, M. Felezi, A. Jamali, and M. Ganji. Pareto optimal synthesis of four-bar mechanisms for path generation. *Mechanism and Machine Theory*, 44(1):180–191, January 2009.
- [4588] N. Nariman-Zadeh, M. Salehpour, A. Jamali, and E. Haghgoo. Pareto optimization of a five-degree of freedom vehicle vibration model using a multi-objective uniform-diversity genetic algorithm (MUGA). *Engineering Applications Of Artificial Intelligence*, 23(4):543–551, June 2010.
- [4589] Ramón Quiza Sardi nas. *Optimización Multiobjetivos del Proceso de Torneado*. PhD thesis, Facultad de Ingeniería Química y Mecánica, Departamento de Ingeniería Mecánica, Universidad de Matanzas “Camilo Cienfuegos”, Cuba, 2004. (In Spanish).
- [4590] D. Naso, B. Turchiano, and C. Meloni. Single and multi-objective evolutionary algorithms for the coordination of serial manufacturing operations. *Journal of Intelligent Manufacturing*, 17(2):251–270, April 2006.

- [4591] N. Nassif, S. Kajl, and R. Sabourin. Optimization of HVAC control system strategy using two-objective genetic algorithm. *HVAC&R Research*, 11(3):459–486, July 2005.
- [4592] B. Naujoks, H. Trautmann, S. Wessing, and C. Weihs. Advanced concepts for multi-objective evolutionary optimization in aircraft industry. *Proceedings of the Institution of Mechanical Engineers Part G-Journal of Aerospace Engineering*, 225(G10):1081–1096, October 2011.
- [4593] Boris Naujoks, Nicola Beume, and Michael Emmerich. Multi-objective Optimization using S-metric Selection: Application to three-dimensional Solution Spaces. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1282–1289, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [4594] Boris Naujoks, Werner Haase, Jörg Ziegenhirt, and Thomas Bäck. Multi Objective Airfoil Design using Single Parent Populations. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 1156–1163, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [4595] Boris Naujoks and Heike Trautmann. Online Convergence Detection for Multi-objective Aerodynamic Applications. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 332–339, Trondheim, Norway, May 2009. IEEE Press.
- [4596] Boris Naujoks, Lars Willmes, Thomas Bäck, and Werner Haase. Evaluating Multi-criteria Evolutionary Algorithms for Airfoil Optimization. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villaca nas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 841–850, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [4597] Prospero C. Naval, Luis G. Sison, and Eduardo R. Mendoza. Parameter Estimation with Term-wise Decomposition in Biochemical Network GMA Models by Hybrid Regularized Least Squares-Particle Swarm Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3696–3703, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4598] Jorge S. Navarro, José A. Moreno, and Néstor Carrasquero. Evolutionary Multi-Objective Optimization of Simulation Models. In Alberto A. Ochoa Rodríguez, Marta R. Soto Ortiz, and Roberto Santana Hermida, editors, *Second International Symposium on Artificial Intelligence (Adaptive Systems), ISAS'99*, pages 242–250, La Havana, Cuba, 1999. Editorial Academia.
- [4599] A. Nayak and S. K. Gupta. Multi-objective optimization of semi-batch copolymerization reactors using adaptations of genetic algorithm. *Macromolecular Theory and Simulations*, 13(1):73–85, January 12 2004.

- [4600] Mehrdad Setayesh Nazar and Mahmood R. Haghifam. Multiobjective electric distribution system expansion planning using hybrid energy hub concept. *Electric Power Systems Research*, 79(6):899–911, June 2009.
- [4601] Alireza Nazemi, Xin Yao, and Andrew H. Chan. Extracting a Set of Robust Pareto-Optimal Parameters for Hydrological Models using NSGA-II and SCEM. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6792–6799, Vancouver, BC, Canada, July 2006. IEEE.
- [4602] Sidy Ndao, Yoav Peles, and Michael K. Jensen. Multi-objective thermal design optimization and comparative analysis of electronics cooling technologies. *International Journal of Heat and Mass Transfer*, 52(19-20):4317–4326, September 2009.
- [4603] A. C. Nearchou. Mufti-objective balancing of assembly lines by population heuristics. *International Journal of Production Research*, 46(8):2275–2297, April 15 2008.
- [4604] Andreas C. Nearchou. Scheduling with controllable processing times and compression costs using population-based heuristics. *International Journal of Production Research*, 48(23):7043–7062, 2010.
- [4605] Andreas C. Nearchou. Maximizing Production Rate and Workload Smoothing in Assembly Lines Using Particle Swarm Optimization. *International Journal of Production Economics*, 129(2):242–250, February 2011.
- [4606] A. J. Nebro, J. J. Durillo, C. A. Coello Coello, F. Luna, and E. Alba. A Study of Convergence Speed in Multi-Objective Metaheuristics. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 763–772. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [4607] A.J. Nebro, J.J. Durillo, F. Luna, and E. Alba. Evaluating New Advanced Multiobjective Metaheuristics. In Enrique Alba, Christian Blum, Pedro Isasi, Coromoto León, and Juan Antonio Gómez, editors, *Optimization Techniques for Solving Complex Problems*, chapter 5, pages 63–82. Wiley, New Jersey, USA, 2009. ISBN 978-0-470-29332-4.
- [4608] A.J. Nebro, F. Luna, E.-G. Talbi, and E. Alba. Parallel Multiobjective Optimization. In Enrique Alba, editor, *Parallel Metaheuristics*, pages 371–394. Wiley-Interscience, New Jersey, USA, 2005. ISBN 13-978-0-471-67806-9.
- [4609] Antonio J. Nebro, Enrique Alba, and Francisco Luna. Multi-objective optimization using grid computing. *Soft Computing*, 11(6):531–540, 2007.
- [4610] Antonio J. Nebro, Enrique Alba, Guillermo Molina, Francisco Chicano, Francisco Luna, and Juan J. Durillo. Optimal Antenna Placement Using a New Multi-Objective CHC Algorithm. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 876–883, London, UK, July 2007. ACM Press.

- [4611] Antonio J. Nebro and Juan J. Durillo. On the Effect of Applying a Steady-State Selection Scheme in the Multi-Objective Genetic Algorithm NSGA-II. In Raymond Chiong, editor, *Nature-Inspired Algorithms for Optimisation*, pages 435–456. Springer, Berlin, 2009. ISBN 978-3-642-00266-3.
- [4612] Antonio J. Nebro, Juan J. Durillo, Jose Garcia-Nieto, Carlos A. Coello Coello, Francisco Luna, and E. Alba. SMPSO: A New PSO-based Metaheuristic for Multi-objective Optimization. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 66–73, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [4613] Antonio J. Nebro, Juan J. Durillo, Francisco Luna, Bernabé Dorronsoro, and Enrique Alba. A Cellular Genetic Algorithm for Multiobjective Optimization. In David A. Pelta and Natalio Krasnogor, editors, *Proceedings of the Workshop on Nature Inspired Cooperative Strategies for Optimization (NICSO 2006)*, pages 25–36, Granada, Spain, 2006.
- [4614] Antonio J. Nebro, Juan J. Durillo, Francisco Luna, Bernabé Dorronsoro, and Enrique Alba. Design Issues in a Multiobjective Cellular Genetic Algorithm. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 126–140, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [4615] Antonio J. Nebro, Juan J. Durillo, Francisco Luna, Bernabe Dorronsoro, and Enrique Alba. MOCeLL: A Cellular Genetic Algorithm for Multiobjective Optimization. *International Journal of Intelligent Systems*, 24(7):726–746, July 2009.
- [4616] Antonio J. Nebro, Francisco Luna, and Enrique Alba. New Ideas in Applying Scatter Search to Multiobjective Optimization. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 443–458, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4617] Antonio J. Nebro, Francisco Luna, Enrique Alba, Bernabé Dorronsoro, Juan J. Durillo, and Andreas Beham. AbYSS: Adapting Scatter Search to Multi-objective Optimization. *IEEE Transactions on Evolutionary Computation*, 12(4):439–457, August 2008.
- [4618] N. Nedjah and L.D.M. Mourelle. Pareto-optimal hardware for digital circuits using SPEA. In *Innovations in Applied Artificial Intelligence*, pages 594–604. Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 3533, 2005.
- [4619] N. Nedjah and L.M. Mourelle. Evolving optimal multi-objective hardware using strength pareto evolutionary algorithms. *International Journal of Computers, Systems and Signals*, 6(1):37–47, 2005.

- [4620] Nadia Nedjah, Marcus Vinicius Carvalho da Silva, and Luiza de Macedo Mourelle. Preference-based multi-objective evolutionary algorithms for power-aware application mapping on NoC platforms. *Expert Systems With Applications*, 39(3):2271–2282, February 15 2012.
- [4621] Nadia Nedjah and Luiza de Macedo Mourelle. Multi-Objective Evolutionary Hardware for RSA-Based Cryptosystems. In *Proceedings of the International Conference on Information Technology: Coding and Computing (ITCC'04)*, volume 2, pages 503–507, Las Vegas, Nevada, April 2004. IEEE.
- [4622] Nadia Nedjah and Luiza de Macedo Mourelle. Evolutionary Multi-Objective Optimisation: A Review. In Nadia Nedjah and Luiza de Macedo Mourelle, editors, *Real-World Multi-Objective System Engineering*, pages 3–27. Nova Science Publishers, New York, 2005.
- [4623] Nadia Nedjah and Luiza de Macedo Mourelle, editors. *Real-World Multi-Objective System Engineering*. Nova Science Publishers, New York, USA, 2005.
- [4624] Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors. *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*. Springer, Berlin/Heidelberg, 2010. ISBN 978-3-642-05164-7.
- [4625] Nadia Nedjah and Luiza M. Mourelle. Secure Evolutionary Hardware for Public-Key Cryptosystems. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 2130–2137, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4626] Nadia Nedjah, Carvalho da Silva Marcus Vinicius, and Luiza de Macedo Mourelle. Customized Computer-Aided Application Mapping on NoC Infrastructure Using Multi-Objective Optimization. *Journal of Systems Architecture*, 57(1):79–94, January 2011.
- [4627] Martijn Neef, Dirk Thierens, and Henryk Arciszewski. A Case Study of a Multiobjective Recombinative Genetic Algorithm with Coevolutionary Sharing. In *1999 Congress on Evolutionary Computation*, pages 796–803, Washington, D.C., July 1999. IEEE Service Center.
- [4628] M. N. Neema and A. Ohgai. Multi-objective location modeling of urban parks and open spaces: Continuous optimization. *Computers Environment and Urban Systems*, 34(5):359–376, August 2010.
- [4629] Mircea Gh. Negoita and Dragos Arotaritei. A GA with Variable Length Chromosomes for Optimization Objectives of Fuzzy Recurrent NN. In Alwyn Barry, editor, *2003 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 208–213, Chicago, Illinois, USA, July 2003. AAAI.
- [4630] Viktoria Neimane. *On Development Planning of Electricity Distribution Networks*. PhD thesis, Royal Institute of Technology, Department of Electrical Engineering, Electric Power Systems, Stockholm, Sweden, 2001.

- [4631] M. Nemec, D.W. Zingg, and T.H. Pulliam. Multipoint and multi-objective aerodynamic shape optimization. *AIAA Journal*, 42(6):1057–1065, June 2004.
- [4632] Marian Nemec, David W. Zingg, and Thomas H. Pulliam. Multi-Point and Multi-Objective Aerodynamic Shape Optimization. In *9th AIAA/ISSMO Symposium on Multidisciplinary Analysis and Optimization. Paper AIAA 2002-5548*, Atlanta, Georgia, September 2002.
- [4633] Gopal R. Nemmani, Satyanarayana V. Suggala, and Prashant K. Bhattacharya. NSGA-II for Multiobjective Optimization of Pervaporation Process: Repoval of Volatile Organics from Water. *Industrial & Engineering Chemistry Research*, 48(3):1543—1550, February 4 2009.
- [4634] Siew Chin Neoh, Norhashimah Morad, Chee Peng Lim, and Zalina Abdul Aziz. A GA-PSO Layered Encoding Evolutionary Approach to 0/1 Knapsack Optimization. *International Journal of Innovative Computing Information and Control*, 6(8):3489–3505, August 2010.
- [4635] Siew-Chin Neoh, Norhashimah Morad, Chee-Peng Lim, and Zalina Abdul Aziz. A Layered-Encoding Cascade Optimization Approach to Product-Mix Planning in High-Mix-Low-Volume Manufacturing. *IEEE Transactions on Systems Man and Cybernetics Part A-Systems And Humans*, 40(1):133–146, January 2010.
- [4636] Bimal Nepal, Leslie Monplaisir, and Oluwafemi Famuyiwa. Matching product architecture with supply chain design. *European Journal of Operational Research*, 216(2):312–325, January 16 2012.
- [4637] V. R. Neppalli, C. L. Chen, and J. N. D. Gupta. Genetic algorithms for the two-stage bicriteria flowshop problem. *European Journal of Operational Research*, 95(2):356–373, December 6 1996.
- [4638] Kourosh Neshatian and Mengjie Zhang. Pareto Front Feature Selection: Using Genetic Programming to Explore Feature Space. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1027–1034, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4639] Anselmo Ramalho Pitombeira Neto and Eduardo Vila Goncalves Filho. A simulation-based evolutionary multiobjective approach to manufacturing cell formation. *Computers & Industrial Engineering*, 59(1):64–74, August 2010.
- [4640] Craig Neufeld, Brian J. Ross, and William Ralph. The Evolution of Artistic Filters. In Juan Romero and Penousal Machado, editors, *The Art of Artificial Evolution*, pages 335–356. Springer. Natural Computing Series, 2008.
- [4641] Frank Neumann. Expected Runtimes of a Simple Evolutionary algorithm for the Multi-objective Minimum Spanning Tree Problem. In Xin Yao et al., editor, *Parallel Problem Solving from Nature—PPSN VIII*, pages 81–90, Birmingham, UK, September 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3242.

- [4642] Frank Neumann. *Combinatorial Optimization and the Analysis of Randomized Search Heuristics*. PhD thesis, Technischen Fakultät der Christian-Albrechts-Universität zu Kiel, Kiel, Germany, 2006.
- [4643] Frank Neumann. Expected runtimes of a simple evolutionary algorithm for the multi-objective minimum spanning tree problem. *European Journal of Operational Research*, 181(3):1620–1629, 16 September 2007.
- [4644] Frank Neumann and Joachim Reichel. Approximating Minimum Multicuts by Evolutionary Multi-objective Algorithms. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 72–81. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [4645] Frank Neumann and Madeleine Theile. How Crossover Speeds Up Evolutionary Algorithms for the Multi-criteria All-Pairs-Shortest-Path Problem. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 667–676. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [4646] Frank Neumann and Ingo Wegener. Minimum Spanning Trees Made Easier Via Multi-Objective Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 763–769, New York, USA, June 2005. ACM Press.
- [4647] Frank Neumann and Ingo Wegener. Can Single-Objective Optimization Profit from Multiobjective Optimization? In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 115–130. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [4648] Manuel López-Ibáñez, Joshua Knowles, and Marco Laumanns. On Sequential Online Archiving of Objective Vectors. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 46–60, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4649] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. On the Design of ACO for the Biobjective Quadratic Assignment Problem. In Marco Dorigo, Mauro Birattari, Christian Blum, Luca M. Gambardella, Francesco Mondada, and Thomas Stützle, editors, *Proceedings of the 4th International Workshop on Ant Colony Optimization and Swarm Intelligence*, pages 214–225. Springer. Lecture Notes in Computer Science Vol. 3172, 2004.
- [4650] Manuel López-Ibáñez, T. Devi Prasad, and Ben Paechter. Multi-Objective Optimisation of the Pump Scheduling Problem using SPEA2. In *2005 IEEE*

- Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 435–442, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [4651] S. Thomas Ng and Yanshuai Zhang. Optimizing construction time and cost using ant colony optimization approach. *Journal of Construction Engineering and Management-ASCE*, 134(9):721–728, September 2008.
 - [4652] Patrick Ngatchou, Anahita Zarei, and M.A. El-Sharkawi. Pareto Multi Objective Optimization. In *Proceedings of the 13th International Conference on Intelligent Systems Application to Power Systems (ISAP 2005)*, pages 84–91, Washington, DC, USA, 6-10 November 2005. IEEE Press.
 - [4653] Patrick N. Ngatchou, Warren L.J. Fox, and Mohamed A. El-Sharkawi. Multiobjective Multistatic Sonar Sensor Placement. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 9263–9269, Vancouver, BC, Canada, July 2006. IEEE.
 - [4654] Patrick N. Ngatchou, Anahita Zarei, Warren L. J. Fox, and Mohamed A. El-Sharkawi. Pareto Multiobjective Optimization. In Kwang Y. Lee and Mohamed A. El-Sharkawi, editors, *Modern Heuristic Optimization Techniques. Theory and Applications to Power Systems*, chapter 10, pages 189–207. Wiley-Interscience, USA, 2008.
 - [4655] M.H. Nguyen, H.A. Abbass, and R.I. McKay. Stopping criteria for ensemble of evolutionary artificial neural networks. *Applied Soft Computing*, 6(1):100–107, November 2005.
 - [4656] Ahmad Nickabadi, Mohammad Mehdi Ebadzadeh, and Reza Safabakhsh. DNPSO: A Dynamic Niching Particle Swarm Optimizer for Multi-Modal Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 26–32, Hong Kong, June 2008. IEEE Service Center.
 - [4657] John Nicklow, Patrick Reed, Dragan Savic, Tibebe Dessalegne, Laura Harrell, Amy Chan-Hilton, Mohammad Karamouz, Barbara Minsker, Avi Ostfeld, Abhishek Singh, and Emily Zechman. State of the Art for Genetic Algorithms and Beyond in Water Resources Planning and Management. *Journal of Water Resources Planning and Management-ASCE*, 136(4):412–432, July-August 2010.
 - [4658] Christos A. Nicolaou, Joannis Apostolakis, and Costas S. Pattichis. De Novo Drug Using Multiobjective Evolutionary Graphs. *Journal of Chemical Information and Modeling*, 49(2):295–307, February 2009.
 - [4659] Matteo Nicolini. Evaluating performance of multi-objective genetic algorithms for water distribution system optimization. In Liong et al., editor, *Hydroinformatics*, pages 850–857. World Scientific, 2004.
 - [4660] Matteo Nicolini. A Two-Level Evolutionary Approach to Multi-criterion Optimization of Water Supply Systems. In Carlos A. Coello Coello, Arturo

- Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 736–751, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4661] Matteo Nicolini and Luigino Zovatto. Optimal Location and Control of Pressure Reducing Valves in Water Networks. *Journal of Water Resources Planning and Management-ASCE*, 135(3):178–187, May-June 2009.
 - [4662] O. Nicolotti, VJ Gillet, PJ Fleming, and DVS Green. Multiobjective optimization in quantitative structure-activity relationships: Deriving accurate and interpretable QSARs. *Journal of Medicinal Chemistry*, 45(23):5069–5080, November 7 2002.
 - [4663] Orazio Nicolotti, Ilenia Giangreco, Antonellina Introcaso, Francesco Leonetti, Angela Stefanachi, and Angelo Carotti. Strategies of multi-objective optimization in drug discovery and development. *Expert Opinion on Drug Discovery*, 6(9):871–884, September 2011.
 - [4664] Orazio Nicolotti, Ilenia Giangreco, Teresa Fabiola Miscioscia, and Angelo Carotti. Improving Quantitative Structure-Activity Relationships through Multiobjective Optimization. *Journal of Chemical Information and Modeling*, 49(10):2290–2302, October 2009.
 - [4665] Man Nie, Shiyong Yang, Guangzheng Ni, S.L. Ho, and Peihong Ni. An improved vector evolutionary algorithm for multiobjective designs of electromagnetic devices. *International Journal of Applied Electromagnetics and Mechanics*, 25(1–4):711–715, 2007.
 - [4666] Taher Niknam. A New Hybrid Algorithm for Multi-Objective Distribution Feeder Reconfiguration. *Cybernetics and Systems*, 40(6):508–527, 2009.
 - [4667] Taher Niknam. An efficient hybrid evolutionary algorithm based on PSO and HBMO algorithms for multi-objective Distribution Feeder Reconfiguration. *Energy Conversion and Management*, 50(8):2074–2082, August 2009.
 - [4668] Taher Niknam. An efficient hybrid evolutionary algorithm based on PSO and ACO for distribution feeder reconfiguration. *European Transactions on Electrical Power*, 20(5):575–590, July 2010.
 - [4669] Taher Niknam. A new HBMO algorithm for multiobjective daily Volt/Var control in distribution systems considering Distributed Generators. *Applied Energy*, 88(3):778–788, March 2011.
 - [4670] Taher Niknam. An efficient multi-objective HBMO algorithm for distribution feeder reconfiguration. *Expert Systems with Applications*, 38(3):2878–2887, March 2011.

- [4671] Taher Niknam, Abdollah Kavousi Fard, and Alireza Seifi. Distribution feeder reconfiguration considering fuel cell/wind/photovoltaic power plants. *Renewable Energy*, 37(1):213–225, January 2012.
- [4672] Taher Niknam, Abdollah Kavousifard, Sajad Tabatabaei, and Jamshid Aghaei. Optimal operation management of fuel cell/wind/photovoltaic power sources connected to distribution networks. *Journal of Power Sources*, 196(20):8881–8896, October 15 2011.
- [4673] Taher Niknam, Reza Khorshidi, and Bahman Bahmani Firouzi. A hybrid evolutionary algorithm for distribution feeder reconfiguration. *Sadhana-Academy Proceedings In Engineering Sciences*, 35(2):139–162, April 2010.
- [4674] Taher Niknam, Hamed Zeinoddini Meymand, and Hasan Doagou Mojarad. A Practical Multi-Objective PSO Algorithm for Optimal Operation Management of Distribution Network With Regard to Fuel Cell Power Plants. *Renewable Energy*, 36(5):1529–1544, May 2011.
- [4675] Taher Niknam, Mohammad Rasoul Narimani, Masoud Jabbari, and Ahmad Reza Malekpour. A modified shuffle frog leaping algorithm for multi-objective optimal power flow. *Energy*, 36(11):6420–6432, November 2011.
- [4676] Pantelis G. Nikolakopoulos, Christos I. Papadopoulos, and Lambros Kaiktsis. Elastohydrodynamic analysis and Pareto optimization of intact, worn and misaligned journal bearings. *Meccanica*, 46(3):577–588, June 2011.
- [4677] Amir Hossein Nikoofard, Hossein Hajimirsadeghi, Ashkan Rahimi-Kian, and Caro Lucas. Multiobjective invasive weed optimization: Application to analysis of Pareto improvement models in electricity markets. *Applied Soft Computing*, 12(1):100–112, January 2012.
- [4678] Mohammad Hossein Niksokhan, Reza Kerachian, and Mohammad Karamouz. A game theoretic approach for trading discharge permits in rivers. *Water Science and Technology*, 60(3):793–804, 2009.
- [4679] Yury Nikulin. Simulated annealing algorithm for the robust spanning tree problem. *Journal of Heuristics*, 14(4):391–402, August 2008.
- [4680] Xin Ning, Ka-Chi Lam, and Mike Chun-Kit Lam. A decision-making system for construction site layout planning. *Automation in Construction*, 20(4):459–473, July 2011.
- [4681] E. Nino, C. Ardila, A. Perez, and Y. Donoso. A Genetic Algorithm for Multi-objective Hard Scheduling Optimization. *International Journal of Computers Communications & Control*, 5(5):825–836, December 2010.
- [4682] Naoki Nishida, Yasuhito Takahashi, and Shinji Wakao. Robust Design Optimization Approach by Combination of Sensitivity Analysis and Sigma Level Estimation. *IEEE Transactions on Magnetics*, 44(6):998–1001, June 2008.

- [4683] H. Niska, T. Hiltunen, A. Karppinen, and M. Kolehmainen. Evolutionary Design and Evaluation of Modeling System for Forecasting Urban Airborne Maximum Pollutant Concentrations. In Bernardete Ribeiro, Rudolf F. Albrecht, Andrej Dobnikar, David W. Pearson, and Nigel C. Steele, editors, *Adaptive and Natural Computing Algorithms*, pages 181–184, Coimbra, Portugal, 2005. Springer.
- [4684] Harri Niska, Jukka-Pekka Skon, Petteri Packalen, Timo Tokola, Matti Maltamo, and Mikko Kolehmainen. Neural Networks for the Prediction of Species-Specific Plot Volumes Using Airborne Laser Scanning and Aerial Photographs. *IEEE Transactions on Geoscience and Remote Sensing*, 48(3):1076–1085, March 2010.
- [4685] Ben Niu, Hong Wang, Lijing Tan, and Jun Xu. Multi-objective Optimization Using BFO Algorithm. In De-Shuang Huang, Yong Gan, Prashan Premaratne, and Kyungsook Han, editors, *Bio-Inspired Computing and Applications, 7th International Conference on Intelligent Computing, ICIC 2011*, pages 582–587, Zhengzhou, China, August 11-14 2012. Springer. Lecture Notes in Computer Science Vol. 6840.
- [4686] Y.F. Niu and L.C. Shen. Multi-resolution image fusion using AMOPSO-II. In *Intelligent Computing in Signal Processing and Pattern Recognition*, pages 343–352. Springer-Verlag. Lecture Notes in Control and Information Sciences Vol. 345, 2006.
- [4687] Yifeng Niu, Tao Long, and Lincheng Shen. Multi-objective deformable template for forward looking object tracking. In *International Conference on Sensing, Computing and Automation. Dynamics of Continuous Discrete and Impulsive Systems-Series B-Applications & Algorithms. Vol. 13E*, pages 271–276, Chongqing, Peoples R. China, May 8-11 2006.
- [4688] Yifeng Niu and Lincheng Shen. An Adaptive Multi-objective Particle Swarm Optimization for Color Image Fusion. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 473–480. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [4689] Yifeng Niu and Lincheng Shen. The Optimal Multi-objective Optimization Using PSO in Blind Color Image Fusion. In *International Conference on Multimedia and Ubiquitous Engineering, 2007 (MUE '07)*, pages 970–975, Seoul, Korea, April 26-28 2007. IEEE Computer Society Press.
- [4690] Yifeng Niu and Lincheng Shen. Wavelet Denoising Using the Pareto Optimal Threshold. *International Journal of Computer Science and Network Security*, 7(1):30–34, January 2007.
- [4691] Yifeng Niu, Lincheng Shen, and Yanlong Bu. Multi-objective blind image fusion. In *Rough Sets and Knowledge Technology*, pages 713–720. Springer. Lecture Notes in Artificial Intelligence Vol. 4062, 2006.

- [4692] Yifeng Niu, Lincheng Shen, Xiaohua Huo, and Guangxia Liang. Multi-Objective Wavelet-Based Pixel-Level Image Fusion Using Multi-Objective Constriction Particle Swarm Optimization. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Moura, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*, chapter 7, pages 151–178. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.
- [4693] Alfredo Arias Montaño, Carlos A. Coello Coello, and Efrén Mezura-Montes. MODE-LD+SS: A Novel Differential Evolution Algorithm Incorporating Local Dominance and Scalar Selection Mechanisms for Multi-Objective Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3284–3291, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4694] L.M. Torres-Treviño and M.R. Piña Monarrez. Multi-response Optimization Using Multiple Regression and Evolutionary Computation: Applications in a Welding Process of the Automotive Industry. In Oslan Osiris Vergara Villegas, Manuel de Jesús Nandayapa Alfaro, and Salvador Noriega Morales, editors, *Proceedings of the Second International Conference on Industrial, Mechatronics and Manufacturing Engineering*, pages 171–176, Ciudad Juárez, Chihuahua, México, October 2008. Universidad Autónoma de Ciudad Juárez.
- [4695] Walter Cedeno and V. Rao Vemuri. On the Use of Niching for Dynamic Landscapes. In William Porto, editor, *Proceedings of the 1997 IEEE International Conference on Evolutionary Computation*, pages 361–366, Piscataway, New Jersey, April 1997. IEEE Press.
- [4696] E. Nobile, F. Pinto, and G. Rizzetto. Geometric parameterization and multi-objective shape optimization of convective periodic channels. *Numerical Heat Transfer Part B–Fundamentals*, 50(5):425–453, November 2006.
- [4697] Jason Noble and Richard A. Watson. Pareto coevolution: Using performance against coevolved opponents in a game as dimensions for Pareto selection. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 493–500, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [4698] J.M. Nobrega, O.S. Carneiro, A. Gaspar-Cunha, and N.D. Goncalves. Design of calibrators for profile extrusion - optimizing multi-step systems. *International Polymer Processing*, 23(3):331–338, July 2008.
- [4699] Yusuke Nojima and Hisao Ishibuchi. Genetic rule selection with a multi-classifier coding scheme for ensemble classifier design. *International Journal of Hybrid Intelligent Systems*, 4(3):157–169, 2007.
- [4700] Yusuke Nojima and Hisao Ishibuchi. Effects of Diversity Measures on the Design of Ensemble Classifiers by Multiobjective Genetic Fuzzy Rule Selection

- with a Multi-classifier Coding Scheme. In Emilio Corchado, Ajith Abraham, and Witold Pedrycz, editors, *Hybrid Artificial Intelligence Systems. Third International Workshop (HAIS'2008)*, pages 755–763. Springer, Lecture Notes in Computer Science, Vol. 5271, Burgos, Spain, September 24–26 2008. ISBN 978-3-540-87655-7.
- [4701] Yusuke Nojima and Hisao Ishibuchi. Interactive Genetic Fuzzy Rule Selection through Evolutionary Multiobjective Optimization with User Preference. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 141–148, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [4702] Yusuke Nojima, Kaname Narukawa, Shiori Kaige, and Hisao Ishibuchi. Effects of Removing Overlapping Solutions on the Performance of the NSGA-II Algorithm. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 341–354, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [4703] Pamela C. Nolz, Karl F. Doerner, Walter J. Gutjahr, and Richard F. Hartl. A Bi-Objective Metaheuristic for Disaster Relief Operation Planning. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 8, pages 167–187. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.
- [4704] Pamela C. Nolz, Karl F. Doerner, and Richard F. Hartl. Water Distribution in Disaster Relief. *International Journal of Physical Distribution & Logistics Management*, 40(8-9):693–708, 2010.
- [4705] Pamela C. Nolz, Frederic Semet, and Karl F. Doerner. Risk approaches for delivering disaster relief supplies. *Or Spectrum*, 33(3):543–569, July 2011.
- [4706] F. Noori, M. Gorji, A. Kazemi, and H. Nemati. Thermodynamic Optimization of Ideal Turbojet With Afterburner Engines Using Non-dominated Sorting Genetic Algorithm II. *Proceedings of the Institution of Mechanical Engineers Part G-journal of Aerospace Engineering*, 224(G12):1285–1296, December 2010.
- [4707] K. Norouzi and G. R. Rakhshandehroo. A Self Organizing Map Based Hybrid Multi-Objective Optimization of Water Distribution Networks. *Iranian Journal of Science and Technology Transaction B-Engineering*, 35(C1):105–119, February 2011.
- [4708] Stephen R. Norris and William A. Crossley. Pareto-Optimal Controller Gains Generated by a Genetic Algorithm. In *AIAA 36th Aerospace Sciences Meeting and Exhibit*, Reno, Nevada, January 1998. AIAA Paper 98-0010.
- [4709] James Northern and Michael Shanblatt. A Multi-objective Approach to Configuring Embedded System Architectures. In Kalyanmoy Deb et al., editor,

Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II, pages 1326–1327, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.

- [4710] R. Ba nos, C. Gil, J. Gómez, and J. Ortega. Performance Analysis of Parallel Strategies for Bi-objective Network Partitioning. In Ashutosh Tiwari, Joshua Knowles, Erel Avineri, Keshav Dahal, and Rajkumar Roy, editors, *Applications of Soft Computing. Recent Trends*, pages 291–300. Springer-Verlag, Berlin, 2006.
- [4711] R. Ba nos, C. Gil, B. Paechter, and J. Ortega. Parallelization of Population-based Multi-objective Metaheuristics: An Empirical Study. *Applied Mathematical Modelling*, 30(7):578–592, 2006.
- [4712] R. Ba nos, C. Gil, B. Paechter, and J. Ortega. A Hybrid Meta-Heuristic for Multi-Objective Optimization: MOSATS. *Journal of Mathematical Modelling and Algorithms*, 6(2):213–230, June 2007.
- [4713] R. Ba nos, C. Gil, J. Reca, and J. Martínez. Implementation of scatter search for multi-objective optimization: a comparative study. *Computational Optimization and Applications*, 42(3):421–441, April 2009.
- [4714] Raul Ba nos, Consolacion Gil, Juan Reca, and Julio Ortega. A Pareto-based memetic algorithm for optimization of looped water distribution systems. *Engineering Optimization*, 42(3):223–240, 2010.
- [4715] Raul Ba nos, Juan Reca, Juan Martinez, Consolacion Gil, and Antonio L. Marquez. Resilience Indexes for Water Distribution Network Design: A Performance Analysis Under Demand Uncertainty. *Water Resources Management*, 25(10):2351–2366, August 2011.
- [4716] Raúl Ba nos Navarro. *Meta-heurísticas Híbridas para Optimización Mono-objetivo y Multi-objetivo. Paralelización y Aplicaciones*. PhD thesis, Departamento de Arquitectura de Computadores y Electrónica, Universidad de Almería, Spain, December 2006. (In Spanish).
- [4717] Iman Nosoochi and Seyed Reza Hejazi. A multi-objective approach to simultaneous determination of spare part numbers and preventive replacement times. *Applied Mathematical Modelling*, 35(3):1157–1166, March 2011.
- [4718] Ahmad Nourbakhsh, Hamed Safikhani, and Shahram Derakhshan. The comparison of multi-objective particle swarm optimization and NSGA II algorithm: applications in centrifugal pumps. *Engineering Optimization*, 43(10):1095–1113, 2011.
- [4719] A. Nourmohammadi and M. Zandieh. Assembly line balancing by a new multi-objective differential evolution algorithm based on TOPSIS. *International Journal of Production Research*, 49(10):2833–2855, 2011.

- [4720] J. Novo, M.G. Penedo, and J. Santos. Evolutionary multiobjective optimization of topological active nets. *Pattern Recognition Letters*, 31(13):1781–1794, October 1 2010.
- [4721] Roberto Duran Novoa, Noel Leon Rovira, Humberto Aguayo Tellez, and David Said. Inventive problem solving based on dialectical negation, using evolutionary algorithms and triz heuristics. *Computers in Industry*, 62(4):437–445, May 2011.
- [4722] Grzegorz Nowak. Optimization of an airfoil cooling system using a Pareto dominance approach. *Engineering Optimization*, 42(2):157–169, February 2010.
- [4723] Grzegorz Nowak and Włodzimierz Wroblewski. Optimization of blade cooling system with use of conjugate heat transfer approach. *International Journal of Thermal Sciences*, 50(9):1770–1781, September 2011.
- [4724] Angel Mu noz Zavala, Arturo Hernández-Aguirre, and Enrique Villa-Diharce. Particle Evolutionary Swarm Multi-Objective Optimization for Vehicle Routing Problem with Time Windows. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 10, pages 233–257. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [4725] C. N. Nyirenda and D. S. Dawoud. Self-Organization in a Particle Swarm Optimized Fuzzy Logic Congestion Detection Mechanism for IP Networks. *Scientia Iranica*, 15(6):589–604, November-December 2008.
- [4726] S. Obayashi. Aerodynamic inverse optimisation problems. In A.M.S. Zalzal and P.J. Fleming, editors, *Genetic Algorithms in Engineering Systems*, chapter 9, pages 203–228. The Institution of Electrical Engineers. Control Engineering Series 55, Bath, UK, 1997.
- [4727] S. Obayashi, S. Takahashi, and I. Fejtek. Transonic Wing Design by Inverse Optimization using MOGA. In *Sixth Annual Conference of the Computational Fluid Dynamics Society of Canada*, Quebec, Canada, June 1998.
- [4728] S. Obayashi, S. Takahashi, and Y. Takeguchi. Niching and Elitist Models for MOGAs. In A. E. Eiben, M. Schoenauer, and H.-P. Schwefel, editors, *Parallel Problem Solving From Nature — PPSN V*, pages 260–269, Amsterdam, Holland, 1998. Springer-Verlag.
- [4729] S. Obayashi, T. Tsukahara, and T. Nakamura. Cascade Airfoil Design by Multiobjective Genetic Algorithms. In *Second International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications*, pages 24–29. IEEE Conference Publication No. 446, September 1997.
- [4730] S. Obayashi, Y. Yamaguchi, and T. Nakamura. Multiobjective Genetic Algorithm for Multidisciplinary Design of Transonic Wing Planform. *Journal of Aircraft*, 34(5):690–693, September-October 1997.

- [4731] Shigeru Obayashi. Aerodynamic Inverse Optimization with Genetic Algorithms. In *Proceedings of the IEEE International Conference on Industrial Technology*, pages 421–425, Tongji University, 96TH8151, December 1996. IEEE Press.
- [4732] Shigeru Obayashi. Multidisciplinary Design Optimization of Aircraft Wing Planform Based on Evolutionary Algorithms. In *Proceedings of the 1998 IEEE International Conference on Systems, Man, and Cybernetics*, La Jolla, California, October 1998. IEEE.
- [4733] Shigeru Obayashi. Pareto Genetic Algorithm for Aerodynamic Design Using the Navier-Stokes Equations. In D. Quagliarella, J. Périaux, C. Poloni, and G. Winter, editors, *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science. Recent Advances and Industrial Applications*, chapter 12, pages 245–266. John Wiley & Sons, Chichester, UK, 1998.
- [4734] Shigeru Obayashi. Pareto Solutions of Multipoint Design of Supersonic Wings using Evolutionary Algorithms. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture V*, pages 3–15, London, 2002. Springer-Verlag.
- [4735] Shigeru Obayashi, Kazuhiro Nakahashi, Akira Oyama, and Nobuhisa Yoshino. Design Optimization of Supersonic Wings Using Evolutionary Algorithms. In *Proceedings of the Fourth ECCOMAS Computational Fluid Dynamics Conference*, Athens, Greece, September 1998.
- [4736] Shigeru Obayashi and Daisuke Sasaki. Visualization and Data Mining of Pareto Solutions Using Self-Organizing Map. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 796–809, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [4737] Shigeru Obayashi and Daisuke Sasaki. Multiobjective Aerodynamic Design and Visualization of Supersonic Wings by Using Adaptive Range Multiobjective Genetic Algorithms. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 295–315. World Scientific, Singapore, 2004.
- [4738] Shigeru Obayashi, Takanori Tsukahara, and Takashi Nakamura. Multiobjective Evolutionary Computation for Supersonic Wing-Shape Optimization. *IEEE Transactions on Evolutionary Computation*, 4(2):182–187, July 2000.
- [4739] Shigeru Obayashi, Takanori Tsukahara, and Takashi Nakamura. Multiobjective Genetic Algorithm applied to Aerodynamic Design of Cascade Airfoils. *IEEE Transactions on Industrial Electronics*, 47(1), February 2000.
- [4740] Ricardo Andres Bolanos Ocampo, Carlos Adrian Correa Florez, and Antonio Hernando Escobar Zuluaga. Multiobjective transmission expansion planning considering security and demand uncertainty. *Revista Ingenieria e Investigacion*, 29(3):74–78, December 2009.

- [4741] Jiri Ocenasek. *Parallel Estimation of Distribution Algorithms*. PhD thesis, Faculty of Information Technology, Brno University of Technology, Brno, Czech Republic, November 2002.
- [4742] Gabriela Ochoa, Minaya Villasana, and Edmund K. Burke. An evolutionary approach to cancer chemotherapy scheduling. *Genetic Programming and Evolvable Machines*, 8(4):301–318, December 2007.
- [4743] Oluwarotimi Odeh, Praveen Koduru, Sanjoy Das, Allen M. Featherstone, and Sephen M. Welch. A Multi-objective Approach for the Prediction of Loan Defaults. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 2129–2136, London, UK, July 2007. ACM Press.
- [4744] A. Oduguwa, A. Tiwari, S. Fiorentino, and R. Roy. Multi-Objective Optimisation of the Protein-Ligand Docking Problem in Drug Discovery. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1793–1800, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [4745] V. Oduguwa and R. Roy. Multi-Objective Optimisation of Rolling Rod Product Design using Meta-Modelling Approach. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 1164–1171, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [4746] Victor Oduguwa, Rajkumar Roy, and Didier Farrugia. Development of a soft computing-based framework for engineering design optimisation with quantitative and qualitative search spaces. *Applied Soft Computing*, 7(1):166–188, January 2007.
- [4747] Victor Oduguwa, Ashutosh Tiwari, and Rajkumar Roy. Handling Integrated Quantitative and Qualitative Search Space in a Real World Optimisation Problem. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 1222–1229, Canberra, Australia, December 2003. IEEE Press.
- [4748] Victor Oduguwa, Ashutosh Tiwari, and Rajkumar Roy. Sequential Process Optimisation Using Genetic Algorithms. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 782–791, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [4749] Ingo Oesterreichter, Andreas Mitschele, Frank Schlottmann, and Detlef Seese. Comparison of Multi-Objective Evolutionary Algorithms in Optimizing Combinations of Reinsurance Contracts. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1,

pages 747–748, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.

- [4750] Choong K. Oh and Gregory J. Barlow. Autonomous Controller Design for Unmanned Aerial Vehicles using Multi-objective Genetic Programming. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1538–1545, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4751] Jaewon Oh, Hyokyung Bahn, Chisu Wu, , and Kern Koh. Pareto-based Soft Real-Time Task Scheduling in Multiprocessor Systems. In *7th IEEE Asia-Pacific Software Engineering Conference (APSEC 2000)*, pages 24–29, Singapore, 2000. IEEE.
- [4752] Jaewon Oh and Chisu Wu. Genetic-algorithm-based real-time task scheduling with multiple goals. *Journal of Systems and Software*, 71(3):245–258, May 2004.
- [4753] P.P. Oh, G.P. Rangaiah, and A.K. Ray. Simulation and multiobjective optimization of an industrial hydrogen plant based on refinery off-gas. *Industrial & Engineering Chemistry Research*, 41(9):2248–2261, May 1 2002.
- [4754] P.P. Oh, A.K. Ray, and G.P. Rangaiah. Triple-Objective Optimization of an Industrial Hydrogen Plant. *Journal of Chemical Engineering in Japan*, 34:1341–1355, 2001.
- [4755] Shao Chong Oh, Chung Huat Tan, Fook Wai Kong, Yuan Sin Tan, Khin Hua Ng, Gee Wah Ng, and K. Tai. Multiobjective Optimization of Sensor Network Deployment by a Genetic Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3917–3921, Singapore, September 2007. IEEE Press.
- [4756] S. O'Hagan, W. B. Dunn, M. Brown, J. D. Knowles, and D. B. Kell. Closed-loop, multiobjective optimization of analytical instrumentation: Gas chromatography/time-of-flight mass spectrometry of the metabolomes of human serum and of yeast fermentations. *Analytical Chemistry*, 77(1):290–303, January 2005.
- [4757] Ikki Ohmukai, Hideaki Takeda, and Mitsunori Miki. A Proposal of the Person-centered Approach for Personal Task Management. In *Proceedings of the 2003 Symposium on Applications and the Internet*, pages 234–240, Orlando, Florida, January 2003. IEEE.
- [4758] M. Ohsaki, T. Kinoshita, and P. Pan. Heuristic approaches to performance-based design of steel frames with standard sections. In *Proceedings of Behavior of Steel Structures in Seismic Areas, STESSA 2006*, pages 67–72, Yokohama, Japan, 2006. Taylor & Francis.
- [4759] M. Ohsaki, T. Kinoshita, and P. Pan. Multiobjective heuristic approaches to seismic design of steel frames with standard sections. *Earthquake Engineering & Structural Dynamics*, 36(11):1481–1495, September 2007.

- [4760] Makoto Ohsaki and Takuya Kinoshita. Single-point search heuristic methods for multiobjective structural optimization. In *Proceedings of Computational Science Symposium, FCS/Techno-Sympo/MPS Symposium 2005*, pages 59–66, Nagoya, Japan, 2005.
- [4761] Seung-Yong Ok, Junho Song, and Kwan-Soon Park. Optimal design of hysteretic dampers connecting adjacent structures using multi-objective genetic algorithm and stochastic linearization method. *Engineering Structures*, 30(5):1240–1249, May 2008.
- [4762] Seung-Yong Ok, Junho Song, and Kwan-Soon Park. Optimal design of hysteretic dampers connecting adjacent structures using multi-objective genetic algorithm and stochastic linearization method. *Engineering Structures*, 30(5):1240–1249, May 2009.
- [4763] Tatsuya Okabe. *Evolutionary Multi-Objective Optimization - On the Distribution of Offspring in Parameter and Fitness Space -*. PhD thesis, Bielefeld University, Germany, 2004.
- [4764] Tatsuya Okabe, Kwasi Foli, Markus Olhofer, Yaochu Jin, and Bernhard Sendhoff. Comparative Studies on Micro Heat Exchanger Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 1, pages 647–654, Canberra, Australia, December 2003. IEEE Press.
- [4765] Tatsuya Okabe, Yaochu Jin, Markus Olhofer, and Bernhard Sendhoff. On Test Functions for Evolutionary Multi-objective Optimization. In Xin Yao et al., editor, *Parallel Problem Solving from Nature - PPSN VIII*, pages 792–802, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [4766] Tatsuya Okabe, Yaochu Jin, and Bernhard Sendhoff. On the Dynamics of Evolutionary Multi-Objective Optimization. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 247–255, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [4767] Tatsuya Okabe, Yaochu Jin, and Bernhard Sendhoff. A Critical Survey of Performance Indices for Multi-Objective Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 878–885, Canberra, Australia, December 2003. IEEE Press.
- [4768] Tatsuya Okabe, Yaochu Jin, and Bernhard Sendhoff. Evolutionary Multi-Objective Optimisation with a Hybrid Representation. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2262–2269, Canberra, Australia, December 2003. IEEE Press.

- [4769] Tatsuya Okabe, Yaochu Jin, and Bernhard Sendhoff. Theoretical Comparisons of Search Dynamics of Genetic Algorithms and Evolution Strategies. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 382–389, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [4770] Tatsuya Okabe, Yaochu Jin, and Bernhard Sendhoff. Combination of Genetic Algorithms and Evolution Strategies with Self-adaptive Switching. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 13, pages 281–307. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [4771] Tatsuya Okabe, Yaochu Jin, Bernhard Sendhoff, and Markus Olhofer. Voronoi-based Estimation of Distribution Algorithm for Multi-objective Optimization. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1594–1601, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4772] Nader M. Okasha and Dan M. Frangopol. Lifetime-oriented multi-objective optimization of structural maintenance considering system reliability, redundancy and life-cycle cost using GA. *Structural Safety*, 31(6):460–474, 2009.
- [4773] Ozhan Oksuz and Ibrahim Sinan Akmandor. Multi-Objective Aerodynamic Optimization of Axial Turbine Blades Using a Novel Multilevel Genetic Algorithm. *Journal Of Turbomachinery-Transactions Of The Asme*, 132(4):Article Number: 041009, October 2010.
- [4774] Gustavo Olague and Leonardo Trujillo. Evolutionary-computer-assisted design of image operators that detect interest points using genetic programming. *Image and Vision Computing*, 29(7):484–498, June 2011.
- [4775] J. Olamaei, T. Niknam, and G. Gharehpetian. Application of particle swarm optimization for distribution feeder reconfiguration considering distributed generators. *Applied Mathematics and Computation*, 201(1-2):575–586, July 15 2008.
- [4776] A. I. Olcer. A hybrid approach for multi-objective combinatorial optimisation problems in ship design and shipping. *Computers & Operations Research*, 35(9):2760–2775, September 2008.
- [4777] Elias Olivares Benítez. *Capacitated Fixed Cost Facility Location Problem with Transportation Choices*. PhD thesis, División de Ingeniería y Arquitectura, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, Nuevo León, México, May 2007.
- [4778] Diogo B. Oliveira, Elson J. Silva, Jesus J. S. Santos, and Oriane M. Neto. Design of a Microwave Applicator for Water Sterilization Using Multiobjective Optimization and Phase Control Scheme. *IEEE Transactions on Magnetics*, 47(5):1242–1245, May 2011.

- [4779] Eunice Oliveira and Carlos Henggeler Antunes. An Evolutionary Algorithm Guided by Preferences Elicited According to the ELECTRE TRI Method Principles. In Peter Cowling and Peter Merz, editors, *Evolutionary Computation in Combinatorial Optimization. 10th European Conference, EvoCOP 2010*, pages 214–225. Springer. Lecture Notes in Computer Science, Vol. 6022, Istanbul, Turkey, April 2010.
- [4780] Gina M. B. Oliveira, José C. Bortot, and Pedro P.B. de Oliveira. Multiobjective evolutionary search for one-dimensional cellular automata in the density classification task. In R. Standish, M. Bedau, and H. Abbass, editors, *Artificial Life VIII: The 8th International Conference on Artificial Life*, pages 202–206, Cambridge, Massachusetts, 2002. MIT Press.
- [4781] Gina M. B. Oliveira and Stéfano S. B. V. Vita. A Multi-Objective Evolutionary Algorithm with ϵ -Dominance to Calculate Multicast Routes with QoS Requirements. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 182–189, Trondheim, Norway, May 2009. IEEE Press.
- [4782] L.S. Oliveira, R. Sabourin, F. Bortolozzi, and C.Y. Suen. Feature Selection Using Multi-Objective Genetic Algorithms for Handwritten Digit Recognition. In *Proceedings of the 16th International Conference on Pattern Recognition (ICPR'2002)*, volume 1, pages 568–571, Quebec City, Canada, August 2002. IEEE Computer Society Press.
- [4783] L.S. Oliveira, R. Sabourin, F. Bortolozzi, and C.Y. Suen. Feature selection for ensembles: a hierarchical multi-objective genetic algorithm approach. In *Proceedings of the Seventh International Conference on Document Analysis and Recognition, 2003*, pages 676–680. IEEE Press, 2003.
- [4784] Luiz S. Oliveira, Alessandro L. Koerich, Marcelo Mansano, and Alceu S. Jr. Britto. 2D Principal Component Analysis for Face and Facial-Expression Recognition. *Computing in Science & Engineering*, 13(3):9–13, May - June 2011.
- [4785] Luiz S. Oliveira, Marisa Morita, and Robert Sabourin. Feature Selection for Ensembles Applied to Handwriting Recognition. *International Journal on Document Analysis and Recognition*, 8(4):262–279, September 2006.
- [4786] Luiz S. Oliveira, Marisa Morita, and Robert Sabourin. Feature Selection for Ensembles Using the Multi-Objective Optimization Approach. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 49–74. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [4787] Luiz S. Oliveira, Marisa Morita, Robert Sabourin, and Flávio Bortolozzi. Multi-objective Genetic Algorithms to Create Ensemble of Classifiers. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 592–606, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [4788] Miguel Oliveira, Lino Costa, Ana Rocha, Cristina Santos, and Manuel Ferreira. Multiobjective Optimization of a Quadruped Robot Locomotion Using a Genetic Algorithm. In António Gaspar-Cunha, Ricardo Takahashi, Gerald Schaefer, and Lino Costa, editors, *Soft Computing in Industrial Applications*, volume 96 of *Advances in Intelligent and Soft Computing Series*, pages 427–436, Berlin, 2011. Springer. ISBN 978-3-642-20504-0.
- [4789] Charles Ollion and Stéphane Doncieux. Why and How to Measure Exploration in Behavioral Space. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 267–274, Dublin, Ireland, July 12-16 2011. ACM Press.
- [4790] Ralph J. Olsson, Zoran Kapelan, and Dragan A. Savic. Probabilistic building block Identification for the Optimal Design and Rehabilitation of Water Distribution Systems. *Journal of Hydroinformatics*, 11(2):89–105, April 2009.
- [4791] Gabriel Oltean, Sorin Hintea, and Emilia Sipos. A Genetic Algorithm-Based Multiobjective Optimization for Analog Circuit Design. In Juan D. Velásquez, Sebastián A. Ríos, Robert J. Howlett, and Lakhmi C. Jain, editors, *Knowledge-Based and Intelligent Information and Engineering Systems, 13th International Conference, KES 2009*, pages 506–514, Santiago, Chile, September 28-30 2009. Springer. Lecture Notes in Artificial Intelligence Vol. 5712.
- [4792] J. Olvander. Robustness considerations in multi-objective optimal design. *Journal of Engineering Design*, 16(5):511–523, October 2005.
- [4793] Hanafy M. Omar and M. A. Abido. Multiobjective Evolutionary Algorithm for Designing Fuzzy-Based Missile Guidance Laws. *Journal of Aerospace Engineering*, 24(1):89–94, January 2011.
- [4794] B. Ombuki, B.J. Ross, and F. Hanshar. Multi-objective genetic algorithms for vehicle routing problem with time windows. *Applied Intelligence*, 24(1):17–30, February 2006.
- [4795] S. N. Omkar, Rahul Khandelwal, T. V. S. Ananth, G. Narayana, and S. Gopalakrishnan. Quantum behaved Particle Swarm Optimization (QPSO) for multi-objective design optimization of composite structures. *Expert Systems with Applications*, 36(8):11312–11322, October 2009.
- [4796] S. N. Omkar, Dheevatsa Mudigere, G. Narayana Naik, and S. Gopalakrishnan. Vector evaluated particle swarm optimization (VEPSO) for multi-objective design optimization of composite structures. *Computers & Structures*, 86(1-2):1–14, January 2008.
- [4797] S. N. Omkar, J. Senthilnath, Rahul Khandelwal, G. Narayana Naik, and S. Gopalakrishnan. Artificial Bee Colony (ABC) for multi-objective design optimization of composite structures. *Applied Soft Computing*, 11(1):489–499, January 2011.

- [4798] R. Omori, Y. Sakakibara, and A. Suzuki. Applications of genetic algorithms to optimization problems in the solvent extraction process for spent nuclear fuel. *Nuclear Technology*, 118(1):26–31, April 1997.
- [4799] Mahamed G. Omran, Andreis P. Engelbrecht, and Ayed Salman. Image Classification Using Particle Swarm Optimization. In Kay Chen Tan, Meng Hiot Lim, Xin Yao, and Lipo Wang, editors, *Recent Advances in Simulated Evolution and Learning*, pages 347–365. World Scientific, Singapore, 2004.
- [4800] Mahamed G.H. Omran, Andries P. Engelbrecht, and Ayed Salman. Differential Evolution Methods for Unsupervised Image Classification. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 966–973, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [4801] Chin Kim On, Jason Teo, and Azali Saudi. Multi-Objective Artificial Evolution of RF-Localization Behavior and Neural Structures in Mobile Robots. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 350–356, Hong Kong, June 2008. IEEE Service Center.
- [4802] Kim On and Teo Jason. Evolution and analysis of self-synthesized minimalist neural controllers for collective robotics using Pareto multi-objective optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2172–2178, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4803] Renata E. Onety, Gladston J.P. Moreira, Oriane M. Neto, and Ricardo H.C. Takahashi. Variable Neighborhood Multiobjective Genetic Algorithm for the Optimization of Routes on IP Networks. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 433–447, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4804] C.S. Ong, H.J. Huang, and G.H. Tzeng. A novel hybrid model for portfolio selection. *Applied Mathematics and Computation*, 169(2):1195–1210, October 2005.
- [4805] Satoshi Ono, Yusuke Hirotani, and Shigeru Nakayama. Multiple Solution Search Based on Hybridization of Real-Coded Evolutionary Algorithm and Quasi-Newton Method. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1133–1140, Singapore, September 2007. IEEE Press.
- [4806] Satoshi Ono and Shigeru Nakayama. Multi-Objective Particle Swarm Optimization for Robust Optimization and Its Hybridization with Gradient Search. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1629–1636, Trondheim, Norway, May 2009. IEEE Press.
- [4807] Satoshi Ono, Yohei Yoshitake, and Shigeru Nakayama. Robust optimization using multi-objective particle swarm optimization. *Artificial Life and Robotics*, 14(2):174–177, November 2009.

- [4808] K. T. Ooi and H. Q. Lee. Multi-objective design optimization of a rotary compressor for household air-conditioning. *Proceedings of the Institution of Mechanical Engineers Part E-Journal of Process Mechanical Engineering*, 222(E4):241–250, November 2008.
- [4809] Ryoza Ooka, Hong Chen, and Shinsuke Kato. Study on optimum arrangement of trees for design of pleasant outdoor environment using multi-objective genetic algorithm and coupled simulation of convection, radiation and conduction. *Journal of Wind Engineering and Industrial Aerodynamics*, 96(10-11):1733–1748, October-November 2008.
- [4810] Wallied Orabi, Khaled El-Rayes, Ahmed B. Senouci, and Hassan Al-Derham. Optimizing Postdisaster Reconstruction Planning for Damaged Transportation Networks. *Journal of Construction Engineering and Management-ASCE*, 135(10):1039–1048, October 2009.
- [4811] Matthias Ortmann and Wolfgang Weber. Multi-Criterion Optimization of Robot Trajectories with Evolutionary Strategies. In *Proceedings of the 2001 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 310–316, San Francisco, California, July 2001.
- [4812] Matthias Ortmann and Wolfgang Weber. Multi-Criterion Optimization of Robot Trajectories with Evolutionary Strategies. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, page 1453, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [4813] Lisa Osadciw, Nisha Srinivas, and Kalyan Veeramachaneni. Combining Correlated Data from Multiple Classifiers. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 11, pages 259–281. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [4814] Dan Oshima, Atsushi Miyamae, Jun Sakuma, Shigenobu Kobayashi, and Isao Ono. A New Real-coded Genetic Algorithm Using the Adaptive Selection Network for Detecting Multiple Optima. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1912–1919, Trondheim, Norway, May 2009. IEEE Press.
- [4815] Keith A. Osman, Anthony M. Higginson, and John Moore. Improving the efficiency of vehicle water-pump designs using genetic algorithms. In C. Dagli, M. Akay, A. Buczak, O. Ersoy, and B. Fernandez, editors, *Smart Engineering Systems: Proceedings of the Artificial Neural Networks in Engineering Conference (ANNIE '98)*, volume 8, pages 291–296, New York, 1998. ASME, ASME Press.

- [4816] M. S. Osman, M. A. Abo-Sinna, and A. A. Mousa. An epsilon-dominance-based multiobjective genetic algorithm for economic emission load dispatch optimization problem. *Electric Power Systems Research*, 79(11):1561–1567, November 2009.
- [4817] M.S. Osman, M.A. Abo-Sinna, and M.K. El-Sayed. An algorithm for solving multi-stage decision making model with multiple fuzzy goals based on genetic algorithms. *International Journal of Nonlinear Sciences and Numerical Simulation*, 5(4):371–385, 2004.
- [4818] M.S. Osman, M.A. Abo-Sinna, and A.A. Mousa. An effective genetic algorithm approach multiobjective resource allocation problems (MORAPs). *Applied Mathematics and Computation*, 163(2):755–768, April 2005.
- [4819] Marek Ostaszewski, Pascal Bouvry, and Franciszek Seredynski. Multiobjective classification with moGEP: an application in the network traffic domain. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 635–642, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4820] Avi Ostfeld and Ariel Tubaltzev. Ant colony optimization for least-cost design and operation of pumping water distribution systems. *Journal of Water Resources Planning and Management-ASCE*, 134(2):107–118, March - April 2008.
- [4821] Andrzej Osyczka. *Evolutionary Algorithms for Single and Multicriteria Design Optimization*. Physica Verlag, Germany, 2002. ISBN 3-7908-1418-0.
- [4822] Andrzej Osyczka and Stanislaw Krenich. A New Constraint Tournament Selection Method for Multicriteria Optimization using Genetic Algorithm. In *2000 Congress on Evolutionary Computation*, volume 1, pages 501–507, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [4823] Andrzej Osyczka and Stanislaw Krenich. Evolutionary Algorithms for Multicriteria Optimization with Selecting a Representative Subset of Pareto Optimal Solutions. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 141–153. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [4824] Andrzej Osyczka, Stanislaw Krenich, and K. Karaś. Optimum Design of Robot Grippers using Genetic Algorithms. In *Proceedings of the Third World Congress of Structural and Multidisciplinary Optimization (WCSMO)*, Buffalo, New York, May 1999.
- [4825] Andrzej Osyczka and Sourav Kundu. A Genetic Algorithm-Based Multicriteria Optimization Method. In *Proceedings of First World Congress of Structural and Multidisciplinary Optimization*, pages 909–914, Goslar, Germany, May 1995. Elsevier Science.

- [4826] Andrzej Osyczka and Sourav Kundu. A new method to solve generalized multicriteria optimization problems using the simple genetic algorithm. *Structural Optimization*, 10:94–99, 1995.
- [4827] Andrzej Osyczka and Sourav Kundu. Using genetic algorithms to solve multicriteria nonlinear programming problems. In *Proceedings of Mendel'95, the 1st International Mendel Conference on Genetic Algorithms*, Brno, Czech Republic, September 1995.
- [4828] Andrzej Osyczka and Sourav Kundu. A Genetic Algorithm Approach to Multicriteria Network Optimization Problems. In *Proceedings of the 20th International Conference on Computers and Industrial Engineering*, pages 329–332, Kyongju, Korea, October 1996.
- [4829] Andrzej Osyczka and Sourav Kundu. A modified distance method for multicriteria optimization using genetic algorithms. *Computers in Industrial Engineering*, 30(4):871–882, 1996.
- [4830] Andrzej Osyczka and H. Tamura. Pareto set distribution method for multicriteria optimization using genetic algorithm. In *Proceedings of the Second International Conference on Genetic Algorithms (Mendel'96)*, pages 97–102, Brno, Czech Republic, June 1996.
- [4831] Mariusz Oszust and Marian Wysocki. A Distributed Immune Algorithm for Solving Optimization Problems. In *Intelligent Distributed Computing, Systems and Applications*, pages 147–155, Catania, Italy, 2008. Springer. Studies in Computational Intelligence. Vol. 162.
- [4832] Fred Otieno and Josiah Adeyemo. Multi-objective cropping pattern in the Vaalharts irrigation scheme. *African Journal of Agricultural Research*, 6(6):1286–1294, March 18 2011.
- [4833] Adama Ouattara, Luc Pibouleau, Catherine Azzaro-Pantel, Serge Domenech, Philippe Baudet, and Benjamin Yao. Economic and environmental strategies for process design. *Computers & Chemical Engineering*, 36:174–188, January 10 2012.
- [4834] J. OuYang, F. Yang, S.W. Yang, and Z.P. Nie. The improved NSGA-II approach. *Journal of Electromagnetic Waves and Applications*, 22(2-3):163–172, 2008.
- [4835] Seppo J. Ovaska, Bernhard Sick, and Alden H. Wright. Periodical switching between related goals for improving evolvability to a fixed goal in multi-objective problems. *Information Sciences*, 179(23):4046–4056, November 25 2009.
- [4836] A. Oyama, S. Obayashi, K. Nakahashi, and N. Hirose. Coding by Taguchi Method for Evolutionary Algorithms Applied to Aerodynamic Optimization. In *Proceedings of the Fourth ECCOMAS Computational Fluid Dynamics Conference*, pages 196–203, Athens, Greece, September 1998. John Wiley & Sons.

- [4837] Akira Oyama. *Wing Design Using Evolutionary Algorithms*. PhD thesis, Department of Space Engineering, Tohoku University, Japan, March 2000.
- [4838] Akira Oyama and Meng-Sing Liou. Multiobjective Optimization of Rocket Engine Pumps using Evolutionary Algorithm. In *Proceedings of the 15th AIAA Computational Fluid Dynamics Conference, Paper A01-31074*, Anaheim, California, June 2001.
- [4839] Akira Oyama and Meng-Sing Liou. Multiobjective Optimization of Rocket Engine Pumps using Evolutionary Algorithm. *Journal of Propulsion and Power*, 18(3):528–535, May-June 2002.
- [4840] Akira Oyama, Taku Nonomura, and Kozo Fujii. Data Mining of Non-Dominated Solutions Using Proper Orthogonal Decomposition. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1935–1936, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4841] Akira Oyama and Shigeru Obayashi. Multidisciplinary Wing Design Optimization Using Multiobjective Evolutionary Algorithm. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [4842] Akira Oyama, Koji Shimoyama, and Kozo Fujii. New constraint-handling method for multi-objective and multi-constraint evolutionary optimization. *Transactions of the Japan Society for Aeronautical and Space Sciences*, 50(167):56–62, May 2007.
- [4843] Feristah Ozelik. Deciding on the Ideal Channel Coefficients in Multi-Channel Manufacturing. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 115–121, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [4844] Muhsin Ozdemir. *Evolutionary Computing for Feature Selection and Predictive Data Mining*. PhD thesis, Rensselaer Polytechnic Institute, Troy, New York, March 2002.
- [4845] Özer Ciftcioglu and Michael S. Bittermann. Solution Diversity in Multi-Objective Optimization: A Study in Virtual Reality. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1019–1026, Hong Kong, June 2008. IEEE Service Center.
- [4846] Ufuk Ozkaya and Filiz Gunes. A modified particle swarm optimization algorithm and its application to the multiobjective FET modeling problem. *Turkish Journal of Electrical Engineering and Computer Sciences*, 20(2):263–271, 2012.
- [4847] Ali Ozturk, Serkan Cobanli, Pakize Erdosmus, and Salih Tosun. Reactive power optimization with artificial bee colony algorithm. *Scientific Research And Essays*, 5(19):2848–2857, October 4 2010.

- [4848] Nursel Öztürk, Ali R. Yildiz, Necmettin Kaya, and Ferruh Öztürk. Neuro-Genetic Design Optimization Framework to Support the Integrated Robust Design Optimization Process in CE. *Concurrent Engineering: Research and Applications*, 14(1):5–16, March 2006.
- [4849] Timucin Ozugur, Anand Bellary, and Falguni Sarkar. Multiobjective Hierarchical 2G/3G Mobility Management Optimization: Niche Pareto Genetic Algorithm. In *Global Telecommunications Conference*, volume 6, pages 3681–3685. IEEE, 2001.
- [4850] Tansel Ozyer and Reda Alhajj. Deciding on number of clusters by multi-objective optimization and validity analysis. *Journal of Multiple-Valued Logic and Soft Computing*, 14(3-5):457–474, 2008.
- [4851] Tansel Ozyer and Reda Alhajj. Parallel clustering of high dimensional data by integrating multi-objective genetic algorithm with divide and conquer. *Applied Intelligence*, 31(3):318–331, December 2009.
- [4852] Tansel Özyer, Reda Alhajj, and Ken Barker. Clustering by Integrating Multi-objective Optimization with Weighted K-Means and Validity Analysis. In Emilio Corchado, Hujun Yin, Vicente J. Botti, and Colin Fyfe, editors, *Intelligent Data Engineering and Automated Learning - IDEAL 2006, 7th International Conference*, pages 454–463. Springer. Lecture Notes in Computer Science Vol. 4224, Burgos, Spain, September 20-23 2006.
- [4853] Tansel Ozyer, Ming Zhang, and Reda Alhajj. Integrating multi-objective genetic algorithm based clustering and data partitioning for skyline computation. *Applied Intelligence*, 35(1):110–122, August 2011.
- [4854] Nikhil Padhye. Comparison of Archiving Methods in Multi-objective Particle Swarm Optimization (MOPSO): Empirical Study. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1755–1756, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [4855] Nikhil Padhye, Juergen Branke, and Sanaz Mostaghim. Empirical Comparison of MOPSO Methods - Guide Selection and Diversity Preservation -. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2516–2523, Trondheim, Norway, May 2009. IEEE Press.
- [4856] Nikhil Padhye and Kalyanmoy Deb. Evolutionary Multi-Objective Optimization and Decision Making for Selective Laser Sintering. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1259–1266, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [4857] Dhanesh Padmanabhan and Rajkumar Vaidyanathan. An Implementation of Pareto Set Pursuing Technique for Concept Vehicle Design. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal,

Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 696–705, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.

- [4858] Ben Paechter, R.C. Rankin, Andrew Cumming, and Terence C. Fogarty. Timetabling the Classes of an Entire University with an Evolutionary Algorithm. In A. E. Eiben, Thomas Bäck, Marc Schoenauer, and Hans-Paul Schwefel, editors, *Parallel Problem Solving From Nature — PPSN V*, Amsterdam, Holland, 1998. Springer-Verlag. Lecture Notes in Computer Science No. 1498.
- [4859] G. A. Vijayalakshmi Pai and Thierry Michel. Evolutionary Optimization of Constrained k -means Clustered Assets for Diversification in Small Portfolios. *IEEE Transactions on Evolutionary Computation*, 13(5):1030–1053, October 2009.
- [4860] Sangwook Paik. Multi-Objective Optimal Design of Steel Trusses in Unstructured Design Domains. Master’s thesis, Texas A&M University, Texas, USA, August 2005.
- [4861] Siddharth Pal, Aniruddha Basak, Swagatam Das, and P. N. Suganthan. Synthesis of Difference Patterns for Monopulse Antenna Arrays—an Evolutionary Multi-Objective Optimization Approach. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 504–513, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [4862] S. Palaniappan, S. Zein-Sabatto, and A. Sekmen. Dynamic Multiobjective Optimization of War Resource Allocation using Adaptive Genetic Algorithm. In *Proceedings of the SoutheastCon*, pages 160–165. IEEE, 2001.
- [4863] K. Palanikumar, B. Latha, V. S. Senthilkumar, and R. Karthikeyan. Multiple Performance Optimization in Machining of GFRP Composites by a PCD Tool using Non-dominated Sorting Genetic Algorithm (NSGA-II). *Metals and Materials International*, 15(2):249–258, April 2009.
- [4864] N. Palli, S. Azarm, P. McCluskey, and R. Sundararajan. An Interactive Multistage epsilon-Inequality Constraint Method for Multiple Objectives Decision Making. *Journal of Mechanical Design, Transactions of the ASME*, 120:678–686, 1998.
- [4865] S. Pamuk and M. Koksalan. An interactive genetic algorithm applied to the multiobjective knapsack problem. In *Multiple Criteria Decision Making In The New Millennium*, pages 265–272. Springer. Lecture Notes In Economics And Mathematical Systems. Vol. 507, 2001.

- [4866] Feng Pan, Guanghui Wang, and Yang Liu. A Multi-Objective-Based Non-Stationary UAV Assignment Model for Constraints Handling using PSO. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 459–466, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [4867] Q.-K. Pan, L. Wang, and B. Qian. A novel multi-objective particle swarm optimization algorithm for no-wait flow shop scheduling problems. *Proceedings of the Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, 222(4):519–539, April 2008.
- [4868] Q.-K. Pan, L. Wang, and B. Qian. A novel multi-objective particle swarm optimization algorithm for no-wait flow shop scheduling. *Proceedings of the Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, 222(4):519–539, April 2009.
- [4869] Quan-Ke Pan, Ling Wang, and Bin Qian. A novel differential evolution algorithm for bi-criteria no-wait flow shop scheduling problems. *Computers & Operations research*, 36(8):2498–2511, August 2009.
- [4870] Nadi Panahi and Reza Tavakkoli-Moghaddam. Solving a multi-objective open shop scheduling problem by a novel hybrid ant colony optimization. *Expert Systems With Applications*, 38(3):2817–2822, March 2011.
- [4871] Liviu Panait and Sean Luke. Alternative Bloat Control Methods. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 630–641, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [4872] Sidhartha Panda. Multi-objective evolutionary algorithm for SSSC-based controller design. *Electric Power Systems Research*, 79(6):937–944, June 2009.
- [4873] Sidhartha Panda. Multi-Objective Non-Dominated Shorting Genetic Algorithm-II for Excitation and TCSC-Based Controller Design. *Journal of ELECTRICAL ENGINEERING*, 60(2):86–93, 2009.
- [4874] Sidhartha Panda. Application of non-dominated sorting genetic algorithm-II technique for optimal FACTS-based controller design. *Journal Of The Franklin Institute-Engineering And Applied Mathematics*, 347(7):1047–1064, September 2010.
- [4875] Sidhartha Panda. Multi-objective PID controller tuning for a FACTS-based damping stabilizer using Non-dominated Sorting Genetic Algorithm-II. *International Journal of Electrical Power & Energy Systems*, 33(7):1296–1308, September 2011.
- [4876] P. M. Pandey, K. Thrimurthulu, and N. V. Reddy. Optimal part deposition orientation in FDM by using a multicriteria genetic algorithm. *International Journal of Production Research*, 42(19):4069–4089, October 1 2004.

- [4877] M.A. Panduro, C.A. Brizuela, D. Covarrubias, and C. Lopez. A trade-off curve computation for linear antenna arrays using an evolutionary multi-objective approach. *Soft Computing*, 10(2):125–131, January 2006.
- [4878] M.A. Panduro, D.H. Covarrubias, C.A. Brizuela, and F.R. Marante. A multi-objective approach in the linear antenna array design. *AEU-International Journal of Electronics and Communications*, 59(4):205–212, 2005.
- [4879] Marco A. Panduro and Carlos A. Brizuela. Evolutionary multi-objective design of non-uniform circular phased arrays. *COMPEL—The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 27(2):551–566, 2008.
- [4880] Marco A. Panduro, Carlos A. Brizuela, and David H. Covarrubias. Design of electronically steerable linear arrays with evolutionary algorithms. *Applied Soft Computing*, 8:46–54, January 2008.
- [4881] José Maria A. Pangilinan, Gerrit K. Janssens, and An Caris. Sensitivity Analysis of a Genetic Algorithm for a Competitive Facility Location Problem. In Khaled Elleithy, editor, *Innovations and Advanced Techniques in Systems, Computing Sciences and Software Engineering*, pages 266–271. Springer, 2008.
- [4882] B. K. Panigrahi, V. Ravikumar Pandi, Sanjoy Das, and Swagatam Das. Multiobjective fuzzy dominance based bacterial foraging algorithm to solve economic emission dispatch problem. *Energy*, 35(12):4761–4770, December 2010.
- [4883] C. K. Panigrahi, R. Chakrabarti, and P. K. Chattopadhyay. Economic Environmental Dispatch by a Mode Technique. *Journal of Circuits, Systems, and Computers*, 17(3):499–512, June 2008.
- [4884] Andrea Paoli, Farid Melgani, and Edoardo Pasolli. Clustering of Hyperspectral Images Based on Multiobjective Particle Swarm Optimization. *IEEE Transactions On Geoscience And Remote Sensing*, 47(12):4175–4188, December 2009.
- [4885] Gregor Papa. An evolutionary approach to chip design: An empirical evaluation. *Informacije Midem—Journal of Microelectronics electronic components and materials*, 33(3):142–148, September 2003.
- [4886] Gregor Papa and Tomasz Garbolino. A new approach to optimization of test pattern generator structure. *Informacije Midem—Journal of Microelectronics electronic components and materials*, 38(1):26–30, March 2008.
- [4887] Gregor Papa, Tomasz Garbolino, and Franc Novak. Deterministic Test Pattern Generator Design. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT,*

EvoIASP, EvoMUSART, EvoNUM, EvoSTOC, and EvoTransLog, pages 204–213. Springer. Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.

- [4888] Vissarion Papadopoulos and Nikos D. Lagaros. Vulnerability-based robust optimization of imperfect shell structures. *Structural Safety*, 31(6):475–482, 2009.
- [4889] Manolis Papadrakakis, Nikos D. Lagaros, and Vagelis Plevris. Multi-objective optimization of skeletal structures under static and seismic loading. *Engineering Optimization*, 34(6):645–669, December 2002.
- [4890] C. Papagianni, K. Papadopoulos, C. Pappas, N. D. Tselikas, D. T. Kaklamani, and I. S. Venieris. Communication Network Design Using Particle Swarm Optimization. In *International Multiconference on Computer Science and Information Technology (IMCSIT'2008)*, pages 915–920, Wisla, Poland, October 2008. IEEE Computer Society.
- [4891] Apostolos Papanikolaou, George Zaraphonitis, Evangelos Boulougouris, Uwe Langbecker, Sven Matho, and Pierre Sames. Multi-objective optimization of oil tanker design. *Journal of Marine Science and Technology*, 15(4):359–373, December 2010.
- [4892] Melih Papila, Raphael T. Haftka, Toshikazu Nishida, and Mark Sheplak. Piezoresistive Microphone Design Pareto Optimization: Tradeoff Between Sensitivity and Noise Floor. *Journal of Microelectromechanical Systems*, 15(6):1632–1643, December 2006.
- [4893] Gisele L. Pappa and Alex A. Freitas. Evolving rule induction algorithms with multi-objective grammar-based genetic programming. *Knowledge and Information Systems*, 19(3):283–309, June 2009.
- [4894] Gisele L. Pappa, Alex A. Freitas, and Celso A.A. Kaestner. Attribute Selection with a Multiobjective Genetic Algorithm. In G. Bittencourt and G.L. Ramalho, editors, *Proceedings of the 16th Brazilian Symposium on Artificial Intelligence (SBIA-2002)*, pages 280–290. Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 2507, 2002.
- [4895] Gisele L. Pappa, Alex A. Freitas, and Celso A.A. Kaestner. A Multiobjective Genetic Algorithm for Attribute Selection. In *Proceedings of the 4th International Conference on Recent Advances in Soft Computing (RASC-2002)*, pages 116–121, Nottingham, UK, December 2002. Nottingham Trent University.
- [4896] Gisele L. Pappa, Alex A. Freitas, and Celso A.A. Kaestner. Multi-Objective Algorithms for Attribute Selection in Data Mining. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 603–626. World Scientific, Singapore, 2004.

- [4897] Gisele Lobo Pappa. Seleção de Atributos Utilizando Algoritmos Genéticos Multiobjetivos. Master's thesis, Pontifícia Universidade Católica do Paraná, Curitiba, Brazil, 2002. (In Portuguese).
- [4898] Luis Paquete, Marco Chiarandini, and Thomas Stützle. Pareto Local Optimum Sets in the Biobjective Traveling Salesman Problem: An Experimental Study. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T'kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 177–199, Berlin, 2004. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535.
- [4899] Luís Paquete, Tommaso Schiavinotto, and Thomas Stützle. On local optima in multiobjective combinatorial optimization problems. *Annals of Operations Research*, 156(1):83–97, December 2007.
- [4900] Luis Paquete and Thomas Stützle. A Two-Phase Local Search for the Biobjective Traveling Salesman Problem. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 479–493, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [4901] Luis Paquete and Thomas Stützle. A study of stochastic local search algorithms for the biobjective QAP with correlated flow matrices. *European Journal of Operational Research*, 169:943–959, 2006.
- [4902] Luís Paquete and Thomas Stützle. Stochastic Local Search Algorithms for Multiobjective Combinatorial Optimization: A Review. In Teofilo F. Gonzalez, editor, *Handbook of Approximation Algorithms and Metaheuristics*, chapter 29, pages 29–1–29–15. Chapman & Hall/CRC, 2007. ISBN 978-1-58488-550-4.
- [4903] Luís Paquete and Thomas Stützle. Clusters of Non-dominated Solutions in Multiobjective Combinatorial Optimization: An Experimental Analysis. In Vincent Barichard, Matthias Ehrgott, Xavier Gandibleux, and Vincent T'Kindt, editors, *Multiobjective Programming and Goal Programming. Theoretical Results and Practical Applications*, pages 69–77. Springer, Lecture Notes in Economics and Mathematical Systems, Vol. 618, 2009. ISBN 978-3-540-85645-0.
- [4904] Luís Paquete and Thomas Stützle. Design and analysis of stochastic local search for the multiobjective traveling salesman problem. *Computers & Operations Research*, 36(9):2619–2631, September 2009.
- [4905] Luís Paquete and Thomas Stützle. On the Performance of Local Search for the Biobjective Traveling Salesman Problem. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, chapter 7, pages 143–165. Springer, Studies in Computational Intelligence, Vol. 272, Berlin, Germany, 2010. ISBN 978-3-642-11217-1.

- [4906] Luís Paquete, Thomas Stützle, and Manuel López-Ibáez. Using Experimental Design to Analyze Stochastic Local Search Algorithms for Multiobjective Problems. In Springer US, editor, *Metaheuristics. Progress in Complex Systems Optimization*, pages 325–344. Springer, Operations Research/Computer Science Interfaces Series, Vol. 39, 2007. ISBN 978-0-387-71919-1.
- [4907] Luís F. Paquete and Carlos M. Fonseca. A Study of Examination Timetabling with Multiobjective Evolutionary Algorithms. In Jorge Pinho de Sousa, editor, *Proceedings of the 4th Metaheuristics International Conference (MIC'2001)*, pages 149–153. Program Operational Ciencia, Tecnologia, Inovação do Quadro Comunitário de Apoio III de Fundação para a Ciencia e Tecnologia, Porto, Portugal, July 16–20 2001.
- [4908] Chung Hae Park, Abdelghani Saouab, Joel Breard, Woo Suck Han, Alain Vautrin, and Woo Il Lee. An integrated optimisation for the weight, the structural performance and the cost of composite structures. *Composites Science and Technology*, 69(7-8):1101–1107, June 2009.
- [4909] H. Park, N-S Kwak, and J. Lee. A method of multiobjective optimization using a genetic algorithm and an artificial immune system. *Proceedings of the Institution of Mechanical Engineers Part C-Journal of Mechanical Engineering Science*, 223(5):1243–1252, May 2009.
- [4910] Hyungmin Park, Ji-Hyeong Han, and Jong-Hwan Kim. Swarm intelligence-based sensor network deployment strategy. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4210–4215, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4911] In-Won Park, Bum-Joo Lee, Ye-Hoon Kim, Ji-Hyeong Han, and Jong-Hwan Kim. Multi-objective quantum-inspired evolutionary algorithm-based optimal control of two-link inverted pendulum. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3382–3388, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4912] Kwang-Wook Park and Donald E. Grierson. Pareto-Optimal Conceptual Design of the Structural Layout of Buildings Using a Multicriteria Genetic Algorithm. *Computer-Aided Civil and Infrastructure Engineering*, 14(3):163–170, May 1999.
- [4913] Sangbong Park, Dongkyung Nam, and Cheol Hoon Park. Design of a neural controller using multiobjective optimization for nonminimum phase systems. In *1999 IEEE International Fuzzy Systems Conference Proceedings*, volume 1, pages 533–537. IEEE, 1999.
- [4914] Seong-Jin Park. *A Data Allocation Methodology Using the Multiple Aspects Petri Net and the Pareto Genetic Algorithm in Distributed Databases*. PhD thesis, Korea University, 1997.

- [4915] So-Youn Park and Ju-Jang Lee. Improvement of a Multi-Objective Differential Evolution using Clustering Algorithm. In *IEEE International Symposium on Industrial Electronics 2009 (ISIE'2009)*, pages 1213–1217, Seoul, South Korea, July 2009. IEEE Computer Society.
- [4916] So-Youn Park and Ju-Jang Lee. Improvement of A Multi-Objective Differential Evolution using Clustering Algorithm. In *IEEE International Symposium on Industrial Electronics (ISIE 2009)*, pages 1213–1217, Seoul, Korea, July 5-8 2009. IEEE Press.
- [4917] Taejin Park and Kwang Ryel Ryu. Accumulative Sampling for Noisy Evolutionary Multi-Objective Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 793–800, Dublin, Ireland, July 12-16 2011. ACM Press.
- [4918] Tong Kyu Park, Han Gyu Joo, Chang Hyo Kim, and Hyun Chul Lee. Multiobjective Loading Pattern Optimization by Simulated Annealing Employing Discontinuous Penalty Function and Screening Technique. *Nuclear Science and Engineering*, 162(2):134–147, June 2009.
- [4919] Yong Kuk Park and Jung-Min Yang. Optimization of mixed casting processes considering discrete ingot sizes. *Journal of Mechanical Science and Technology*, 23(7):1899–1910, July 2009.
- [4920] Geoffrey T. Parks. Multiobjective PWR Reload Core Optimization Using Genetic Algorithms. In *Proceedings of the International Conference on Mathematics and Computations, Reactor Physics, and Environmental Analyses*, pages 615–624, 1995.
- [4921] Geoffrey T. Parks. Multiobjective Pressurized Water Reactor Reload Core Design by Nondominated Genetic Algorithm Search. *Nuclear Science and Engineering*, 124(1):178–187, 1996.
- [4922] Geoffrey T. Parks. Multiobjective Pressurised Water Reactor Reload Core Design using a Genetic Algorithm. In George D. Smith, Nigel C. Steele, and Rudolf F. Albrecht, editors, *Artificial Neural Nets and Genetic Algorithms*, pages 53–57, Norwich, UK, 1997. Springer-Verlag.
- [4923] Geoffrey T. Parks and I. Miller. Selective Breeding in a Multiobjective Genetic Algorithm. In A. E. Eiben, M. Schoenauer, and H.-P. Schwefel, editors, *Parallel Problem Solving From Nature — PPSN V*, pages 250–259, Amsterdam, Holland, 1998. Springer-Verlag.
- [4924] G.T. Parks, J. Li, M.-E. Balazs, and I. Miller. An empirical investigation of elitism in multiobjective genetic algorithms. *Foundations of Computing and Decision Sciences*, 26(1):51–74, 2001.
- [4925] G.T. Parks and A. Suppapitnarm. Multiobjective optimization of PWR reload core designs using simulated annealing. In *Mathematics & Computation, Reactor Physics and Environmental Analysis in Nuclear Applications*, volume 2, pages 1435–1444, Madrid, Spain, 1999.

- [4926] I. C. Parmee, J. R. Abraham, and A. Machwe. Human-Centric Evolutionary Systems in Design and Decision-Making. In Jean-Philippe Rennard, editor, *Handbook of Research on Nature Inspired Computing for Economy and Management*, volume 2, pages 395–411. Idea Group Reference, Hershey, UK, 2006. ISBN 1-59140-984-5.
- [4927] I. C. Parmee and G. Purchase. The development of a directed genetic search technique for heavily constrained design spaces. In I. C. Parmee, editor, *Adaptive Computing in Engineering Design and Control-'94*, pages 97–102, Plymouth, UK, 1994. University of Plymouth, University of Plymouth.
- [4928] Ian Parmee, Dragan Cvetkovic, Christopher Bonham, and Ian Packham. Introducing prototype interactive evolutionary systems for ill-defined, multi-objective design environments. *Advances in Engineering Software*, 32(6):429–441, June 2001.
- [4929] Ian C. Parmee. *Evolutionary and Adaptive Computing in Engineering Design*. Springer, London, 2001. ISBN 1-85233-029-5.
- [4930] Ian C. Parmee and Johnson A. Abraham. Interactive Evolutionary Design. In Yaochu Jin, editor, *Knowledge Incorporation in Evolutionary Computation*, pages 435–458. Springer, Berlin Heidelberg, 2005. ISBN 3-540-22902-7.
- [4931] Ian C. Parmee, Johnson A. R. Abraham, and Azahar Machwe. User-Centric Evolutionary Computing: Melding Human and Machine Capability to Satisfy Multiple Criteria. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 263–283. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.
- [4932] Ian C. Parmee, Dragan Cvetković, Andrew H. Watson, and Christopher R. Bonham. Multi-objective Satisfaction within an Interactive Evolutionary Design Environment. *Evolutionary Computation*, 8(2):197–222, 2000.
- [4933] Ian C. Parmee, Dragan Cvetković, Andrew H. Watson, and Christopher R. Bonham. Multiobjective Satisfaction within an Interactive Evolutionary Design Environment. *Evolutionary Computation*, 8(2):197–222, Summer 2000.
- [4934] Ian C. Parmee and Andrew H. Watson. Preliminary Airframe Design Using Co-Evolutionary Multiobjective Genetic Algorithms. In W. Banzhaf, J. Daida, A. E. Eiben, M. H. Garzon, V. Honavar, M. Jakiela, and R. E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 2, pages 1657–1665, San Francisco, California, July 1999. Morgan Kaufmann.
- [4935] I.C. Parmee. Poor-Definition, Uncertainty, and Human Factors—Satisfying Multiple Objectives in Real-World Decision-Making Environments. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 67–81. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.

- [4936] I.C. Parmee, J. Abraham, M. Shackelford, O.F. Rana, and A. Shaikhali. Towards Autonomous Evolutionary Design Systems via Grid-Based Technologies. In *Proceedings of ASCE 2005 International Conference on Computing in Civil Engineering*, Cancun, Mexico, July 2005.
- [4937] I.C. Parmee and J.A.R. Abraham. Supporting Implicit Learning via the Visualisation of COGA Multi-objective Data. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 395–402, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4938] Carlos Parra-Lopez, Jeroen C. J. Groot, Carmen Carmona-Torres, and Walter A. H. Rossing. Integrating public demands into model-based design for multifunctional agriculture: An application to intensive Dutch dairy landscapes. *Ecological Economics*, 67(4):538–551, November 1 2008.
- [4939] Sophie N. Parragh, Karl F. Doerner, Richard F. Hartl, and Xavier Gandibleux. A Heuristic Two-Phase Solution Approach for the Multi-Objective Dial-A-Ride Problem. *Networks*, 54(4):227–242, December 2009.
- [4940] R.O. Parreiras, J.H.R.D. Maciel, and J.A. Vasconcelos. The A Posteriori decision in multiobjective optimization problems with Smarts, Promethee II, and a fuzzy algorithm. *IEEE Transactions on Magnetics*, 42(4):1139–1142, April 2006.
- [4941] R.O. Parreiras and J.A. Vasconcelos. Decision making in multiobjective optimization aided by the multicriteria tournament decision method. *Nonlinear Analysis-Theory Methods & Applications*, 71(12):E191–E198, December 2009.
- [4942] Roberta O. Parreiras and Joao A. Vasconcelos. Decision Making in Multiobjective Optimization Problems. In Nadia Nedjah and Luiza de Macedo Mourelle, editors, *Real-World Multi-Objective System Engineering*, pages 29–52. Nova Science Publishers, New York, 2005.
- [4943] Manuel Parrilla Sánchez. *Desarrollo e implementación de una metodología para el diseño de sistemas de control mediante algoritmos evolutivos multiobjetivo*. PhD thesis, Departamento de Informática y Automática, Universidad Nacional de Educación a Distancia, Madrid, Spain, 2006. (in Spanish).
- [4944] Daniel Parrott, Xiaodong Li, and Vic Ciesielski. Multi-objective Techniques in Genetic Programming for Evolving Classifiers. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1141–1148, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [4945] R. Parsons and S.L. Canfield. Developing genetic programming techniques for the design of compliant mechanisms. *Structural and Multidisciplinary Optimization*, 24(1):78–86, August 2002.

- [4946] K.E. Parsopoulos, D.K. Taoulis, N.G. Pavlidis, V.P. Plagianakos, and M.N. Vrahatis. Vector Evaluated Differential Evolution for Multiobjective Optimization. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 204–211, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [4947] K.E. Parsopoulos, D.K. Tasoulis, and M.N. Vrahatis. Multiobjective Optimization Using Parallel Vector Evaluated Particle Swarm Optimization. In *Proceedings of the IASTED International Conference on Artificial Intelligence and Applications (AIA 2004)*, volume 2, pages 823–828, Innsbruck, Austria, February 2004. ACTA Press.
- [4948] K.E. Parsopoulos and M.N. Vrahatis. Particle Swarm Optimization Method in Multiobjective Problems. In *Proceedings of the 2002 ACM Symposium on Applied Computing (SAC'2002)*, pages 603–607, Madrid, Spain, 2002. ACM Press.
- [4949] Konstantinos E. Parsopoulos and Michael N. Vrahatis. Multi-Objective Particles Swarm Optimization Approaches. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 20–42. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [4950] Christian Oliver Paschereit, Bruno Schuermans, and Dirk Büche. Combustion Process Optimization using Evolutionary Algorithm. In *Proceedings of the ASME Turbo Expo 2003*, Atlanta, USA, June 2003.
- [4951] Joseph M. Pasia, Hernán Aguirre, and Kiyoshi Tanaka. Path Relinking on Many-Objective NK-Landscapes. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 677–686. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [4952] Joseph M. Pasia, Hernán Aguirre, and Kiyoshi Tanaka. Improved Random One-Bit Climbers with Adaptive ϵ -Ranking and Tabu Moves for Many-Objective Optimization. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 182–196, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4953] Joseph M. Pasia, Karl F. Doerner, Richard F. Hartl, and Marc Reimann. A Population-Based Local Search for Solving a Bi-objective Vehicle Routing Problem. In Carlos Cotta and Jano van Hemert, editors, *Evolutionary Computation in Combinatorial Optimization, 7th European Conference, EvoCOP 2007*, pages 166–175, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4446.

- [4954] Joseph M. Pasia, Xavier Gandibleux, Karl F. Doerner, and Richard F. Hartl. Local Search Guided by Path Relinking and Heuristic Bounds. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 501–515, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [4955] Joseph M. Pasia, Richard F. Hartl, and Karl F. Doerner. Solving a Bi-objective Flowshop Scheduling Problem by Pareto-Ant Colony Optimization. In Marco Dorigo, Luca Maria Gambardella, Mauro Birattari, Alcherio Martinioli, Riccardo Poli, and Thomas Stützle, editors, *Ant Colony Optimization and Swarm Intelligence. 5th International Workshop, ANTS 2006*, pages 294–305. Springer. Lecture Notes in Computer Science Vol. 4150, Brussels, Belgium, September 2006.
- [4956] Rodrigo Pasti, Leandro Nunes de Castro, Guilherme Palermo Coelho, and Fernando Jose Von Zuben. Neural network ensembles: immune-inspired approaches to the diversity of components. *Natural Computing*, 9(3):625–653, September 2010.
- [4957] Dario Pastrone and Matteo Rosa Sentinella. Multi-Objective Optimization of Rocket-Based Combined-Cycle Engine Performance Using a Hybrid Evolutionary Algorithm. *Journal of Propulsion and Power*, 25(5):1140–1145, September-October 2009.
- [4958] Chirag B. Patel. *A Multi-Objective Stochastic Approach to Combinatorial Technology Space Exploration*. PhD thesis, School of Aerospace Engineering, Georgia Institute of Technology, USA, August 2009.
- [4959] Rahila Patel, M. M. Raghuwanshi, and L. G. Malik. An Approach Based on Grid-Value for Selection of Parents in Multi-objective Genetic Algorithm. In Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 265–273, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [4960] Alina Patelli and Lavinia Ferariu. Elite Based Multiobjective Genetic Programming in Nonlinear Systems Identification. *Advances in Electrical and Computer Engineering*, 10(1):94–99, 2010.
- [4961] Alina Patelli and Lavinia Ferariu. Elitist multiobjective nonlinear systems identification with insular evolution and diversity preservation. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2076–2081, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [4962] Bhupendra Kumar Pathak, Harish Kumar Singh, and Sanjay Srivastava. Multi-Resource-Constrained Discrete Time-Cost Tradeoff with MOGA Based

- Hybrid Method. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4425–4432, Singapore, September 2007. IEEE Press.
- [4963] Bhupendra Kumar Pathak and Sanjay Srivastava. MOGA-Based Time-Cost Tradeoffs: Responsiveness for Project Uncertainties. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3085–3092, Singapore, September 2007. IEEE Press.
 - [4964] Bhupendra Kurnar Pathak, Sanjay Srivastava, and Karnal Srivastava. Neural network embedded multiobjective genetic algorithm to solve non-linear time-cost tradeoff problems of project scheduling. *Journal of Scientific & Industrial Research*, 67(2):124–131, February 2008.
 - [4965] Awhan Patnaik and L. Behera. Evolutionary Multiobjective Optimization Based Control Strategies For An Inverted Pendulum On A Cart. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3140–3146, Hong Kong, June 2008. IEEE Service Center.
 - [4966] Panagiotis Patrinos, Alex Alexandridis, Konstantinos Ninos, and Haralambos Sarimveis. Variable Selection in Nonlinear Modeling Based on RBF Networks and Evolutionary Computation. *International Journal of Neural Systems*, 20(5):365–379, October 2010.
 - [4967] Gavin Paul, Dikai Liu, Nathan Kirchner, and Garnin Dissanayake. An Effective Exploration Approach to Simultaneous Mapping and Surface Material-Type Identification of Complex Three-Dimensional Environments. *Journal of Field Robotics*, 26(11-12):915–933, November-December 2009.
 - [4968] Olivier Pauplin, Praminda Caleb-Solly, and Jim Smith. User-centric image segmentation using an interactive parameter adaptation tool. *Pattern Recognition*, 43(2):519–529, February 2010.
 - [4969] Valentijn R. N. Pauwels and Gabrielle J. M. De Lannoy. Ensemble-based assimilation of discharge into rainfall-runoff models: A comparison of approaches to mapping observational information to state space. *Water Resources Research*, 45, August 2009. Article Number: W08428.
 - [4970] Valentijn R. N. Pauwels and Gabrielle J. M. De Lannoy. Multivariate calibration of a water and energy balance model in the spectral domain. *Water Resources Research*, 47, July 13 2011. article number W07523.
 - [4971] Ruth Pavón, Ricardo Brunelli, and Christian von Lücken. Determining Optimal Crop Rotations by Using Multiobjective Evolutionary Algorithms. In Juan D. Velásquez, Sebastián A. Ríos, Robert J. Howlett, and Lakhmi C. Jain, editors, *Knowledge-Based and Intelligent Information and Engineering Systems, 13th International Conference (KES 2009)*, pages 147–154. Springer, Lecture Notes in Computer Science, Vol. 5711, Santiago, Chile, 2009.

- [4972] P. J. Pawar, R. V. Rao, and J. P. Davim. Multiobjective Optimization of Grinding Process Parameters Using Particle Swarm Optimization Algorithm. *Materials and Manufacturing Processes*, 25(6):424–431, 2010.
- [4973] Ignacio Paya, Victor Yepes, Fernando Gonzalez-Vidoso, and Antonio Hospitaler. Multiobjective optimization of concrete frames by simulated annealing. *Computer-Aided Civil and Infrastructure Engineering*, 23(8):596–610, November 2008.
- [4974] Chandra Sekhar Pedamallu and Linet Ozdamar. Investigating a hybrid simulated annealing and local search algorithm for constrained optimization. *European Journal of Operational Research*, 185(3):1230–1245, 16 March 2008.
- [4975] Gerulf K. M. Pedersen and Zhenyu Yang. Efficiency Optimization of a Multi-Pump Booster System. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1611–1618, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [4976] Gerulf K.M. Pedersen and David E. Goldberg. Dynamic Uniform Scaling for Multiobjective Genetic Algorithms. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 11–23, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [4977] Gerulf K.M. Pedersen and Zhenyu Yang. Multi-Objective PID-Controller Tuning for a Magnetic Levitation System using NSGA-II. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1737–1744, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [4978] G.K.M. Pedersen, A.S. Langballe, and R. Wisniewski. Synthesizing multi-objective H2/H-infinity dynamic controller using evolutionary algorithms. In *Proceedings of the 15th IFAC World Congress*, pages 4580–4585, July 2002.
- [4979] Luciana R. Pedro and Ricardo H.C. Takahashi. Modeling Decision-Maker Preferences through Utility Function Level Sets. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 550–563, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [4980] M. Pedro, E. Monteiro, and F. Boavida. An approach to off-line inter-domain QoS-aware resource optimization. In *Networking 2006: Networking Technologies, Services, and Protocols; Performance of Computer and Communication Networks; Mobile and Wireless Communication Systems*, pages 247–255. Springer. Lecture Notes in Computer Science Vol. 3976, 2006.

- [4981] Jose C. Bortot Pedro P.B. de Oliveira and Gina M. B. Oliveira. The best currently known class of dynamically equivalent cellular automata rules for density classification. *Neurocomputing*, 70(1–3):35–43, December 2006.
- [4982] Qingqi Pei, Hongning Li, Jianfeng Ma, and Kefeng Fan. Defense Against Objective Function Attacks in Cognitive Radio Networks. *Chinese Journal of Electronics*, 20(1):138–142, January 2011.
- [4983] Martin Pelikan, Kumara Sastry, and David E. Goldberg. Multiobjective hBOA, Clustering, and Scalability. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 663–670, New York, USA, June 2005. ACM Press.
- [4984] Martin Pelikan, Kumara Sastry, and David E. Goldberg. Multiobjective Estimation of Distribution Algorithms. In Martin Pelikan, Kumara Sastry, and Erick Cantú-Paz, editors, *Scalable Optimization via Probabilistic Modeling*, pages 223–248. Springer. Studies in Computational Intelligence Vol. 33, 2006. ISBN 978-3-540-34953-2.
- [4985] Jacob L. Pelletier and Senthil S. Vel. Multi-objective optimization of fiber reinforced composite laminates for strength, stiffness and minimal mass. *Computers & Structures*, 84(29-30):2065–2080, November 2006.
- [4986] Chunhua Peng, Huijuan Sun, Jianfeng Guo, and Gang Liu. Multi-objective optimal strategy for generating and bidding in the power market. *Energy Conversion and Management*, 57:13–22, May 2012.
- [4987] Fei Peng and Ke Tang. Alleviate the Hypervolume Degeneration Problem of NSGA-II. In Bao-Liang Lu, Liqing Zhang, and James Kwok, editors, *Neural Information Processing, 18th International Conference, ICONIP 2011*, pages 425–434, Shanghai, China, November 13-17 2011. Springer. Lecture Notes in Computer Science Vol. 7063.
- [4988] Wei Peng, Qingfu Zhang, and Hui Li. Comparison between MOEA/D and NSGA-II on the Multi-Objective Travelling Salesman Problem. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 14, pages 309–324. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [4989] Massimiliano Di Penta, Mark Harman, and Giuliano Antoniol. The use of search-based optimization techniques to schedule and staff software projects: an approach and an empirical study. *Software-Practice & Experience*, 41(5):495–519, April 2011.
- [4990] Hernán Peraza Vázquez. Desarrollo de un Algoritmo Genético para la Indexación de Patrones de Difracción de Rayos X: Un Problema Multi-Objetivo. Master's thesis, División de Estudios de Posgrado e Investigación, Instituto Tecnológico de Ciudad Madero, Cd. Madero, Tamaulipas, México, March 2004. (in Spanish).

- [4991] Lina Perelman, Avi Ostfeld, and Elad Salomons. Cross Entropy multiobjective optimization for water distribution systems design. *Water Resources Research*, 44(9), September 10 2008. Article Number: W09413.
- [4992] Ricardo Perera and Sheng-En Fang. Multi-objective Damage Identification Using Particle Swarm Optimization Techniques. In Nadia Nedjah, Leandro dos Santos Coelho, and Luiza de Macedo de Mourelle, editors, *Multi-Objective Swarm Intelligent Systems. Theory & Experiences*, chapter 8, pages 179–207. Springer, Studies in Computational Intelligence, Vol. 261, Berlin, Germany, 2010. ISBN 978-3-642-05164-7.
- [4993] Ricardo Perera, Sheng-En Fang, and C. Huerta. Structural crack detection without updated baseline model by single and multiobjective optimization. *Mechanical Systems and Signal Processing*, 23(3):752–768, April 2009.
- [4994] Ricardo Perera, Sheng-En Fang, and Antonio Ruiz. Particle Swarm vs. Evolutionary Optimization Techniques in a Multiobjective Framework for Damage Identification. In F. Chu, H. Ouyang, V. Silberschmidt, L. Garibaldi, C. Surace, W.M. Ostachowicz, and D. Jiang, editors, *Damage Assessment of Structures VIII*, pages 661–668, Switzerland, June 2009. Trans Tech Publications.
- [4995] Ricardo Perera, Sheng-En Fang, and Antonio Ruiz. Application of particle swarm optimization and genetic algorithms to multiobjective damage identification inverse problems with modelling errors. *Meccanica*, 45(5):723–734, October 10 2010.
- [4996] Ricardo Perera and Antonio Ruiz. A multistage FE updating procedure for damage identification in large-scale structures based on multiobjective evolutionary optimization. *Mechanical Systems and Signal Processing*, 22(4):970–991, May 2008.
- [4997] Ricardo Perera, Antonio Ruiz, and Carlos Manzano. An evolutionary multiobjective framework for structural damage localization and quantification. *Engineering Structures*, 29(10):2540–2550, October 2007.
- [4998] Ricardo Perera, Antonio Ruiz, and Carlos Manzano. Performance assessment of multicriteria damage identification genetic algorithms. *Computers & Structures*, 87(1–2):120–127, January 2009.
- [4999] Victor Pereyra. Fast Computation of Equispaced Pareto Manifolds and Pareto Fronts for Multiobjective Optimization Problems. *Mathematics and Computers in Simulation*, 79(6):1935–1947, February 2009.
- [5000] M. J. Pérez, J. García, L. Martí, and J. M. Molina. Multi-Objective Optimization Evolutionary Algorithms in Insurance-Linked Derivatives. In Jean-Philippe Rennard, editor, *Handbook of Research on Nature Inspired Computing for Economy and Management*, volume 2, pages 885–908, Hershey, UK, 2006. Idea Group Reference. ISBN 1-59140-984-5.

- [5001] R. Perez, K. Behdinan, and J. Chung. Airfoil Shape Optimization Using Genetic Algorithms. In *Proceedings, 47th Annual Conference of the Canadian Aeronautic and Space Institute, Aircraft Design and Development Symposium*, Ottawa, Canada, April 30 - May 3 2000.
- [5002] Ruben Perez and Kamran Behdinan. Effective Multi-Mission Aircraft Conceptual Design Optimization Using a Hybrid Multi-Objective Evolutionary Method. In *Proceedings of the 9th AIAA/ISSMO Symposium on Multidisciplinary Analysis and Optimization*, AIAA-2002-5464. American Institute of Aeronautics and Astronautics, 2002.
- [5003] R. Pérez-Pérez, C. Luque, A. Cervantes, and P. Isasi. Multiobjective Algorithms to Optimize Broadcasting Parameters in Mobile Ad-hoc Networks. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3142–3149, Singapore, September 2007. IEEE Press.
- [5004] M. E. Perez-Vazquez, A. M. Gento-Municio, and H. R. Lourenco. Solving a concrete sleepers production scheduling by genetic algorithms. *European Journal of Operational Research*, 179(3):605–620, June 16 2007.
- [5005] Cristian Perfumo, John K. Ward, and Julio H. Braslavsky. Reducing energy use and operational cost of air conditioning systems with multi-objective evolutionary algorithms. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3937–3944, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5006] Jacques Périaux, Mourad Sefrioui, and Bertrand Mantel. RCS multi-objective optimization of scattered waves by active control elements using GAs. In *Proceedings of the Fourth International Conference on Control, Automation, Robotics and Vision (ICARCV'96)*, Singapore, 1996.
- [5007] Jacques Périaux, Mourad Sefrioui, and Bertrand Mantel. GA Multiple Objective Optimization Strategies for Electromagnetic Backscattering. In D. Quagliarella, J. Périaux, C. Poloni, and G. Winter, editors, *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science. Recent Advances and Industrial Applications*, chapter 11, pages 225–243. John Wiley & Sons, Chichester, UK, 1998.
- [5008] Joshua S. Petko and Douglas H. Werner. Pareto Optimization of Thinned Planar Arrays With Elliptical Mainbeams and Low Sidelobe Levels. *IEEE Transactions on Antennas and Propagation*, 59(5):1748–1751, May 2011.
- [5009] Dimitris I. Petropoulos and Andreas C. Nearchou. A particle swarm optimization algorithm for balancing assembly lines. *Assembly Automation*, 31(2):118–129, 2011.
- [5010] Andrei Petrovski and John McCall. Multi-objective Optimisation of Cancer Chemotherapy Using Evolutionary Algorithms. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, edi-

- tors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 531–545. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [5011] Andrei Petrovski, John McCall, and Bhavani Sudha. Multi-Objective Optimization of Cancer Chemotherapy Using Swarm Intelligence. In *Symposium on Adaptive and Emergent Behaviour and Complex Systems (AISB 2009)*, Edinburgh, Scotland, April 6-9 2009. Heriot-Watt University.
 - [5012] F. Pettersson, N. Chakraborti, and H. Saxén. A genetic algorithms based multi-objective neural net applied to noisy blast furnace data. *Applied Soft Computing*, 7:387–397, 2007.
 - [5013] F. Pettersson, N. Chakraborti, and S.B. Singh. Neural Networks Analysis of Steel Plate Processing Augmented by Multi-objective Genetic Algorithms. *Steel Research International*, 78(12):890–898, December 2007.
 - [5014] Frank Pettersson, Arijit Biswas, Prodip Kumar Sen, Henrik Saxén, and Nirupam Chakraborti. Analyzing Leaching Data for Low-Grade Manganese Ore Using Neural Nets and Multiobjective Genetic Algorithms. *Materials and Manufacturing Processes*, 24(3):320–330, March 2009.
 - [5015] Frank Pettersson, Henrik Saxen, and Kalyanmoy Deb. Genetic Algorithm-Based Multicriteria Optimization of Ironmaking in the Blast Furnace. *Materials And Manufacturing Processes*, 24(3):343–349, 2009.
 - [5016] Frank Pettersson, Changwon Suh, Henrik Saxeén, Krishna Rajan, and Nirupam Chakraborti. Analyzing Sparse Data for Nitride Spinels Using Data Mining, Neural Networks, and Multiobjective Genetic Algorithms. *Materials and Manufacturing Processes*, 24(1):2–9, January 2009.
 - [5017] O. Peyran and W. Zhuang. Educating Initial Solutions for Genetic Algorithms: A Chip Planning Optimization Example. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 2, pages 687–691, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
 - [5018] D. Pfaller, A. Brummer, and K. Kauder. Optimized rotor pitch distributions for screw spindle vacuum pumps. *Vacuum*, 85(12):1152–1155, June 5 2011.
 - [5019] Jella Pfeiffer, Uli Golle, and Franz Rothlauf. Reference Point Based Multi-Objective Evolutionary Algorithms for Group Decisions. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 697–704, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
 - [5020] D.T. Pham and M. Castellani. Evolutionary learning of fuzzy models. *Engineering Applications of Artificial Intelligence*, 19(6):583–592, September 2006.

- [5021] Minh-Trien Pham, Diahai Zhang, and Chang Seop Koh. Multi-Guider and Cross-Searching Approach in Multi-Objective Particle Swarm Optimization for Electromagnetic Problems. *IEEE Transactions on Magnetics*, 48(2):539–542, February 2012.
- [5022] Viet V. Pham, Lam T. Bui, Sameer Alam, Chris Lokan, and Hussein A. Abbass. A Pittsburgh Multi-Objective Classifier for User Preferred Trajectories and Flight Navigation. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 608–615, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5023] S. Phelps and M. Koksalan. An interactive evolutionary metaheuristic for multiobjective combinatorial optimization. *Management Science*, 49(12):1726–1738, December 2003.
- [5024] J. Pieczara. Optimization of cooling tower shells using a simple genetic algorithm. *Structural And Multidisciplinary Optimization*, 19(4):311–316, July 2000.
- [5025] Henri Pierreval and Marie-France Plaquin. An Evolutionary Approach of Multicriteria Manufacturing Cell Formation. *International Transactions in Operational Research*, 5(1):13–25, January 1998.
- [5026] Martin Pilát and Roman Neruda. Combining Multiobjective and Single-objective Genetic Algorithms in Heterogeneous Island Model. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1543–1550, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5027] Christian Pilato, Daniele Loiacono, Fabrizio Ferrandi, Pier Luca Lanzi, and Donatella Sciuto. High-Level Synthesis with Multi-Objective Genetic Algorithm: A Comparative Encoding Analysis. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3333–3340, Hong Kong, June 2008. IEEE Service Center.
- [5028] Christian Pilato, Daniele Loiacono, Antonino Tumeo, Fabrizio Ferrandi, Pier Luca Lanzi, and Donatella Sciuto. Speeding-Up Expensive Evaluations in High-Level Synthesis Using Solution Modeling and Fitness Inheritance. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 701–723. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [5029] Christian Pilato, Gianluca Palermo, Antonino Tumeo, Fabrizio Ferrandi, Donatella Sciuto, and Pier Luca Lanzi. Fitness Inheritance in Evolutionary and Multi-Objective High-Level Synthesis. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3459–3466, Singapore, September 2007. IEEE Press.
- [5030] Bruno Pinaud, Pascale Kuntz, and Rémi Lehn. Dynamic Graph Drawing with a Hybridized Genetic Algorithm. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture VI*, pages 365–375, London, 2004. Springer.

- [5031] N.M. Pindoriya, S.N. Singh, and S.K. Singh. Multi-objective mean-variance-skewness model for generation portfolio allocation in electricity markets. *Electric Power Systems Research*, 80(10):1314–1321, October 2010.
- [5032] Li ping Ding, Jian rong Tan, Zhe Wei, Wen liang Chen, and Zhan Gao. Multi-Objective Performance Design of Injection Molding Machine Via a New Multi-Objective Optimization Algorithm. *International Journal of Innovative Computing Information and Control*, 7(7A):3939–3949, July 2011.
- [5033] Antonio Pinto, Daniele Peri, and Emilio F. Campana. Multiobjective optimization of a containership using deterministic particle swarm optimization. *Journal of Ship Research*, 51(3):217–228, September 2007.
- [5034] Diego Pinto, Benjamín Barán, and Ramón Fabregat. Multi-Objective Multicast Routing based on Ant Colony Optimization. In Beatriz López, Joaquim Meléndez, Petia Radeva, and Jordi Vitria, editors, *Proceeding of the 2005 conference on Artificial Intelligence Research and Development*, pages 363–370, Amsterdam, The Netherlands, The Netherlands, 2005. IOS Press.
- [5035] Diego P. Pinto-Roa, Benjamin Baran, and Carlos A. Brizuela. Routing and wavelength converter allocation in WDM networks: a multi-objective evolutionary optimization approach. *Photonic Network Communications*, 22(1):23–45, August 2011.
- [5036] G.S. Piperagkas, A.G. Anastasiadis, and N.D. Hatziaargyriou. Stochastic PSO-based heat and power dispatch under environmental constraints incorporating CHP and wind power units. *Electric Power Systems Research*, 81(1):209–218, January 2011.
- [5037] E. J. Solteiro Pires, Luís Mendes, P. B. de Moura Oliveira, J. A. Tenreiro Machado, N. M. Fonseca Ferreira, Jo ao Vaz, and Maria Rosário. Single-Objective Front Optimization: Application to RF Circuit Design. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 765–766, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [5038] E. J. Solteiro Pires, Luís Mendes, Antonio M. Lopes, P. B. de Moura Oliveira, J. A. Tenreiro Machado, Jo ao Vaz, and Maria J. Rosário. Maximin spreading algorithm. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3200–3207, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5039] Eduardo José Solteiro Pires, Paulo B. de Moura Oliveira, and José António Tenreiro Machado. Multi-objective Genetic Manipulator Trajectory Planner. In Günther R. Raidl et al., editor, *Applications of Evolutionary Computing. Proceedings of Evoworkshops 2004: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 219–229, Coimbra, Portugal, April 2004. Springer. Lecture Notes in Computer Science Vol. 3005.
- [5040] E.J. Solteiro Pires, P.B. de Moura Oliveira, and J.A. Tenreiro Machado. Multi-objective MaxiMin Sorting Scheme. In Carlos A. Coello Coello, Arturo

- Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 165–175, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [5041] E.J. Solteiro Pires, P.B. de Moura Oliveira, and J.A. Tenreiro Machado. Manipulator trajectory planning using a MOEA. *Applied Soft Computing*, 7(3):659–667, June 2007.
 - [5042] E.J. Solteiro Pires, J.A. Tenreiro Machado, and P.B. de Moura Oliveira. Robot Trajectory Planning Using Multiobjective Genetic Algorithm Optimization. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 615–626, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
 - [5043] Theera Piroonratana and Nachol Chaiyaratana. Improved Multi-Objective Diversity Control Oriented Genetic Algorithm. In Leszek Rutkowski, Ryszard Tadeusiewicz, Lotfi A. Zadeh, and Jacek M. Zurada, editors, *8th International Conference on Artificial Intelligence and Soft Computing (ICAISC 2006)*, pages 430–439. Springer, Lecture Notes in Computer Science, Vol. 4029, Zakopane, Poland, 2006.
 - [5044] Paul Pitiot, Thierry Coudert, Laurent Geneste, and Claude Baron. Improvement of Intelligent Optimization by an Experience Feedback Approach. In Nicolas Monmarché, El-Ghazali Talbi, Pierre Collet, Marc Schoenauer, and Evelyne Lutton, editors, *Artificial Evolution. 8th International Conference Evolution Artificielle (EA 2007)*, pages 316–327, Tours, France, October 2007. Springer. Lecture Notes in Computer Science. Vol. 4926.
 - [5045] Paul Pitiot, Thierry Coudert, Laurent Geneste, and Claude Baron. A Priori Knowledge Integration in Evolutionary Optimization. In *Artificial Evolution, 9th International Conference, Evolution Artificielle, EA 2009*, pages 98–109, Strasbourg, France, 2010. Springer. Lecture Notes in Computer Science, Vol. 5975. ISBN 978-3-642-14155-3.
 - [5046] A. Pitsillides, G. Stylianou, C.S. Pattichis, A. Sekercioglu, and A. Vasilakos. Aggregated bandwidth allocation: investigation of performance of classical constrained and genetic algorithm based optimisation techniques. *Computer Communications*, 25(16):1443–1453, October 1 2002.
 - [5047] Andreas Pitsillides, Costas Pattichis, A. Sekerciogli, and Thanos Vassilakos. Bandwidth Allocation for Virtual Paths using Genetic Algorithms (GA-BAVP). In *International Conference on Telecommunications (ICT'97)*, Melbourne, Australia, April 1997.
 - [5048] Timothy L. Pitzer, James A. Fellows, Gary B. Lamont, and Andrew J. Terzuoli. Linear ensemble antennas resulting from the optimization of log periodic

- dipole arrays using genetic algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 10958–10965, Vancouver, BC, Canada, July 2006. IEEE.
- [5049] V.P. Plagianakos, D.K. Tasoulis, and M.N. Vrahatis. A review of major application areas of differential evolution. In Uday K. Chakraborty, editor, *Advances in Differential Evolution*, pages 197–238. Springer, Berlin, 2008. ISBN 978-3-540-68827-3.
 - [5050] M. Pohlak, J. Majak, K. Karjust, and R. Küttner. Multi-criteria optimization of large composite parts. *Composite Structures*, 92(9):2146–2152, August 2010.
 - [5051] L. Poladian and L.S. Jermini. Multi-objective evolutionary algorithms and phylogenetic inference with multiple data sets. *Soft Computing*, 10(4):359–368, February 2006.
 - [5052] Silvia Poles, Paolo Geremia, F. Campos, S. Weston, and M. Islam. MOGA-II for an Automotive Cooling Duct Optimization on Distributed Resources. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 633–644, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
 - [5053] Silvia Poles, Enrico Rigoni, and Tea Robič. MOGA-II Performance on Noisy Optimization Problems. In Bogdan Filipič and Jurij Šilc, editors, *Bioinspired Optimization Methods and Their Applications. Proceedings of the International Conference on Bioinspired Optimization Methods and their Applications, BIOMA 2004*, pages 51–62. Jožef Stefan Institute, Ljubljana, Slovenia, October 2004.
 - [5054] Silvia Poles, Mariana Vassileva, and Daisuke Sasaki. Multiobjective Optimization Software. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 329–348. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
 - [5055] Riccardo Poli, William B. Langdon, and Nicholas F. McPhee. *A Field Guide to Genetic Programming*. <http://www.lulu.com>, 2008. (With contributions by John R. Koza). Available for download at: <http://www.gp-field-guide.org.uk>.
 - [5056] C. Poloni, A. Giurgevich, L. Onesti, and V. Pediroda. Hybridization of a multi-objective genetic algorithm, a neural network and a classical optimizer for a complex design problem in fluid dynamics. *Computer Methods in Applied Mechanics and Engineering*, 186(2-4):403–420, 2000.
 - [5057] Carlo Poloni. Hybrid GA for Multi-Objective Aerodynamic Shape Optimization. In G. Winter, J. Periaux, M. Galan, and P. Cuesta, editors, *Genetic Algorithms in Engineering and Computer Science*, pages 397–416. Wiley & Sons, Chichester, 1995.

- [5058] Carlo Poloni, M. Fearon, and D. Ng. Parallelisation of Genetic Algorithms for Aerodynamic Design Optimisation. In Ian C. Parmee and M. J. Denham, editors, *Proceedings of the Second International Conference on Adaptive Computing in Engineering Design and Control*, pages 59–64, Plymouth, UK, 1996. University of Plymouth.
- [5059] Carlo Poloni, Giovanni Mosetti, and Stefano Contessi. Multiobjective Optimization by GAs: Application to System and Component Design. In *Computational Methods in Applied Sciences '96: Invited Lectures and Special Technological Sessions of the Third ECCOMAS Computational Fluid Dynamics Conference and the Second ECCOMAS Conference on Numerical Methods in Engineering*, pages 258–264, Chichester, 1996. Wiley.
- [5060] Carlo Poloni and Valentino Pediroda. GA coupled with computationally expensive simulations: tools to improve efficiency. In D. Quagliarella, J. Périaux, C. Poloni, and G. Winter, editors, *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science. Recent Advances and Industrial Applications*, chapter 13, pages 267–288. John Wiley & Sons, Chichester, UK, 1998.
- [5061] S.G. Ponnambalam. Evolutionary Simulated Hybrid Search Algorithms for Flow Line Scheduling. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution And Learning (SEAL'02)*, volume 2, pages 826–830, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [5062] S.G. Ponnambalam, P. Aravindan, and G. Mogileeswar Naidu. A Multi-Objective Genetic Algorithm for Solving Assembly Line Balancing Problem. *International Journal of Advanced Manufacturing Technology*, 16(5):341–352, 2000.
- [5063] S.G. Ponnambalam, V. Ramkumar, and N. Jawahar. A multiobjective genetic algorithm for job shop scheduling. *Production Planning & Control*, 12(8):764–774, December 2001.
- [5064] Wolfgang Ponweiser and Markus Vincze. The Multiple Multi Objective Problem—Definition, Solution and Evaluations. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 877–892, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5065] Wolfgang Ponweiser, Tobias Wagner, Dirk Biermann, and Markus Vincze. Multiobjective Optimization on a Limited Budget of Evaluations Using Model-Assisted S-Metric Selection. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 784–794. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.

- [5066] Edgar A. Portilla-Flores, Efrén Mezura-Montes, Jaime Álvarez Gallegos, Carlos A. Coello-Coello, and Carlos A. Cruz-Villar. Integration of Structure and Control Using an Evolutionary Approach: An Application to the Optimal Concurrent Design of a CVT. *International Journal for Numerical Methods in Engineering*, 71(8):883–901, August 2007.
- [5067] Edgar Alfredo Portilla Flores. *Integración Simultánea de Aspectos Estructurales y Dinámicos para el Diseño Óptimo de un Sistema de Transmisión de Variación Continua*. PhD thesis, Departamento de Ingeniería Eléctrica, Sección de Mecatrónica, CINVESTAV-IPN, México, D.F., México, June 2006. (In Spanish).
- [5068] P.N. Poulos, G.G. Rigatos, S.G. Tzafestas, and A.K. Koukos. A Pareto-optimal genetic algorithm for warehouse multi-objective optimization. *Engineering Applications of Artificial Intelligence*, 14(6):737–749, December 2001.
- [5069] M. Pouraghaie, K. Atashkari, S. M. Besarati, and N. Nariman-Zadeh. Thermodynamic performance optimization of a combined power/cooling cycle. *Energy Conversion and Management*, 51(1):204–211, January 2010.
- [5070] S. Pourzeynali and M. Zarif. Multi-objective optimization of seismically isolated high-rise building structures using genetic algorithms. *Journal of Sound and Vibration*, 311(3–5):1141–1160, 8 April 2008.
- [5071] A. Povoleri, M. Lavagna, and A.E. Finzi. Aero-Gravity Assisted Manoeuvres within Preliminary Interplanetary Mission Design: A Multi-Objective Evolutionary Algorithm Approach. In *18th International Symposium on Space Flight Dynamics*, Munich, Germany, October 2004. Haus der Bayerischen Wirtschaft.
- [5072] David Powell and Joel Hollingsworth. A NSGA-II, Web-Enabled, Parallel Optimization Framework for NLP and MINLP. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 2145–2150, London, UK, July 2007. ACM Press.
- [5073] R. S. Prabakar, C. Sujatha, and S. Narayanan. Optimal semi-active preview control response of a half car vehicle model with magnetorheological damper. *Journal of Sound and Vibration*, 326(3–5):400–420, October 9 2009.
- [5074] Pyari Mohan Pradhan, Vikas Baghel, and Mulgrew Bernard. Energy Efficient Layout for a Wireless Sensor Network using Multi-Objective Particle Swarm Optimization. In *2009 IEEE International Advance Computing Conference (IACC 2009)*, pages 65–70, Patiala, India, March 2009. IEEE Computer Society.
- [5075] Pyari Mohan Pradhan and Ganapati Panda. Solving multiobjective problems using cat swarm optimization. *Expert Systems with Applications*, 39(3):2956–2964, February 15 2012.

- [5076] Kata Praditwong, Mark Harman, and Xin Yao. Software Module Clustering as a Multi-Objective Search Problem. *IEEE Transactions on Software Engineering*, 37(2):264–282, March - April 2011.
- [5077] Kata Praditwong and Xin Yao. How Well Do Multi-Objective Evolutionary Algorithms Scale to Large Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3959–3966, Singapore, September 2007. IEEE Press.
- [5078] Kata Praditwong and Xin Yao. A new multi-objective evolutionary optimisation algorithm: The two-archive algorithm. In Yuping Wang, Yiu ming Cheung, and Hailin Liu, editors, *Computational Intelligence and Security, International Conference, CIS 2006*, pages 95–104, Guangzhou, China, November 2007. Springer. Lecture Notes in Computer Science 4456.
- [5079] Anuj Prakash and S.G. Deshmukh. A multi-criteria customer allocation problem in supply chain environment: An artificial immune system with fuzzy logic controller based approach. *Expert Systems with Applications*, 38(4):3199–3208, April 2011.
- [5080] Punit Prakash, Mark C. Converse, John G. Webster, and David M. Mahvi. An Optimal Sliding Choke Antenna for Hepatic Microwave Ablation. *IEEE Transactions on Biomedical Engineering*, 56(10):2470–2476, October 2009.
- [5081] D.V.S.S.V. Prasad and A. Gopala Krishna. Empirical modeling and optimization of wire electrical discharge machining. *International Journal of Advanced Manufacturing Technology*, 43(9-10):914–925, August 2009.
- [5082] K. V. R. B. Prasad and Pravin M. Singru. Performance of Lognormal Probability Distribution in Crossover operator of NSGA-II algorithm. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 514–522, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [5083] T. Devi Prasad, Sung-Hoon Hong, and Namsik Park. Reliability based design of water distribution networks using multi-objective genetic algorithms. *KSCE Journal of Civil Engineering*, 7(3):351–361, May 2003.
- [5084] T.D. Prasad and N.-S. Park. Multiobjective Genetic Algorithms for Design of Water Distribution Networks. *Journal of Water Resources Planning and Management*, 130:73–82, 2004.
- [5085] P. Prathombutr, J. Stach, and E.K. Park. An algorithm for traffic grooming in WDM optical mesh networks with multiple objectives. In *Proceedings of the 12th International Conference on Computer Communications and Networks (ICCCN 2003)*, pages 405–411. IEEE, October 2003.

- [5086] Passakon Prathombutr. *Virtual Topology Reconfiguration in Wavelength-Routed Optical Networks*. PhD thesis, University of Missouri-Kansas City, Kansas City, Missouri, USA, 2003.
- [5087] Mike Preuss, Christoph Kausch, Claude Bouvy, and Frank Henrich. Decision Space Diversity Can Be Essential for Solving Multiobjective Real-World Problems. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 367–377. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.
- [5088] Mike Preuss, Boris Naujoks, and Günter Rudolph. Pareto Set and EMOA Behavior for Simple Multimodal Multiobjective Functions. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 513–522. Springer, Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [5089] Mike Preuss, Günter Rudolph, and Feelly Tumakaka. Solving Multimodal Problems via Multiobjective Techniques with Application to Phase Equilibrium Detection. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2703–2710, Singapore, September 2007. IEEE Press.
- [5090] Mike Preuss, Catalin Stoean, and Ruxandra Stoean. Niching Foundations: Basin Identification on Fixed-Property Generated Landscapes. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 837–844, Dublin, Ireland, July 12–16 2011. ACM Press.
- [5091] Roberto De Prisco, Gianluca Zaccagnino, and Rocco Zaccagnino. EvoBass-Composer: a multi-objective genetic algorithm for 4-voice compositions. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 817–818, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [5092] K.A. Proos, G.P. Steven, O.M. Querin, and Y.M. Xie. Multicriterion Evolutionary Structural Optimization using the Weighting and the Global Criterion Methods. *AIAA Journal*, 30:2006–2012, 2001.
- [5093] Ângela Cristina Martinho Guimarães Pereira. *Extending Environmental Impact Assessment Processes: Generation of Alternatives for Siting and Routing Infrastructural Facilities by Multi-Criteria Evaluation and Genetic Algorithms*. PhD thesis, New University of Lisbon, Lisbon, Portugal, 1997.
- [5094] Ângela Guimarães Pereira. Generating Alternative Routes using Genetic Algorithms and Multi-Criteria Analysis Techniques. In Ray Wyatt and Hemayet Hossain, editors, *Fourth International Conference on Computers in Urban Planning and Urban Management*, pages 547–560, Melbourne, Australia, July 11–14 1995.

- [5095] Ângela Guimarães Pereira. Generating alternative routes by multicriteria evaluation and a genetic algorithms. *Environment and Planning B: Planning and Design*, 23:711–720, 1996.
- [5096] Ângela Guimarães Pereira, G. Munda, and M. Pariccini. Generating alternatives for siting retail and service facilities using genetic algorithms and multiple criteria deviation techniques. *Journal of Retailing and Consumer Services*, 1(2):40–47, 1994.
- [5097] Ângela Guimarães Pereira, Robert J. Peckham, and M. Paula Antunus. GENET: A Method to Generate Alternatives for Facilities Siting using Genetic Algorithms. In Janjaap Harts, Henk F. L. Ottens, and Henk J. Scholten, editors, *Fourth European Conference and Exhibition on Geographical Information Systems (EGIS'93)*, pages 973–981, Genoa, Italy, March 29–April 1 1993.
- [5098] A. Baykasoğlu. Goal Programming using Multiple Objective Tabu Search. *Journal of the Operational Research Society*, 52(12):1359–1369, December 2001.
- [5099] A. Baykasoğlu, N.N.Z. Gindy, and R.C. Cobb. Capability based formulation and solution of multiple objective cell formation problems using simulated annealing. *Integrated Manufacturing Systems: The International Journal of Manufacturing Technology Management*, 12(4):258–274, 2001.
- [5100] A. Baykasoğlu, S. Owen, and N. Gindy. Solution of goal programming models using a basic taboo search algorithm. *Journal of the Operational Research Society*, 50:960–973, 1999.
- [5101] A. Baykasoğlu, S. Owen, and N. Gindy. A taboo search based approach to find the Pareto optimal set in multiple objective optimisation. *Engineering Optimization*, 31(6):731–748, 1999.
- [5102] A. Baykasoğlu, L. Özbakýr, and Sönmez A.I. A Tabu Search Based Linguistic Optimization Approach to Due Date Determination in Earliness-Tardiness Flexible Job Shop Scheduling. *International Journal of Advanced Manufacturing Systems*, 6(1):81–90, 2003.
- [5103] A. Baykasoğlu, L. Özbakýr, and Sönmez A.I. Using multiple objective tabu search and grammars to model and solve multi-objective flexible job shop scheduling problems. *Journal of Intelligent Manufacturing*, 15(6):777–785, 2004.
- [5104] Adil Baykasoğlu. Preemptive goal programming using simulated annealing. *Engineering Optimization*, 37(1):49–63, January 2005.
- [5105] Adil Baykasoğlu. Soft computing approaches to production line design. In *3rd International Conference on Responsive Manufacturing (ICRM2005)*, pages 273–279, Guangzhou, China, September 2005.

- [5106] Adil Baykasoğlu, Türkay Dereli, and Ibrahim Sabuncu. A multiple objective ant colony optimization approach to assembly line balancing problems. In *35th International Conference on Computers and Industrial Engineering (CIE35)*, pages 263–268, Istanbul, Turkey, June 2005.
- [5107] Adil Baykasoğlu and Nabil N. Z. Gindy. Loading flexible cell production systems: A tabu search based multiple objective simulation optimisation approach. In M.T. Hillery and H.J. Lewis, editors, *15th International Conference on Production Research*, volume 2, pages 1441–1444, University of Limerick, Limerick, Ireland, August 1999. Gemini Int. Limited.
- [5108] Çağkan Erbaş. *System-Level Modeling and Design Space Exploration for Multiprocessor Embedded System-on-Chip Architectures*. PhD thesis, Department of Computer Science, University of Amsterdam, The Netherlands, 2006.
- [5109] Murat Kiliç. Multiobjective genetic algorithm approaches to project scheduling under risk. Master’s thesis, Graduate School of Engineering and Natural Sciences, SabancıUniversity, Turkey, Spring 2003.
- [5110] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. Hybrid Population-Based Algorithms for the Bi-Objective Quadratic Assignment Problem. *Journal of Mathematical Modelling and Algorithms*, 5(1):111–137, April 2006.
- [5111] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. Automatic Configuration of Multi-Objective ACO Algorithms. In Marco Dorigo, Mauro Birattari, Gianni A. Di Caro, René Doursat, Andries P. Engelbrecht, Dario Floreano, Luca Maria Gambardella, Roderich Groß, Erol Şahin, Hiroki Sayama, and Thomas Stützle, editors, *Swarm Intelligence. 7th International Conference, ANTS 2010*, pages 95–106. Springer, Lecture Notes in Computer Science Vol. 6234, Brussels, Belgium, September 8–10 2010.
- [5112] Manuel López-Ibáñez and Thomas Stützle. Alternative Fitness Assignment Methods for Many-Objective Optimization Problems. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO’2010)*, pages 71–78, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [5113] Manuel López-Ibáñez and Thomas Stützle. An Analysis of Algorithmic Components for Multiobjective Ant Colony Optimization: A Case Study on the Biobjective TSP. In *Artificial Evolution, 9th International Conference, Evolution Artificielle, EA 2009*, pages 134–145, Strasbourg, France, 2010. Springer. Lecture Notes in Computer Science, Vol. 5975. ISBN 978-3-642-14155-3.
- [5114] Manuel López-Ibáñez and Thomas Stützle. Exploratory Analysis of Stochastic Local Search Algorithms in Biobjective Optimization. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, chapter 9, pages 209–222. Springer, Heidelberg, 2010.

- [5115] Andy Pryke, Sanaz Mostaghim, and Alireza Nazemi. Heatmap Visualization of Population Based Multi Objective Algorithms. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 361–375, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5116] Anthony Przybylski, Xavier Gandibleux, and Matthias Ehrgott. Two phase algorithms for the bi-objective assignment problem. *European Journal of Operational Research*, 185(2):509–533, March 1 2008.
- [5117] Benoît Puel, Dominique Lesselier, Sylvain Chatillon, and Pierre Calmon. Optimization of ultrasonic arrays design and setting using a differential evolution. *NDT & E International*, 44(8):797–803, December 2011.
- [5118] Romanas Puisa and Heinrich Streckwall. Prudent constraint-handling technique for multiobjective propeller optimisation. *Optimization and Engineering*, 12(4):657–680, December 2011.
- [5119] Timo Pukkala, Tero Heinonen, and Mikko Kurttila. An Application of a Reduced Cost Approach to Spatial Forest Planning. *Forest Science*, 55(1):13–22, February 2009.
- [5120] Pietari Pulkkinen and Hannu Koivisto. A Dynamically Constrained Multiobjective Genetic Fuzzy System for Regression Problems. *IEEE Transactions on Fuzzy Systems*, 18(1):161–177, February 2010.
- [5121] W. Pullan. Optimising Multiple Aspects of Network Survivability. In *Congress on Evolutionary Computation (CEC’2002)*, volume 1, pages 115–120, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [5122] T.H. Pulliam, M. Nemec, T. Hoslt, and D.W. Zingg. Comparison of Evolutionary (Genetic) Algorithm and Adjoint Methods for Multi-Objective Viscous Airfoil Optimizations. In *41st Aerospace Sciences Meeting. Paper AIAA 2003-0298*, Reno, Nevada, January 2003.
- [5123] J. Santeri Puranen, Mikko J. Vainio, and Mark S. Johnson. Accurate Conformation-Dependent Molecular Electrostatic Potentials for High-Throughput In Silico Drug Discovery. *Journal Of Computational Chemistry*, 31(8):1722–1732, June 2010.
- [5124] Anuradha Purohit, Narendra S. Chaudhari, and Aruna Tiwari. Construction of Classifier with Feature Selection Based on Genetic Programming. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 1712–1716, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5125] R.C. Purshouse and P.J. Fleming. The Multi-Objective Genetic Algorithm Applied to Benchmark Problems—An Analysis. Technical Report 796, Department of Automatic Control and Systems Engineering, University of Sheffield, Sheffield, UK, August 2001.

- [5126] R.C. Purshouse and P.J. Fleming. Elitism, Sharing, and Ranking Choices in Evolutionary Multi-Criterion Optimisation. Technical Report 815, Department of Automatic Control and Systems Engineering, University of Sheffield, Sheffield, UK, January 2002.
- [5127] Robin C. Purshouse and Peter J. Fleming. Why use Elitism and Sharing in a Multi-Objective Genetic Algorithm? In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 520–527, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [5128] Robin C. Purshouse and Peter J. Fleming. An Adaptive Divide-and-Conquer Methodology for Evolutionary Multi-criterion Optimisation. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 133–147, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [5129] Robin C. Purshouse and Peter J. Fleming. Conflict, Harmony, and Independence: Relationships in Evolutionary Multi-criterion Optimisation. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 16–30, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [5130] Robin C. Purshouse and Peter J. Fleming. Evolutionary Multi-Objective Optimisation: An Exploratory Analysis. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2066–2073, Canberra, Australia, December 2003. IEEE Press.
- [5131] Robin C. Purshouse and Peter J. Fleming. On the Evolutionary Optimization of Many Conflicting Objectives. *IEEE Transactions on Evolutionary Algorithms*, 11(6):770–784, December 2007.
- [5132] Robin C. Purshouse, Cezar Jalbă, and Peter J. Fleming. Preference-Driven Co-evolutionary Algorithms Show Promise for Many-Objective Optimisation. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 136–150, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [5133] Robin Charles Purshouse. *On the Evolutionary Optimisation of Many Objectives*. PhD thesis, Department of Automatic Control and Systems Engineering, The University of Sheffield, Sheffield, UK, September 2003.
- [5134] Lisa Purvis, Steven Harrington, Barry O'Sullivan, and Eugene C. Freuder. Creating personalized documents: an optimization approach. In *Proceedings of*

the 2003 ACM Symposium on Document Engineering, pages 68–77, Grenoble, France, November 2003. ACM Press.

- [5135] Boguslaw Pytlak. Multicriteria optimization of hard turning operation of the hardened 18HGT steel. *International Journal Of Advanced Manufacturing Technology*, 49(1-4):305–312, July 2010.
- [5136] Sultan Noman Qasem and Siti Mariyam Shamsuddin. Memetic Elitist Pareto Differential Evolution algorithm based Radial Basis Function Networks for classification problems. *Applied Soft Computing*, 11(8):5565–5581, December 2011.
- [5137] Sultan Noman Qasem and Siti Mariyam Shamsuddin. Radial basis function network based on time variant multi-objective particle swarm optimization for medical diseases diagnosis. *Applied Soft Computing*, 11(1):1427–1438, January 2011.
- [5138] Sultan Noman Qasem, Siti Mariyam Shamsuddin, and Azlan Mohd Zain. Multi-objective hybrid evolutionary algorithms for radial basis function neural network design. *Knowledge-based Systems*, 27:475–497, March 2012.
- [5139] Sultan Noman Qasem and Siti Mariyam Hj. Shamsuddin. Improving Generalization of Radial Basis Function Network with Adaptive Multi-Objective Particle Swarm Optimization. In *2009 IEEE International Conference on Systems, Man, and Cybernetics*, pages 534–540, San Antonio, TX, USA, October 2009. IEEE Computer Society.
- [5140] B. Qian, L. Wang, D.X. Huang, and X. Wang. Multi-objective flow shop scheduling using differential evolution. In *Intelligent Computing in Signal Processing and Pattern Recognition*, pages 1125–1136. Springer-Verlag. Lecture Notes in Control and Information Sciences Vol. 345, 2006.
- [5141] Bin Qian, Ling Wang, De-Xian, and Xiong Wang. Multi-objective no-wait flow-shop scheduling with a memetic algorithm based on differential evolution. *Soft Computing*, 13(8-9):847–869, July 2009.
- [5142] Bin Qian, Ling Wang, Rong Hu, Wan-Liang Wang, De-Xian Huang, and Xiong Wang. A hybrid differential evolution method for permutation flow-shop scheduling. *The International Journal of Advanced Manufacturing Technology*, 38(7–8):757–777, September 2008.
- [5143] Bin Qian, Ling Wang, De-Xian Huang, and Xiong Wang. Scheduling multi-objective job shops using a memetic algorithm based on differential evolution. *International Journal of Advanced Manufacturing Technology*, 35(9–10):1014–1027, January 2008.
- [5144] Chao Qian, Yang Yu, and Zhi-Hua Zhou. An Analysis on Recombination in Multi-Objective Evolutionary Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 2051–2058, Dublin, Ireland, July 12-16 2011. ACM Press.

- [5145] Xiaoxue Qian, Xiangrong Zhang, Licheng Jiao, and Wenping Ma. Unsupervised Texture Image Segmentation Using Multiobjective Evolutionary Clustering Ensemble Algorithm. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3560–3566, Hong Kong, June 2008. IEEE Service Center.
- [5146] Xu Qian, Tang Shengjing, and Guo Jie. Evolutionary Algorithm for Multi-objective Optimization and Its Application in Unmanned Flight Vehicle Trajectory Control. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 937–940, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [5147] Hui Qin, Jianzhong Zhou, Youlin Lu, Yinghai Li, and Yongchuan Zhang. Multi-objective Cultured Differential Evolution for Generating Optimal Trade-offs in Reservoir Flood Control Operation. *Water Resources Management*, 24(11):2611–2632, September 2010.
- [5148] Hui Qin, Jianzhong Zhou, Youlin Lu, Ying Wang, and Yongchuan Zhang. Multi-objective differential evolution with adaptive Cauchy mutation for short-term multi-objective optimal hydro-thermal scheduling. *Energy Conversion And Management*, 51(4):788–794, April 2010.
- [5149] Ling Qing, Wu Gang, and Wang Qiuping. Restricted Evolution Based Multimodal Function Optimization in Holographic Grating Design. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 789–794, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5150] Min Qiu. Prioritizing and Scheduling Road Projects by Genetic Algorithm. *Mathematics and Computers in Simulation*, 43:569–574, 1997.
- [5151] Hamid Reza Qodmanan, Mahdi Nasiri, and Behrouz Minaei-Bidgoli. Multi objective association rule mining with genetic algorithm without specifying minimum support and minimum confidence. *Expert Systems with Applications*, 38(1):288–298, January 2011.
- [5152] B. Y. Qu and P. N. Suganthan. Multi-objective Evolutionary Programming without Non-domination Sorting is up to Twenty Times Faster. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2934–2939, Trondheim, Norway, May 2009. IEEE Press.
- [5153] B. Y. Qu and P. N. Suganthan. Multi-objective evolutionary algorithms based on the summation of normalized objectives and diversified selection. *Information Sciences*, 180(17):3170–3181, September 1 2010.
- [5154] Bo Yang Qu, Pushpan Gouthanan, and Ponnuthurai Nagaratnam Suganthan. Dynamic Grouping Crowding Differential Evolution with Ensemble of Parameters for Multi-modal Optimization. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference*

on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010, pages 19–28. Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16–18 2010.

- [5155] Bo-Yang Qu and Ponnuthurai Nagaratnam Suganthan. Constrained multi-objective optimization algorithm with diversity enhanced differential evolution. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1675–1679, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5156] Bo-Yang Qu and Ponnuthurai Nagaratnam Suganthan. Novel multimodal problems and differential evolution with ensemble of restricted tournament selection. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3480–3486, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5157] B.Y. Qu and P.N. Suganthan. Constrained multi-objective optimization algorithm with an ensemble of constraint handling methods. *Engineering Optimization*, 43(4):403–416, 2011.
- [5158] D. Quagliarella and A. Vicini. GAs for Aerodynamic Shape Design II: Multiobjective Optimization and Multi-Criteria Design. In *Von Karman Institute Lecture Series 2000-07. Genetic Algorithms for Optimisation in Aeronautics and Turbomachinery*, May 2000.
- [5159] D. Quagliarella and A. Vicini. Viscous single and multicomponent airfoil design with genetic algorithms. *Finite Elements in Analysis and Design*, 37(5):365–380, May 2001.
- [5160] Domenico Quagliarella and Giorgio Chinnici. Usage of Approximation Techniques in Evolutionary Algorithms with Application Examples to Aerodynamic Shape Design Problems. In William Annicchiarico, Jacques Périaux, Miguel Cerrolaza, and Gabriel Winter, editors, *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization*, pages 167–189. WIT Press, CIMNE Barcelona, Southampton, Boston, 2005. ISBN 1-84564-038-1.
- [5161] Domenico Quagliarella and Alessandro Vicini. Coupling Genetic Algorithms and Gradient Based Optimization Techniques. In D. Quagliarella, J. Périaux, C. Poloni, and G. Winter, editors, *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science. Recent Advances and Industrial Applications*, chapter 14, pages 289–309. John Wiley & Sons, Chichester, UK, 1998.
- [5162] Domenico Quagliarella and Alessandro Vicini. Sub-population Policies for a Parallel Multiobjective Genetic Algorithm with Applications to Wing Design. In *1998 IEEE International Conference On Systems, Man, And Cybernetics*, volume 4, pages 3142–3147, San Diego, California, October 1998. Institute of Electrical and Electronic Engineers (IEEE).
- [5163] Domenico Quagliarella and Alessandro Vicini. Designing High-Lift Airfoils Using Genetic Algorithms. In Kaisa Miettinen, Marko M. Mäkelä, Pekka

- Neittaanmäki, and Jacques Periaux, editors, *Proceedings of EUROGEN'99*, Jyväskylä, Finland, 1999. University of Jyväskylä.
- [5164] Mohammad R. Quddus, Yan Zhang, and Ajay K. Ray. Multi-objective optimization in solid oxide fuel cell for oxidative coupling of methane. *Chemical Engineering Journal*, 165(2):639–648, December 1 2010.
 - [5165] Nestor V. Queipo and Guy F. Gil. Multiobjective Optimization of Component Placement on Planar Printer Wiring Boards. In *Thirteen Annual IEEE Semiconductor Thermal Measurement and Management Symposium*, pages 92–105. IEEE, 1997.
 - [5166] Nestor V. Queipo, Joseph A.C. Humphrey, and Alfonso Ortega. Multiobjective Optimization of Component Placement on Printed Wiring Boards. In *1996 Inter-Society Conference on Thermal Phenomena in Electronic Systems*, pages 359–372. IEEE, 1996.
 - [5167] Nestor V. Queipo, Joseph A.C. Humphrey, and Alfonso Ortega. Multiobjective optimal placement of convectively cooled electronic components on printed wiring boards. *IEEE Transactions on Components, Packaging, and Manufacturing Technology—Part A*, 21(1):142–153, March 1998.
 - [5168] N.V. Queipo and G.F. Gil. Multiobjective optimal placement of convectively and conductively cooled electronic components on printed wiring boards. *Journal of Electronic Packaging*, 122(2):152–159, June 2000.
 - [5169] Thiago Quirino, Miroslav Kubat, and Nicholas J. Bryan. Instinct-Based Mating in Genetic Algorithms Applied to the Tuning of 1-NN Classifiers. *IEEE Transactions On Knowledge And Data Engineering*, 22(12):1724–1737, December 2010.
 - [5170] Juan C. Quiroz, Sushil J. Louis, Amit Banerjee, and Sergiu M. Dascalu. Towards Creative Design Using Collaborative Interactive Genetic Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1849–1856, Trondheim, Norway, May 2009. IEEE Press.
 - [5171] Ramón Quiza Sardinas, Marcelino Rivas Santana, and Eleno Alfonso Brindis. Genetic algorithm-based multi-objective optimization of cutting parameters in turning processes. *Engineering Applications of Artificial Intelligence*, 19(2):127–133, March 2006.
 - [5172] S. Ramabalan R. Saravanan and C. Balamurugan. Evolutionary multi-criteria trajectory modeling of industrial robots in the presence of obstacles. *Engineering Applications of Artificial Intelligence*, 22(2):329–342, March 2009.
 - [5173] M. Rabbani, M. Aramoon Bajestani, and G. Baharian Khoshkhou. A multi-objective particle swarm optimization for project selection problem. *Expert Systems with Applications*, 37(1):315–321, January 2010.

- [5174] Bassem S. Rabil, Mona A. Fahny, and Gamal M. Aly. Task Allocation Using Inherited Area Density Multiobjective Particle Swarm Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3300–3307, Singapore, September 2007. IEEE Press.
- [5175] S. S. Rabotyagov, M. K. Jha, and T. Campbell. Impact of crop rotations on optimal selection of conservation practices for water quality protection. *Journal Of Soil And Water Conservation*, 65(6):369–380, November-December 2010.
- [5176] L. Rachmawati and D. Srinivasan. A Multi-Objective Genetic Algorithm with Controllable Convergence on Knee Regions. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6807–6814, Vancouver, BC, Canada, July 2006. IEEE.
- [5177] L. Rachmawati and D. Srinivasan. Preference Incorporation in Multi-objective Evolutionary Algorithms: A Survey. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3385–3391, Vancouver, BC, Canada, July 2006. IEEE.
- [5178] L. Rachmawati and D. Srinivasan. Dynamic Resizing for Grid-Based Archiving in Evolutionary Multi-Objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3975–3982, Singapore, September 2007. IEEE Press.
- [5179] L. Rachmawati and D. Srinivasan. Multi-Objective Evolutionary Algorithm-Assisted Automated Parallel Parking. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 4131–4138, Hong Kong, June 2008. IEEE Service Center.
- [5180] Lily Rachmawati and Dipti Srinivasan. Multiobjective Evolutionary Algorithm With Controllable Focus on the Knees of the Pareto Front. *IEEE Transactions on Evolutionary Computation*, 13(4):810–824, August 2009.
- [5181] Lily Rachmawati and Dipti Srinivasan. A Hybrid Fuzzy Evolutionary Algorithm for a Multi-Objective Resource Allocation Problem. In Nadia Nedjah, Luiza M. Mourelle, Marley M.B.R. Vellasco, Ajith Abraham, and Mario Köppen, editors, *Fifth International Conference on Hybrid Intelligent Systems (HIS'05)*, pages 55–60, Los Alamitos, California, USA, November 2005. IEEE Computer Society.
- [5182] Lily Rachmawati and Dipti Srinivasan. A Multi-objective Evolutionary Algorithm with Weighted-Sum Niching for Convergence on Knee Regions. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 749–750, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [5183] Lily Rachmawati and Dipti Srinivasan. Incorporating the Notion of Relative Importance of Objectives in Evolutionary Multiobjective Optimization. *IEEE Transactions On Evolutionary Computation*, 14(4):530–546, August 2010.

- [5184] Lily Rachmawati and Dipti Srinivasan. Incorporation of imprecise goal vectors into evolutionary multi-objective optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2958–2965, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5185] Juan Rada, Rubén Parma, and Wilmer Pereira. Path Optimization for Multiple Objectives in Directed Graphs Using Genetic Algorithms. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 153–156, Hong Kong, June 2008. IEEE Service Center.
- [5186] D. Radasanu and E. Barladeanu. A Fuzzy Multiobjective Approach for Optimal Operation of Distribution Systems using Evolutionary Algorithms. In *16th International Conference and Exhibition on Electricity Distribution*, volume 5, pages 32–35. IEEE, 2001.
- [5187] Alamelu Radhakrishnan. Evolutionary algorithms for multiobjective optimization with applications in portfolio optimization. Master’s thesis, North Carolina State University, USA, March 27 2007.
- [5188] Paulo V. W. Radtke, Tony Wong, and Robert Sabourin. Solution Over-Fit Control in Evolutionary Multiobjective Optimization of Pattern Classification Systems. *International Journal of Pattern Recognition and Artificial Intelligence*, 23(6):1107–1127, September 2009.
- [5189] Paulo V.W. Radtke, Luiz S. Oliveira, Robert Sabourin, and Tony Wong. Intelligent Zoning Design Using Multi-Objective Evolutionary Algorithms. In *Proceedings of the 7th International Conference on Document Analysis and Recognition—ICDAR'2003*, pages 824–828, Edinburgh, Scotland, August 2003.
- [5190] Paulo V.W. Radtke, Tony Wong, and Robert Sabourin. A Multi-objective Memetic Algorithm for Intelligent Feature Extraction. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 767–781, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [5191] Paulo V.W. Radtke, Tony Wong, and Robert Sabourin. An Evaluation of Over-Fit Control Strategies for Multi-Objective Evolutionary Optimization. In *2006 International Joint Conference on Neural Networks (IJCNN'2006)*, pages 6359–6366, Vancouver, BC, Canada, July 2006. IEEE.
- [5192] S. Raha, S. Majumdar, and K. Mitra. Effect of Caustic Addition in Epoxy Polymerization Process: A Single and Multiobjective Evolutionary Approach. *Macromolecular Theory and Simulations*, 13:152–161, 2004.
- [5193] Alireza Rahimi-Vahed and Ali Hossein Mirzaei. Solving a bi-criteria permutation flow-shop problem using shuffled frog-leaping algorithm. *Soft Computing*, 12(5):435–452, March 2008.

- [5194] Alireza Rahimi-Vahed and Alil Hossein Mirzaei. A hybrid multi-objective shuffled frog-leaping algorithm for a mixed-model assembly line sequencing problem. *Computers & Industrial Engineering*, 53(4):642–666, November 2007.
- [5195] A.R. Rahimi-Vahed, B. Javadi, M. Rabbani, and R. Tavakkoli-Moghaddam. A multi-objective scatter search for a bi-criteria no-wait flow shop scheduling problem. *Engineering Optimization*, 40(4):331–346, April 2008.
- [5196] A.R. Rahimi-Vahed and S.M. Mirghorbani. A multi-objective particle swarm for a flow shop scheduling problem. *Journal of Combinatorial Optimization*, 13(1):79–102, January 2007.
- [5197] A.R. Rahimi-Vahed, S.M. Mirghorbani, and M. Rabbani. A hybrid multi-objective particle swarm algorithm for a mixed-model assembly line sequencing problem. *Engineering Optimization*, 39(8):877–898, December 2007.
- [5198] A.R. Rahimi-Vahed, S.M. Mirghorbani, and M. Rabbani. A new particle swarm algorithm for a multi-objective mixed-model assembly line sequencing problem. *Soft Computing*, 11(10):997–1012, August 2007.
- [5199] A.R. Rahimi-Vahed, M. Rabbani, R. Tavakkoli-Moghaddam, S.A. Torabi, and F. Jolai. A multi-objective scatter search for a mixed model assembly line sequencing problem. *Advanced Engineering Informatics*, 21(1):85–99, January 2007.
- [5200] M. M. Rahman, M. K. Rahman, and S. S. Rahman. An integrated model for multiobjective design optimization of hydraulic fracturing. *Journal of Petroleum Science and Engineering*, 31(1):41–62, October 2001.
- [5201] M.K. Rahman. An intelligent moving object optimization algorithm for design problems with mixed variables, mixed constraints and multiple objectives. *Structural and Multidisciplinary Optimization*, 32(1):40–58, July 2006.
- [5202] S. Raiagopal and R. Ganguli. Conceptual design of UAV using Kriging based multi-objective genetic algorithm. *Aeronautical Journal*, 112(1137):653–662, November 2008.
- [5203] A. M. Raich and J. Ghaboussi. Envolving structural design solutions using an implicit redundant Genetic Algorithm. *Structural and Multidisciplinary Optimization*, 20(3):222–231, November 2000.
- [5204] Anne M. Raich and Tamas R. Liszkai. Multi-Objective Genetic Algorithms for Sensor Layout Optimization in Structural Damage Detection. In Cihan H. Dagli, Anna L. Buczak, Joydeep Ghosh, Mark J. Embrechts, and Okan Ersoy, editors, *Smart Engineering System Design: Neural Networks, Fuzzy Logic, Evolutionary Programming, Complex Systems, and Artificial Life (AN-NIE’2003)*, pages 889–894. ASME Press, November 2003.

- [5205] Anne M. Raich and Tamas R. Liszkai. Multi-objective Optimization of Sensor and Excitation Layouts for Frequency Response Function-Based Structural Damage Identification. *Computer-Aided Civil and Infrastructure Engineering*, 27(2):95–117, February 2012.
- [5206] Larry Raisanen and Roger M. Whitaker. Multi-objective optimization in area coverage problems for cellular communication networks: evaluation of an elitist evolutionary strategy. In *Symposium on Applied Computing. Proceedings of the 2003 ACM symposium on Applied computing*, pages 714–720, Melbourne, Florida, USA, 2003. ACM Press.
- [5207] Larry Raisanen and Roger M. Whitaker. Comparison and Evaluation of Multiple Objective Genetic Algorithms for the Antenna Placement Problem. *Mobile Networks & Applications*, 10(1–2):79–88, February–April 2005.
- [5208] Arezoo Rajaei, Mahboobeh Houshmand, and Modjtaba Rouhani. Optimization of Combinational Logic Circuits Using NAND Gates and Genetic Programming. In António Gaspar-Cunha, Ricardo Takahashi, Gerald Schaefer, and Lino Costa, editors, *Soft Computing in Industrial Applications*, volume 96 of *Advances in Intelligent and Soft Computing Series*, pages 405–414, Berlin, 2011. Springer. ISBN 978-3-642-20504-0.
- [5209] R. Rajagopalan, C. K. Mohan, K. Mehrotra, and P. K. Varshney. EMOCA: An Evolutionary Multi-Objective Crowding Algorithm. *Journal of Intelligent Systems*, 17(1-3):107–123, 2008.
- [5210] Ramesh Rajagopalan, Chilukuri Mohan, Pramod Varshney, and Kishan Mehrotra. Multi-objective Mobile Agent Routing in Wireless Sensor Networks. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1730–1737, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5211] Ramesh Rajagopalan, Chilukuri K. Mohan, Kishan Mehrotra, and Pramod K. Varshney. An Evolutionary Multi-objective Crowding Algorithm (EMOCA): Benchmark Test Function Results. In Bhanu Prasad, editor, *2nd Indian International Conference on Artificial Intelligence (IICAI'2005)*, pages 1488–1506, Pune, India, December 2005. IICAI.
- [5212] Ramesh Rajagopalan, Chilukuri K. Mohan, Kishan G. Mehrotra, and Pramod K. Varshney. Evolutionary multi-objective crowding algorithm for path computations. In *Fifth International Conference on Knowledge Based Computer Systems (KBCS'2004)*, pages 46–55, Hyderabad, India, December 2004.
- [5213] Ramesh Rajagopalan, Chilukuri K. Mohan, Kishan G. Mehrotra, and Pramod K. Varshney. Multi-Objective Evolutionary Algorithms for Sensor Network Design. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective*

Optimization in Computational Intelligence: Theory and Practice, pages 208–238. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.

- [5214] Ramesh Rajagopalan, Pramod K. Varshney, Kishan G. Mehrotra, and Chilukuri K. Mohan. Fault tolerant mobile agent routing in sensor networks: A multi-objective optimization approach. In *2nd IEEE Upstate NY Workshop on Communications and Networking*, November 2005.
- [5215] Ramesh Rajagopalan, Pramod K. Varshney, Chilukuri K. Mohan, and Kishan G. Mehrotra. Sensor placement for energy efficient target detection in wireless sensor networks: A multi-objective optimization approach. In *39th Annual Conference on Information Sciences and Systems*, Baltimore, Maryland, USA, March 2005.
- [5216] Pankaj Rajak, Ujjal Tewary, Sumitesh Das, Baidurya Bhattacharya, and Nirupam Chakraborti. Phases in Zn-coated Fe analyzed through an evolutionary meta-model and multi-objective Genetic Algorithms. *Computational Materials Science*, 50(8):2502–2516, June 2011.
- [5217] Menaka Rajapakse, Bertil Schmidt, and Vladimir Brusic. Multi-objective evolutionary algorithm for discovering peptide binding motifs. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 149–158, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.
- [5218] J.K. Rajesh, S.K. Gupta, G.P. Rangaiah, and A.K. Ray. Multiobjective optimization of steam reformer performance using genetic algorithm. *Industrial & Engineering Chemistry Research*, 39(3):706–717, March 2000.
- [5219] J.K. Rajesh, S.K. Gupta, G.P. Rangaiah, and A.K. Ray. Multi-objective optimization of industrial hydrogen plants. *Chemical Engineering Science*, 56(3):999–1010, February 2001.
- [5220] Pratyusha Rakshit, Arup Kumar Sadhu, Preetha Bhattacharjee, Amit Konar, and Ramadoss Janarthanan. Multi-Robot Box-Pushing Using Non-dominated Sorting Bee Colony Optimization Algorithm. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 601–609, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [5221] Subramanian Ramesh, Subramanian Kannan, and Subramanian Baskar. Application of an Improved Generalized Differential Evolution Algorithm to Multi-objective Optimization Problems. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors,

Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011, pages 77–84, Visakhapatnam, Andhra Pradesh, India, December 19–21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.

- [5222] Jose Emmanuel Ramirez-Marquez and Claudio M. Rocco. Evolutionary optimization technique for multi-state two-terminal reliability allocation in multi-objective problems. *IIE Transactions*, 42(8):539–552, 2010.
- [5223] I. J. Ramírez-Rosado, J. L. Bernal-Agustín, V. Miranda, and L. M. Barbosa-Proenca. Multiobjective Planning of Power Distribution Systems Using Evolutionary Algorithms. In *8th IASTED International Conference (Modelling, Identification and Control-MIC’99)*, Innsbruck, Austria, February 1999.
- [5224] I. J. Ramirez-Rosado and J. A. Dominguez-Navarro. Possibilistic model based on fuzzy sets for the multiobjective optimal planning of electrical power distribution networks. *IEEE Transactions on Power Systems*, 19(4):1801–1810, November 2004.
- [5225] Ignacio J. Ramírez Rosado and José L. Bernal Agustín. Reliability and Costs Optimization for Distribution Networks Expansion Using an Evolutionary Algorithm. *IEEE Transactions on Power Systems*, 16(1):111–118, February 2001.
- [5226] Ricardo M. Ramos, Rodney R. Saldanha, Ricardo H.C. Takahashi, and Fernando J.S. Moreira. The Real-Biased Multiobjective Genetic Algorithm and Its Application to the Design of Wire Antennas. *IEEE Transactions on Magnetics*, 39(3):1329–1332, May 2003.
- [5227] Manojkumar Ramteke and Santosh K. Gupta. Multiobjective Optimization of an Industrial Nylon-6 Batch Reactor Using the a-Jumping Gene Adaptations of Genetic Algorithm and Simulated Annealing. *Polymer Engineering and Science*, 48(11):2198–2215, November 2008.
- [5228] Manojkumar Ramteke and Santosh K. Gupta. Biomimetic Adaptation of the Evolutionary Algorithm, NSGA-II-aJG, Using the Biogenetic Law of Embryology for Intelligent Optimization. *Industrial & Engineering Chemistry Research*, 8054–8067(48):17, September 2 2009.
- [5229] Manojkumar Ramteke and Santosh K. Gupta. Biomimetic Adaptations of GA and SA for the Robust MO Optimization of an Industrial Nylon-6 Reactor. *Materials and Manufacturing Processes*, 24(1):38–46, January 2009.
- [5230] Manojkumar Ramteke and Santosh K. Gupta. Biomimicking Altruistic Behavior of Honey Bees in Multi-objective Genetic Algorithm. *Industrial & Engineering Chemistry Research*, 48(21):9671–9685, November 4 2009.
- [5231] Manojkumar Ramteke and Santosh K. Gupta. Multi-Objective Genetic Algorithm and Simulated Annealing with the Jumping Gene Adaptations. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 4, pages 91–130. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.

- [5232] Manojkumar Ramteke and Santosh K. Gupta. Kinetic Modeling and Reactor Simulation and Optimization of Industrially Important Polymerization Processes: a Perspective. *International Journal of Chemical Reactor Engineering*, 9(R1), 2011.
- [5233] Manojkumar Ramteke and Rajagopalan Srinivasan. Novel genetic algorithm for short-term scheduling of sequence dependent changeovers in multiproduct polymer plants. *Computers & Chemical Engineering*, 35(12):2945–2459, December 14 2011.
- [5234] Naveed Ramzan and Werner Witt. Multi-objective optimization in distillation unit: a case study. *Canadian Journal of Chemical Engineering*, 84(5):604–613, October 2006.
- [5235] Gade Pandu Rangaiah, editor. *Multi-Objective Optimization. Techniques and Applications in Chemical Engineering*. World Scientific, Singapore, 2009. ISBN 981-283-651-9.
- [5236] Ruedee Rangsaritratamee. *Analysis of Scheduling and Frozen Intervals in Dynamic Rescheduling*. PhD thesis, Industrial Engineering Department, Clemson University, Clemson, South Carolina, August 2002.
- [5237] Deepti Rani and Maria Madalena Moreira. Simulation-optimization modeling: A survey and potential application in reservoir systems operation. *Water Resources Management*, 24(6):1107–1138, April 2010.
- [5238] S. Ranji Ranjithan, S. Kishan Chetan, and Harish K. Dakshima. Constraint Method-Based Evolutionary Algorithm (CMEA) for Multiobjective Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 299–313. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [5239] A. Rama Mohan Rao. Distributed evolutionary multi-objective mesh-partitioning algorithm for parallel finite element computations. *Computers & Structures*, 87(23-24):1461–1473, December 2009.
- [5240] A. Rama Mohan Rao and N. Arvind. A scatter search algorithm for stacking sequence optimisation of laminate composites. *Composite Structures*, 70(4):383–402, October 2005.
- [5241] A. Rama Mohan Rao and K. Lakshmi. Multi-objective Optimal Design of Hybrid Laminate Composite Structures Using Scatter Search. *Journal of Composite Materials*, 43(20):2157–2182, September 2009.
- [5242] A. Rama Mohan Rao and K. Lakshmi. Discrete hybrid PSO algorithm for design of laminate composites with multiple objectives. *Journal of Reinforced Plastics and Composites*, 30(20):1703–1727, October 2011.

- [5243] A. Rama Mohan Rao, K.C.M. Reddy, and N. Arvind. Multi-objective design of laminate composites using evolutionary algorithms and artificial intelligence. In *Proceedings of the International Structural Engineering Convention*, pages 290–299. SEC-2003, 2003.
- [5244] A. Rama Mohan Rao and P. P. Shyju. A Meta-Heuristic Algorithm for Multi-Objective Optimal Design of Hybrid Laminate Composite Structures. *Computer-Aided Civil and Infrastructure Engineering*, 25(3):149–170, April 2010.
- [5245] A. Rama Mohan Rao and K. Sivasubramanian. Multi-objective optimal design of fuzzy logic controller using a self configurable swarm intelligence algorithm. *Computers & Structures*, 86(23-24):2141–2154, December 2008.
- [5246] Jagu S. Rao and R. Tiwari. Design Optimization of double-acting hybrid magnetic thrust bearings with control integration using multi-objective evolutionary algorithms. *Mechatronics*, 19(6):945–964, September 2009.
- [5247] K. N. Rao and S. Ganesan. ASIC benchmarking using Niche Pareto Genetic Algorithm. In *Proceedings of International ICSC Symposia on Soft Computing (SOCO 96)*, pages B32–38, United Kingdom, October 1996.
- [5248] Nalluri Madhusudana Rao, Diptendu Sinha Roy, and Dasmanta K. Mohanta. Application of NSGA - II to Power System Topology Based Multiple Contingency Scrutiny for Risk Analysis. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 706–713, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [5249] R. V. Rao, P. J. Pawar, and R. Shankar. Multi-objective optimization of electrochemical machining process parameters using a particle swarm optimization algorithm. *Proceedings of the Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, 222(8):949–958, August 2008.
- [5250] R.V. Rao and P.J. Pawar. Grinding process parameter optimization using non-traditional optimization algorithms. *Proceedings of the Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, 224(B6):887–898, 2010.
- [5251] S. S. Rao. Genetic Algorithmic Approach for Multiobjective Optimization of Structures. In *ASME Annual Winter Meeting, Structures and Controls Optimization*, volume AD-Vol. 38, pages 29–38, New Orleans, Louisiana, November 1993. ASME.
- [5252] Carlo R. Raquel and Prospero C. Naval, Jr. An Effective Use of Crowding Distance in Multiobjective Particle Swarm Optimization. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Con-*

- ference (GECCO'2005), volume 1, pages 257–264, New York, USA, June 2005. ACM Press.
- [5253] Amin Rasekh, Abbas Afshar, and Mohammad Hadi Afshar. Risk-Cost Optimization of Hydraulic Structures: Methodology and Case Study. *Water Resources Management*, 24(11):2833–2851, September 2010.
 - [5254] E. Rashidi, M. Jahandar, and M. Zandieh. An improved hybrid multi-objective parallel genetic algorithm for hybrid flow shop scheduling with unrelated parallel machines. *International Journal of Advanced Manufacturing Technology*, 49(9-12):1129–1139, August 2010.
 - [5255] Farzan Rashidi and Mehran Rashidi. Limit Cycle Prediction in Multivariable Nonlinear Systems Using Genetic Algorithms. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 60–68, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
 - [5256] Mehran Rashidi and Farzan Rashidi. Multi-Objective Optimal Design of Switch Reluctance Motors Using Adaptive Genetic Algorithm. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pages 591–598. Springer-Verlag, Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18 2010.
 - [5257] Frédéric Ratle, Benoît Lecarpentier, Richard Labib, and François Trochu. Multi-objective Optimization of a Composite Material Spring Design Using an Evolutionary Algorithm. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 803–811, Birmingham, UK, September 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3242.
 - [5258] Abdul Rauf, Sajid Anwar, Naveed Kazim, and Arshad Ali Shahid. Evolutionary Based Automated Coverage Analysis for GUI Testing. In Sanjay Ranka, Arunava Banerjee, Kanad Kishore Biswas, Sumeet Dua, Prabhat Mishra, Rajat Moona, Sheung-Hung Poon, and Cho-Li Wang, editors, *Contemporary Computing, Third International Conference, IC3 2010*, Communications in Computer and Information Science, pages 456–466. Springer, Berlin, 2010. ISBN 3-642-14833-6.
 - [5259] Marion S. Rauner, Walter J. Gutjahr, Kurt Heidenberger, Joachim Wagner, and Joseph Pasia. Dynamic Policy Modeling for Chronic Diseases: Metaheuristic-Based Identification of Pareto-Optimal Screening Strategies. *Operations Research*, 58(5):1269–1286, September - October 2010.
 - [5260] Sajad Najafi Ravadanegh, Arash Vahidnia, and Hojat Hatami. On Optimal Design and Expansion of Electrical Power Distribution Systems. *Journal of Circuits Systems and Computers*, 19(1):45–58, February 2010.

- [5261] G. Ravi, Santosh K. Gupta, and M.B. Ray. Multiobjective Optimization of Cyclone Separators Using Genetic Algorithm. *Industrial and Engineering Chemistry Research*, 39(11):4272–4286, November 2000.
- [5262] G. Ravi, Santosh K. Gupta, S. Viswanathan, and M.B. Ray. Optimization of Venturi Scrubbers Using Genetic Algorithm. *Industrial and Engineering Chemistry Research*, 41(12):2988–3002, June 2002.
- [5263] Ajay K. Ray, P.P. Oh, and G.P. Rangaiah. Simulation and multiobjective optimization of an industrial hydrogen plant based on refinery off-gas. *Industrial and Engineering Chemistry Research*, 41(9):2248–2261, May 2002.
- [5264] Madhumita B. Ray. Applications of a Multi-Objective Genetic Algorithm in Chemical and Environmental Engineering. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 317–339. World Scientific, Singapore, 2004.
- [5265] Subhasis Ray and David A. Lowther. Multi-Objective Optimization Applied to the Matching of a Specified Torque-Speed Curve for an Internal Permanent Magnet Motor. *IEEE Transactions on Magnetics*, 45(3):1518–1521, March 2009.
- [5266] T. Ray and H. M. Tsai. Swarm algorithm for single- and multiobjective airfoil design optimization. *AIAA Journal*, 42(2):366–373, February 2004.
- [5267] T. Ray and K.W. Won. An evolutionary algorithm for constrained bi-objective optimization using radial slots. In *Knowledge-Based Intelligent Information and Engineering Systems, Part 4, Proceedings*, pages 49–56. Springer. Lecture Notes in Artificial Intelligence Vol. 3684, 2005.
- [5268] Tapabrata Ray. Constrained Robust Optimal Design using a Multiobjective Evolutionary Algorithm. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 419–424, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [5269] Tapabrata Ray. Applications of Multi-Objective Evolutionary Algorithms in Engineering Design. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 29–52. World Scientific, Singapore, 2004.
- [5270] Tapabrata Ray, Amitay Isaacs, and Warren Smith. A Memetic Algorithm for Dynamic Multiobjective Optimization. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 16, pages 353–367. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [5271] Tapabrata Ray, Amitay Isaacs, and Warren Smith. Surrogate Assisted Evolutionary Algorithm for Multi-Objective Optimization. In Rangaiah Gade Pandu,

editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 5, pages 131–152. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.

- [5272] Tapabrata Ray, Tai Kang, and Seow Kian Chye. An Evolutionary Algorithm for Constrained Optimization. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 771–777, San Francisco, California, 2000. Morgan Kaufmann.
- [5273] Tapabrata Ray, Tai Kang, and Seow Kian Chye. Multiobjective Design Optimization by an Evolutionary Algorithm. *Engineering Optimization*, 33(3):399–424, 2001.
- [5274] Tapabrata Ray and K.M. Liew. A Swarm Metaphor for Multiobjective Design Optimization. *Engineering Optimization*, 34(2):141–153, March 2002.
- [5275] Tapabrata Ray, Poan Choy Ling, and Tai Kang. A New Fitness Assignment and Parent Selection Strategy Within an Evolutionary Algorithm for Constrained Optimization Problems. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 31–35, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [5276] Tapabrata Ray and Ruhul Sarker. Multiobjective Evolutionary Approach to the Solution of Gas Lift Optimization Problems. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 10951–10957, Vancouver, BC, Canada, July 2006. IEEE.
- [5277] Tapabrata Ray and Ruhul Sarker. Optimum Oil Production Planning using an Evolutionary Approach. In Keshav P. Dahal, Kay Chen Tan, and Peter I Cowling, editors, *Evolutionary Scheduling*, Studies in Computational Intelligence (SCI), pages 273–292. Springer, Berlin, 2007. ISBN 3-540-48582-1.
- [5278] Tapabrata Ray and Ruhul Sarker. EA for Solving Combined Machine Layout and Job Assignment Problems. *Journal of Industrial and Management Optimization*, 4(3):631–646, August 2008.
- [5279] Tapabrata Ray and Warren Smith. A surrogate assisted parallel multiobjective evolutionary algorithm for robust engineering design. *Engineering Optimization*, 38(8):997–1011, December 2006.
- [5280] Tapabrata Ray and Kang Tai. An Evolutionary Algorithm with a Multilevel Pairing Strategy for Single and Multiobjective Optimization. *Foundations of Computing and Decision Sciences*, 26:75–98, 2001.
- [5281] Wasim Raza and Kwang-Yong Kim. Multiobjective optimization of a wire-wrapped LMR fuel assembly. *Nuclear Technology*, 162(1):45–52, April 2008.

- [5282] Wasim Raza and Kwang-Yong Kim. Shape Optimization of 19-Pin Wire-Wrapped Fuel Assembly of LMR Using Multiobjective Evolutionary Algorithm. *Nuclear Science and Engineering*, 161(2):245–254, February 2009.
- [5283] BJ Reardon. Fuzzy logic versus niched Pareto multiobjective genetic algorithm optimization. *Modelling And Simulation In Materials Science And Engineering*, 6(6):717–734, November 1998.
- [5284] Brian J. Reardon. Fuzzy Logic vs. Niched Pareto Multiobjective Genetic Algorithm Optimization: Part I. Shaffer’s F2 Problem. Technical Report LA-UR-97-3675, Los Alamos National Laboratory, Los Alamos, New Mexico, September 1997.
- [5285] Brian J. Reardon. Fuzzy Logic vs. Niched Pareto Multiobjective Genetic Algorithm Optimization: Part II. A Simplified Born-Mayer Problem. Technical Report LA-UR-97-3676, Los Alamos National Laboratory, Los Alamos, New Mexico, September 1997.
- [5286] Brian J. Reardon. Optimization of Densification Modeling Parameters of Beryllium Powder using a Fuzzy Logic Based Multiobjective Genetic Algorithm. Technical Report LA-UR-98-1036, Los Alamos National Laboratory, Los Alamos, New Mexico, March 1998.
- [5287] Brian J. Reardon. Optimization of Micromechanical Densification Modeling Parameters For Copper Powder using a Fuzzy Logic Based Multiobjective Genetic Algorithm. Technical Report LA-UR-98-0419, Los Alamos National Laboratory, Los Alamos, New Mexico, January 1998.
- [5288] Brian J. Reardon. Optimizing the Hot Isostatic Pressing Process. *Materials and Manufacturing Processes*, 18(3):493–508, 2003.
- [5289] J. Reza, J. Martinez, R. Banos, and C. Gil. Optimal design of gravity-fed looped water distribution networks considering the resilience index. *Journal of Water Resources Planning and Management–ASCE*, 134(3):234–238, May-June 2008.
- [5290] William J. Reckhouse, Jonathan E. Fields, and Richard M. Everson. Variable interactions and exploring parameter space in an expensive optimisation problem: Optimising Short Term Conflict Alert. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 4608–4615, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5291] A. Raji Reddy and Kalyanmoy Deb. Identification of Multiple Gene Subsets Using Multi-objective Evolutionary Algorithms. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 623–637, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.

- [5292] A. Srinivasa Reddy and K. Vaisakh. Economic Emission Load Dispatch by Modified Shuffled Frog Leaping Algorithm. *International Journal of Computer Applications*, 31(11):58–65, October 2011.
- [5293] M. Janga Reddy and D. Nagesh Kumar. Optimal reservoir operation using multi-objective evolutionary algorithm. *Water Resources Management*, 20(6):861–878, December 2006.
- [5294] M. Janga Reddy and D. Nagesh Kumar. An efficient multi-objective optimization algorithm based on swarm intelligence for engineering design. *Engineering Optimization*, 39(1):49–68, January 2007.
- [5295] M. Janga Reddy and D. Nagesh Kumar. Multi-objective particle swarm optimization for generating optimal trade-offs in reservoir operation. *Hydrological Processes*, 21(21):2897–2909, October 2007.
- [5296] M. Janga Reddy and D. Nagesh Kumar. Multiobjective differential evolution with application to reservoir system optimization. *Journal of Computing in Civil Engineering*, 21(2):136–146, March-April 2007.
- [5297] M. Janga Reddy and D. Nagesh Kumar. Envolving strategies for crop planning and operation of irrigation reservoir system using multi-objective differential evolution. *Irrigation Science*, 26(2):177–190, January 2008.
- [5298] M. Janga Reddy and D. Nagesh Kumar. Performance evaluation of elitist-mutated multi-objective particle swarm optimization for integrated water resources management. *Journal of Hydroinformatics*, 11(1):79–88, January 2009.
- [5299] Manne Janga Reddy. *Swarm Intelligence and Evolutionary Computation for Single and Multiobjective Optimization in Water Resource Systems*. PhD thesis, Department of Civil Engineering, Indian Institute of Science, Bangalore, India, September 2006.
- [5300] S. Surender Reddy, A. R. Abhyankar, and P. R. Bijwe. Reactive power price clearing using multi-objective optimization. *Energy*, 36(5):3579–3589, May 2011.
- [5301] S. Surender Reddy, M. Sailaja Kumari, and M. Sydulu. Congestion Management in Deregulated Power System by Optmal Choice and Allocation of FACTS Controllers Using Multi-Objective Genetic Algorithm. *Journal of Electrical Engineering & Technology*, 4(4):467–475, December 2009.
- [5302] Patrick Reed and Venkat Devireddy. Groundwater Monitoring Design: A Case Study Combining Epsilon Dominance Archiving and Automatic Parameterization for the NSGA-II. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 79–100. World Scientific, Singapore, 2004.

- [5303] Patrick Reed, Joshua B. Kollat, and V.K. Devireddy. Using interactive archives in evolutionary multiobjective optimization: A case study for long-term groundwater monitoring design. *Environmental Modelling & Software*, 22(5):683–692, May 2007.
- [5304] Patrick Reed, Barbara S. Minsker, and David E. Goldberg. Simplifying multiobjective optimization: An automated design methodology for the nondominated sorted genetic algorithm-II. *Water Resources Research*, 39(7):TNN 2.1–2.5, July 2003.
- [5305] Patrick M. Reed, Joshua B. Kollat, Matthew P. Ferringer, and Timothy G. Thompson. Parallel Evolutionary Multi-Objective Optimization on Large, Heterogeneous Clusters: An Applications Perspective. *Journal of Aerospace Computing Information And Communication*, 5(11):460–478, 2008.
- [5306] Patrick M. Reed, Barbara S. Minsker, and David E. Goldberg. Designing a New Elitist Nondominated Sorted Genetic Algorithm for a Multiobjective Long Term Groundwater Monitoring Application. In *Proceedings of the 2001 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 352–358, San Francisco, California, July 2001.
- [5307] Patrick M. Reed, Barbara S. Minsker, and David E. Goldberg. Designing a New Elitist Nondominated Sorted Genetic Algorithm for a Multiobjective Long Term Groundwater Monitoring Application. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, page 1454, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [5308] Patrick M. Reed, Barbara S. Minsker, and David E. Goldberg. A multiobjective approach to cost effective long-term groundwater monitoring using an elitist nondominated sorted genetic algorithm with historical data. *Journal of Hydroinformatics*, 3(2):71–89, April 2001.
- [5309] Patrick M. Reed, Barbara S. Minsker, and David E. Goldberg. The Practitioner's Role in Competent Search and Optimization Using Genetic Algorithms. In Don Phelps and Gerald Sehlke, editors, *Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges. Proceedings of the World Water and Environmental Resources Congress*, Washington, DC, 2001. American Society of Civil Engineers. ISBN 0-7844-0569-7.
- [5310] Patrick M. Reed, Barbara S. Minsker, and David E. Goldberg. Why Optimize Long Term Groundwater Monitoring Design? A Multiobjective Case Study of Hill Air Force Base. In Don Phelps and Gerald Sehlke, editors, *Bridging the Gap: Meeting the World's Water and Environmental Resources Challenges. Proceedings of the World Water and Environmental Resources Congress*, Washington, DC, 2001. American Society of Civil Engineers. ISBN 0-7844-0569-7.

- [5311] Patrick Michael Reed. *Striking the Balance: Long-Term Groundwater Monitoring Design for Multiple Conflicting Objectives*. PhD thesis, Graduate College of the University of Illinois at Urbana-Champaign, Urbana, Illinois, 2002.
- [5312] P.M. Reed and J.B. Kollat. Save now, pay later? Multi-period many-objective groundwater monitoring design given systematic model errors and uncertainty. *Advances in Water Resources*, 35:55–68, January 2012.
- [5313] P.M. Reed and B.S. Minsker. Discovery & Negotiation using Multiobjective Genetic Algorithms: A Case Study in Groundwater Monitoring Design. In R.A. Falconer, B. Lin, E.L. Harris, and C.A.M.E. Wilson, editors, *Hydroinformatics 2002, Volume Two: Software Tools and Management Systems, Proceedings of the 5th International Conference on Hydroinformatics*, pages 988–993, London, 2002. IWA Publishing.
- [5314] Edgar Reehuis and Thomas Bäck. Mixed-Integer Evolution Strategy Using Multiobjective Selection Applied to Warehouse Design Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1187–1194, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [5315] J. Régnier, B. Sareni, and X. Roboam. System optimization by multiobjective genetic algorithms and analysis of the coupling between variables, constraints and objectives. *COMPEL-The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 24(3):805–820, 2005.
- [5316] Jérémie Régnier. *Conception de systèmes hétérogènes en Génie Électrique para Optimisation évolutionnaire multicritère*. PhD thesis, Institut Nationale Polytechnique de Toulouse, France, December 2003. (In French).
- [5317] Dirk Reichelt and Lars Mönch. Multiobjective Scheduling of Jobs with Incompatible Families on Parallel Batch Machines. In Jens Gottlieb and Günther R. Raidl, editors, *Evolutionary Computation in Combinatorial Optimization, 6th European Conference, EvoCOP 2006*, pages 209–221, Budapest, Hungary, April 2006. Springer. Lecture Notes in Computer Science Vol. 3906.
- [5318] B. Rekiek, P. de Lit, and A. Delchambre. Hybrid assembly line design and user's preferences. *International Journal of Production Research*, 40(5):1095–1111, March 2002.
- [5319] Brahim Rekiek. Multiple-Objectives Genetic Algorithm. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, page 401, Orlando, Florida, July 1999.
- [5320] Brahim Rekiek. *Assembly Line Design (multiple objective grouping genetic algorithm and the balancing of mixed-model hybrid assembly line)*. PhD thesis, Free University of Brussels, CAD/CAM Department, Brussels, Belgium, December 2000.

- [5321] Brahim Rekiek, Pierre de Lit, Fabrice Pellichero, Thomas L'Eglise, Patrick Fouda, Emanuel Falkenauer, and Alan Delchambre. A multiple objective grouping genetic algorithm for assembly line design. *Journal of Intelligent Manufacturing*, 12(5–6):467–485, 2001.
- [5322] Brahim Rekiek and Alain Delchambre. *Assembly Line Design. The Balancing of Mixed-Model Hybrid Assembly Lines with Genetic Algorithms*. Springer, 2006. ISBN 1-84628-112-1.
- [5323] Brahim Rekiek, Pierre De Lit, Fabrice Pellichero, Thomas L'Eglise, Emanuel Falkenauer, and Alain Delchambre. Dealing With User's Preferences in Hybrid Assembly Lines Design. In *Proceedings of the MCPL'2000 Conference*, 2000.
- [5324] Brahim Rekiek, Fabrice Pellichero, Pierre De Lit, Emanuel Falkenauer, and Alain Delchambre. A Resource Planner for Hybrid Assembly Lines. In *Proceedings of the 15th International Conference on CAD/CAM Robotics & Factories of the Future CAR & FOF'99*, volume 1, pages MW6–18–MW6–23, August 1999.
- [5325] Xiaolin Ren and Barbara Minsker. Which Groundwater Remediation Objective is Better, a Realistic One or a Simple One? In *American Society of Civil Engineers (ASCE) Environmental & Water Resources Institute (EWRI) World Water & Environmental Resources Congress 2003 & Related Symposia*, Philadelphia, PA, 2003.
- [5326] Ana Respicio and M. Eugénia Captivo. Bi-Objective Sequencing of Cutting Patterns. In Toshihide Ibaraki, Koji Nonobe, and Matsunori Yagiura, editors, *Meta-heuristics: Progress as Real Problem Solvers, Selected Papers from the 5th Metaheuristics International Conference (MIC 2003)*, pages 226–241. Springer, 2005.
- [5327] Orlando Reyes, Gustavo Sánchez, and Miguel Strefezza. Multiobjective GA-Fuzzy Logic Controller - Applied to a pH Reactor. In *6th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2009)*, pages 384–389, Milan, Italy, July 2009.
- [5328] Margarita Reyes Sierra and Carlos A. Coello Coello. Coevolutionary Multi-objective Optimization using Clustering Techniques. In Alexander Gelbukh, Álvaro de Albornoz, and Hugo Terashima-Marín, editors, *MICAI 2005: Advances in Artificial Intelligence*, pages 603–612, Monterrey, México, November 2005. Springer. Lecture Notes in Artificial Intelligence Vol. 3789.
- [5329] Margarita Reyes Sierra and Carlos A. Coello Coello. Fitness Inheritance in Multi-Objective Particle Swarm Optimization. In *2005 IEEE Swarm Intelligence Symposium (SIS'05)*, pages 116–123, Pasadena, California, USA, June 2005. IEEE Press.
- [5330] Margarita Reyes Sierra and Carlos A. Coello Coello. Improving PSO-Based Multi-objective Optimization Using Crowding, Mutation and ϵ -Dominance. In

Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 505–519, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [5331] Margarita Reyes Sierra and Carlos A. Coello Coello. A Study of Fitness Inheritance and Approximation Techniques for Multi-Objective Particle Swarm Optimization. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 65–72, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5332] Margarita Reyes-Sierra and Carlos A. Coello Coello. Dynamic Fitness Inheritance Proportion For Multi-Objective Particle Swarm Optimization. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 89–90, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [5333] Margarita Reyes-Sierra and Carlos A. Coello Coello. Multi-Objective Particle Swarm Optimizers: A Survey of the State-of-the-Art. *International Journal of Computational Intelligence Research*, 2(3):287–308, 2006.
- [5334] Margarita Reyes Sierra and Carlos A. Coello Coello. On-line Adaptation in Multi-Objective Particle Swarm Optimization. In *2006 Swarm Intelligence Symposium (SIS'06)*, pages 61–68, Indianapolis, Indiana, USA, May 2006. IEEE Press.
- [5335] Margarita Reyes Sierra and Carlos A. Coello Coello. A Study of Techniques to Improve the Efficiency of a Multi-Objective Particle Swarm Optimizer. In Shengxiang Yang, Yew Soon Ong, and Yaochu Jin, editors, *Evolutionary Computation in Dynamic and Uncertain Environments*, pages 269–296. Springer, 2007. ISBN 978-3-540-49772-1.
- [5336] María Margarita Reyes Sierra. *Use of Coevolution and Fitness Inheritance for Multiobjective Particle Swarm Optimization*. PhD thesis, Computer Science Section, Department of Electrical Engineering, CINVESTAV-IPN, Mexico, August 2006.
- [5337] Alan Reynolds and Beatriz de la Iglesia. Rule Induction Using Multi-Objective Metaheuristics: Encouraging Rule Diversity. In *2006 International Joint Conference on Neural Networks (IJCNN'2006)*, pages 6375–6382, Vancouver, BC, Canada, July 2006. IEEE.
- [5338] Alan P. Reynolds, David W. Corne, and Michael J. Chantler. Feature Selection for Multi-purpose Predictive Models: A Many-Objective Task. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 384–393. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.

- [5339] Alan P. Reynolds, David W. Corne, and Beatriz de la Iglesia. A multiobjective GRASP for rule selection. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 643–650, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5340] Alan P. Reynolds and Beatriz de la Iglesia. Managing Population Diversity Through the Use of Weighted Objectives and Modified Dominance: An Example from Data Mining. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 99–106, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [5341] Alan P. Reynolds and Beatriz de la Iglesia. A multi-objective GRASP for partial classification. *Soft Computing*, 13(3):227–243, February 2009.
- [5342] A.P. Reynolds and B. de la Iglesia. Rule Induction for Classification Using Multi-objective Genetic Programming. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 516–530, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5343] J.H. Reynolds. *Multi-Criteria Assessment of Ecological Process Models using Pareto Optimization*. PhD thesis, University of Washington, Seattle, Washington, USA, 1997.
- [5344] J.H. Reynolds and E.D. Ford. Multi-criteria assessment of ecological process models. *Ecology*, 80(2):538–553, March 1999.
- [5345] Gilberto Reynoso-Meza, Xavier Blasco, and Javier Sanchis. Multiobjective Design of PID controllers for the 2008-2009 Control Benchmark. *Revista Iberoamericana De Automatica E Informatica Industrial*, 6(4):98–108, October 2009.
- [5346] Gilberto Reynoso-Meza, Xavier Blasco, Javier Sanchis, and Miguel Martínez. Multiobjective optimization algorithm for solving constrained single objective problems. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3418–3424, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5347] Gilberto Reynoso-Meza, Javier Sanchis, Xavier Blasco, and Miguel Martínez. Design of Continuous Controllers Using a Multiobjective Differential Evolution Algorithm with Spherical Pruning. In Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcázar, Chi-Keong Goh, Juan J. Merelo, Ferrante Neri, Mike Preuss, Julian Togelius, and Georgios N. Yannakakis, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM, and EvoSTOC*, pages 532–541, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6024.

- [5348] Jafar Rezaei and Mansoor Davoodi. Multi-objective models for lot-sizing with supplier selection. *International Journal of production Economics*, 130(1):77–86, March 2011.
- [5349] Hamed Rezaie, Naser NematBaksh, and Farhad Mardukhi. A Multi-Objective Particle Swarm Optimization for Web Service Composition. In Filip Zavoral, Jakub Yaghob, Pit Pichappan, and Eyas El-Qawasmeh, editors, *Networked Digital Technologies, Second International Conference, NDT 2010*, pages 112–122, Prague, Czech Republic, July 7-9 2010.
- [5350] Celso C. Ribeiro, Daniel Aloise, Thiago F. Noronha, Caroline Rocha, and Sebastián Urrutia. A hybrid heuristic for a multi-objective real-life car sequencing problem with painting and assembly line constraints. *European Journal of Operational Research*, 191(3):981–992, December 2008.
- [5351] Zach D. Richards and Kimon Valavanis. Particle Swarm trade-off curve analysis for bi-objective optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3749–3754, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5352] Steven J. Richardson and Melinda R. Hodkiewicz. Modeling Tool to Support Budgeting and Planning Decisions for Pump Overhauls. *Journal of Water Resources Planning and Management-Asce*, 137(4):327–334, July - August 2011.
- [5353] Hendrik Richter. An Evolutionary Algorithm for Controlling Chaos: The Use of Multi-objective Fitness Functions. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN VII*, pages 308–317, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.
- [5354] Heather Erin Rickard. Feature Selection for Self-Organizing Feature Map Neural Networks With Applications in Medical Image Segmentation. Master's thesis, Department of Electrical Engineering, University of Louisville, December 2001.
- [5355] Jeffrey P. Ridder and Jason C. HandUber. Mission Planning for Joint Suppression of Enemy Air Defenses Using a Genetic Algorithm. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1929–1936, New York, USA, June 2005. ACM Press.
- [5356] John Rieffel. *Evolutionary Fabrication: The Co-Evolution of Form and Formation*. PhD thesis, The Faculty of the Graduate School of Arts and Sciences, MIT School of Computer Science, Brandeis University, Waltham, Massachusetts, USA, May 2006.

- [5357] John Rieffel and Jordan Pollack. The Emergence of Ontogenic Scaffolding in a Stochastic Development Environment. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 804–815, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [5358] John Rieffel and Jordan Pollack. Automated Assembly as Situated Development: Using Artificial Ontogenies to Evolve Buildable 3-D Objects. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 99–106, New York, USA, June 2005. ACM Press.
- [5359] John Rieffel and Jordan Pollack. Crossing the Fabrication Gap: Evolving Assembly Plans to Build 3-D Objects. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 529–536, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5360] John Rieffel and Jordan Pollack. Evolving Assembly Plans for Fully Automated Design and Assembly. In Jason Lohn, David Gwaltney, Gregory Hornby, Ricardo Zebulum, Didier Keymeulen, and Adrian Stoica, editors, *2005 NASA/DoD Conference on Evolvable Hardware*, pages 165–170, Los Alamitos, California, July 2005. IEEE Computer Society Press.
- [5361] Hicham Rifai. Turbojet engine performance modelling using multi-objective optimization algorithms. Master's thesis, Department of Mathematics, Chalmers University of Technology and Göteborg University, Göteborg, Sweden, August 2005.
- [5362] Enrico Rigoni and Alessandro Turco. Metamodels for Fast Multi-Objective optimization: Trading Off Global Exploration and Local Exploitation. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 523–532, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [5363] Kazi Shah Nawaz Ripon, Kashif Nizam Khan, Kyree Glette, Mats Hovin, and Jim Torresen. Using Pareto-Optimality for Solving Multi-Objective Unequal Area Facility Layout Problem. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 681–688, Dublin, Ireland, July 12-16 2011. ACM Press.
- [5364] Kazi Shah Nawaz Ripon, Sam Kwong, and K. F. Man. A real-coding jumping gene genetic algorithm (RJGGA) for multiobjective optimization. *Information Sciences*, 177(2):632–654, January 15 2007.

- [5365] Kazi Shah Nawaz Ripon and M. N. H. Siddique. Evolutionary Multi-Objective Clustering for Overlapping Clusters Detection. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 976–982, Trondheim, Norway, May 2009. IEEE Press.
- [5366] Kazi Shah Nawaz Ripon, Chi-Ho Tsang, and Sam Kwong. An Evolutionary Approach for Solving the Multi-Objective Job-Shop Scheduling Problem. In Keshav P. Dahal, Kay Chen Tan, and Peter I Cowling, editors, *Evolutionary Scheduling*, Studies in Computational Intelligence (SCI), pages 165–195. Springer, Berlin, 2007. ISBN 3-540-48582-1.
- [5367] Jose L. Risco-Martin, David Atienza, J. Ignacio Hidalgo, and Juan Lanchares. A parallel evolutionary algorithm to optimize dynamic data types in embedded systems. *Soft Computing*, 12(12):1157–1167, October 2008.
- [5368] José L. Risco-Martín, David Atienza, J. Ignacio Hidalgo, and Juan Lanchares. Parallel and Distributed Optimization of Dynamic Data Structures for Multimedia Embedded Systems. In Francisco Fernández de Vega and Erick Cantú-Paz, editors, *Parallel and Distributed Computational Intelligence*, pages 263–290. Springer, Berlin, Germany, 2010.
- [5369] José L. Risco-Martín, J. Ignacio Hidalgo, David Atienza, Juan Lanchares, and Oscar Garnica. Mixed heuristic and mathematical programming using reference points for dynamic data types optimization in multimedia embedded systems. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1601–1608, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5370] Brian J. Ritzel, J. Wayland Eheart, and S. Ranjithan. Using genetic algorithms to solve a multiple objective groundwater pollution containment problem. *Water Resources Research*, 30(5):1589–1603, may 1994.
- [5371] F. Rivas-Dávalos, E. Moreno-Goytia, G. Gutiérrez-Alacaraz, and J. Tovar-Hernández. Evolutionary Multi-Objective Optimization in Power Systems: State-of-the-Art. In *2007 IEEE Lausanne Power Tech*, pages 2093–2098, Lausanne, Switzerland, July 1-5 2007. IEEE Computer Society Press.
- [5372] Francisco Rivas-Dávalos and Malcolm R. Irving. An Approach Based on the Strength Pareto Evolutionary Algorithm 2 for Power Distribution System Planning. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 707–720, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [5373] A.J. Rivera, I. Rojas, J. Ortega, and M.J. del Jesus. A new hybrid methodology for cooperative-coevolutionary optimization of radial basis function networks. *Soft Computing*, 11(7):655–668, May 2007.

- [5374] S. A. Roberts, G. B. Hall, and P. H. Calamai. Evolutionary Multi-objective Optimization for landscape system design. *Journal of Geographical Systems*, 13(3):299–326, September 2011.
- [5375] Steven Andrew Roberts. *Configuration Optimization in Socio-Ecological Systems*. PhD thesis, University of Waterloo, Waterloo, Canada, 2003.
- [5376] Tea Robič and Bogdan Filipič. DEMO: Differential Evolution for Multiobjective Optimization. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 520–533, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [5377] Claudio M. Rocco, Jose Emmanuel Ramirez Marquez, Daniel E. Salazar, and Cesar Yajure. Assessing the Vulnerability of a Power System Through a Multiple Objective Contingency Screening Approach. *IEEE Transactions on Reliability*, 60(2):394–403, June 2011.
- [5378] Claudio M. Rocco S. and Daniel E. Salazar A. A Hybrid Approach Based on Evolutionary Strategies and Interval Arithmetic to Perform Robust Designs. In Shengxiang Yang, Yew Soon Ong, and Yaochu Jin, editors, *Evolutionary Computation in Dynamic and Uncertain Environments*, pages 543–564. Springer, 2007. ISBN 978-3-540-49772-1.
- [5379] A.S. Rocha, C.J.A. Macedo, P.H.S. Palhares, and L. C. Brito. An Improved Multiobjective Search Method Applied to Single Frequency Networks Planning. *IEEE Latin America Transactions*, 10(1):1143–1148, January 2012.
- [5380] Daniel A. M. Rocha, Elizabeth F. G. Goldberg, and Marco C. Goldberg. A New Evolutionary Algorithm for the Bi-objective Minimum Spanning Tree. In *Proceedings of the Seventh International Conference on Intelligent Systems Design and Applications (ISDA'07)*, volume 1, pages 735–740, Rio de Janeiro, Brazil, 2007. IEEE Computer Society.
- [5381] Daniel A.M. Rocha, Elizabeth F. Gouvêa Goldberg, and Marco César Goldberg. A Memetic Algorithm for the Biobjective Minimum Spanning Tree Problem. In Jens Gottlieb and Günther R. Raidl, editors, *Evolutionary Computation in Combinatorial Optimization, 6th European Conference, EvoCOP 2006*, pages 222–233, Budapest, Hungary, April 2006. Springer. Lecture Notes in Computer Science Vol. 3906.
- [5382] Miguel Rocha, Pedro Sousa, Paulo Cortez, and Miguel Rio. Evolutionary Computation for Quality of Service Internet Routing Optimization. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2007: EvoCOMNET, EvoFIN, EvoIASP, EvoINTERACTION, EvoMUSART, EvoSTOC and EvoTRANSLOG*, pages 71–80, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4448.

- [5383] Miguel Rocha, Pedro Sousa, Paulo Cortez, and Miguel Rio. Quality of Service constrained routing optimization using Evolutionary Computation. *Applied Soft Computing*, 11(1):356–364, January 2011.
- [5384] Miguel Rocha, Pedro Sousa, Miguel Rio, and Paulo Cortez. QoS Constrained Internet Routing with Evolutionary Algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 9270–9277, Vancouver, BC, Canada, July 2006. IEEE.
- [5385] Samuel Rochet and Claude Baron. An Evolutionary Algorithm for Decisional Assistance to Project Management. In Jean-Philippe Rennard, editor, *Handbook of Research on Nature Inspired Computing for Economy and Management*, volume 2, pages 444–464. Idea Group Reference, Hershey, UK, 2006. ISBN 1-59140-984-5.
- [5386] Katya Rodríguez-Vázquez and Peter J. Fleming. Functionality and Optimality in Circuit Design: A Genetic Programming Approach. In *Proceedings of the Third International Symposium on Adaptive Systems—Evolutionary Computation and Probabilistic Graphical Models*, pages 23–28, Havana, Cuba, March 19–23 2001. Institute of Cybernetics, Mathematics and Physics.
- [5387] Mayron Rodrigues de Almeida, Marco Aurélio Cavalcanti Pachecho, Sílvia Hamacher, and Marley B.R. Vellasco. The Energy Minimization Method: A Multiobjective Fitness Evaluation Technique and Its Application to the Production Scheduling in a Petroleum Refinery. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 560–567, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [5388] Andrés F. Rodríguez, Traci A. Keller, Gary B. Lamont, and Thomas R. Nelson. Using a Multiobjective Evolutionary Algorithm to Develop a Quantum Cascade Laser Operating in the Terahertz Frequency Range. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 9–16, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5389] Carlos Alberto Brizuela Rodríguez. *Genetic Algorithms for Shop-scheduling Problems: Partial Enumeration and Stochastic Heuristics*. PhD thesis, Kyoto Institute of Technology, Japan, 2000.
- [5390] Daniel Rodríguez, José C. Riquelme, Mercedes Ruiz, and Rachel Harrison. Multiobjective simulation optimisation in software project management. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1883–1890, Dublin, Ireland, July 12–16 2011. ACM Press.
- [5391] Jorge E. Rodríguez, Andrés L. Medaglia, and Juan P. Casas. Approximation to the Optimum Design of a Motorcycle Frame using Finite Element Analysis and Evolutionary Algorithms. In Ellen J. Bass, editor, *Proceedings of the 2005 IEEE Systems and Information Engineering Design Symposium*, pages 277–285. IEEE Press, 2005.

- [5392] K. Rodríguez-Vázquez, M.L. Arganis-Juarez, C. Cruickshank-Villanueva, and R. Dominguez-Mora. Rainfall-runoff modelling using genetic programming. *Journal of Hydroinformatics*, 14(1):108–121, January 2012.
- [5393] K. Rodríguez-Vázquez and P.J. Fleming. Evolution of mathematical models of chaotic systems based on multiobjective genetic programming. *Knowledge and Information Systems*, 8(2):235–256, August 2005.
- [5394] K. Rodríguez-Vázquez, C.M. Fonseca, and P.J. Fleming. Identifying the Structure of NonLinear Dynamic Systems Using Multiobjective Genetic Programming. *IEEE Transactions on Systems, Man, and Cybernetics—Part A: Systems and Humans*, 34(4):531–545, July 2004.
- [5395] Katya Rodríguez-Vázquez. *Multiobjective Evolutionary Algorithms in Non-Linear System Identification*. PhD thesis, Department of Automatic Control and Systems Engineering, The University of Sheffield, Sheffield, UK, 1999.
- [5396] Katya Rodríguez-Vázquez. Identification of MIMO Non-Linear Systems Using Evolutionary Computation. In *Late Breaking Papers at the 2000 Genetic and Evolutionary Computation Conference*, pages 411–417, Las Vegas, Nevada, July 2000.
- [5397] Katya Rodríguez-Vázquez and Peter J. Fleming. A Genetic Programming/NARMAX Approach to Non-Linear System Identification. In *Genetic Algorithms in Engineering Systems: Innovations and Applications (GALESIA'97)*, pages 409–414, 1997.
- [5398] Katya Rodríguez-Vázquez and Peter J. Fleming. Multiobjective Genetic Programming for a Gas Turbine Engine Model Identification. In *UKACC International Conference on Control'98*, volume 2, pages 1385–1390, 1998.
- [5399] Katya Rodríguez-Vázquez and Peter J. Fleming. Multiobjective Genetic Programming for Non-Linear System Identification. *Electronics Letters*, 34(9):930–931, 1998.
- [5400] Katya Rodríguez-Vázquez and Peter J. Fleming. Non-Linear System Identification: Use of Genetic Programming to Satisfy Multiple Objectives. In Ajtonyi and Czap, editors, *INTCOM'98 Symposium on Intelligent Systems in Control and Measurement*, pages 148–154, 1998.
- [5401] Katya Rodríguez-Vázquez and Peter J. Fleming. Genetic Programming for Dynamic Chaotic Systems Modelling. In *1999 Congress on Evolutionary Computation*, pages 22–28, Washington, D.C., July 1999. IEEE Service Center.
- [5402] Katya Rodríguez-Vázquez and Peter J. Fleming. Multiobjective GP for Human-Understandable Models: A Practical Application. In Joshua Knowles, David Corne, and Kalyanmoy Deb, editors, *Multi-Objective Problem Solving from Nature: From Concepts to Applications*, pages 201–218. Springer, Berlin, 2008. ISBN 978-3-540-72963-1.

- [5403] Katya Rodríguez-Vázquez, Carlos M. Fonseca, and Peter J. Fleming. Multiobjective Genetic Programming : A Nonlinear System Identification Application. In John R. Koza, editor, *Late Breaking Papers at the Genetic Programming 1997 Conference*, pages 207–212, Stanford University, California, July 1997. Stanford Bookstore.
- [5404] Benjamin Roeschies and Christian Igel. Structure optimization of reservoir networks. *Logic Journal of the IGPL*, 18(5):635–669, October 2010.
- [5405] James L. Rogers. Optimum Actuator Placement with a Genetic Algorithm for Aircraft Control. In Cihan H. Dagli, Anna L. Buczak, Joydeep Ghosh, Mark J. Embrechts, and Okan Ersoy, editors, *Smart Engineering System Design: Neural Networks, Fuzzy Logic, Evolutionary Programming, Data Mining, and Complex Systems (ANNIE'99)*, pages 355–360, New York, November 1999. ASME Press.
- [5406] James L. Rogers. A Parallel Approach to Optimum Actuator Selection With A Genetic Algorithm. In *AIAA Paper No. 2000-4484, AIAA Guidance, Navigation, and Control Conference*, Denver, Colorado, August 14–17 2000.
- [5407] Greg Rohling. *Multiple Objective Evolutionary Algorithms for Independent, Computationally Expensive Objective Evaluations*. PhD thesis, School of Electrical and Computer Engineering, November 2004.
- [5408] Greg Rohling. Methods for Decreasing the Number of Objective Evaluations for Independent Computationally Expensive Objective Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3304–3309, Hong Kong, June 2008. IEEE Service Center.
- [5409] Carlos Eduardo Mariano Romero. *Aprendizaje por Refuerzo en Optimización Multiobjetivo*. PhD thesis, Departamento de Ciencias Computacionales, Instituto Tecnológico y de Estudios Superiores de Monterrey, Cuernavaca, Morelos, México, Marzo 2001. (In Spanish).
- [5410] Carlos Eduardo Mariano Romero and Eduardo Morales Manzanares. MOAQ an Ant-Q Algorithm for Multiple Objective Optimization Problems. In W. Banzhaf, J. Daida, A. E. Eiben, M. H. Garzon, V. Honavar, M. Jakiela, and R. E. Smith, editors, *Genetic and Evolutionary Computing Conference (GECCO 99)*, volume 1, pages 894–901, San Francisco, California, July 1999. Morgan Kaufmann.
- [5411] Carlos Eduardo Mariano Romero and Eduardo Morales Manzanares. A New Approach for the Solution of Multiple Objective Optimization Problems Based on Reinforcement Learning. In Osvaldo Cairo, L. Enrique Sucar, and Francisco J. Cantu, editors, *MICAI'2000: Advances in Artificial Intelligence*, pages 212–223, Acapulco, México, April 2000. Springer-Verlag.
- [5412] V. Romero-Garcia, J. V. Sanchez-Perez, L. M. Garcia-Raffi, J. M. Herrero, S. Garcia-Nieto, and X. Blasco. High optimization process for increasing the

attenuation properties of acoustic metamaterials by means of the creation of defects. *Applied Physics Letters*, 93(22), December 1 2008. Article number 223502.

- [5413] V. Romero-Garcia, J. V. Sanchez-Perez, L. M. Garcia-Raffi, J. M. Herrero, S. Garcia-Nieto, and X. Blasco. Hole distribution in phononic crystals: Design and optimization. *Journal of the Acoustical Society of America*, 125(6):3774–3783, June 2009.
- [5414] R. Romero-Zaliz, C. Rubio-Escudero, O. Cerdón, O. Harari, C. del Val, and I. Zwir. Mining structural databases: An evolutionary multi-objective conceptual clustering methodology. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 159–171, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.
- [5415] Rocío C. Romero-Zaliz, Cristina Rubio-Escudero, J. Perren Cobb, Francisco Herrera, Óscar Cerdón, and Igor Zwir. A Multiobjective Evolutionary Conceptual Clustering Methodology for Gene Annotation Within Structural Databases: A Case Study on the *Gene Ontology* Database. *IEEE Transactions on Evolutionary Computation*, 12(6):679–701, December 2008.
- [5416] Edmund Ronald. When Selection Meets Seduction. In Larry J. Eshelman, editor, *Proceedings of the Sixth International Conference on Genetic Algorithms*, pages 167–173, San Mateo, California, July 1995. University of Pittsburgh, Morgan Kaufmann Publishers.
- [5417] Jani Ronkkonen, Xiaodong Li, Ville Kyrki, and Jouni Lampinen. A framework for generating tunable test functions for multimodal optimization. *Soft Computing*, 15(9):1689–1706, September 2011.
- [5418] P. Roosen, S. Uhlenbruck, and K. Lucas. Pareto optimization of a combined cycle power system as a decision support tool for trading off investment vs. operating costs. *International Journal of Thermal Sciences*, 42(6):553–560, June 2003.
- [5419] R. S. Rosenberg. *Simulation of genetic populations with biochemical properties*. PhD thesis, University of Michigan, Ann Harbor, Michigan, 1967.
- [5420] B. Rosic, S. Radenovic, L. J. Jankovic, and M. Milojevic. Optimisation of Planetary Gear Train Using Multiobjective Genetic Algorithm. *Journal of the Balkan Tribological Association*, 17(3):462–475, 2011.
- [5421] B.J. Ross and H. Zhu. Procedural texture evolution using multiobjective optimization. *New Generation Computing*, 22(3):271–293, 2004.
- [5422] Brian J. Ross, William Ralph, and Hai Zong. Evolutionary Image Synthesis Using a Model of Aesthetics. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3832–3839, Vancouver, BC, Canada, July 2006. IEEE.

- [5423] Brian J. Ross and Eduardo Zuviria. Evolving dynamic bayesian networks with multi-objective genetic algorithms. *Applied Intelligence*, 26(1):13–23, February 2007.
- [5424] Corina Rotar. An Evolutionary Technique for Multicriterial Optimization Based on Endocrine Paradigm. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 414–415, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
- [5425] Corina Rotar, D. Dumitrescu, and Rodica Lung. Guided Hyperplane Evolutionary Algorithm. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 884–891, London, UK, July 2007. ACM Press.
- [5426] Stefan Roth, Alexander Gepperth, and Christian Igel. Multi-objective neural network optimization for visual object detection. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 629–655. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [5427] Olga Roudenko. *Application des Algorithmes Evolutionnaires aux problèmes d'optimisation multi-critère avec contraintes*. PhD thesis, Université Paris 6, Paris, France, 2004. (In French).
- [5428] Olga Roudenko and Marc Schoenauer. A Steady Performance Stopping Criterion for Pareto-based Evolutionary Algorithms. In *Proceedings of the 6th International Multi-Objective Programming and Goal Programming Conference*, Hammamet, Tunisia, April 14-16 2004.
- [5429] Carl Rouhiainen and Moses O. Tade. Genetic Algorithms for Optimal Scheduling of Chlorine Dosing in Water Distribution Systems. In *20th Convention of the Australian Water Association*, Perth, Australia, 6–10 April 2003.
- [5430] C.J. Rouhiainen, M.O. Tade, and G. West. Multi-Objective Genetic Algorithm for Optimal Scheduling of Chlorine Dosing in Water Distribution Systems. In C. Maksimovic, D. Butler, and F. Ali Memon, editors, *Advances in Water Supply Management, Proceedings of the International Conference on Computers and Control in Water Industry (CCWI 2003)*, pages 459–469, Imperial College, London, UK, September 2003. Balkema Publishers.
- [5431] B. K. Rout and R. K. Mittal. Simultaneous selection of optimal parameters and tolerance of manipulator using evolutionary optimization technique. *Structural and Multidisciplinary Optimization*, 40(1-6):513–528, January 2010.
- [5432] Jon Rowe, Kevin Vinsen, and Nick Marvin. Parallel GAs for Multiobjective Functions. In Jarmo T. Alander, editor, *Proceedings of the Second Nordic Workshop on Genetic Algorithms and Their Applications (2NWGA)*, pages 61–70, Vaasa, Finland, August 1996. University of Vaasa.

- [5433] Abhishek Roy, Nilanjan Banerjee, and Sajal K. Das. An Efficient Multi-Objective QoS Routing Algorithm for Real-Time Wireless Multicasting. In Preston Jackson, editor, *IEEE Semiannual Vehicular Technology Conference*, volume 3, pages 1160–1164, Birmingham, Alabama, May 2002. IEEE.
- [5434] Abhishek Roy and Sajal K. Das. QM²RO: A QoS-Based Mobile Multicast Routing Protocol Using Multiobjective Genetic Algorithms. *Wireless Networks*, 10(3):271–286, May 2004.
- [5435] P. K. Roy, S. P. Ghoshal, and S. S. Thakur. Biogeography-based Optimization for Economic Load Dispatch Problems. *Electric Power Components and Systems*, 38(2):166–181, 2010.
- [5436] P. K. Roy, S. P. Ghoshal, and S. S. Thakur. Multi-objective Optimal Power Flow Using Biogeography-based Optimization. *Electric Power Components and Systems*, 38(12):1406–1426, 2010.
- [5437] R. Roy, Y. T. Azene and D. Farrugia, C. Onisa, and J. Menhen. Evolutionary multi-objective design optimisation with real life uncertainty and constraints. *CIRP Annals-Manufacturing Technology*, 58(1):169–172, 2009.
- [5438] Rajkumar Roy, Srichand Hinduja, and Roberto Teti. Recent advances in engineering design optimisation: Challenges and future trends. *CIRP Annals-Manufacturing Technology*, 57(2):697–715, 2008.
- [5439] Rajkumar Roy and Jorn Mehnen. Technology Transfer: Academia to Industry. In Tina Yu, Lawrence Davis, Cem Baydar, and Rajkumar Roy, editors, *Evolutionary Computation in Practice*, pages 263–281. Springer, 2008. ISBN 978-3-540-75770-2.
- [5440] Rajkumar Roy, Ahsutosh Tiwari, Olivier Munaux, and Graham Jared. Real-life engineering design optimization: Features and techniques. In J. Martikainen and J. Tanskanen, editors, *CDROM Proceedings of the 5th Online World Conference on Soft Computing in Industrial Applications (WSC5)*—ISBN 951-22-5205-8, Finland, 2000. IEEE.
- [5441] Subhrajit Roy, Sk. Minhazul Islam, Saurav Ghosh, Shizheng Zhao, Ponnuthurai Nagarathnam Suganthan, and Swagatam Das. Design of Two Channel Quadrature Mirror Filter Bank: A Multi-Objective Approach. In Bijaya Ketan Panigrahi, Ponnuthurai Nagarathnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 239–247, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7077.
- [5442] Sohini Roychowdhury, Sanjoy Das, Caterina M. Scoglio, Swagatam Das, Bijaya K. Panigrahi, and Shyam S. Pattnaik. Mitigation Strategies in Epidemics:

- Evolutionary Optimization Using a Hierarchy of Objective Functions. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1325–1326, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [5443] Bonnie Rubenstein-Montano and Ross A. Malaga. A Weighted Sum Genetic Algorithm to Support Multiple-Party Multi-Objective Negotiations. *IEEE Transactions on Evolutionary Computation*, 6(4):366–377, August 2002.
 - [5444] C. Rubio-Escudero, R. Romero-Zaliz, O. Cerdón, O. Harari, C. del Val, and I. Zvir. Optimal Selection of Microarray Analysis Methods Using a Conceptual Clustering Algorithm. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 172–183, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.
 - [5445] Cristina Rubio Escudero. *Fusion of Knowledge towards the Identification of Genetic Profiles in the Systemic Inflammation Problem*. PhD thesis, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad de Granada, Granada, Spain, December 2007.
 - [5446] A. Rubio-Largo, M.A. Vega-Rodríguez, J.A. Gómez-Pulido, and J.M. Sánchez-Pérez. A Differential Evolution with Pareto Tournaments for Solving the Routing and Wavelength Assignment Problem in WDM Networks. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 129–136, Barcelona, Spain, July 18–23 2010. IEEE Press.
 - [5447] Olga Rudenko and Marc Schoenauer. Dominance Based Crossover Operator for Evolutionary Multi-objective Algorithms. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 812–821, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
 - [5448] Olga Rudenko, Marc Schoenauer, Tiziana Bosio, and Roberto Fontana. A Multiobjective Evolutionary Algorithm for car Front End Design. In Pierre Collet, Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution. 5th International Conference, Evolution Artificielle, EA'2001. Selected Papers*, pages 205–216. Springer. Lecture Notes in Computer Science Vol. 2310, 2002.
 - [5449] Günter Rudolph. Evolutionary Search for Minimal Elements in Partially Ordered Finite Sets. In V.W. Porto, N. Saravanan, D. Waagen, and A.E. Eiben, editors, *Evolutionary Programming VII, Proceedings of the 7th Annual Conference on Evolutionary Programming*, pages 345–353, Berlin, 1998. Springer.
 - [5450] Günter Rudolph. On a Multi-Objective Evolutionary Algorithm and Its Convergence to the Pareto Set. In *Proceedings of the 5th IEEE Conference on Evolutionary Computation*, pages 511–516, Piscataway, New Jersey, 1998. IEEE Press.

- [5451] Günter Rudolph. Evolutionary Search under Partially Ordered Fitness Sets. In *Proceedings of the International NAISO Congress on Information Science Innovations (ISI 2001)*, pages 818–822. ICSC Academic Press: Millet/Slidrecht, 2001.
- [5452] Günter Rudolph. A Partial Order Approach to Noisy Fitness Functions. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 318–325, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [5453] Günter Rudolph. Some Theoretical Properties of Evolutionary Algorithms under Partially Ordered Fitness Values. In Cs. Fabian and I. Intorsureanu, editors, *Proceedings of the Evolutionary Algorithms Workshop (EAW-2001)*, pages 9–22, Bucharest, Romania, January 2001.
- [5454] Günter Rudolph and Alexandru Agapie. Convergence Properties of Some Multi-Objective Evolutionary Algorithms. In *Proceedings of the 2000 Conference on Evolutionary Computation*, volume 2, pages 1010–1016, Piscataway, New Jersey, July 2000. IEEE Press.
- [5455] Günter Rudolph, Boris Naujoks, and Mike Preuss. Capabilities of EMOA to Detect and Preserve Equivalent Pareto Subsets. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 36–50, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5456] Günter Rudolph and Mike Preuss. A Multiobjective Approach for Finding Equivalent Inverse Images of Pareto-optimal Objective Vectors. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 74–79, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [5457] Günter Rudolph and Hans-Paul Schwefel. Simulated Evolution under Multiple Criteria Conditions Revisited. In Jacek M. Zurada, Gary G. Yen, and Jun Wang, editors, *Computational Intelligence: Research Frontiers. IEEE World Congress on Computational Intelligence (WCCI'2008)*, pages 249–261. Springer, Lecture Notes in Computer Science, Vol. 5050, Hong Kong, China, June 1-6 2008. ISBN 978-3-540-68858-7.
- [5458] Harry C.S. Rughooputh and Robert T.F. Ah King. Environmental/Economic Dispatch of Thermal Units using an Elitist Multiobjective Evolutionary Algorithm. In *Proceedings of the 2003 IEEE International Conference on Industrial Technology (ICIT 2003)*, volume 1, pages 48–53, Maribor, Slovenia, December 2003. IEEE.
- [5459] Liu Rui and Wang Xiaoya. Application of Improved Particle Swarm Optimization in Construction Contractors' Selection and Optimization. In *4th International Conference on Wireless Communications, Networking and Mobile Com-*

- puting, 2008 (WiCOM'08), pages 1–4, Dalian, China, October 12–17 2008. IEEE Computer Society Press.
- [5460] Alex J. Ruiz-Torres, E. Emory Enscore, and Russell R. Barton. Simulated Annealing Heuristics for the Average Flow-Time and the Number of Tardy Jobs Bi-Criteria Identical Parallel Machine Problem. *Computers and Industrial Engineering*, 33(1–2):257–260, 1997.
 - [5461] A. Rummmler and A. Apetrei. Graph Partitioning Revised—A Multiobjective Perspective. In *Proceedings of the 6th World Conference on Systemics, Cybernetics and Informatics*, Orlando, Florida, USA, 2002.
 - [5462] Enrique H. Ruspini and Igor S. Zwir. Automated Qualitative Description of Measurements. In *Proceedings of the 16th IEEE Instrumentation and Measurement Technology Conference*, volume 2, pages 1086–1091, Venice, Italy, 1999. IEEE Press.
 - [5463] Rob A. Rutenbar, Georges G.E. Gielen, and Jaijeet Roychowdhury. Hierarchical Modeling, Optimization, and Synthesis for System-Level Analog and RF Designs. *Proceedings of the IEEE*, 95(3):640–669, March 2007.
 - [5464] Loecelia Ruvalcaba, Gabriel Correa, and Vittorio Zanella. Multiobjective Evolutionary Algorithm for Redesigning Sales Territories. In Jürgen W. Böse, Hao Hu, Carlos Jahn, Xiaoning Shi, Robert Stahlbock, and Stefan Voß, editors, *Computational Logistics, Second International Conference, ICCL 2011*, pages 183–193, Hamburg, Germany, September 19–22 2011. Springer. Lecture Notes in Computer Science Vol. 6971.
 - [5465] WS Ruy, YS Yang, GH Kim, and YS Yeun. Topology design of truss structures in a multicriteria environment. *Computer-Aided Civil And Infrastructure Engineering*, 16(4):246–258, July 2001.
 - [5466] S. Ruzika and M.M. Wiecek. Approximation methods in multiobjective programming. *Journal of Optimization Theory and Applications*, 126(3):473–501, September 2005.
 - [5467] Conor Ryan. Pygmies and Servants. In Jr. Kenneth E. Kinneer, editor, *Advances in Genetic Programming*, pages 243–263. The MIT Press, Cambridge, Massachusetts, 1994.
 - [5468] Conor Ryan. Racial Harmony and Function Optimization in Genetic Algorithms—The Races Genetic Algorithm. In John R. McDonnell, Robert G. Reynolds, and David B. Fogel, editors, *Evolutionary Programming IV: Proceedings of the Fourth Annual Conference on Evolutionary Programming*, pages 109–125, Cambridge, Massachusetts, 1995. MIT Press.
 - [5469] Juntaek Ryoo. *Adaptation of Evolutionary Search in Topology and Decomposition Based Design Optimization*. PhD thesis, Mechanical Engineering Department, Rensselaer Polytechnic Institute, Troy, New York, USA, August 2002.

- [5470] Claudio M. Rocco S and Jose Emmanuel Ramirez-Marquez. A bi-objective approach for shortest-path network interdiction. *Computers & Industrial Engineering*, 59(2):232–240, September 2010.
- [5471] Claudio M. Rocco S, Jose Emmanuel Ramirez-Marquez, and Daniel E. Salazar A. Bi and tri-objective optimization in the deterministic network interdiction problem. *Reliability Engineering & System Safety*, 95(8):887–896, August 2010.
- [5472] Mohammad Saadatseresht, Ali Mansourian, and Mohammad Taleai. Evacuation planning using multiobjective evolutionary optimization approach. *European Journal of Operational Research*, 198(1):305–314, October 1 2009.
- [5473] A. Saario and A. Oksanen. Computational fluid dynamics and interactive multiobjective optimization in the development of low-emission industrial boilers. *Engineering Optimization*, 40(9):869–890, September 2008.
- [5474] M. T. Yazdani Sabouni, F. Jolai, and A. Mansouri. Heuristics for minimizing total completion time and maximum lateness on identical parallel machines with setup times. *Journal Of Intelligent Manufacturing*, 21(4):439–449, August 2010.
- [5475] Anish Sachdeva, Dinesh Kumar, and Pradeep Kumar. Planning and optimizing the maintenance of paper production systems in a paper plant. *Computers & Industrial Engineering*, 55(4):817–829, November 2008.
- [5476] Arun Anand Sadanandan. *A Comparative Study of Diversity Preservation Techniques in Multiobjective Evolutionary Algorithms*. PhD thesis, University of Nottingham, UK, August 2007.
- [5477] Siavash Sadeghi and Leila Parsa. Multiobjective Design Optimization of Five-Phase Halbach Array Permanent-Magnet Machine. *IEEE Transactions on Magnetics*, 47(6):1658–1666, June 2011.
- [5478] Ali Sadollah and Ardeshtir Bahreininejad. Optimum gradient material for a functionally graded dental implant using metaheuristic algorithms. *Journal of the Mechanical Behavior of Biomedical Materials*, 4(7):1384–1395, October 2011.
- [5479] Jamal Saeedi and Karim Faez. A new pan-sharpening method using multi-objective particle swarm optimization and the shiftable contourlet transform. *ISPRS Journal of Photogrammetry and Remote Sensing*, 66(3):365–381, May 2011.
- [5480] Yago Saez, Asuncion Mochon, Jose Luis Gomez-Barroso, and Pedro Isasi. A Multiobjective Approach for Bidding Recommendations in Combinatorial Auctions. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 458–462, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [5481] Nima Safaei, Dragan Banjevic, and Andrew K. S. Jardine. Multi-threaded simulated annealing for a bi-objective maintenance scheduling problem. *International Journal of Production Research*, 50(1):63–80, 2012.
- [5482] Nima Safaei, Dragan Banjevic, and Andrew K.S. Jardine. Multi-objective Simulated Annealing for a Maintenance Workforce Scheduling Problem: A case Study. In Cher Ming Tan, editor, *Simulated Annealing*, pages 27–48. In-Teh, Croatia, September 2008. ISBN 978-953-7619-07-7.
- [5483] H. Safikhani, M. A. Akhavan-Behabadi, N. Nariman-Zadeh, and M. J. Mahmood Abadi. Modeling and multi-objective optimization of square cyclones using cfd and neural networks. *Chemical Engineering Research & Design*, 89(3A):301–309, March 2011.
- [5484] H. Safikhani, A. Khalkhali, and M. Farajpoor. Pareto Based Multi-Objective Optimization of Centrifugal Pumps Using CFD, Neural Networks and Genetic Algorithms. *Engineering Applications of Computational Fluid Mechanics*, 5(1):37–48, March 2011.
- [5485] Tahir Sag and Mehmet Cunkas. A tool for multiobjective evolutionary algorithms. *Advances in Engineering Software*, 40(9):902–912, September 2009.
- [5486] Amit Saha and Kalyanmoy Deb. A Bi-Criterion Approach to Multimodal optimization: Self-adaptive Approach. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakroborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 94–104, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [5487] Indrajit Saha, Ujjwal Maulik, and Sanghamitra Bandyopadhyay. An Improved Multi-objective Technique for Fuzzy Clustering with Application to IRS Image Segmentation. In Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alc’azar, Muddassar Farooq, Andreas Fink, and Penousal Machado, editors, *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pages 426–431. Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.
- [5488] Indrajit Saha, Ujjwal Maulik, and Dariusz Plewczynski. A New Multi-Objective Technique for Differential Fuzzy Clustering. *Applied Soft Computing*, 11(2):2765–2776, March 2011.
- [5489] Indrajit Saha, Dariusz Plewczynski, Ujjwal Maulik, and Sanghamitra Bandyopadhyay. Consensus Multiobjective Differential Crisp Clustering for Categorical Data Analysis. In Marcin Szczuka, Marzena Kryszkiewicz, Sheela Ramanna, Richard Jensen, and Qinghua Hu, editors, *Rough Sets and Current Trends in Computing, 7th International Conference, RSCTC 2010*, pages 30–39, Warsaw, Poland, June 28-30 2010. Springer. Lecture Notes in Artificial Intelligence Vol. 6086.

- [5490] Sriparna Saha and Sanghamitra Bandyopadhyay. A new multiobjective simulated annealing based clustering technique using symmetry. *Pattern Recognition Letters*, 30(15):1392–1403, November 1 2009.
- [5491] Sriparna Saha and Sanghamitra Bandyopadhyay. MR Brain Image Segmentation Using A Multi-seed Based Automatic Clustering Technique. *Fundamenta Informaticae*, 97(1-2):199–214, 2009.
- [5492] Sriparna Saha and Sanghamitra Bandyopadhyay. A symmetry based multiobjective clustering technique for automatic evolution of clusters. *Pattern Recognition*, 43(3):738–751, March 2010.
- [5493] Sriparna Saha and Sanghamitra Bandyopadhyay. Use of Different Forms of Symmetry and Multi-Objective Optimization for Automatic Pixel Classification in Remote-Sensing Satellite Imagery. *International Journal of Remote Sensing*, 31(22):5751–5775, 2010.
- [5494] Sriparna Saha, Susmita Sur-Kolay, Parthasarathi Dasgupta, and Sanghamitra Bandyopadhyay. MAkE: Multiobjective algorithm for k-way equipartitioning of a point set. *Applied Soft Computing*, 9(2):711–724, March 2009.
- [5495] N. C. Sahoo, S. Ganguly, and D. Das. Simple heuristics-based selection of guides for multi-objective PSO with an application to electrical distribution system planning. *Engineering Applications of Artificial Intelligence*, 24(4):567–585, June 2011.
- [5496] N. C. Sahoo, S. Ganguly, and D. Das. Fuzzy-Pareto-dominance driven possibilistic model based planning of electrical distribution systems using multi-objective particle swarm optimization. *Expert Systems With Applications*, 39(1):881–893, January 2012.
- [5497] Lamjed Ben Said, Slim Bechikh, and Khaled Ghedira. The r-Dominance: A New Dominance Relation for Interactive Evolutionary Multicriteria Decision Making. *IEEE Transactions on Evolutionary Computation*, 14(5):801–818, October 2010.
- [5498] Lamjed Ben Said, Slim Bechikh, and Khaled Ghédira. The r-Dominance: A New Dominance Relation for Interactive Evolutionary Multicriteria Decision Making. *IEEE Transactions on Evolutionary Computation*, 14(5):801–818, October 2010.
- [5499] Sadiq M. Sait, Mohammed Faheemuddin, Mahmood R. Minhas, and Syed Sanaullah. Multiobjective VLSI Cell Placement using Distributed Genetic Algorithm. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1585–1586, New York, USA, June 2005. ACM Press.
- [5500] Sadiq M. Sait, Mahmood R. Minhas, and Junaid A. Khan. Performance and Low Power Driven VLSI Standard Cell Placement using Tabu Search. In

Congress on Evolutionary Computation (CEC'2002), volume 1, pages 372–377, Piscataway, New Jersey, May 2002. IEEE Service Center.

- [5501] Sadiq M. Sait, Mohammed H. Sqalli, and Mohammed Aijaz Mohiuddin. Engineering Evolutionary Algorithm to Solve Multi-objective OSPF Weight Setting Problem. In Abdul Sattar and Byeong Ho Kang, editors, *AI 2006: Advances in Artificial Intelligence, 19th Australian Joint Conference on Artificial Intelligence*, pages 950–955, Hobart, Australia, December 4-8 2006. Springer. Lecture Notes in Computer Science Vol. 4304.
- [5502] Sadiq M. Sait, Habib Youseff, and Hussain Ali. Fuzzy Simulated Evolution Algorithm for Multi-objective Optimization of VLSI Placement. In *1999 Congress on Evolutionary Computation*, pages 91–97, Washington, D.C., July 1999. IEEE Service Center.
- [5503] Sadiq M. Sait, Habib Youssef, and Junaid A. Khan. Fuzzy Evolutionary Algorithm for VLSI Placement. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 1056–1063, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [5504] Sadiq M. Sait, Ali M. Zaidi, Mustafa I. Ali, Khawar S. Khan, and Sanaullah Syed. Exploring Asynchronous MMC-Based Parallel SA Schemes for Multi-objective Cell Placement on a Cluster of Workstations. *Arabian Journal for Science and Engineering*, 36(2):259–278, March 2011.
- [5505] SM. Sait and JA. Khan. Simulated evolution for timing and low power VLSI standard cell placement. *Engineering Applications of Artificial Intelligence*, 16(5-6):407–423, August - September 2003.
- [5506] SM. Sait and MR. Kinhas. SimE/TS fuzzy hybrid for multiobjective VLSI placement. *Electronics Letters*, 42(6):364–365, March 2006.
- [5507] Liane Saiz-Urra, Antonio J. Bustillo Perez, Maykel Cruz-Monteagudo, Cristina Pinedo-Rivilla, Josefina Aleu, Rosario Hernandez-Galan, and Isidro G. Colado. Global Antifungal Profile Optimization of Chlorophenyl Derivatives against *Botrytis cinerea* and *Colletotrichum gloeosporioides*. *Journal of Agricultural and Food Chemistry*, 57(11):4838–4843, Jun 10 2009.
- [5508] Yoshiaki Sakakura, Noriyuki Taniguchi, Yukinobu Hoshino, and Katsuari Kamei. A Fuzzy Clustering Based Selection Method to Maintain Diversity in Genetic Algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 10364–10369, Vancouver, BC, Canada, July 2006. IEEE.
- [5509] M. Sakawa and K. Kato. An interactive fuzzy satisficing method for general multiobjective 0-1 programming problems through genetic algorithms with double strings based on a reference solution. *Fuzzy Sets and Systems*, 125(3):289–300, February 1 2002.

- [5510] M. Sakawa and K. Yauchi. An interactive fuzzy satisficing method for multiobjective nonconvex programming problems through floating point genetic algorithms. *European Journal of Operational Research*, 117(1):113–124, August 16 1999.
- [5511] M. Sakawa and K. Yauchi. An interactive fuzzy satisficing method for multiobjective nonconvex programming problems through floating-point genetic algorithms. *Electronics and Communications in Japan (Part III-Fundamental Electronic Science)*, 83(6):10–18, June 2000.
- [5512] M. Sakawa and K. Yauchi. An interactive fuzzy satisficing method for multiobjective nonconvex programming problems with fuzzy numbers through co-evolutionary genetic algorithms. *IEEE Transactions on Systems Man and Cybernetics Part B–Cybernetics*, 31(3):459–467, June 2001.
- [5513] Masatoshi Sakawa. *Genetic Algorithms and Fuzzy Multiobjective Optimization*. Kluwer Academic Publishers, Boston, 2002. ISBN 0-7923-7452-5.
- [5514] Masatoshi Sakawa, Masahiro Inuiguchi, Hideaki Sunada, and Kazuya Sawada. Fuzzy Multiobjective Combinatorial Optimization Through Revised Genetic Algorithms. *Japanese Journal of Fuzzy Theory and Systems*, 6(1):77–88, 1994.
- [5515] Masatoshi Sakawa, Kosuke Kato, and Toshihiro Shibano. An interactive fuzzy satisficing method for multiobjective multidimensional 0-1 knapsack problems through genetic algorithms. In *Proceedings of the 1996 International Conference on Evolutionary Computation (ICEC'96)*, pages 243–246, 1996.
- [5516] Masatoshi Sakawa, Kosuke Kato, and Toshihiro Shibano. Fuzzy Programming For Multiobjective 0-1 Programming Problems Through Revised Genetic Algorithms. *European Journal of Operational Research*, 97(1):149–158, 1997.
- [5517] Masatoshi Sakawa and R. Kubota. Fuzzy programming for multiobjective job shop scheduling with fuzzy processing time and fuzzy due date through genetic algorithms. *European Journal of Operational Research*, 120(2):393–407, 2000.
- [5518] Masatoshi Sakawa and Toshihiro Shibano. An interactive fuzzy satisficing method for multiobjective 0-1 programming problems with fuzzy numbers through genetic algorithms with double strings. *European Journal of Operational Research*, 107(3):564–574, June 1998.
- [5519] Masatoshi Sakawa, Toshihiro Shibano, and Kosuke Kato. An interactive fuzzy satisficing method for multiobjective integer programming problems through genetic algorithms. In L.C. Jain and R.K. Jain, editors, *Second International Conference on Knowledge-Based Intelligent Electronic Systems*, pages 94–100, Adelaide, Australia, 1998. IEEE.
- [5520] Masatoshi Sakawa, Toshihiro Shibano, and Hidenobu Obata. An Interactive Fuzzy Method for Multiobjective 0-1 Programming Problems with Fuzzy

Number Criteria Using Genetic Algorithms. *Electronics and Communications in Japan (Part III: Fundamental Electronic Science)*, 81(8):64–72, 1998.

- [5521] R. Saker, H.A. Abbass, and S. Karim. An Evolutionary Algorithm for Constrained Multiobjective Optimization Problems. In *The 5th Australasia-Japan Joint Workshop on Intelligent and Evolutionary Systems (AJWIS'2001)*, pages 113–122, Dunedin, New Zealand, November 2001.
- [5522] R. Saker, H.A. Abbass, and C. Newton. Solving Multiobjective Optimization Problems Using Evolutionary Algorithm. In *The International Conference on Computational Intelligence for Modelling, Control and Automation (CIMCA'2001)*, pages 149–160, Las Vegas, Nevada, July 2001.
- [5523] R. Sakiani, S.M.T. Fatemi Ghomi, and M. Zandieh. Multi-objective supply planning for two-level assembly systems with stochastic lead times. *Computers & Operations Research*, 39(7):1325–1332, July 2012.
- [5524] D. Sal and M. Graña. A Multiobjective Evolutionary Algorithm for Hyperspectral Image Watermarking. In Manuel Graña and Richard J. Duro, editors, *Computational Intelligence for Remote Sensing*, pages 63–78. Springer. Studies in Computational Intelligence Vol. 133, 2008.
- [5525] Diego Sal and Manuel Graña. Hyperspectral image watermarking with an evolutionary algorithm. In *Knowledge-Based Intelligent Information and Engineering Systems, Pt 1, Proceedings*, pages 833–839. Springer, Lecture Notes in Artificial Intelligence Vol. 3681, 2005.
- [5526] D. Salazar, C.M. Rocco, and B.J. Galvan. Optimization of constrained multiple-objective reliability problems using evolutionary algorithms. *Reliability Engineering & System Safety*, 91(9):1057–1070, September 2006.
- [5527] Daniel Salazar, Néstor Carrasquero, and Blas Galván. Exploiting Comparative Studies Using Criteria: Generating Knowledge from an Analyst's Perspective. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 221–234, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [5528] Daniel E. Salazar and Claudio M. Rocco. Solving advanced multi-objective robust designs by means of multiple objective evolutionary algorithms (MOEA): A reliability application. *Reliability Engineering & System Safety*, 92(6):697–706, June 2007.
- [5529] Daniel E. Salazar, Claudio M. Rocco, and Enrico Zio. Robust reliability design of a nuclear system by multiple objective evolutionary optimisation. *International Journal of Nuclear Knowledge Management*, 2(3):333–345, 2007.
- [5530] Maximino Salazar Lechuga. Resolución de problemas multi-objetivo a través de optimización mediante cúmulos de partículas. Master's thesis, Maestría

en Inteligencia Artificial, Universidad Veracruzana, Xalapa, Veracruz, México, February 2002. (In Spanish).

- [5531] Maximino Salazar-Lechuga and Jonathan E. Rowe. Particle Swarm Optimization and Fitness Sharing to solve Multi-Objective Optimization Problems. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1204–1211, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5532] Maximino Salazar-Lechuga and Jonathan E. Rowe. Particle Swarm Optimization and auto-Fitness Sharing to Solve Multi-Objective Optimization Problems. In *2006 Swarm Intelligence Symposium (SIS'06)*, pages 90–97, Indianapolis, Indiana, USA, May 2006. IEEE Press.
- [5533] J. G. Saldarriaga, S. Ochoa, M. E. Moreno, N. Romero, and O. J. Cortes. Prioritised rehabilitation of water distribution networks using dissipated power concept to reduce non-revenue water. *Urban Water Journal*, 7(2):121–140, 2010.
- [5534] Claudomiro Sales, Roberto M. Rodrigues, Fredrik Lindqvist, Joao Costa, Aldebaro Klautau, Klas Ericson, Jaume Rius i Riu, and Per Ola Borjesson. Line Topology Identification Using Multiobjective Evolutionary Computation. *IEEE Transactions on Instrumentation and Measurement*, 59(3):715–729, March 2010.
- [5535] K. Salmalian, N. Nariman-Zadeh, H. Gharababei, H. Haftchenari, and A. Varvani-Farahani. Multi-objective evolutionary optimization of polynomial neural networks for fatigue life modelling and prediction of unidirectional carbon-fibre-reinforced plastics composites. *Proceedings Of The Institution Of Mechanical Engineers Part L-Journal Of Materials-Design And Applications*, 224(L2):79–91, 2010.
- [5536] F. Sibel Salman, Jayan Kalagnanam, and Sesh Murthy. Cooperative Strategies for Solving the Bicriteria Sparse Multiple Knapsack Problem. In *1999 Congress on Evolutionary Computation*, pages 53–60, Washington, D.C., July 1999. IEEE Service Center.
- [5537] Fatma Sibel Salman, Jayan Kalagnanam, and Sesh Murthy. Heuristics for Solving the Bicriteria Sparse Multiple Knapsack Problem. Technical Report RC 21059, IBM T.J. Watson Research Center, 1997.
- [5538] Fatma Sibel Salman, Jayant Kalagnanam, and Sesh Murthy. Cooperative strategies for solving the bicriteria sparse multiple knapsack problem. In *1999 Congress on Evolutionary Computation*, pages 53–60, Washington, D.C., July 1999. IEEE Service Center.
- [5539] F.S. Salman, J.R. Kalagnanam, S. Murthy, and A. Davenport. Cooperative strategies for solving the bicriteria sparse multiple knapsack problem. *Journal of Heuristics*, 8(2):215–239, March 2002.

- [5540] Jan Salmen, Lukas Caup, and Christian Igel. Real-Time Estimation of Optical Flow Based on Optimized Haar Wavelet Features. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 448–461, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [5541] L. Saludjian, J. L. Coulomb, and A. Izabelle. Genetic Algorithm and Taylor Development of the Finite Element Solution for Shape Optimization of Electromagnetic Devices. *IEEE Transactions on Magnetics*, 34(5):2841–2844, September 1998.
- [5542] Abdus Samad, Ki-Don Lee, and Kwang-Yong Kim. Multi-objective optimization of a dimpled channel for heat transfer augmentation. *Heat and Mass Transfer*, 45(2):207–217, December 2008.
- [5543] Ehsan Samadani, Amir Hossein Shamekhi, Mohammad Hassan Behrooz, and Reza Chini. A Method for Pre-Calibration of DI Diesel Engine Emissions and Performance Using Neural Network and Multi-Objective Genetic Algorithm. *Iranian Journal Of Chemistry & Chemical Engineering-International English Edition*, 28(4):61–70, Winter 2009.
- [5544] Funda Samanlioglu, William G. Ferrell Jr., and Mary E. Kurz. A memetic random-key genetic algorithm for a symmetric multi-objective traveling salesman problem. *Computers & Industrial Engineering*, 55(2):439–449, September 2008.
- [5545] Sepehr Sanaye and Masoud Dehghandokht. Modeling and Multi-Objective Optimization of Parallel Flow Condenser Using Evolutionary Algorithm. *Applied Energy*, 88(5):1568–1577, May 2011.
- [5546] Sepehr Sanaye and Hassan Hajabdollahi. Multi-objective optimization of rotary regenerator using genetic algorithm. *International Journal of Thermal Sciences*, 48(10):1967–1977, October 2009.
- [5547] Sepehr Sanaye and Hassan Hajabdollahi. Thermal-economic multi-objective optimization of plate fin heat exchanger using genetic algorithm. *Applied Energy*, 87(6):1893–1902, June 2010.
- [5548] G. Sánchez, F. Jiménez, and P. Vasant. Fuzzy Optimization with Multi-Objective Evolutionary Algorithms: a Case Study. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 58–64, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [5549] Gustavo Sánchez, Miguel Strefezza, and Orlando Reyes. A Multi-Objective Approach To Approximate The Stabilizing Region For Linear Control Systems. In *6th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2009)*, pages 153–158, Milan, Italy, July 2009.

- [5550] Gustavo Sánchez, Minaya Villasana, and Miguel Strefezza. Multi-objective Pole Placement with Evolutionary Algorithms. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 417–427, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5551] Luciano Sánchez, Inés Couso, and Jorge Casillas. Modelling Vague Data with Genetic Fuzzy Systems under a Combination of Crisp and Imprecise Criteria. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 30–37, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [5552] Luciano Sanchez, Jose Otero, and Ines Couso. Obtaining linguistic fuzzy rule-based regression models from imprecise data with multiobjective genetic algorithms. *Soft Computing*, 13(5):467–479, March 2009.
- [5553] Luciano Sanchez and Jose R. Villar. Obtaining transparent models of chaotic systems with multi-objective simulated annealing algorithm. *Information Sciences*, 178(4):952–970, February 15 2008.
- [5554] M. Parrilla Sánchez and J. Aranda Almansa. A Real Application Example of a Control Structure Selection by Means of a Multiobjective Genetic Algorithm. In José Mira and José R. Álvarez, editors, *Artificial Neural Nets Problem Solving Methods, 7th International Work-Conference on Artificial and Natural Neural Networks, IWANN'2003. Proceedings, Part II*, pages 369–376, Maó, Menorca, Spain, June 2003. Springer. Lecture Notes in Computer Science, Vol. 2687.
- [5555] M.P. Sanchez and J.A. Almansa. A real application example of a control structure selection by means of a multiobjective genetic algorithm. In *Artificial Neural Nets Problem Solving Methods, Part II. Lecture Notes in Computer Science. Volume 2687*, pages 369–376. Springer, 2003.
- [5556] Gracia Sánchez Carpena. *Diseño y Evaluación de Algoritmos Evolutivos Multiobjetivo en Optimización y Modelación Difusa*. PhD thesis, Departamento de Ingeniería de la Información y las Comunicaciones, Universidad de Murcia, Murcia, Spain, November 2002. (In Spanish).
- [5557] J. Sanchez-Monedero, C. Hervás-Martínez, P.A. Gutiérrez, Mariano Carbonero Ruz, M.C. Ramírez Moreno, and M. Cruz-Ramírez. Evaluating the Performance of Evolutionary Extreme Learning Machines by a Combination of Sensitivity and Accuracy Measures. *Neural Network World*, 20(7):899–912, 2010.
- [5558] Javier Sanchez-Monedero, Pedro A. Gutiérrez, F. Fernandez-Navarro, and C. Hervás-Martínez. Weighting Efficient Accuracy and Minimum Sensitivity for Evolving Multi-Class Classifiers. *Neural Processing Letters*, 34(2):101–116, October 2011.

- [5559] J. Sanchis, M. Martinez, and X. Blasco. Multi-objective engineering design using preferences. *Engineering Optimization*, 40(3):253–269, 2008.
- [5560] Javier Sanchis, Miguel A. Martinez, Xavier Blasco, and Gilberto Reynoso-Meza. Modelling preferences in multi-objective engineering design. *Engineering Applications of Artificial Intelligence*, 23(8):1255–1264, December 2010.
- [5561] Glenn Sanders and Tapabrata Ray. Optimal Offline Path Planning of a Fixed Wing Unmanned Aerial Vehicle (UAV) using an Evolutionary Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4410–4416, Singapore, September 2007. IEEE Press.
- [5562] Eric Sandgren. Multicriteria design optimization by goal programming. In Hojjat Adeli, editor, *Advances in Design Optimization*, chapter 23, pages 225–265. Chapman & Hall, London, 1994.
- [5563] Nuntapon Sangkawelert and Nachol Chaiyaratana. Diversity Control in a Multi-Objective Genetic Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2704–2711, Canberra, Australia, December 2003. IEEE Press.
- [5564] B. Sankararao and Santosh K. Gupta. Multiobjective optimization of the dynamic operation of an industrial stream reformer using the jumping gene adaptations of simulated annealing. *Asia-Pacific Journal Chemical Engineering*, 1(1-2):21–31, November-December 2006.
- [5565] B. Sankararao and Santosh K. Gupta. Multi-objective optimization of an industrial fluidized-bed catalytic cracking unit (FCCU) using two jumping gene adaptations of simulated annealing. *Computers & Chemical Engineering*, 31(11):1496–1515, November 2007.
- [5566] B. Sankararao and Chang Kyoo Yoo. Development of a Robust Multiobjective Simulated Annealing Algorithm for Solving Multiobjective Optimization Problems. *Industrial & Engineering Chemistry Research*, 50(11):6728–6742, June 2011.
- [5567] R. A. Santana, M. R. Pontes, and C. J. A. Bastos-Filho. A Multiple Objective Particle Swarm Optimization Approach using Crowding Distance and Roulette Wheel. In *Ninth Conference on Intelligent Systems Design and Applications (ISDA'2009)*, pages 237–242, Pisa, Italy, November-December 2009. IEEE Computer Society.
- [5568] Roberto Santana, Concha Bielza, and Pedro Larranaga. Optimizing Brain Networks Topologies Using Multi-objective Evolutionary Computation. *Neuroinformatics*, 9(1):3–19, March 2011.
- [5569] Roberto Santana, Concha Bielza, Pedro Larranaga, Jose A. Lozano, Carlos Echegoyen, Alexander Mendiburu, Ruben Armananzas, and Siddhartha Shakya. Mateda-2.0: Estimation of Distribution Algorithms in MATLAB. *Journal Of Statistical Software*, 35(7):1–30, July 2010.

- [5570] Roberto Santana, Concha Bielza, José Antonio Lozano, and Pedro Larra naga. Mining probabilistic models learned by EDAs in the optimization of multi-objective problems. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 445–452, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5571] Luis V. Santana-Quintero, Alfredo Arias Montaña, and Carlos A. Coello Coello. A Review of Techniques for Handling Expensive Functions in Evolutionary Multi-Objective Optimization. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 29–59. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [5572] Luis V. Santana-Quintero, Carlos A. Coello Coello, and Alfredo G. Hernández-Díaz. Hybridizing Surrogate Techniques, Rough Sets and Evolutionary Algorithms to Efficiently Solve Multi-Objective Optimization Problems. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 763–764, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [5573] Luis V. Santana-Quintero, Alfredo G. Hernández-Díaz, Julián Molina, Carlos A. Coello Coello, and Rafael Caballero. DEMORS: A hybrid Multi-Objective Optimization Algorithm using Differential Evolution and Rough Sets for Constrained Problems. *Computers & Operations Research*, 37(3):470–480, March 2010.
- [5574] Luis V. Santana-Quintero, Noel Ramírez, and Carlos Coello Coello. A Multi-objective Particle Swarm Optimizer Hybridized with Scatter Search. In Alexander Gelbukh and Carlos Alberto Reyes-Garcia, editors, *MICAI 2006: Advances in Artificial Intelligence, 5th Mexican International Conference on Artificial Intelligence*, pages 294–304. Springer, Lecture Notes in Artificial Intelligence Vol. 4293, Apizaco, Mexico, November 2006.
- [5575] Luis V. Santana-Quintero, Noel Ramírez-Santiago, and Carlos A. Coello Coello. Towards a More Efficient Multi-Objective Particle Swarm Optimizer. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 76–105. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [5576] Luis V. Santana-Quintero, Noel Ramírez-Santiago, Carlos A. Coello Coello, Julián Molina Luque, and Alfredo García Hernández-Díaz. A New Proposal for Multiobjective Optimization Using Particle Swarm Optimization and Rough Sets Theory. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 483–492. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [5577] Luis V. Santana-Quintero, Víctor A. Serrano-Hernandez, Carlos A. Coello Coello, Alfredo G. Hernández-Díaz, and Julián Molina. Use of Radial Basis Functions and Rough Sets for Evolutionary Multi-Objective Optimization.

In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 107–114, Honolulu, Hawaii, USA, April 2007. IEEE Press.

- [5578] Luis Vicente Santana Quintero. *Development of techniques to improve computational efficiency in multi-objective evolutionary algorithms*. PhD thesis, Computer Science Department, CINVESTAV-IPN, Mexico City, Mexico, November 2008.
- [5579] Luis Vicente Santana Quintero, Carlos Coello Coello, Alfredo G. Hernández-Díaz, and Jesús Moisés Osorio Velázquez. Use of Particle Swarm to accelerate convergence in a Surrogate-based algorithm to solve Multi-objective Optimization Problems. In *IEEE Swarm Intelligence Symposium 2008*, St. Louis, Missouri, USA, September 2008. IEEE Press.
- [5580] Luis Vicente Santana-Quintero and Carlos A. Coello Coello. An Algorithm Based on Differential Evolution for Multi-Objective Problems. *International Journal of Computational Intelligence Research*, 1(2):151–169, 2005.
- [5581] Luis Vicente Santana-Quintero and Carlos A. Coello Coello. An Algorithm Based on Differential Evolution for Multiobjective Problems. In Cihan H. Dagli, Anna L. Buczak, David L. Enke, Mark J. Embrechts, and Okan Ersoy, editors, *Smart Engineering System Design: Neural Networks, Evolutionary Programming and Artificial Life*, volume 15, pages 211–220, St. Louis, Missouri, USA, November 2005. ASME Press.
- [5582] A.C. Santos, A.C.B. Delbem, J.B.A. London Jr., and N.G. Bretas. Node-Depth Encoding and Multiobjective Evolutionary Algorithm Applied to Large-Scale Distribution System Reconfiguration. *IEEE Transactions on Power Systems*, 25(3):1254–1265, August 2010.
- [5583] Amâncio Santos and António Dourado Pereira Correia. Constrained GA Applied to Production and Energy Management of a Pulp and Paper Mill. In Janice Carroll, Hisham Haddad, Dave Oppenheim, Barrett Bryant, and Gary B. Lamont, editors, *Proceedings of the 1999 ACM Symposium on Applied Computing*, pages 324–332, San Antonio, Texas, 1999. ACM.
- [5584] Daniela S. Santos, Denise de Oliveira, and Ana L.C. Bazzan. A Multiagent, Multiobjective Clustering Algorithm. In Longbing Cao, editor, *Data Mining and Multi-agent Integration*, pages 239–249. Springer, London, 2009. ISBN 978-1-4419-0522-2.
- [5585] Eulanda M. Dos Santos, Robert Sabourin, and Patrick Maupin. Pareto Analysis for the Selection of Classifier Ensembles. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 681–688, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [5586] Jesús J. S. Santos, Diogo B. Oliveira, Elizabeth F. Wanner, Eduardo G. Carrano, Ricardo H. C. Takahashi, Elson J. Silva, and Oriane M. Neto. Designing

- a Multilayer Microwave Heating Device Using a Multiobjective Genetic Algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 911–917, Trondheim, Norway, May 2009. IEEE Press.
- [5587] Michel Santos. *Improving the Coverage of Earth Targets by Maneuvering Satellite Constellations*. PhD thesis, University of Maryland, College Park, USA, 2007.
 - [5588] R. Saravanan, P. Asokan, and M. Sachidanandam. A multi-objective genetic algorithm (GA) approach for optimization of surface grinding operations. *International Journal of Machine Tools & Manufacture*, 42(12):1327–1334, September 2002.
 - [5589] R. Saravanan and S. Ramabalan. Evolutionary minimum cost trajectory planning for industrial robots. *Journal of Intelligent & Robotic Systems*, 52(1):45–77, May 2008.
 - [5590] R. Saravanan, S. Ramabalan, and C. Balamurugan. Evolutionary optimal trajectory planning for industrial robot with payload constraints. *International Journal of Advanced Manufacturing Technology*, 38(11-12):1213–1226, October 2008.
 - [5591] R. Saravanan, S. Ramabalan, C. Balamurugan, and A. Subash. Evolutionary Trajectory Planning for an Industrial Robot. *International Journal of Automation and Computing*, 7(2):190–198, May 2010.
 - [5592] R. Saravanan, S. Ramabalan, N. Godwin Raja Ebenezer, and C. Dharmaraja. Evolutionary multi criteria design optimization of robot grippers. *Applied Soft Computing*, 9(1):159–172, January 2009.
 - [5593] R. Saravanan, S. Ramabalan, N. Goodwin Raja Ebenezer, and R. Natarajan. Evolutionary Bi-criteria Optimum Design of Robots Based on Task Specifications. *International Journal of Advanced Manufacturing Technology*, 41(3-4):386–406, March 2009.
 - [5594] Ramon Quiza Sardinas, Jorge E. Albelo Mengana, and J. Paulo Davim. Multi-objective optimisation of multipass turning by using a genetic algorithm. *International Journal of Materials & Product Technology*, 35(1-2):134–144, May 16 2009.
 - [5595] Ramon Quiza Sardinas, Pedro Reis, and J. Paulo Davim. Multi-objective optimization of cutting parameters for drilling laminate composite materials by using genetic algorithms. *Composites Science and Technology*, 66(15):3083–3088, December 2006.
 - [5596] R. Sareen and S. K. Gupta. Multiojective Optimization of an Industrial Semi-batch Nylon-6 Reactor. *Journal of Applied Polymer Science*, 58(13):2357–2371, December 26 1995.

- [5597] B. Sareni, A. Abdelli, X. Roboam, and D. H. Tran. Model simplification and optimization of a passive wind turbine generator. *Renewable Energy*, 34(12):2640–2650, December 2009.
- [5598] B. Sareni, J. Regnier, and X. Roboam. Recombination and self-adaptation in multi-objective genetic algorithms. In Pierre Liardet, Pierre Collet, Cyril Fonlupt, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution, 6th International Conference, Evolution Artificielle, EA 2003, Revised Selected Papers*, pages 115–126, Marseille, France, October 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 2936.
- [5599] Ali Sarikhani and Osama A. Mohammed. Multiobjective Design Optimization of Coupled PM Synchronous Motor-Drive Using Physics-Based Modeling Approach. *IEEE Transactions on Magnetics*, 47(5):1266–1269, May 2011.
- [5600] A. Sarkar and S. Khajepour. Response level crossing rate of a linear system excited by a partially specified Gaussian load process. *Probabilistic Engineering Mechanics*, 17(1):85–95, January 2002.
- [5601] D. Sarkar and J.M. Modak. Pareto-optimal solutions for multi-objective optimization of fed-batch bioreactors using nondominated sorting genetic algorithm. *Chemical Engineering Science*, 60(2):481–492, January 2005.
- [5602] Debasis Sarkar and Jayant M. Modak. Optimal design of multiproduct batch chemical plant using NSGA-II. *Asia-Pacific Journal of Chemical Engineering*, 1(1-2):13–20, November - December 2006.
- [5603] Kanchan Sarkar, Rahul Sharma, and S. P. Bhattacharyya. A constrained variational approach to the designing of low transport band gap materials: A multiobjective random mutation hill climbing method. *International Journal of Quantum Chemistry*, 112(6):1547–1558, March 15 2012.
- [5604] R. Sarker, K. Liang, and C. Newton. A Multiobjective Evolutionary Algorithm. In *International Computer Science Convention Congress on Intelligent Systems and Applications (ISA'2000)*, volume 2, pages 125–131, Wollongong, Australia, 2000.
- [5605] R. Sarker, K. Liang, and C. Newton. A New Multiobjective Evolutionary Algorithm. *European Journal of Operational Research*, 140(1):12–23, 2002.
- [5606] Ruhul Sarker, H. Abbass, and C. Newton. Solving Two Multi-objective Optimization Problems using Evolutionary Algorithm. In M. Mohammadian, R. Sarker, and X. Yao, editors, *Computational Intelligence in Control*. Idea Group Publishing, USA, 2002.
- [5607] Ruhul Sarker and Hussein A. Abbass. Differential Evolution for Solving Multiobjective Optimization Problems. *Asia-Pacific Journal of Operational Research*, 21(2):225–240, June 2004.

- [5608] Ruhul Sarker and Carlos A. Coello Coello. Assessment Methodologies for Multiobjective Evolutionary Algorithms. In Ruhul Sarker, Masoud Mohammadian, and Xin Yao, editors, *Evolutionary Optimization*, pages 177–195. Kluwer Academic Publishers, New York, February 2002. ISBN 0-7923-7654-4.
- [5609] Ruhul Sarker, Masoud Mohammadian, and Xin Yao. *Evolutionary Optimization*. Kluwer Academic Publishers, Boston, Massachusetts, February 2002. ISBN 0-7923-7654-4.
- [5610] Ruhul Sarker and Charles Netwon. Solving a Multiple Objective Linear Program using Simulated Annealing. *Asia-Pacific Journal of Operational Research*, 18:109–120, 2001.
- [5611] Ruhul Sarker and Rapabrata Ray. An improved evolutionary algorithm for solving multi-objective crop planning models. *Computers and Electronics in Agriculture*, 68(2):191–199, October 2009.
- [5612] Ruhul Sarker, Tapabrata Ray, and José Barahona da Fonseca. An Evolutionary Algorithm for Machine Layout and Job Assignment Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3991–3997, Singapore, September 2007. IEEE Press.
- [5613] Ruhul A. Sarker, Hussein A. Abbass, and Charles S. Newton. Solving Two Multi-Objective Optimization Problems Using Evolutionary Algorithm. In Masoud Mohammadian, Ruhul Amin Sarker, and Xin Yao, editors, *Computational Intelligence in Control*, chapter XIII, pages 218–232. Idea Group Publishing, Hershey, Philadelphia, USA, 2003.
- [5614] Hamit Saruhan. Pivoted-pad journal bearings lubrication design. *Industrial Lubrication and Tribology*, 63(2-3):119–126, 2011.
- [5615] D. Sasaki, S. Obayashi, and K. Nakahashi. Navier-Stokes Optimization of Supersonic Wings with Four Objectives Using Evolutionary Algorithm. *Journal of Aircraft*, 39(4):621–629, 2002.
- [5616] M. Sasaki and M. Gen. Fuzzy multiple objective optimal system design by hybrid genetic algorithm. *Applied Soft Computing*, 2:189–196, 2003.
- [5617] M. Sasaki and M. Gen. A method of fuzzy multi-objective nonlinear programming with gub structure by hybrid genetic algorithm. *International Journal of Smart Engineering Design*, 5:281–288, 2003.
- [5618] Kumara Sastry, Hussein A. Abbass, David E. Goldberg, and D.D. Johnson. Sub-Structural Niching in Estimation of Distribution Algorithms. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 671–678, New York, USA, June 2005. ACM Press.

- [5619] Kumara Sastry, D.D. Johnson, Alexis L. Thompson, David E. Goldberg, Todd J. Martinez, Jeff Leiding, and Jane Owens. Multiobjective Genetic Algorithms for Multiscaling Excited State Direct Dynamics in Photochemistry. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1745–1752, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [5620] Kumara Sastry, D.D. Johnson, Alexis L. Thompson, David E. Goldberg, Todd J. Martinez, Jeff Leiding, and Jane Owens. Optimization of Semiempirical Quantum Chemistry Methods via Multiobjective Genetic Algorithms: Accurate Photodynamics for Larger molecules and longer time scales. *Materials and Manufacturing Processes*, 22(5):553–561, 2007.
- [5621] Kumara Sastry, Martin Pelikan, and David E. Goldberg. Limits of Scalability of Multiobjective Estimation of Distribution Algorithms. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2217–2224, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5622] Madan Sathe. *Interactive Evolutionary Algorithms for Multi-Objective Optimization. Design and Validation of a Hybrid Interactive Reference Point Method*. VDM Verlag Dr. Müller, Saarbrücken, Germany, 2008.
- [5623] Madan Sathe, Günter Rudolph, and Kalyanmoy Deb. Design and Validation of a Hybrid Interactive Reference Point Method for Multi-Objective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2914–2921, Hong Kong, June 2008. IEEE Service Center.
- [5624] Madan Sathe, Olaf Schenk, and Helmar Burkhart. Solving Bi-objective Many-Constraint Bin Packing Problems in Automobile Sheet Metal Forming Processes. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 246–260. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [5625] Hiroshi Sato and Akira Namatame. Co-evolution in Social Interactions. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 1109–1114, Piscataway, New Jersey, May 2001. IEEE Service Center.
- [5626] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Enhanced Multi-objective Evolutionary Algorithms Using Local Dominance. In *Proceedings of the 2004 RISP International Workshop on Nonlinear Circuits and Signal Processing (NCSP 2004)*, pages 319–322, Hawaii, USA, March 2004. The Research Institute of Signal Processing Japan.
- [5627] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Local Dominance Using Polar Coordinates to Enhance Multiobjective Evolutionary Algorithms. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 188–195, Portland, Oregon, USA, June 2004. IEEE Service Center.

- [5628] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. On the Locality of Dominance and Recombination in Multiobjective Evolutionary Algorithms. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 451–458, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5629] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Controlling Dominance Area of Solutions and Its Impact on the Performance of MOEAs. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 5–20, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5630] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Local dominance and local recombination in MOEAs on 0/1 multiobjective knapsack problems. *European Journal of Operational Research*, 181(3):1708–1723, 16 September 2007.
- [5631] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Local Dominance Including Control of Dominance Area of Solutions in MOEAs. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 310–317, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [5632] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Pareto partial dominance MOEA and hybrid archiving strategy included CDAS in many-objective optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3720–3727, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5633] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Self-Controlling Dominance Area of Solutions in Evolutionary Many-Objective Optimization. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 455–465, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [5634] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Genetic Diversity and Effective Crossover in Evolutionary Many-Objective Optimization. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 91–105, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
- [5635] Hiroyuki Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Improved S-CDAS Using Crossover Controlling the Number of Crossed Genes for Many-Objective Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 753–760, Dublin, Ireland, July 12-16 2011. ACM Press.

- [5636] Masahiko Sato, Hernán E. Aguirre, and Kiyoshi Tanaka. Effects of δ -Similar Elimination and Controlled Elitism in the NSGA-II Multiobjective Evolutionary Algorithm. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3980–3987, Vancouver, BC, Canada, July 2006. IEEE.
- [5637] Dragan A. Savic, Josef Bicik, and Mark S. Morley. A DSS Generator for Multiobjective Optimisation of Spreadsheet-Based Models. *Environmental Modelling & Software*, 26(5):551–561, May 2011.
- [5638] Dragan A. Savic, Godfrey A. Walters, and Martin Schwab. Multiobjective Genetic Algorithms for Pump Scheduling in Water Supply. In *AISB International Workshop on Evolutionary Computing. Lecture Notes in Computer Science 1305*, pages 227–236, Berlin, April 1997. Springer-Verlag.
- [5639] Henrik Saxén, Frank Pettersson, and Kiran Gunturu. Evolving Nonlinear Time-Series Models of the Hot Metal Silicon Content in the Blast Furnace. *Materials and Manufacturing Processes*, 22(5):577–584, 2007.
- [5640] Dhish Kumar Saxena and Kalyanmoy Deb. Non-linear Dimensionality Reduction Procedures for Certain Large-Dimensional Multi-objective Optimization Problems: Employing Correntropy and a Novel Maximum Variance Unfolding. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 772–787, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5641] Dhish Kumar Saxena and Kalyanmoy Deb. Trading on Infeasibility by Exploiting Constraint's Critically Through Multi-objectivization: A System Design Perspective. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 919–926, Singapore, September 2007. IEEE Press.
- [5642] Dhish Kumar Saxena and Kalyanmoy Deb. Dimensionality Reduction of Objectives and Constraints in Multi-Objective Optimization Problems: A System Design Perspective. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3203–3210, Hong Kong, June 2008. IEEE Service Center.
- [5643] Dhish Kumar Saxena, Tapabrata Ray, Kalyanmoy Deb, and Ashutosh Tiwari. Constrained Many-Objective Optimization: A Way Forward. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 545–552, Trondheim, Norway, May 2009. IEEE Press.
- [5644] Dhish Kumar Saxena, Qingfu Zhang, Jo ao A. Duro, and Ashutosh Tiwari. Framework for Many-Objective Test Problems with Both Simple and Complicated Pareto-Set Shapes. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 197–211, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.

- [5645] T. M. Sayers and J. M. Anderson. The multi-objective optimisation of a traffic control system. In Avi Ceder, editor, *Proceedings of 14th International Symposium on Transportation and Traffic Theory*, pages 153–176, Haifa, Israel, July 1999. Technion-Israel, Institute of Technology, Transportation Research Institute.
- [5646] Hoseyn Sayyaadi. Multi-objective approach in thermoenviromonic optimization of a benchmark cogeneration system. *Applied Energy*, 86(6):867–879, June 2009.
- [5647] Hoseyn Sayyaadi, Emad Hadaddi Amiashi, and Majid Amidpour. Multi-objective optimization of a vertical ground source heat pump using evolutionary algorithm. *Energy Conversion and Management*, 50(8):2035–2046, August 2009.
- [5648] Hoseyn Sayyaadi and Emad Hadaddi Amlashi. Various criteria in optimization of a geothermal air conditioning system with a horizontal ground heat exchanger. *International Journal of Energy Research*, 34(3):233–248, March 10 2010.
- [5649] Ivo F. Sbalzarini, Sibylle Müller, and Petros Koumoutsakos. Multiobjective Optimization using Evolutionary Algorithms. In *Center for Turbulence Research. Proceedings of the 2000 Summer Program*, pages 63–74. NASA Ames/Stanford University, 2000.
- [5650] Ivo F. Sbalzarini, Sibylle Müller, and Petros Koumoutsakos. Microchannel Optimization Using Multiobjective Evolution Strategies. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 516–530. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [5651] J. David Schaffer. *Multiple Objective Optimization with Vector Evaluated Genetic Algorithms*. PhD thesis, Vanderbilt University, 1984.
- [5652] J. David Schaffer. Multiple Objective Optimization with Vector Evaluated Genetic Algorithms. In *Genetic Algorithms and their Applications: Proceedings of the First International Conference on Genetic Algorithms*, pages 93–100. Lawrence Erlbaum, 1985.
- [5653] J. David Schaffer and John J. Grefenstette. Multiobjective Learning via Genetic Algorithms. In *Proceedings of the 9th International Joint Conference on Artificial Intelligence (IJCAI-85)*, pages 593–595, Los Angeles, California, 1985. AAAI.
- [5654] Jens Scharnow, Karsten Tinnefeld, and Ingo Wegener. Fitness Landscapes Based on Sorting and Shortest Paths Problems. In Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacanas, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature—PPSN*

VII, pages 54–63, Granada, Spain, September 2002. Springer-Verlag. Lecture Notes in Computer Science No. 2439.

- [5655] Karolien Scheerlinck, Valentijn R. N. Pauwels, Hilde Vernieuwe, and Bernard De Baets. Calibration of a water and energy balance model: Recursive parameter estimation versus particle swarm optimization. *Water Resources Research*, 45(W10422), October 16 2009.
- [5656] R. Scheffermann, M. Bender, and A. Cardeneo. Robust Solutions for Vehicle Routing Problems via Evolutionary Multiobjective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1605–1612, Trondheim, Norway, May 2009. IEEE Press.
- [5657] Michael Scheffler and Gerhard Tröster. A Multi-Objective Test vs. Cost Optimization for Electronic Products. In *Proceedings of the 26th IEEE/CPMT International Electronics Manufacturing Technology Symposium*, pages 344–351. IEEE, 2000.
- [5658] Thomas Schlichter, Christian Haubelt, and Jürgen Teich. Improving EA-based Design Space Exploration by Utilizing Symbolic Feasibility Tests. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1945–1952, New York, USA, June 2005. ACM Press.
- [5659] Frank Schlottmann, Andreas Mitschele, and Detlef Seese. A Multi-objective Approach to Integrated Risk Management. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 692–706, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [5660] Frank Schlottmann and Detlef Seese. Hybrid multi-objective evolutionary computation of constrained downside risk-return efficient sets for credit portfolio. In *Proceedings of the 8th International Conference of the Society for Computational Economics. Computing in Economics and Finance*, Aix-en-Provence, France, June 2002.
- [5661] Frank Schlottmann and Detlef Seese. Financial Applications of Multi-Objective Evolutionary Algorithms: Recent Developments and Future Research Directions. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 627–652. World Scientific, Singapore, 2004.
- [5662] Frank Schlottmann and Detlef Seese. A Hybrid Heuristic Approach to Discrete Multi-Objective Optimization of Credit Portfolios. *Computational Statistics & Data Analysis*, 47(2):373–399, September 2004.
- [5663] Michael D. Schmidt and Hod Lipson. Discovering a Domain Alphabet. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages

1083–1090, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.

- [5664] Michael D. Schmidt and Hod Lipson. Age-Fitness Pareto Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 543–544, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [5665] Frank Schmiedle, Nicole Drechsler, Draniel Große, and Rolf Drechsler. Priorities in Multi-Objective Optimization for Genetic Programming. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 129–136, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [5666] Frank Schmiedle, Nicole Drechsler, Draniel Große, and Rolf Drechsler. Heuristic Learning Based on Genetic Programming. *Genetic Programming and Evolvable Machines*, 3(4):363–388, December 2002.
- [5667] Karlheinz Schmitt, Jörn Mehnen, and Thomas Michelitsch. Using Predators and Preys in Evolution Strategies. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 827–828, New York, USA, June 2005. ACM Press.
- [5668] Volker Schneck and Oliver Vornberger. Hybrid Genetic Algorithms for Constrained Placement Problems. *IEEE Transactions on Evolutionary Computation*, 1(4):266–277, November 1997.
- [5669] Thorsten Schnier, Xin Yao, and Pin Liu. Digital Filter Design Using Multiple Pareto Fronts. *Soft Computing*, 8(5):332–343, April 2004.
- [5670] I. L. Schoeman and A. P. Engelbrecht. A Parallel Vector-Based Particle Swarm Optimizer. In Bernardete Ribeiro, Rudolf F. Albrecht, Andrej Dobnikar, David W. Pearson, and Nigel C. Steele, editors, *Adaptive and Natural Computing Algorithms*, pages 268–271, Coimbra, Portugal, March 2005. Springer.
- [5671] I. L. Schoeman and A. P. Engelbrecht. Scalability of the Vector-based Particle Swarm Optimizer. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1995–2001, Trondheim, Norway, May 2009. IEEE Press.
- [5672] Isabella Schoeman and Andries Engelbrecht. Niching for Dynamic Environments using Particle Swarm Optimization. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 134–141. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.

- [5673] Isabella Schoeman and Andries P. Engelbrecht. Effect of Particle Initialization on the Performance of Particle Swarm Niching Algorithms. In Marco Dorigo, Mauro Birattari, Gianni A. Di Caro, René Doursat, Andries P. Engelbrecht, Dario Floreano, Luca Maria Gambardella, Roderich Groß, Erol Şahin, Hiroki Sayama, and Thomas Stützle, editors, *Swarm Intelligence. 7th International Conference, ANTS 2010*, pages 560–561. Springer, Lecture Notes in Computer Science Vol. 6234, Brussels, Belgium, September 8-10 2010.
- [5674] Marc Schoenauer, Pierre Savéant, and Vincent Vidal. Divide-and-Evolve: a Sequential Hybridization Strategy Using Evolutionary Algorithms. In Patrick Siarry and Zbigniew Michalewicz, editors, *Advances in Metaheuristic Methods for Hard Optimization*, pages 179–198. Springer, Berlin, 2008. ISBN 978-3-540-72959-4.
- [5675] Jason R. Schott. Fault Tolerant Design Using Single and Multicriteria Genetic Algorithm Optimization. Master’s thesis, Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, Massachusetts, May 1995.
- [5676] P. Schroder, A. J. Chipperfield, P. J. Fleming, and N. Grum. Multi-Objective Optimization of Distributed Active Magnetic Bearing Controllers. In *Genetic Algorithms in Engineering Systems: Innovations and Applications*, pages 13–18. IEE, September 1997.
- [5677] P. Schroder, B. Green, N. Grum, and P. J. Fleming. On-line evolution of robust control systems: an industrial active magnetic bearing application. *Control Engineering Practice*, 9(1):37–49, January 2001.
- [5678] Jacob Schrum and Risto Miikkulainen. Constructing Complex NPC Behavior via Multi-Objective Neuroevolution. In *Proceedings of the Fourth Artificial Intelligence and Interactive Digital Entertainment Conference (AIIDE 2008)*, pages 108–113, Stanford, California, USA, October 2008. The AAAI Press.
- [5679] Jacob Schrum and Risto Miikkulainen. Evolving Agent Behavior in Multi-objective Domains Using Fitness-Based Shaping. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO’2010)*, pages 439–446, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [5680] Oliver Schuetze, Carlos A. Coello Coello, Emilia Tantar, and El-Ghazali Talbi. Computing Finite Size Representations of the Set of Approximate Solutions of an MOP with Stochastic Search Algorithms. In *2008 Genetic and Evolutionary Computation Conference (GECCO’2008)*, pages 713–720. ACM Press, Atlanta, USA, July 2008. ISBN 978-1-60558-131-6.
- [5681] Oliver Schuetze, Laetitia Jourdan, Thomas Legrand, El-Ghazali Talbi, and Jean-Luc Wojkiewicz. New analysis of the optimization of electromagnetic shielding properties using conducting polymers and a multi-objective approach. *Polymers for Advanced Technologies*, 19(7):762–769, July 2008.

- [5682] Oliver Schuetze, Adriana Lara, Carlos A. Coello Coello, and Massimiliano Vasile. Computing Approximate Solutions of Scalar Optimization Problems and Applications in Space Mission Design. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1654–1661, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5683] Oliver Schuetze, Adriana Lara, and Carlos A. Coello Coello. Evolutionary Continuation Methods for Optimization Problems. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 651–658, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5684] Oliver Schuetze, Marco Laumanns, Emilia Tantar, Carlos A. Coello Coello, and El ghazali Talbi. Convergence of Stochastic Search Algorithms to Gap-Free Pareto Front Approximations. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 892–899, London, UK, July 2007. ACM Press.
- [5685] Oliver Schuetze, Marco Laumanns, Emilia Tantar, Carlos A. Coello Coello, and El-Ghazali Talbi. Computing Gap Free Pareto Front Approximations with Stochastic Search Algorithms. *Evolutionary Computation*, 18(1):65–96, Spring 2010.
- [5686] Oliver Schuetze, Gustavo Sanchez, and Carlos A. Coello Coello. A new memetic strategy for the numerical treatment of multi-objective optimization problems. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 705–712. ACM Press, Atlanta, USA, July 2008. ISBN 978-1-60558-131-6.
- [5687] J. Schuller and M. Haque. An approach for optimisation of vehicle handling behaviour in simulation. *Vehicle System Dynamics*, 37:24–37, 2002.
- [5688] Oliver Schütze. A New Data Structure for the Nondominance problem in Multi-objective Optimization. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 509–518, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [5689] Oliver Schütze. *Set Oriented Methods for Global Optimization*. PhD thesis, Fakultät für Elektrotechnik, Informatik und Mathematik, Universität Paderborn, Paderborn, Germany, December 2004.
- [5690] Oliver Schütze, Carlos Coello Coello, and El-Ghazali Talbi. Approximating the ϵ -Efficient Set of an MOP with Stochastic Search Algorithms. In Alexander Gelbukh and Ángel Fernando Kuri Morales, editors, *MICAI 2007: Advances in Artificial Intelligence, 6th International Conference on Artificial Intelligence*, pages 128–138. Springer, Lecture Notes in Artificial Intelligence Vol. 4827, Aguascalientes, México, November 2007.

- [5691] Oliver Schütze, Carlos A. Coello Coello, Sanaz Mostaghim, El-Ghazali Talbi, and Michael Dellnitz. Hybridizing Evolutionary Strategies with Continuation Methods for Solving Multi-Objective Problems. *Engineering Optimization*, 40(5):383–402, May 2008.
- [5692] Oliver Schütze, Carlos A. Coello Coello, and Massimiliano Vasile. Computing the Set of Epsilon-Efficient Solutions in Multiobjective Space Mission Design. *Journal of Aerospace Computing Information and Communication*, 8(3):53–70, 2011.
- [5693] Oliver Schütze, Laetitia Jourdan, Thomas Legrand, El-Ghazali Talbi, and Jean Luc Wojkiewicz. A Multi-objective Approach to the Design of Conducting Polymer Composites for Electromagnetic Shielding. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 590–603, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [5694] Oliver Schütze, Adriana Lara, and Carlos A. Coello Coello. On the Influence of the Number of Objectives on the Hardness of a Multiobjective Optimization Problem. *IEEE Transactions on Evolutionary Computation*, 15(4):444–455, August 2011.
- [5695] Oliver Schütze, Marco Laumanns, and Carlos A. Coello Coello. Approximating the Knee of an MOP with Stochastic Search Algorithms. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature–PPSN X*, pages 795–804. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [5696] Oliver Schütze, Sanaz Mostaghim, Michael Dellnitz, and Jürgen Teich. Covering Pareto Sets by Multilevel Evolutionary Subdivision Techniques. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 118–132, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [5697] Oliver Schütze, Massimiliano Vasile, and Carlos A. Coello Coello. Approximate Solutions in Space Mission Design. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature–PPSN X*, pages 805–814. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [5698] Oliver Schütze, Massimiliano Vasile, Oliver Junge, Michael Dellnitz, and Dario Izzo. Designing optimal low-thrust gravity-assist trajectories using space pruning and a multi-objective approach. *Engineering Optimization*, 41(2):155–181, February 2009.

- [5699] M. Schwab, D. A. Savic, and G. A. Walters. Multi-Objective Genetic Algorithm for Pump Scheduling in Water Supply Systems. Technical Report 96/02, Centre For Systems And Control Engineering, School of Engineering, University of Exeter, Exeter, United Kingdom, 1996.
- [5700] Josef Schwarz and Jiri Ocenasek. Evolutionary Multiobjective Bayesian Optimization Algorithm: Experimental Study. In *Proceedings of the 35th Spring International Conference: Modelling and Simulation of Systems (MOSIS'01)*, pages 101–108, Czech Republic, 2001. MARQ, Hradec and Moravici.
- [5701] Josef Schwarz and Jiri Ocenasek. Multiobjective Bayesian Optimization Algorithm for Combinatorial Problems: Theory and Practice. *Neural Network World*, 11(5):423–441, 2001.
- [5702] Josef Schwarz and Jiri Ocenasek. Pareto Bayesian Optimization Algorithm for the Multiobjective 0/1 Knapsack Problem. In *Proceedings of the 7th International Mendel Conference on Soft Computing, Mendel 2001*, pages 131–136, Brno, Czech Republic, 2001. Brno University of Technology.
- [5703] A. Sciortino, TC Harmon, and WWG Yeh. Experimental design and model parameter estimation for locating a dissolving dense nonaqueous phase liquid pool in groundwater. *Water Resources Research*, 38(5):Article Number: 1057, May 2002.
- [5704] Aaron Scoble, Mark Johnston, and Mengjie Zhang. Eliminating Useless Object Detectors Evolved in Multiple-Objective Genetic Programming. In Dianhui Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 341–350, Perth, Australia, December 5-8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [5705] Luís A. Scola, Oriana M. Neto, Ricardo H.C. Takahashi, and Sérgio A.A.G. Cerqueira. Multi-objective optimal reservoir operation. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3369–3373, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5706] Ian Scriven, David Ireland, Andrew Lewis, Sanaz Mostaghim, and Jürgen Branke. Asynchronous Multiple Objective Particle Swarm Optimisation in Unreliable Distributed Environments. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2486–2491, Hong Kong, June 2008. IEEE Service Center.
- [5707] Ian Scriven, Andrew Lewis, David Ireland, and Junwei Lu. Decentralised Distributed Multiple Objective Particle Swarm Optimisation Using Peer-to-Peer Networks. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2930–2933, Hong Kong, June 2008. IEEE Service Center.
- [5708] Ian Scriven, Andrew Lewis, and Sanaz Mostaghim. Dynamic Search Initialisation Strategies for Multi-Objective Optimisation in Peer-to-Peer Networks. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1515–1522, Trondheim, Norway, May 2009. IEEE Press.

- [5709] Barry R. Secrest and Gary B. Lamont. Multiobjective Tuning of a Multi-target Tracking Algorithm using an Evolutionary Algorithm. In *2009 IEEE Symposium on Computational Intelligence in Multi-Criteria Decision-Making (MCDM'2009)*, pages 51–57, Nashville, TN, USA, March 30 - April 2 2009. IEEE Press. ISBN 978-1-4244-2764-2.
- [5710] Nafiseh Sedaghat, Hamid Tabatabaee-Yazdi, and Mohammad-R. Akbarzadeh-T. Pareto Front Based Realistic Soft Real-Time Task Scheduling with Multi-objective Genetic Algorithm on Arbitrary Heterogeneous Multiprocessor System. *Journal of Internet Technology*, 12(1):85–93, January 2011.
- [5711] Vladimir Sedenka and Zbynek Raida. Critical Comparison of Multi-objective Optimization Methods: Genetic Algorithms versus Swarm Intelligence. *Radiengineering*, 19(3):369–377, September 2010.
- [5712] J. Seeger and K. Wolf. Multi-objective design of complex aircraft structures using evolutionary algorithms. *Proceedings of the Institution of Mechanical Engineers Part G-Journal of Aerospace Engineering*, 225(G10):1153–1164, October 2011.
- [5713] Pasut Seeluangsawat and Prabhas Chongstitvatana. A Multiple Objective Evolutionary Algorithm for Multiple Sequence Alignment. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 477–478, New York, USA, June 2005. ACM Press.
- [5714] M. Sefrioui and J. Periaux. Nash Genetic Algorithms: examples and applications. In *2000 Congress on Evolutionary Computation*, volume 1, pages 509–516, San Diego, California, July 2000. IEEE Service Center.
- [5715] Mourad Sefrioui and Jacques Périaux. A hierarchical Genetic Algorithm Using Multiple Models for Optimization. In Marc Schoenauer, Kalyanmoy Deb, Günter Rudolph, Xin Yao, Evelyne Lutton, Juan Julian Merelo, and Hans-Paul Schwefel, editors, *Proceedings of the Parallel Problem Solving from Nature VI Conference*, pages 879–888, Paris, France, 2000. Springer. Lecture Notes in Computer Science No. 1917.
- [5716] Renaud Séguier and Nicolas Cladel. Multiobjectives genetic snakes: Application on audio-visual speech recognition. In *Proceedings of the 4th EURASIP Conference focused on Video/Image Processing and Multimedia Communications (EC-VIP-MC 2003)*, Zagreb, Croatia, July 2003.
- [5717] Carlos Segura, Alejandro Cervantes, Antonio J. Nebro, María Dolores Jaraíz-Simón, Eduardo Segredo, Sandra García, Francisco Luna, Juan Antonio Gómez-Pulido, Gara Miranda, Cristóbal Luque, Enrique Alba, Miguel Ángel Vega-Rodríguez, Cromoto León, and Inés M. Galván. Optimizing the DFCN Broadcast Protocol with a Parallel Cooperative Strategy of Multi-Objective Evolutionary Algorithms. In Matthias Ehrgott, Carlos M. Fonseca, Xavier

- Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 305–319. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [5718] Carlos Segura, Eduardo Segredo, and Coromoto León. Parallel Island-Based Multiobjectivised Memetic Algorithms for a 2D Packing Problem. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1611–1618, Dublin, Ireland, July 12-16 2011. ACM Press.
- [5719] J. Seibert. Multi-criteria calibration of a conceptual runoff model using a genetic algorithm. *Hydrology and Earth System Sciences*, 4(2):215–224, June 2000.
- [5720] Zbigniew Sekulski. Multi-objective topology and size optimization of high-speed vehicle-passenger catamaran structure by genetic algorithm. *Marine Structures*, 23(4):405–433, October 2010.
- [5721] Zbigniew Sekulski. Multi-objective optimization of high speed vehicle-passenger catamaran by genetic algorithm Part I Theoretical background on evolutionary multi-objective optimization. *Polish Maritime Research*, 18(2):3–18, 2011.
- [5722] Zbigniew Sekulski. Multi-objective optimization of high speed vehicle-passenger catamaran by genetic algorithm Part II Computational simulations. *Polish Maritime Research*, 18(3):3–30, 2011.
- [5723] Zbigniew Sekulski. Multi-objective optimization of high speed vehicle-passenger catamaran by genetic algorithm Part III Analysis of the results. *Polish Maritime Research*, 18(4):3–13, 2011.
- [5724] Zbigniew Sekulski. Multi-objective optimization of ship hull structure by genetic algorithm. In Tomasz Kiczowski and Wojciech Tarnowski, editors, *Poliptymalizacja i komputerowe wspomaganie projektowania. Mielno 2012*, pages 105–132. Wydawnictwo Uczelniane Politechniki Koszalskiej, Koszalin, Poland, 2012.
- [5725] Barbara Koroušić Seljak. Dietary Menu Planning by Evolutionary Computation. In Bogdan Filipič and Jurij Šilc, editors, *Bioinspired Optimization Methods and their Applications*, pages 87–98. Jožef Stefan Institute, October 2006.
- [5726] Milica Selmic, Dusan Teodorovic, and Katarina Vukadinovic. Locating inspection facilities in traffic networks: an artificial intelligence approach. *Transportation Planning And Technology*, 33(6):481–493, 2010.
- [5727] B. Selvabala and D. Devaraj. Co-ordinated Design of AVR-PSS Using Multi Objective Genetic Algorithm. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagarathnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference*

- on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010, pages 481–493. Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18 2010.
- [5728] Alessandro Selvaggio, Uwe Dirksen, A. Erman Tekkaya, Marco Schikorra, and Matthias Kleiner. Increasing the Production Accuracy of Profile Bending with Methods of Computational Intelligence. *Evolutionary Computation*, 17(4):561–576, Winter 2009.
 - [5729] P. Sen and J. B. Yang. *Multiple Criteria Decision Support in Engineering Design*. Springer-Verlag, London, 1998.
 - [5730] Satyabrata Sen, Gongguo Tang, and Arye Nehorai. Multiobjective Optimization of OFDM Radar Waveform for Target Detection. *IEEE Transactions on Signal Processing*, 59(2):639–652, February 2011.
 - [5731] Jose Oscar H. Sendin, Antonio A. Alonso, and Julio R. Banga. Efficient and robust multi-objective optimization of food processing: A novel approach with application to thermal sterilization. *Journal of Food Engineering*, 98(3):317–324, June 2010.
 - [5732] Choo Chwee Seng, Chua Ching Lian, Low Kin Ming Spencer, and Ong Wee Sze Darren. A Co-Evolutionary Approach for Military Operational Analysis. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 67–74, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
 - [5733] Soumi Sengupta and Sanghamitra Bandyopadhyay. De Novo Design of Potential RecA Inhibitors Using MultiObjective Optimization. *IEEE-ACM Transactions on Computational Biology and Bioinformatics*, 9(4):1139–1154, July-August 2012.
 - [5734] Soumyadip Sengupta, Md. Nasir, Arnab Kumar Mondal, and Swagatam Das. An Improved Multi-Objective Algorithm Based on Decomposition with Fuzzy Dominance for Deployment of Wireless Sensor Networks. In Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 688–696, Visakhapatnam, Andhra Pradesh, India, December 19-21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
 - [5735] Ahmed Senouci and Khaled El-Rayes. Time-Profit Trade-Off Analysis for Construction Projects. *Journal of Construction Engineering and Management-ASCE*, 135(8):718–725, August 2009.
 - [5736] J.S. Senthilkumaar, P. Selvarani, and R.M. Arunachalam. Intelligent optimization and selection of machining parameters in finish turning and facing of Inconel 718. *International Journal of Advanced Manufacturing Technology*, 58(9-12):885–894, February 2012.

- [5737] C. Senthilkumar, G. Ganesan, and R. Karthikeyan. Bi-performance optimization of electrochemical machining characteristics of Al/20%SiCp composites using NSGA-II. *Proceedings of the Institution of Mechanical Engineers Part B-Journal of Engineering Manufacture*, 224(B9):1399–1407, 2010.
- [5738] C. Senthilkumar, G. Ganesan, and R. Karthikeyan. Parametric optimization of electrochemical machining of Al/15% SiC(p) composites using NSGA-II. *Transactions of Nonferrous Metals Society of China*, 21(10):2294–2300, October 2011.
- [5739] O. Baez Senties, C. Azzaro-Oantel, L. Pibouleau, and S. Domenech. A Neural Network and a Genetic Algorithm for Multiobjective Scheduling of Semiconductor Manufacturing Plants. *Industrial & Engineering Chemistry Research*, 48(21):9546–9555, November 4 2009.
- [5740] Pedro Jorge Sequeira Cardoso. *Ant Colony Algorithms for Multiple Objective Combinatorial Optimization. Applications to the Minimum Spanning Trees Problems*. PhD thesis, Department of Applied Mathematics, University of Seville, Spain, December 2006.
- [5741] Paolo Serafini. Simulated Annealing for Multiple Objective Optimization Problems. In G.H. Tzeng, H.F. Wang, U.P. Wen, and P.L. Yu, editors, *Proceedings of the Tenth International Conference on Multiple Criteria Decision Making: Expand and Enrich the Domains of Thinking and Application*, volume 1, pages 283–294, Berlin, 1994. Springer-Verlag.
- [5742] A. Sergaki and K. Kalaitzakis. A fuzzy knowledge based method for maintenance planning in a power system. *Reliability Engineering & System Safety*, 77(1):19–30, July 2002.
- [5743] Víctor Serrano, Matías Alvarado, and Carlos A. Coello Coello. Optimization to Manage Supply Chain Disruptions Using the NSGA-II. In Oscar Castillo, Patricia Melin, Oscar Montiel Ross, Roberto Sepúlveda Cruz, Witold Pedrycz, and Janusz Kacprzyk, editors, *Theoretical Advances and Applications of Fuzzy Logic and Soft Computing*, pages 476–485. Springer-Verlag, Berlin, 2007.
- [5744] Travis C. Service and Daniel R. Tauritz. Free Lunches in Pareto Coevolution. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1721–1728, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5745] Stefan Sette, Luc Boullart, and Lieva Van Langenhove. Optimizing a Production Process by a Neural Network/Genetic Algorithm Approach. *Engineering Applications in Artificial Intelligence*, 9(6):681–689, 1996.
- [5746] C. Setzkorn and R.C. Paton. On the use of multi-objective evolutionary algorithms for the induction of fuzzy classification rule systems. *Biosystems*, 81(2):101–112, August 2005.

- [5747] Christian Setzkorn. Classification and Survival Analysis Using Multi-objective Evolutionary Algorithms. In Ashish Ghosh, Satchidananda Dehuri, and Susmita Ghosh, editors, *Multi-objective Evolutionary Algorithms for Knowledge Discovery from Data Bases*, pages 109–135. Springer, Berlin, 2008.
- [5748] D. Y. Sha and Hsing-Hung Lin. A particle swarm optimization for multi-objective flowshop scheduling. *International Journal of Advanced Manufacturing Technology*, 45(7-8):749–758, December 2009.
- [5749] D. Y. Sha and Hsing-Hung Lin. A multi-objective PSO for job-shop scheduling problems. *Expert Systems With Applications*, 37(2):1065–1070, March 2010.
- [5750] R. Shafaghat, S. M. Hosseinalipour, I. Lashgari, and A. Vahedgermi. Shape optimization of axisymmetric cavitators in supercavitating flows, using the NSGA II algorithm. *Applied Ocean Research*, 33(3):193–198, July 2011.
- [5751] R. Shafaghat, S.M. Hosseinalipour, N.M. Nouri, and I. Lashgari. Shape optimization of two-dimensional cavitators in supercavitating flows, using NSGA II algorithm. *Applied Ocean Research*, 30(4):305–310, October 2008.
- [5752] Kamran Shafi, Axel Bender, and Hussein A. Abbass. Fleet Estimation for Defence Logistics Using a Multi-Objective Learning Classifier System. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1195–1202, Dublin, Ireland, July 12-16 2011. ACM Press.
- [5753] M. Shafii and F. De Smedt. Multi-objective calibration of a distributed hydrological model (WetSpa) using a genetic algorithm. *Hydrology and Earth System Sciences*, 13(11):2137–2149, 2009.
- [5754] Nipen M. Shah, Gade Pandu Rangaiah, and Andrew F. A. Hoadley. Multi-Objective Optimization of Multi-Stage Gas-Phase Refrigeration Systems. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 8, pages 237–276. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [5755] Ruchit Shah and Patrick Reed. Comparative analysis of multiobjective evolutionary algorithms for random and correlated instances of multiobjective d-dimensional knapsack problems. *European Journal of Operational Research*, 211(3):466–479, January 16 2011.
- [5756] Mohammed Shalaby and Jazuhiro Saitou. High-Stiffness, Lock-and-Key Heat-Reversible Locator-Snap Systems for the Design for Disassembly. *Journal of Mechanical Design*, 131(4), April 2009. Article number: 041005.
- [5757] Mohammed Shalaby and Kazuhiro Saitou. Design for Disassembly with High-Stiffness Heat-Reversible Locator-Snap Systems. *Journal of Mechanical Design*, 130(12), December 2008. Article Number: 121701.

- [5758] Mohammed M. Shalaby, Zhongde Wang, Linda L-W. Chow, Brian D. Jensen, John L. Volakis, Katsuo Kurabayashi, and Kazuhiro Saitou. Robust Design of RF-MEMS Cantilever Switches Using Contact Physics Modelling. *IEEE Transactions on Industrial Electronics*, 56(4):1012–1021, April 2009.
- [5759] Rong-Hua Shang, Li-Cheng Jiao, Yang-Yang Li, and Jian-She Wu. Quantum Immune Clonal Selection Algorithm for Multi-objective 0/1 Knapsack Problems. *Chinese Physics Letters*, 27(1), January 2010. Article Number: 010308.
- [5760] Ronghua Shang, Licheng Jiao, Maoguo Gong, and Bin Lu. Clonal Selection Algorithm for Dynamic Multiobjective Optimization. In Yue Hao et al., editor, *Computational Intelligence and Security. International Conference, CIS 2005*, pages 846–851, Xi'an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.
- [5761] Ronghua Shang, Licheng Jiao, Fang Liu, and Wenping Ma. A Novel Immune Clonal Algorithm for MO Problems. *IEEE Transactions on Evolutionary Computation*, 16(1):35–50, February 2012.
- [5762] Ronghua Shang and Wenping Ma. Immune Clonal MO Algorithm for ZDT Problems. In Licheng Jiao, Lipo Wang, Xinbo Gao, Jing Liu, and Feng Wu, editors, *Advances in Natural Computation, Second International Conference, ICNC 2006*, pages 100–109, Xian, China, September 24–28 2006. Springer. Lecture Notes in Computer Science Vol. 4222.
- [5763] Zengzhen Shao, Yanmin Liu, and Shuxia Dong. Multi-Objective PSO Based on Evolutionary Programming. In De-Shuang Huang, Zhongming Zhao, Vitoantonio Bevilacqua, and Juan Carlos Figueroa, editors, *Advanced Intelligent Computing Theories and Applications, 6th International Conference on Intelligent Computing, ICIC 2010*, pages 602–610, Changsha, China, August 18–21 2010. Springer. Lecture Notes in Computer Science Vol. 6215.
- [5764] Adel M. Sharaf and Adel A.A. El-Gammal. Particle Swarm Optimization PSO: A New Search Tool in Power System and Electro Technology. In Bijaya Ketan Panigrahi, Ajith Abraham, and Swagatam Das, editors, *Computational Intelligence in Power Engineering*, Studies in Computational Intelligence (SCI), pages 235–294. Springer, Berlin, 2010. ISBN 978-3-642-14012-9.
- [5765] Bikram Sharda. *Robust Manufacturing System Design using Petri Nets and Bayesian Methods*. PhD thesis, Texas A&M University, USA, May 2008.
- [5766] S.M. Shariatmadar, H. Khomami Pamsari, V. Amir, and A. SiahVashi. Multi-Objective Reactive Power Control by a Global Best Harmony Search Algorithm. *International Review of Electrical Engineering-IREE, Part B*, 5(6):2914–2918, November–December 2010.
- [5767] Reza Sharifi and Hossein Heydari. Multiobjective Optimization for HTS Fault-Current Limiters Based on Normalized Simulated Annealing. *IEEE Transactions on Applied Superconductivity*, 19(4):3675–3682, August 2009.

- [5768] Soroosh Sharifi, Mark Sterling, and Donald W. Knight. Can the application of a multi-objective evolutionary algorithm improve conveyance estimation? *Water and Environment Journal*, 25(2):230–240, June 2011.
- [5769] Asish Kumar Sharma, Chandramouli Kuishreshtha, Keemin Sohn, and Kee-Sun Sohn. Systematic Control of Experimental Inconsistency in Combinatorial Materials Science. *Journal of Combinatorial Chemistry*, 11(1):131–137, January-February 2009.
- [5770] Asish Kumar Sharma, Chandramouli Kulshreshtha, and Kee-Sun Sohn. Discovery of New Green Phosphors and Minimization of Experimental Inconsistency Using a Multi-Objective Genetic Algorithm-Assisted Combinatorial Method. *Advanced Functional Materials*, 19(11):1705–1712, June 9 2009.
- [5771] Asish Kumar Sharma and Kee-Sun Sohn. Search for phosphors for use in displays and lighting using heuristics-based combinatorial materials science. *Journal Of The Society For Information Display*, 17(12):1073–1080, December 2009.
- [5772] B. Sharma, I. Parmee, M. Whittaker, and A. Sedwell. Drug Discovery: Exploring the Utility of Cluster Oriented Genetic Algorithms in Virtual Library Design. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 668–675, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5773] Deepak Sharma. On the Flexible Applied Boundary and Support Conditions of Compliant Mechanisms Using Customized Evolutionary Algorithm. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 105–114, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [5774] Deepak Sharma and Pierre Collet. An Archived-Based Stochastic Ranking Evolutionary Algorithm (ASREA) for Multi-Objective Optimization. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 479–486, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [5775] Deepak Sharma and Pierre Collet. GPGPU-Compatible Archive Based Stochastic Ranking Evolutionary Algorithm (G-ASREA) for Multi-Objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 111–120. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.

- [5776] Deepak Sharma, Kalyanmoy Deb, and N. N. Kishore. A Domain-Specific Crossover and a Helper Objective for Generating Minimum Weight Compliant Mechanisms. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1723–1724, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [5777] Deepak Sharma, Kalyanmoy Deb, and N. N. Kishore. Towards Generating Diverse Topologies of Path Tracing Compliant Mechanisms Using A Local Search Based Multi-Objective Genetic Algorithm Procedure. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2004–2011, Hong Kong, June 2008. IEEE Service Center.
- [5778] Deepak Sharma, Kalyanmoy Deb, and N.N. Kishore. Domain-specific initial population strategy for compliant mechanisms using customized genetic algorithm. *Structural and Multidisciplinary Optimization*, 43(4):541–554, April 2011.
- [5779] Deepak Sharma, Abhay Kumar, Kalyanmoy Deb, and Karthik Sindhya. Hybridization of SBX Based NSGA-II and Sequential Quadratic Programming for Solving Multi-objective Optimization Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3003–3010, Singapore, September 2007. IEEE Press.
- [5780] Dinesh K. Sharma and R. K. Jana. A hybrid genetic algorithm model for transshipment management decisions. *International Journal of Production Economics*, 122(2):703–713, December 2009.
- [5781] Nitin Sharma and K.R. Anupama. On the use of NSGA-II for multi-objective resource allocation in MIMO-OFDMA systems. *Wireless Networks*, 17(5):1191–1201, July 2011.
- [5782] Sushant Sharma and Tom V. Mathew. Multiobjective network design for emission and travel-time trade-off for a sustainable large urban transportation network. *Environment and Planning B-Planning & Design*, 38(3):520–538, May 2011.
- [5783] Sushant Sharma, Satish V. Ukkusuri, and Tom V. Mathew. Pareto Optimal Multiobjective Optimization for Robust Transportation Network Design Problem. *Transportation Research Record*, 2090:95–104, 2009.
- [5784] K. J. Shaw and P. J. Fleming. Initial Study of Practical Multi-Objective Genetic Algorithms for Scheduling the Production of Chilled Ready Meals. In *Proceedings of Mendel'96, the 2nd International Mendel Conference on Genetic Algorithms*, Brno, Czech Republic, September 1996.
- [5785] K. J. Shaw and P. J. Fleming. An Initial Study of Practical Multi-Objective Production Scheduling using Genetic Algorithms. In *Proceedings of the International Conference on Control'96*, University of Exeter, UK, September 1996.

- [5786] K. J. Shaw and P. J. Fleming. Including Real-Life Preferences in Genetic Algorithms to Improve Optimisation of Production Schedules. In *Proceedings of the GALEZIA'97*, pages 239–244, Glasgow, Scotland, September 1997. IEE.
- [5787] K. J. Shaw and P. J. Fleming. An Overview of Multi-Objective Genetic Algorithms for Production Scheduling. In *Proceedings of the DTI/ACTT Regional Seminar in Finite Capacity Scheduling in the Process Industries*, Manchester, UK, January 1997.
- [5788] K. J. Shaw and P. J. Fleming. Use of Rules and Preferences for Schedule Builders in Genetic Algorithms Production Scheduling. In Corne and Shapiro, editors, *Proceedings of the AISB'97 Workshop on Evolutionary Computation. Lecture Notes in Computer Science No. 1305*, Manchester University, 1997. Springer-Verlag.
- [5789] K. J. Shaw, C. M. Fonseca, and P. J. Fleming. A Simple Demonstration of a Quantitative Technique for Comparing Multiobjective Genetic Algorithm Performance. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 119–120, Orlando, Florida, July 1999.
- [5790] K. J. Shaw, P. L. Lee, H. P. Nott, and M. Thompson. Genetic Algorithms for Multiobjective Scheduling of Combined Batch/Continuous Process Plants. In *2000 Congress on Evolutionary Computation*, volume 1, pages 293–300, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [5791] K. J. Shaw, A. L. Nortcliffe, M. Thompson, J. Love, C. M. Fonseca, and P. J. Fleming. Assessing the Performance of Multiobjective Genetic Algorithms for Optimization of a Batch Process Scheduling Problem. In *1999 Congress on Evolutionary Computation*, pages 37–45, Washington, D.C., July 1999. IEEE Service Center.
- [5792] Katharine Jane Shaw. *Using Genetic Algorithms for Practical Multi-Objective Production Schedule Optimisation*. PhD thesis, Department of Automatic Control and Systems Engineering, The University of Sheffield, Sheffield, UK, 1997.
- [5793] K.J. Shaw, A.L. Nortcliffe, M. Thompson, J. Love, and P.J. Fleming. Interactive Batch Process Schedule Optimization and Decision-Making using Multiobjective Genetic Algorithms. In *1999 IEEE International Conference on Systems, Man, and Cybernetics*, volume 6, pages 486–491. IEEE, 1999.
- [5794] K.J. Shaw and P.J. Feming PJ. Genetic algorithms for scheduling: incorporation of user preferences. *Transactions Of The Institute Of Measurement And Control*, 22(2):195–210, 2000.
- [5795] H. Shayeghi, H.A. Shayanfar, S. Jalilzadeh, and A. Safari. Multi-machine power system stablizers design using chaotic optimization algorithm. *Energy Conversion and Management*, 51(7):1572–1580, July 2010.

- [5796] Kristina Shea, Andrew Sedgwick, and Giulio Antonunntto. Multicriteria Optimization of Paneled Building Envelopes Using Ant Colony Optimization. In Ian F. C. Smith, editor, *Intelligent Computing in Engineering and Architecture, 13th EG-ICE Workshop 2006*, pages 627–636. Springer. Lecture Notes in Computer Science. Vol. 4200, Ascona, Switzerland, 2006.
- [5797] Prakash Shelokar, Arnaud Quirin, and Óscar Cordoón. A Multiobjective Variant of the Subdue Graph Mining Algorithm based on the NSGA-II Selection Mechanism. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 463–470, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5798] Prakash S. Shelokar, Saikat Adhikari, Ronak Vakil, V.K. Jayaraman, and B.D. Kulkarni. Multi-objective ant algorithm for continuous function optimization: Combination of strength Pareto fitness assignment and thermodynamic clustering. *Foundations of Computing and Decision Sciences*, 25(4):213–229, 2000.
- [5799] P.S. Shelokar, V.K. Jayaraman, and B.D. Kulkarni. Ant algorithm for single and multiobjective reliability optimization problems. *Quality and Reliability Engineering International*, 18(6):497–514, November-December 2002.
- [5800] P.S. Shelokar, V.K. Jayaraman, and B.D. Kulkarni. Multiobjective optimization of reactor-regenerator system using ant algorithm. *Petroleum Science and Technology*, 21(7-8):1167–1184, 2003.
- [5801] Xiang Shen and Zhonghua Ni. Multi-Objective Design Optimization of Coronary Stent Mechanical Properties. *Advanced Science Letters*, 4(3):835–838, March 2011.
- [5802] Xiaoning Shen, Yu Guo, Qingwei Chen, and Weili Hu. A multi-objective optimization evolutionary algorithm incorporating preference information based on fuzzy logic. *Computational Optimization and Applications*, 46(1):159–188, May 2010.
- [5803] Xiaoning Shen and Weili Hu. MONEP: A multi-objective non-uniform evolutionary programming algorithm. *Dynamics of Continuous Discrete and Impulsive Systems–Series B–Applications & Algorithms*, 13:888–892, December 2006.
- [5804] Yuanxia Shen, Guoyin Wang, and Qun Liu. Correlative Particle Swarm Optimization for Multi-objective Problems. In Ying Tan, Yuhui Shi, Yi Chai, and Guoyin Wang, editors, *Advances in Swarm Intelligence, Second International Conference, ICSI 2011*, pages 17–25, Chongqing, China, June 12-15 2011. Springer. Lecture Notes in Computer Science Vol. 6729.
- [5805] Yuanxia Shen, Guoyin Wang, and Chunmei Tao. Particle Swarm Optimization with Novel Processing Strategy and Its Application. *International Journal of Computational Intelligence Systems*, 4(1):100–111, February 2011.

- [5806] Mu Sheng-jing, Su Hong-ye, Chu Jian, and Wang Yue-xuan. An New Evolutionary Multi-objective Optimization algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 914–920, Canberra, Australia, December 2003. IEEE Press.
- [5807] Porter Sherman. *Ranking Techniques in Multicriteria Genetic Algorithm-Based Optimization*. PhD thesis, Department of Computer and Information Science, Polytechnic University, Brooklyn, New York, 1995.
- [5808] G.Y. Sheu. Recognition of an Elastic-Plastic Constitutive Law by a Multiobjective Evolutionary Algorithm. *Geotechnical and Geological Engineering*, 27(6):729–740, 2009.
- [5809] Chuan Shi, Qingyong Li, Zhiyong Zhang, and Zhongzhi Shi. An Improved Multiobjective Evolutionary Algorithm Based on Dominating Tree. In *PRI-CAI 2006: Trends in Artificial Intelligence, 9th Pacific Rim International Conference on Artificial Intelligence*, pages 691–700, Guilin, China, August 7-11 2006. Springer, Lecture Notes in Computer Science, Vol. 4099. ISBN 3-540-36667-9.
- [5810] Chuan Shi, Yan Li, and Li shan Kang. A New Simple and Highly Efficient Multi-objective Optimal Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 1536–1542, Canberra, Australia, December 2003. IEEE Press.
- [5811] Chuan Shi, Zhenyu Yan, Kevin Lue, Zhongzhi Shi, and Bai Wang. A dominance tree and its application in evolutionary multi-objective optimization. *Information Sciences*, 179(20):3540–3560, September 29 2009.
- [5812] Chuan Shi, Zhenyu Yan, Zhongzhi Shi, and Lei Zhang. A fast multi-objective evolutionary algorithm based on a tree structure. *Applied Soft Computing*, 10(2):468–480, March 2010.
- [5813] Chuan Shi, Cha Zhong, Zhenyu Yan, Yanan Cai, and Bin Wu. A Multi-Objective Approach for Community Detection in Complex Network. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 403–410, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5814] Jun-Hai Shi, Xin-Jian Zhu, and Guang-Yi Cao. Design and techno-economical optimization for stand-alone hybrid power systems with multi-objective evolutionary algorithms. *International Journal Of Energy Research*, 31(3):315–328, March 10 2007.
- [5815] L. B. Shi and G.Y. Xu. Self-adaptive evolutionary programming and its application to multi-objective optimal operation of power systems. *Electric Power Systems Research*, 57(3):181–187, April 20 2001.
- [5816] Lei Shi and Pingjing Yao. Multi-objective Evolutionary Algorithms for MILP and MINLP in Process Synthesis. *Chinese Journal of Chemical Engineering*, 9(2):173–178, May 2001.

- [5817] Min Shi and Boye Annfelt Hoverstad. PEEC: Evolving Efficient Connections Using Pareto Optimality. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1578–1584, Trondheim, Norway, May 2009. IEEE Press.
- [5818] Min Shi and Haifeng Wu. Pareto cooperative coevolutionary genetic algorithm using reference sharing collaboration. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 867–874, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5819] Ruifeng Shi. *Studies on Multi-objective Evolutionary Algorithms with Applications to Production Scheduling*. PhD thesis, School of Economics and Management, Beihang University, Beijing, China, 2006.
- [5820] Y. Shi and R. D. Reitz. Optimization study of the effects of bowl geometry, spray targeting and swirl ratio for a heavy-duty diesel engine operated at low and high load. *International Journal of Engine Research*, 9(4):325–346, August 2008.
- [5821] Yingzi Shi, Jiangang Lu, and Qiang Zheng. A New Strategy for Parameter Estimation of Dynamic Differential Equations Based on NSGA II. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein A. Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006, Proceedings*, pages 345–352, Hefei, China, October 2006. Springer. Lecture Notes in Computer Science Vol. 4247.
- [5822] Yu Shi and Rolf D. Reitz. Assessment of Multiobjective Genetic Algorithms With Different Niching Strategies and Regression Methods for Engine Optimization and Design. *Journal of Engineering for Gas Turbines and Power-Transactions of the ASME*, 132(5), May 2010. Article Number: 052801.
- [5823] Jenq-Tzong Shiau. Optimization of Reservoir Hedging Rules Using Multiobjective Genetic Algorithm. *Journal of Water Resources Planning and Management-ASCE*, 135(5):355–363, September-October 2009.
- [5824] Ting-Nung Shiau, Chung-Hao Kang, and De-Shin Liu. Multi-objective optimal design of rotor-bearing systems under dynamic behavior constraints using a hybrid genetic algorithm. *Journal of the Chinese Society of Mechanical Engineers*, 29(3):187–194, June 2008.
- [5825] Toshihiro Shibano and Masatoshi Sakawa. Interactive Decision Making for Fuzzy Multiobjective 0-1 Programs Through Genetic Algorithms with Double Strings. In *Proceedings of the Sixth IEEE Conference on Fuzzy Systems*, pages 1639–1644, 1997.
- [5826] Miyuki Shibasaki, Akira Hara, Takumi Ichimura, and Tetsuyuki Takahama. Species-based Differential Evolution with Switching Search Strategies for Multimodal Function Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1183–1190, Singapore, September 2007. IEEE Press.

- [5827] HS Shih, UP Wen, ES Lee, and HC Hsiao. A neural network approach to multiobjective and multilevel programming problems. *Computers & Mathematics With Applications*, 48(1-2):95–108, 2004.
- [5828] M. B. Shim and M. W. Suh. A study on Multiobjective Optimization Technique for inverse and crack identification problems. *Inverse Problems in Engineering*, 10(5):441–465, 2002.
- [5829] Mun Bo Shim, Tomonari Furukawa, and Shinobu Yoshimura. Pareto-based Continuous Evolutionary Algorithms for Multi-objective Optimization. *Engineering Computations*, 19(1):22–48, 2002.
- [5830] Vui Ann Shim, Kay Chen Tan, and Jun Yong Chia. An investigation on sampling technique for multi-objective restricted Boltzmann machine. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1081–1088, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5831] Vui Ann Shim, Kay Chen Tan, and Jun Yong Chia. Probabilistic Based Evolutionary Optimizers in Bi-Objective Travelling Salesman Problem. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 588–592, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [5832] Vui Ann Shim, Kay Chen Tan, Jun Yong Chia, and Jin Kiat Chong. Evolutionary algorithms for solving multi-objective travelling salesman problem. *Flexible Services and Manufacturing Journal*, 23(2):207–241, June 2011.
- [5833] Tomohiro Shimada, Masayuki Otani, Hiroyasu Matsushima, Hiroyuki Sato, Kiyohiko Hattori, and Keiki Takadama. Hybrid Directional-Biased Evolutionary Algorithm for Multi-Objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 121–130. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [5834] Y. Shimizu. Multi-objective analysis of mixed-integer programs through a hybrid use of genetic algorithm with mathematical programming - An application to site location problems of waste disposal. *Kagaku Kogaku Ronbunshu*, 25(1):66–72, January 1999.
- [5835] Y. Shimizu and Y. Tanaka. Practical multi-objective scheduling through soft computing approach. In *Proceedings of the International Symposium on Scheduling*, pages 101–104, Hamamatsu, Japan, June 2002.
- [5836] Yoshiaki Shimizu. Multi-Objective Optimization for Mixed-Integer Programs Through Hybrid Genetic Algorithm with Value Function Modeled by Neural

- Networks. In *Proceedings of the 15th Conference of the Australian Society for Operations Research (ASOR)*, volume 2, pages 1146–1158, 1999.
- [5837] Yoshiaki Shimizu. Multi-Objective Optimization for Site Location Problems through Hybrid Genetic Algorithm with Neural Networks. *Journal of Chemical Engineering of Japan*, 32(1):51–58, 1999.
- [5838] Koji Shimoyama. *Robust Aerodynamic Design of Mars Exploratory Airplane Wing with a New Optimization Method*. PhD thesis, School of Engineering, The University of Tokyo, Japan, February 2006.
- [5839] Koji Shimoyama, Jin Ne Lim, Shinkyu Jeong, Shigeru Obayashi, and Masataka Koishi. An Approach for Multi-Objective Robust Optimization Assisted by Response Surface Approximation and Visual Data-Mining. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2413–2420, Singapore, September 2007. IEEE Press.
- [5840] Koji Shimoyama, Jin Ne Lim, Shinkyu Jeong, Shigeru Obayashi, and Masataka Koishi. Multi-Objective Robust Optimization Assisted by Response Surface Approximation and Visual Data-Mining. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 7, pages 133–151. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [5841] Koji Shimoyama, Akira Oyama, and Kozo Fujii. A New Efficient and Useful Robust Optimization Approach –Design for Multi-objective Six Sigma. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 950–957, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5842] Koji Shimoyama, Akira Oyama, and Kozo Fujii. Development of Multi-Objective Six-Sigma Approach for Robust Design Optimization. *Journal of Aerospace Computing Information and Communication*, 5(8):215–233, 2008.
- [5843] Koji Shimoyama, Kazuya Seo, Tsuyoshi Nishiwaki, Shinkyu Jeong, and Shigeru Obayashi. Material design optimization for a sport shoe sole by evolutionary computation and FEM analysis. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3193–3199, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5844] Kyong Seok Shin, Jun Hyuk Kim, and Yeo Keun Kim. A Two-Leveled Multi-objective Symbiotic Evolutionary Algorithm for the Hub and Spoke Location Problem. *Journal of Advanced Transportation*, 43(4):391–411, 2009.
- [5845] Kyoung Seok Shin, Jong-Oh Park, and Yeo Keun Kim. Multi-objective FMS process planning with various flexibilities using a symbiotic evolutionary algorithm. *Computers & Operations Research*, 38(3):702–712, March 2011.
- [5846] Kyu Ho Shin, Ick-Hyun Kwon, Jung-Hoon Lee, and Chang Ouk Kim. Performance trajectory-based optimised supply chain dynamics. *International Journal of Computer Integrated Manufacturing*, 23(1):87–100, 2010.

- [5847] Soo-Yong Shin. *Multi-Objective Evolutionary Optimization of DNA Sequences for Molecular Computing*. PhD thesis, School of Computer Science and Engineering, Seoul, South Korea, August 2005.
- [5848] Soo-Yong Shin, In-Hee Lee, Young-Min Cho, Kyung-Ae Yang, and Byoung-Tak Zhang. EvoOligo: Oligonucleotide Probe Design With Multiobjective Evolutionary Algorithms. *IEEE Transactions on Systems Man and Cybernetics Part B–Cybernetics*, 39(6):1606–1616, December 2009.
- [5849] Soo-Yong Shin, In-Hee Lee, Dongmin Kim, and Byoung-Tak Zhang. Multiobjective Evolutionary Optimization of DNA Sequences for Reliable DNA Computing. *IEEE Transactions on Evolutionary Computation*, 9(2):143–158, April 2005.
- [5850] Soo-Yong Shin, In-Hee Lee, and Byoung-Tak Zhang. Microarray Probe Design Using ϵ -Multi-Objective Evolutionary Algorithms with Thermodynamic Criteria. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 184–195, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.
- [5851] Soo-Yong Shin, In-Hee Lee, and Byoung-Tak Zhang. Evolutionary Multi-Objective Optimization for DNA Sequence Design. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 239–264. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [5852] Li-Sun Shu Shinn-Ying Ho and Jian-Hung Chen. Intelligent Evolutionary Algorithms for Large Parameter Optimization Problems. *IEEE Transactions on Evolutionary Computation*, 8(6):522–541, 2004.
- [5853] Ofer M. Shir and Thomas Bäck. Niching in Evolution Strategies. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 915–916, New York, USA, June 2005. ACM Press.
- [5854] Ofer M. Shir and Thomas Bäck. Niche Radius Adaptation in the CMA-ES Niching Algorithm. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 142–151. Springer, Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [5855] Ofer M. Shir and Thomas Bäck. Performance Analysis of Niching Algorithms Based on Derandomized-ES Variants. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 705–712, London, UK, July 2007. ACM Press.

- [5856] Ofer M. Shir, Michael Emmerich, and Thomas Bäck. Self-Adaptive Niching CMA-ES with Mahalanobis Metric. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 820–827, Singapore, September 2007. IEEE Press.
- [5857] Ofer M. Shir, Michael Emmerich, Thomas Bäck, and Marc J. J. Vrakking. The Application of Evolutionary Multi-Criteria Optimization to Dynamic Molecular Alignment. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4108–4115, Singapore, September 2007. IEEE Press.
- [5858] Ofer M. Shir, Michael Emmerich, and Thomas Baeck. Adaptive Niche Radii and Niche Shapes Approaches for Niching with the CMA-ES. *Evolutionary Computation*, 18(1):97–126, Spring 2010.
- [5859] Ofer M. Shir, Mike Preuss, Noris Naujoks, and Michael Emmerich. Enhancing Decision Space Diversity in Evolutionary Multiobjective Algorithms. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 95–109. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [5860] Ofer M. Shir, Jonathan Roslund, and Herschel Rabitz. Evolutionary multi-objective quantum control experiments with the covariance matrix adaptation. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 659–666, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5861] Ofer M. Shir, Christian Siedschlag, Thomas Bäck, and Marc J.J. Vrakking. Niching in Evolution Strategies and Its Application to Laser Pulse Shaping. In El-Ghazali Talbi, Pierre Liardet, Pierre Collet, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution, 7th International Conference, Evolution Artificielle, EA 2005*, pages 85–96. Springer. Lecture Notes in Computer Science Vol. 3871, Lille, France, October 2005.
- [5862] Ofer Michael Shir. *Niching in Derandomized Evolution Strategies and its Applications in Quantum Control. A Journey from Organic Diversity to Conceptual Quantum Designs*. PhD thesis, Universiteit Leiden, The Netherlands, 25 June 2008.
- [5863] Shinichi Shirakawa and Tomoharu Nagao. Evolutionary Image Segmentation Based on Multiobjective Clustering. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2466–2473, Trondheim, Norway, May 2009. IEEE Press.
- [5864] Jacqueline Shoaf and James A. Foster. The efficient set GA for stock portfolios. In *Proceedings of the 1998 IEEE International Conference on Evolutionary Computation (CEC'98)*, pages 354–359, Anchorage, Alaska, 1998. IEEE Press.

- [5865] Jaqueline S. Shoaf and James A. Foster. A Genetic Algorithm Solution to the Efficient Set Problem: A Technique for Portfolio Selection Based on the Markowitz Model. In *Proceedings of the Decision Sciences Institute Annual Meeting*, pages 571–573, Orlando, Florida, 1996.
- [5866] Rajesh Raj Shrestha and Michael Rode. Multi-objective calibration and fuzzy preference selection of a distributed hydrological model. *Environmental Modelling & Software*, 23(12):1384–1395, December 2008.
- [5867] Li-Sun Shu, Shinn-Jang Ho, Shinn-Ying Ho, Jian-Hung Chen, and Ming-Hao Hung. A Novel Multi-objective Orthogonal Simulated Annealing Algorithm for solving Multi-objective Optimization Problems with a Large Number of Parameters. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 737–747, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [5868] Pradyumn Kumar Shukla. Gradient Based Stochastic Mutation Operators in Evolutionary Multi-objective Optimization. In Bartłomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA 2007, Part I*, pages 58–66, Warsaw, Poland, April 2007. Springer-Verlag, Lecture Notes in Computer Science Vol. 4431.
- [5869] Pradyumn Kumar Shukla. On Gradient Based Local Search Methods in Unconstrained Evolutionary Multi-objective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 96–110, Matshushima, Japan, March 2007. Springer, Lecture Notes in Computer Science Vol. 4403.
- [5870] Pradyumn Kumar Shukla and Kalyanmoy Deb. On finding multiple Pareto-optimal solutions using classical and evolutionary generating methods. *European Journal of Operational Research*, 181(3):1630–1652, 16 September 2007.
- [5871] Pradyumn Kumar Shukla, Kalyanmoy Deb, and Santosh Tiwari. Comparing Classical Generating Methods with an Evolutionary Multi-objective Optimization Method. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 311–325, Guanajuato, México, March 2005. Springer, Lecture Notes in Computer Science Vol. 3410.
- [5872] Pradyumn Kumar Shukla, Christian Hirsch, and Hartmut Schmeck. A Framework for Incorporating Trade-Off Information Using Multi-Objective Evolutionary Algorithms. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 131–140. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.

- [5873] Pradyumn Kumar Shukla, Christian Hirsch, and Hartmut Schmeck. In Search of Equitable Solutions Using Multi-objective Evolutionary Algorithms. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 687–696. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [5874] Tatjana V. Sibalija, Sanja Z. Petronic, Vidosav D. Majstorovic, Radica Prokic-Cvetkovic, and Andjelka Milosavljevic. Multi-response design of Nd:YAG laser drilling of Ni-based superalloy sheets using Taguchi’s quality loss function, multivariate statistical methods and artificial intelligence. *International Journal of Advanced Manufacturing Technology*, 54(5 - 8):537–552, May 2011.
- [5875] M.M. Ould Sidi, S. Hayat, S. Hammadi, and P. Borne. A novel approach to developing and evaluating regulation strategies for urban transport disrupted networks. *International Journal of Computer Integrated Manufacturing*, 21(4):480–493, 2008.
- [5876] Mohamed Mahmoud Ould Sidi, Slim Hammadi, Saied Hayat, and Pierre Borne. Urban transport network regulation and evaluation: A fuzzy evolutionary approach. *IEEE Transactions on Systems, Man, and Cybernetics Part A—Systems and Humans*, 38(2):309–318, March 2008.
- [5877] Eric V. Siegel and Alexander D. Chaffee. Genetically Optimizing the Speed of Programs evolved to Play Tetris. In Peter J. Angeline and Kenneth E. Kinnear, editors, *Advances in Genetic Programming 2*, pages 279–298. MIT Press, 1996.
- [5878] Tobias Siegfried, Stefal Bleuler, Marco Laumanns, Eckart Zitzler, and Wolfgang Kinzelbach. Multiobjective Groundwater Management Using Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 13(2):229–242, April 2009.
- [5879] J.D. Siirola, S. Hauan, and A.W. Westerberg. Computing Pareto fronts using distributed agents. *Computers & Chemical Engineering*, 29(1):113–126, December 15 2004.
- [5880] C. R. M. Silva, H. W. C. Lins, S. R. Martins, E. L. F. Barreto, and A. G. d’Assuncao. A multiobjective optimization of a UWB antenna using a self organizing genetic algorithm. *Microwave and optical Technology letters*, 54(8):1824–1828, August 2012.
- [5881] Cidiney Silva, Oriane Magela Neto, and Jésus J.S. Santos. Controller Design with a Evolutionary Multi-Objective Optimization Approach. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 1733–1737, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [5882] Cidiney Silva, Jésus S. Santos, Elizabeth F. Wanner, Eduardo G. Carrano, and Ricardo H. C. Takahashi. Semi-Supervised Training of Least Squares Support Vector Machine Using a Multiobjective Evolutionary Algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2996–3002, Trondheim, Norway, May 2009. IEEE Press.
- [5883] C.M. Silva and E.C. Biscaia. Genetic Algorithm Development for Multi-objective Optimization of Batch Free-Radical Polymerization Reactors. *Computers and Chemical Engineering*, 27:1329–1344, 2003.
- [5884] Valceres V.R. Silva, Wael Khatib, and P.J. Fleming. Variable complexity modelling for evolutionary gas turbine control design. In *UKACC International Conference on Control*, volume 2, pages 1283–1288, 1998.
- [5885] Vinícius L. Silva, André R. da Cruz, Eduardo G. Carrano, Frederico G. Guimarães, and Ricardo H.C. Takahashi. On Nonlinear Fitness Functions for Ranking-Based Selection. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 1009–1015, Vancouver, BC, Canada, July 2006. IEEE.
- [5886] Vinícius L. S. Silva, Elizabeth F. Wanner, Sérgio A. A. G. Cerqueira, and Ricardo H. C. Takahashi. A New Performance Metric for Multiobjective Optimization: The Integrated Sphere Counting. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3625–3630, Singapore, September 2007. IEEE Press.
- [5887] Dong-Joon Sim, Hyun-Kyo Jung, and Song-Yop Hahn. Multiobjective optimal design of interior permanent magnet synchronous motors considering improved core loss formula. In *1997 IEEE International Electric Machines and Drives Conference Record*, pages MA1/2.1–MA1/2.3, Milwaukee, Wisconsin, May 1997.
- [5888] Dong-Joon Sim, Hyun-Kyo Jung, Song-Yop Hahn, and Jong-Soo Won. Application of vector optimization employing modified genetic algorithm to permanent magnet motor design. In *Proceedings of Seventh Conference on Electromagnetic Field Computation - CEFEC*, page 288, Okayama, Japan, March 1996.
- [5889] Kwang Mong Sim and Bo An. Evolving Best-Response Strategies for Market-Driven Agents Using Aggregative Fitness GA. *IEEE Transactions on Systems, Man, and Cybernetics Part C—Applications and Reviews*, 39(3):284–298, May 2009.
- [5890] Kwee-Bo Sim and Ji-Yoon Kim. Solution of multiobjective optimization problems: coevolutionary algorithm based on evolutionary game theory. *Artificial Life and Robotics*, 8(2):174–185, 2004.
- [5891] Kwee-Bo Sim, Ji-Yoon Kim, and Dong-Wook Lee. Game Model Based Coevolutionary Solution for Multiobjective Optimization Problems. *International Journal of Control, Automation, and Systems*, 2(2):247–255, June 2004.

- [5892] Christopher L. Simons and Ian C. Parmee. User-centered, evolutionary search in conceptual software design. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 869–876, Hong Kong, June 2008. IEEE Service Center.
- [5893] Christopher L. Simons, Ian C. Parmee, and Rhya Gwynllyw. Interactive, Evolutionary Search in Upstream Object-Oriented Class Design. *IEEE Transactions On Software Engineering*, 36(6):798–816, November-December 2010.
- [5894] C.L. Simons and I.C. Parmee. Single and Multi-objective Genetic Operators in Object-oriented Conceptual Software Design. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1957–1958, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [5895] C.L. Simons and I.C. Parmee. A cross-disciplinary technology transfer for search-based evolutionary computing: from engineering design to software engineering design. *Engineering Optimization*, 39(5):631–648, July 2007.
- [5896] Karthik Sindhya. *Hybrid Evolutionary Multi-Objective Optimization with Enhanced Convergence and Diversity*. PhD thesis, Department of Mathematical Information Technology, University of Jyväskylä, Finland, 2011.
- [5897] Karthik Sindhya, Kalyanmoy Deb, and Kaisa Miettinen. A Local Search Based Evolutionary Multi-objective Optimization Approach for Fast and Accurate Convergence. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 815–824. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [5898] Karthik Sindhya, Kalyanmoy Deb, and Kaisa Miettinen. Improving convergence of evolutionary multi-objective optimization with local search: a concurrent-hybrid algorithm. *Natural Computing*, 10(4):1407–1430, December 2011.
- [5899] Karthik Sindhya and Kaisa Miettinen. New perspective to continuous casting of steel with a hybrid evolutionary multiobjective algorithm. *Materials and Manufacturing Processes*, 26(3):481–492, 2011.
- [5900] Karthik Sindhya, Ana Belen Ruiz, and Kaisa Miettinen. A Preference Based Interactive Evolutionary Algorithm for Multi-objective Optimization: PIE. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 212–225, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [5901] Karthik Sindhya, Sauli Ruuska, Tomi Haanpaa, and Kaisa Miettinen. A new hybrid mutation operator for multiobjective optimization with differential evolution. *Soft Computing*, 15(10):2041–2055, October 2011.

- [5902] Karthik Sindhya, Ankur Sinha, Kalyanmoy Deb, and Kaisa Miettinen. Local Search Based Evolutionary Multi-Objective Optimization Algorithm for Constrained and Unconstrained Problems. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2919–2926, Trondheim, Norway, May 2009. IEEE Press.
- [5903] A. Singh and H.H. Lou. Hierarchical pareto optimization for the sustainable development of industrial ecosystems. *Industrial & Engineering Chemistry Research*, 45(9):3265–3279, April 2006.
- [5904] Abhiesk Singh and Barbara S. Minsker. Uncertainty-based multiobjective optimization of groundwater remediation design. *Water Resources Research*, 44(2):Article Number W02404, February 5 2008.
- [5905] Abhishek Singh, Barbara Minsker, and David E. Goldberg. Combining Reliability and Pareto Optimality—An Approach Using Stochastic Multi-Objective Genetic Algorithms. In *American Society of Civil Engineers (ASCE) Environmental & Water Resources Institute (EWRI) World Water & Environmental Resources Congress 2003 & Related Symposia*, Philadelphia, PA, 2003.
- [5906] Deependra Singh, Devender Singh, and K.S. Verma. Multiobjective Optimization for DG Planning With Load Models. *IEEE Transactions on Power Systems*, 24(1):427–436, February 2009.
- [5907] Hemant Kumar Singh, Amitay Isaacs, Tapabrata Ray, and Warren Smith. A Simulated Annealing Algorithm for Constrained Multi-Objective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1655–1662, Hong Kong, June 2008. IEEE Service Center.
- [5908] Hemant Kumar Singh, Amitay Isaacs, Tapabrata Ray, and Warren Smith. An improved secondary ranking for many objective optimization problems. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1837–1838, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [5909] Hemant Kumar Singh, Tapabrata Ray, and Warren Smith. C-PSA: Constrained Pareto simulated annealing for constrained multi-objective optimization. *Information Sciences*, 180(13):2499–2513, July 1 2010.
- [5910] Hemant Kumar Singh, Tapabrata Ray, and Warren Smith. Surrogate assisted Simulated Annealing (SASA) for constrained multi-objective optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4202–4208, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5911] Lakhwinder Singh and J. S. Dhillon. Secure multiobjective real and reactive power allocation of thermal power units. *International Journal of Electrical Power & Energy*, 30(10):594–602, December 2008.

- [5912] Lakhwinder Singh and J. S. Dhillon. Sensitivity Measure for Electric Power Load Dispatch Problem. *Electric Power Components And Systems*, 38(11):1228–1247, 2010.
- [5913] Thangjam Somchand Singh and Dibakar Chakrabarty. Chance-Constrained Multi-Objective Programming for Optimal Multi-Layer Aquifer Remediation Design. *Engineering Optimization*, 43(4):417–432, 2011.
- [5914] Thangjam Somchand Singh and Dibakar Chakrabarty. Multiobjective Optimization of Pump-and-Treat-Based Optimal Multilayer Aquifer Remediation Design with Flexible Remediation Time. *Journal of Hydrologic Engineering*, 15(5):413–420, May 2011.
- [5915] Vijay Pratap Singh. *Automatic Seismic Velocity Inversion using Multiobjective Evolutionary Algorithms*. PhD thesis, L'École des Mines de Paris, France, December 18 2006.
- [5916] Vijay Pratap Singh, Bertrand Duquet, Michel Leger, and Marc Schoenauer. Automatic wave-equation migration velocity inversion using multiobjective evolutionary algorithms. *Geophysics*, 73(5):61–73, September-October 2008.
- [5917] Vijay Pratap Singh, Marc Schoenauer, and Michael L  er. A geologically-sound representation for evolutionary multi-objective subsurface identification. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2325–2332, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5918] Ankur Sinha. Bilevel Multi-objective Optimization Problem Solving Using Progressively Interactive EMO. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 269–284, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [5919] Ankur Sinha, Kalyanmoy Deb, Pekka Korhonen, and Jyrki Wallenius. Progressively interactive evolutionary multi-objective optimization method using generalized polynomial value functions. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3860–3867, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [5920] Pasu Sirisalee, Michael F. Ashby, Geoffrey T. Parks, and P. John Clarkson. Multi-Criteria Material Selection in Engineering Design. *Advanced Engineering Materials*, 6(1–2):84–92, February 2004.
- [5921] Sedat Sisbot, Oezg  e Turgut, Murat Tuc, and Uenal Camdali. Optimal positioning of wind turbines on Gokceada using multi-objective genetic algorithm. *Wind Energy*, 13(4):297–306, May 2010.
- [5922] K. Sivakumar, C. Balamurugan, and S. Ramabalan. Concurrent Multi-Objective Tolerance Allocation of Mechanical Assemblies Considering Alternative Manufacturing Process Selection. *International Journal of Advanced Manufacturing Technology*, 53(5–8):711–732, March 2011.

- [5923] K. Sivakumar, C. Balamurugan, and S. Ramabalan. Simultaneous Optimal Selection of Design and Manufacturing Tolerances With Alternative Manufacturing Process Selection. *Computer-Aided Design*, 43(2):207–218, February 2011.
- [5924] S. Sivasubramani and K. S. Swarup. Environmental/economic dispatch using multi-objective harmony search algorithm. *Electric Power Systems Research*, 81(9):1778–1785, September 2011.
- [5925] S. Sivasubramani and K. S. Swarup. Multi-objective harmony search algorithm for optimal power flow problem. *International Journal of Electrical Power & Energy Systems*, 33(3):745–752, March 2011.
- [5926] Isaac Siwale. GENO 1.0. User Manual and Performance Report. Technical Report RD-3-2005, Apex Research Ltd, December 2006.
- [5927] Isaac Siwale. A Note on Multi-Objective Mathematical Programs. Technical Report RD-5-2007, Apex Research Ltd, January 2007.
- [5928] Isaac Siwale. Eagle 1.0. A Capability Profile. Technical Report RD-11-2008, Apex Research Ltd, January 2008.
- [5929] L. Siwik and M. Kisiel-Dorohinicki. Balancing of production lines : evolutionary agent-based approach. In G. Lefranc, editor, *MCPL 2004 IFAC/IEEE/ACCA : Conference on Management and Control of Production and Logistics*, pages 319–324, Santiago de Chile, November 2004. IFAC/IEEE/ACCA.
- [5930] L. Siwik and M. Kisiel-Dorohinicki. Evolutionary multi-agent system for multiobjective balancing of production lines. In *Seventh national conference on Evolutionary computation and global optimization*, pages 155–162, Kazimierz Dolny, May 2004. Warszawa: PW WEiTI.
- [5931] L. Siwik and M. Kisiel-Dorohinicki. Semi-elitist evolutionary multi-agent system for multiobjective optimization. In V.N. Alexandrov et al., editor, *Computational Science - ICCS 2006, Pt 3, Proceedings*, pages 831–838. Springer-Verlag, Lecture Notes in Computer Science Vol. 3993, May 2006.
- [5932] Leszek Siwik and Marek Kisiel-Dorohinicki. Elitism in agent-based evolutionary multiobjective optimization. *Revista Iberoamericana de Inteligencia Artificial*, 9(28):41–48, 2005.
- [5933] Leszek Siwik and Marek Kisiel-Dorohinocki. Improving the Quality of the Pareto Frontier Approximation Obtained by Semi-elitist Evolutionary Multi-agent System Using Distributed and Decentralized Frontier Crowding Mechanism. In Bartłomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA 2007, Part I*, pages 138–147, Warsaw, Poland, April 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4431.

- [5934] Leszek Siwik and Szymon Natanek. Elitist Evolutionary Multi-Agent System in Solving Noisy Multi-Objective Optimization Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3318–3325, Hong Kong, June 2008. IEEE Service Center.
- [5935] Leszek Siwik and Szymon Natanek. Solving Constrained Multi-Criteria Optimization Tasks Using Elitist Evolutionary Multi-Agent System. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3357–3364, Hong Kong, June 2008. IEEE Service Center.
- [5936] Leszek Siwik and Piotr Sikorski. Efficient Constrained Evolutionary Multi-Agent System for Multi-Objective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3211–3218, Hong Kong, June 2008. IEEE Service Center.
- [5937] Leszek Siwik, Przemyslaw Sroka, and Marek Psiuk. Flock-Based Evolutionary Multi-Agent System in Solving Noisy Multi-Objective Optimization Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3403–3411, Hong Kong, June 2008. IEEE Service Center.
- [5938] Prasadarnng Skolpadungket, Keshav Dahal, and Napat Harnpornchai. Portfolio Optimization Using Multi-Objective Genetic Algorithms. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 516–523, Singapore, September 2007. IEEE Press.
- [5939] A. Slowik and J. Slowik. Multi-objective optimization of surface grinding process with the use of evolutionary algorithm with remembered Pareto set. *The International Journal of Advanced Manufacturing Technology*, 37(7–8):657–669, June 2008.
- [5940] Adam Slowik and Michal Bialko. Design and Multi-Objective Optimization of Combinational Digital Circuits Using Evolutionary Algorithm with Multi-Layer Chromosomes. In *9th International Conference Artificial Intelligence and Soft Computing. (ICAISC 2008)*, pages 479–488, Zakopane, Poland, June 22-26 2008. Springer. Lecture Notes in Computer Science Vol. 5097.
- [5941] J. Smajic, B. Cranganu-Cretu, A. Kostinger, M. Jaendl, W. Renhart, and C. Magele. Optimization of Shielding Devices for Eddy-Currents Using Multiobjective Optimization Methods. *IEEE Transactions on Magnetics*, 45(3):1550–1553, March 2009.
- [5942] Ben G. Small, Barry W. McColl, Richard Allmendinger, Juergen Pahle, Gloria Lopez-Castejon, Nancy J. Rothwell, Joshua Knowles, Pedro Mendes, David Brough, and Douglas B. Kell. Efficient discovery of anti-inflammatory small-molecule combinations using evolutionary computing. *Nature Chemical Biology*, 7(12):902–908, December 2011.

- [5943] Kevin I. Smith, Richard M. Everson, and Jonathan E. Fieldsend. Dominance Measures for Multi-Objective Simulated Annealing. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 23–30, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [5944] Kevin I. Smith, Richard M. Everson, Jonathan E. Fieldsend, Chris Murphy, and Rashmi Misra. Dominance-Based Multiobjective Simulated Annealing. *IEEE Transactions on Evolutionary Computation*, 12(3):323–342, June 2008.
- [5945] Kevin Ian Smith. *A Study of Simulated Annealing Techniques for Multi-Objective Optimisation*. PhD thesis, University of Exeter, UK, October 2006.
- [5946] R.E. Smith and Claudio Bonacina. Mating Restriction and Niche Pressure: Results from Agents and Implications for General EC. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 1382–1393. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [5947] Arlene G. Smithson, Karim Hamza, and Kazuhiro Saitou. Design for existing lines: Part and process plan optimization to best utilize existing production lines. *Journal of Computing and Information Science in Engineering*, 7(2):126–131, June 2007.
- [5948] Guido Smits, Arthur Kordon, Katherine Vladislavleva, Elsa Jordaan, and Mark Kotanchek. Variable Selection in Industrial Datasets using Pareto Genetic Programming. In Tina Yu, Rick Riolo, and Bill Worzel, editors, *Genetic Programming Theory and Practice III*, pages 79–92. Springer, New York, USA, 2006.
- [5949] Guido Smits and Ekaterina Vladislavleva. Ordinal Pareto Genetic Programming. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 10471–10477, Vancouver, BC, Canada, July 2006. IEEE.
- [5950] Guido F. Smits and Mark Kotanchek. Pareto-Front Exploitation in Symbolic Regression. In Una-May O'Reilly, Tina Yu, Rick Riolo, and Bill Worzel, editors, *Genetic Programming Theory and Practice II*, pages 283–299. Springer, New York, USA, 2005.
- [5951] Paul Snijders, Edwin D. de Jong, Bart de Boer, and Franjo Weissing. Multi-Objective Diversity Maintenance. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1429–1430, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [5952] G. L. Soares, F. G. Guimarães, C. A. Maia, J. A. Vasconcelos, and L. Jaulin. Interval Robust Multi-Objective Evolutionary Algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1637–1643, Trondheim, Norway, May 2009. IEEE Press.

- [5953] Marcio M. Soares and Guilherme E. Vieira. A new multi-objective optimization method for master production scheduling problems based on genetic algorithm. *International Journal of Advanced Manufacturing Technology*, 41(5-6):549–567, March 2009.
- [5954] Krzysztof Socha and Marek Kisiel-Dorohinicki. Agent-based Evolutionary Multiobjective Optimisation. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 109–114, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [5955] Sunantha Sodsee. A multi-objective bisexual reproduction genetic algorithm for computer network design. Master's thesis, King Mongkut's Institute of Technology North Bangkok, Bangkok, Thailand, 2004.
- [5956] Sokratis Sofianopoulos and George Tambouratzis. Multi-objective optimisation of real-valued parameters of a hybrid MT system using Genetic Algorithms. *Pattern Recognition Letters*, 31(12):1672–1682, September 1 2010.
- [5957] Harold Soh and Yiannis Demiris. Evolving Policies for Multi-Reward Partially Observable Markov Decision Processes (MR-POMDPs). In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 713–720, Dublin, Ireland, July 12-16 2011. ACM Press.
- [5958] Harold Soh and Michael Kirley. moPGA: Towards a New Generation of Multi-objective Genetic Algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6166–6173, Vancouver, BC, Canada, July 2006. IEEE.
- [5959] Harold Soh, Ong Yew Soon, Mohamed Salahuddin, Terence Hung, and Lee Bu Sung. Playing in the Objective Space: Coupled Approximators for Multi-Objective Optimization. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 325–332, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [5960] Artem Sokolov, Alodeep Sanyal, Darell Whitley, and Yashwant Malaiya. Dynamic Power Minimization During Combinational Circuit Testing as a Traveling Salesman Problem. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1088–1095, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [5961] Ahmed T. Soliman and Hazem M. Abbas. Synchronous Sequential Circuits Design Using Evolutionary Algorithms. In *Canadian Conference on Electrical and Computer Engineering, CCECE 2004*, volume 4, pages 2013–2016, Niagara Falls, Canada, May 2004. IEEE Press.
- [5962] Omar Soliman, Lam T. Bui, and Hussein Abbass. A Memetic Coevolutionary Multi-Objective Differential Evolution Algorithm. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 17, pages 369–388. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.

- [5963] Maghsud Solimanpur, Prem Vrat, and Ravi Shankar. A multi-objective genetic algorithm approach to the design of cellular manufacturing systems. *International Journal of Production Research*, 42(7):1419–1441, April 2004.
- [5964] A. R. Soltani, H. Tawfik, J. Y. Goulernas, and T. Fernando. Path planning in construction sites: performance evaluation of the Dijkstra, A*, and GA search algorithms. *Advanced Engineering Informatics*, 16(4):291–303, October 2002.
- [5965] Abhishek Somani, Partha P. Chakrabarti, and Amit Patra. An Evolutionary Algorithm-Based Approach to Automated Design of Analog and RF Circuits Using Adaptive Normalized Cost Functions. *IEEE Transactions on Evolutionary Computation*, 11(3):336–353, June 2007.
- [5966] Lars Sommer and Dieter Bestle. Curvature driven two-dimensional multi-objective optimization of compressor blade sections. *Aerospace Science and Technology*, 15(4):334–342, June 2011.
- [5967] J. Song, H. Park, DY Lee, and S. Park. Scheduling of actual size refinery processes considering environmental impacts with multiobjective optimization. *Industrial & Engineering Chemistry Research*, 41(19):4794–4806, September 18 2002.
- [5968] Sang Ok Song, Anirikh Chakrabarti, and Jeffrey D. Varner. Ensembles of Signal Transduction Models Using Pareto Optimal Ensemble Techniques (PO-ETs). *Biotechnology Journal*, 5(7):768–780, July 2010.
- [5969] Wenbin Song. Multiobjective Memetic Algorithm and Its Application in Robust Airfoil Shape Optimization. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 18, pages 389–402. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [5970] Zhe Song and Andrew Kusiak. Multiobjective Optimization of Temporal Processes. *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, 40(3):845–856, June 2010.
- [5971] Ankit Soni, Nees Jan van Eck, and Uzay Kaymak. Prediction of Stock Price Movements Based on Concept Map Information. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 205–211, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [5972] Grant A.E. Soremekun. Genetic Algorithms for Composite Laminate Design and Optimization. Master's thesis, Department of Mechanical Engineering, Virginia Polytechnic Institute, Blacksburg, Virginia, February 5 1997.
- [5973] S. Sorooshian, L. A. Bastidas, and H. V. Gupta. Application of Multi-Objective Optimization Algorithms for Hydrologic Model Identification and Parameterization. In *Proceedings of Second International Conference on Multiple Objective Decision Support Systems for Land, Water, and Environmental Management*, Brisbane, Australia, August 1999.

- [5974] A. Soroudi, R. Caire, N. Hadsaid, and M. Ehsan. Probabilistic dynamic multi-objective model for renewable and non-renewable distributed generation planning. *IET Generation Transmission & Distribution*, 5(11):1173–1182, November 2011.
- [5975] Alireza Soroudi and Mehdi Ehsan. Application of a Modified NSGA Method for Multi-Objective Static Distributed Generation Planning. *Arabian Journal for Science and Engineering*, 36(5):809–825, August 2011.
- [5976] C.O.S. Sorzano, R. Marabini, G.T. Herman, and J.M. Carazo. Multi-objective algorithm parameter optimization using multivariate statistics in three-dimensional electron microscopy reconstruction. *Pattern Recognition*, 38(12):2587–2601, December 2005.
- [5977] Axel J. Soto, Rocio L. Cecchini, Gustavo E. Vazquez, and Ignacio Ponzoni. Multi-Objective Feature Selection in QSAR Using a Machine Learning Approach. *QSAR & Combinatorial Science*, 28(11-12):1509–1523, December 2009.
- [5978] Francis Sourd, Olivier Spanjaard, and Patrice Perny. Multi-objective branch and bound. application to the bi-objective spanning tree problem. In *Proceedings of the 7th International Conference on Multi-Objective Programming and Goal Programming (MOPGP'06)*, Loire Valley (City Tours), France, June 2006.
- [5979] E. Soury, A. H. Behraves, E. Rouhani Esfahani, and A. Zolfaghari. Design optimization and manufacturing of wood-plastic composite pallet. *Materials & Design*, 30(10):4183–4191, December 2009.
- [5980] Pedro Sousa, Miguel Rocha, Miguel Rio, and Paulo Cortez. Efficient OSPF Weight Allocation for Intra-domain QoS Optimization. In *Autonomic Principles of IP Operations and Management*, pages 37–48, Berlin, Germany, 2006. Springer. Lecture Notes in Computer Science Vol. 4268.
- [5981] Bruno B. Souza, Eduardo G. Carrano, Oriane M. Neto, and Rircardo H.C. Takahashi. Immune System Memetic Algorithm for Power Distribution Network Design With Load Evolution Uncertainty. *Electric Power Systems Research*, 81(2):527–537, February 2011.
- [5982] Hamit Soyel, Umut Tekguc, and Hasan Demirel. Application of NSGA-II to feature selection for facial expression recognition. *Computers & Electrical Engineering*, 37(6):1232–1240, November 2011.
- [5983] Banu Soylu and Murat Köksalan. An Evolutionary Algorithm for the Multi-objective Multiple Knapsack Problem. In Yong Shi, Shouyang Wang, Yi Peng, Jianping Li, and Yong Zeng, editors, *Cutting-Edge Research Topics on Multiple Criteria Decision Making (MCDM'2009)*, pages 1–8. Springer, Communications in Computer and Information Science, Vol. 35, Heidelberg, Germany, 2009.

- [5984] Banu Soylu and Murat Koksalan. A Favorable Weight-Based Evolutionary Algorithm for Multiple Criteria Problems. *IEEE Transactions On Evolutionary Computation*, 14(2):191–205, April 2010.
- [5985] Banu Soylu and Selda Kapan Ulusoy. A preference ordered classification for a multi-objective max-min redundancy allocation problem. *Computers & Operations Research*, 38(12):1855–1866, December 2011.
- [5986] Vasilios A. Spais and Loukas P. Petrou. Multiobjective Motion Planning for a Nonholonomic Vehicle. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2058–2065, Canberra, Australia, December 2003. IEEE Press.
- [5987] D. Spiegel and T. Sudkamp. Sparse data in the evolutionary generation of fuzzy models. *Fuzzy Sets and Systems*, 138(2):363–379, September 1 2003.
- [5988] Christian Spieth, Felix Streichert, Nora Speer, and Andreas Zell. Multi-objective Model Optimization for Inferring Gene Regulatory Networks. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 607–620, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [5989] Henry C. Spindler and Leslie K. Norford. Naturally ventilated and mixed-mode buildings-Part II: Optimal Control. *Buildings and Environment*, 44(4):750–761, April 2009.
- [5990] Newton Spolaôr, Ana Carolina Lorena, and Huei Diana Lee. Use of Multi-objective Genetic Algorithms in Feature Selection. In *2010 Eleventh Brazilian Symposium on Neural Networks (SBRN 2010)*, pages 146–151, Sao Paulo, Brazil, 23-28 October 2010. IEEE Computer Society Press.
- [5991] Newton Spolaôr, Ana Carolina Lorena, and Huei Diana Lee. Multi-objective Genetic Algorithm Evaluation in Feature Selection. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 462–476, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [5992] Pål Sætrum and Magnus Lie Hetland. Multiobjective evolution of temporal rules. In *Proceedings of the 8th Scandinavian Conference on Artificial Intelligence*, Bergen, Norway, November 2003. IOS Press.
- [5993] J. Sreekanth and Bithin Datta. Multi-objective management of saltwater intrusion in coastal aquifers using genetic programming and modular neural network based surrogate models. *Journal Of Hydrology*, 393(3-4):245–256, November 8 2010.

- [5994] J. Sreekanth and Bithin Datta. Coupled simulation-optimization model for coastal aquifer management using genetic programming-based ensemble surrogate models and multiple-realization optimization. *Water Resources Research*, 47(w04516), April 29 2011.
- [5995] T. Sreenuch, A. Tsourdos, B.A. White, and E.J. Hughes. Lateral Acceleration Control Design of a Non-Linear Homing Missile using Multi-Objective Evolutionary Algorithm. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 1302–1309, Canberra, Australia, December 2003. IEEE Press.
- [5996] R. Sreevathsan, B. Bhattacharya, and N. Chakraborti. Designing ionic materials through multiobjective genetic algorithms. *Materials and Manufacturing Processes*, 24(2):162–168, February 2009.
- [5997] Jagabandhu Sridhar and Chandrasekharan Rajendran. Scheduling in Flow-shop and Cellular Manufacturing Systems with Multiple Objectives – A Genetic Algorithmic Approach. *Production Planning & Control*, 7(4):374–382, July-August 1996.
- [5998] Kishan Chetan Srigiriraju. Noninferior Surface Tracing Evolutionary Algorithm (NSTEA) for Multi Objective Optimization. Master's thesis, North Carolina State University, Raleigh, North Carolina, August 2000.
- [5999] K. Srinivas, C. Patvardhan, and D. Bhagwan Das. A New Elitist Multi-Objective Stochastic Search Technique and its Application to Economic-Emission Dispatch Problem in Power Systems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2988–2995, Singapore, September 2007. IEEE Press.
- [6000] N. Srinivas and Kalyanmoy Deb. Multiobjective optimization using nondominated sorting in genetic algorithms. Technical report, Department of Mechanical Engineering, Indian Institute of Technology, Kanpur, India, 1993.
- [6001] N. Srinivas and Kalyanmoy Deb. Multiobjective Optimization Using Nondominated Sorting in Genetic Algorithms. *Evolutionary Computation*, 2(3):221–248, Fall 1994.
- [6002] N. Srinivas and Kalyanmoy Deb. Comparative study of vector evaluated GA and NSGA applied to multiobjective optimization. In P. K. Roy and S. D. Mehta, editors, *Proceedings of the Symposium on Genetic Algorithms*, pages 83–90, 1995.
- [6003] D. Srinivasan, C.S. Chang, and A.C. Liew. Multiobjective Generation Scheduling Using Fuzzy Optimal Search Technique. *IEE Proceedings–Generation Transmission and Distribution*, 141(3):233–242, May 1994.
- [6004] D. Srinivasan, A. C. Liew, and K. L. Kim. Application of evolutionary computation for machine design optimization. *Engineering Intelligent Systems for Electrical Engineering and Communications*, 7(3):127–130, September 1999.

- [6005] D. Srinivasan and A. Tettamanzi. Heuristics-guided evolutionary approach to multiobjective generation scheduling. *IEE Proceedings on Generation, Transmission and Distribution*, 143(6):553–559, 1996.
- [6006] D. Srinivasan and A. G. B. Tettamanzi. An evolutionary algorithm for evaluation of emission compliance options in view of the Clean Air Act Amendments. *IEEE Transactions on Power Systems*, 12(1):336–341, February 1997.
- [6007] Dipti Srinivasan and Lily Rachmawati. An Efficient Multi-Objective Evolutionary Algorithm with Steady-State Replacement Model. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 715–722, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [6008] Dipti Srinivasan and Tian Hou Seow. Particle Swarm Inspired Evolutionary Algorithm (PS-EA) for Multiobjective Optimization Problem. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2292–2297, Canberra, Australia, December 2003. IEEE Press.
- [6009] Dipti Srinivasan and Tian Hou Seow. Particle Swarm Inspired Evolutionary Algorithm (PS-EA) for Multi-Criteria Optimization Problems. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 147–165. Springer-Verlag, London, 2005. ISBN 1-85233-787-7.
- [6010] Sujatha Srinivasan and Sivakumar Ramakrishnan. Evolutionary multi objective optimization for rule mining: a review. *Artificial Intelligence Review*, 36(3):205–248, October 2011.
- [6011] Sungkom Srisompom and Sujin Bureerat. Geometrical design of plate-fin heat sinks using hybridization of MOEA and RSM. *IEEE Transactions on Components and Packaging Technologies*, 31(2):351–360, June 2008.
- [6012] Kamal Srivastava, Sanjay Srivastava, Bhupendra. K. Pathak, and Kalyanmoy Deb. Discrete Time-Cost Tradeoff with a Novel Hybrid Meta-Heuristic. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 177–188. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.
- [6013] Rupesh Kumar Srivastava and Kalyanmoy Deb. Bayesian Reliability Analysis Under Incomplete Information Using Evolutionary Algorithms. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 435–444, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.

- [6014] Rupesh Kumar Srivastava and Kalyanmoy Deb. An EA-Based Approach to Design Optimization Using Evidence Theory. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1139–1146, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6015] Peter F. Stadler and Christoph Flamm. Barrier Trees on Poset-Valued Landscapes. *Genetic Programming and Evolvable Machines*, 4(1):7–20, March 2003.
- [6016] Patrick Stalph, Marc Ebner, Martin Michel, Bernd Pfaff, and Roland Benz. Multiobjective Evolution of a Fuzzy Controller in a Sewage Treatment Plant. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 535–536, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6017] M. Stan and B. Reardon. A Bayesian approach to evaluating the uncertainty of thermodynamic data and phase diagrams. *Calphad—Computer Coupling of Phase Diagrams and Thermochemistry*, 27(3):319–323, September 2003.
- [6018] Paul M. Stanfield, Russell E. King, and Thom J. Hodgson. Multi-objective stochastic scheduling of job ready times. *Annals of Operations Research*, 70:221–239, 1997.
- [6019] Tino Stankovic, Mario Storga, and Dorian Marjanovic. Synthesis of Truss Structure Designs by NSGA-II and NodeSort Algorithm. *Strojniski Vestnik—Journal of Mechanical Engineering*, 58(3):203–212, March 2012.
- [6020] Timothy J. Stanley and Trevor Mudge. A Parallel Genetic Algorithm for Multiobjective Microprocessor Design. In Larry J. Eshelman, editor, *Proceedings of the Sixth International Conference on Genetic Algorithms*, pages 597–604, San Mateo, California, July 1995. University of Pittsburgh, Morgan Kaufmann Publishers.
- [6021] Roman Statnikov, Kivanc Ali Anil, Alex Bordetsky, and Alexander Statnikov. Visualization Tools for Multicriteria Analysis of the Prototype Improvement Problem. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 341–347, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [6022] Ole Steuernagel and Daniel Polani. Multiobjective Optimization Applied to the Eradication of Persistent Pathogens. *IEEE Transactions On Evolutionary Computation*, 14(5):759–765, October 2010.
- [6023] Daniel Stevens, Sanjoy Das, and Bala Natarajan. A Multi-objective Algorithm for DS-CDMA Code Design Based on the Clonal Selection Principle. In Hans-Georg Beyer et al., editor, *Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 2015–2020, New York, USA, June 2005. ACM Press.

- [6024] P. Stewart, D. Gladwin, M. Parr, and J. Stewart. Multi-objective evolutionary-fuzzy augmented flight control for an F16 aircraft. *Proceedings of the Institution of Mechanical Engineers Part G-Journal of Aerospace Engineering*, 224(G3):293–309, 2010.
- [6025] Theodor Stewart, Oliver Bandte, Heinrich Braun, Nirupam Chakraborti, Matthias Ehrigott, Mathias Göbelt, Yaochu Jin, Hirotaka Nakayama, Silvia Poles, and Danilo Di Stefano. Real-World Applications of Multiobjective Optimization. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 285–327. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [6026] Theodor J. Stewart, Ron Janssen, and Marjan van Herwijnen. A genetic algorithm approach to multiobjective land use planning. *Computers & Operations Research*, 31:2293–2313, 2004.
- [6027] Wynn C. Stirling, Richard L. Frost, Matthew S. Nokleby, and Yabing Luo. Multicriterion Decision Making with Dependent Preferences. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 227–234, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [6028] R. Stirrup, D. Loebis, A.J. Chipperfield, K.S. Tang, S. Kwong, and K.F. Man. Gain-Scheduled Control of a Solar Power Plant Using a Hierarchical MOGA-Tuned Fuzzy PI-Controller. In *IEEE International Symposium on Industrial Electronics*, volume 1, pages 25–29, Pusan, Korea, 2001.
- [6029] Catalin Stoean, Mike Preuss, Ruxandra Stoean, and D. Dumitrescu. Multimodal Optimization by means of a Topological Species Conservation Algorithm. *IEEE Transactions on Evolutionary Computation*, 14(6):842–864, December 2010.
- [6030] Catalin Stoean, Mike Preuss, Ruxandra Stoean, and Dumitru Dumitrescu. EA-Powered Basin Number Estimation by Means of Preservation and Exploration. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature-PPSN X*, pages 569–578. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [6031] Daniel W. Stouch, Ernest Zeidman, Marc Richards, Kirk D. McGraw, and William Callahan. Coevolving Collection plans for UAS Constellations. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1691–1698, Dublin, Ireland, July 12–16 2011. ACM Press.
- [6032] Giovanni Stracquadanio, Concetta Drago, Vittorio Romano, and Giuseppe Nicosia. Multi-Objective Optimization of Doping Profile in Semiconductor

- Design. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1243–1250, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [6033] G.E. Stravroulakis and H. Antes. Flaw identification in elastomechanics: BEM simulation with local and genetic optimization. *Structural Optimization*, 16(2/3):162–175, 1998.
 - [6034] Matthew Streeter and Lee A. Becker. Automated discovery of numerical approximation formulae via genetic programming. *Genetic Programming and Evolvable Machines*, 4(3):255–286, September 2003.
 - [6035] Felix Streichert, Gunnar Stein, Holger Ulmer, and Andreas Zell. A Clustering Based Niching Method for Evolutionary Algorithms. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 644–645. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
 - [6036] Felix Streichert, Gunnar Stein, Holger Ulmer, and Andreas Zell. A Clustering Based Niching EA for Multimodal Search Spaces. In Pierre Liardet, Pierre Collet, Cyril Fonlupt, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution, 6th International Conference, Evolution Artificielle, EA 2003, Revised Selected Papers*, pages 293–304, Marseille, France, October 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 2936.
 - [6037] Felix Streichert and Mieko Tanaka-Yamawaki. The Effect of Local Search on the Constrained Portfolio Selection Problem. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 8537–8543, Vancouver, BC, Canada, July 2006. IEEE.
 - [6038] Felix Streichert, Holger Ulmer, and Andreas Zell. Comparing Discrete and Continuous Genotypes on the Constrained Portfolio Selection Problem. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part II*, pages 1239–1250, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3103.
 - [6039] Felix Streichert, Holger Ulmer, and Andreas Zell. Evaluating a Hybrid Encoding and Three Crossover Operators on the Constrained Portfolio Selection Problem. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 932–939, Portland, Oregon, USA, June 2004. IEEE Service Center.
 - [6040] Felix Streichert, Holger Ulmer, and Andreas Zell. Parallelization of Multi-objective Evolutionary Algorithms Using Clustering Algorithms. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 92–107, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [6041] Marcin Studniarski. Stopping Criteria for Genetic Algorithms with Application to Multiobjective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 697–706. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [6042] Leanne Stuive, Slawo Wesolkowski, and Ahmed Ghanmi. Tactical fleet mix computation using multiobjective evolutionary optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4250–4256, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6043] Christian Stummer and Minghe Sun. New Multiobjective Metaheuristic Solution Procedures for Capital Investment Planning. *Journal of Heuristics*, 11(3):183–199, May 2005.
- [6044] Chi-Hung Su and Tung-Hsu Hou. Using multi-population intelligent genetic algorithm to find the pareto-optimal parameters for a nano-particle milling process. *Expert Systems With Applications*, 34(4):2502–2510, May 4 2008.
- [6045] Ruiyi Su, Liangjin Gui, and Zijie Fan. Multi-objective optimization for bus body with strength and rollover safety constraints based on surrogate models. *Structural and Multidisciplinary Optimization*, 44(3):431–441, September 2011.
- [6046] Raj Subbu, Piero Bonissone, Srinivas Bollapragada, Kete Chalermkraivuth, Neil Eklund, Naresh Iyer, Rasik Shah, Feng Xue, and Weizhong Yan. A Review of Two Industrial Deployments of Multi-criteria Decision-making Systems at General Electric. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 136–145, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [6047] Raj Subbu, Piero P. Bonissone, Neil Eklund, Srinivas Bollapragada, and Kete Chalermkraivuth. Multiobjective Financial Portfolio Design: A Hybrid Evolutionary Approach. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1722–1729, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6048] Raj Subbu, Gregory Russo, Kete Chalermkraivuth, and Jose Celaya. Multi-criteria Set Partitioning for Portfolio Management: A Visual Interactive Method. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 166–171, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [6049] S. Subramanian and R. Bhuvaneswari. Multiobjective optimal design of three-phase induction motor using simulated annealing technique. *Compel-The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 24(4):1415–1427, 2005.

- [6050] Robert F. Subtil, Eduardo G. Carrano, Marcone J.F. Souza, and Ricardo H.C. Takahashi. Using an enhanced integer NSGA-II for solving the multiobjective Generalized Assignment Problem. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4541–4547, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6051] Kentaro Suga, Shinsuke Kato, and Kyosuke Hiyama. Structural analysis of Pareto-optimal solution sets for multi-objective optimization: An application to outer window design problems using Multiple Objective Genetic Algorithms. *Building and Environment*, 45(5):1144–1152, May 2010.
- [6052] K. Sugimura, S. Obayashi, and S. Jeong. Multi-objective optimization and design rule mining for an aerodynamically efficient and stable centrifugal impeller with a vaned diffuser. *Engineering Optimization*, 42(3):271–293, 2010.
- [6053] Kazuyuki Sugimura, Shinkyu Jeong, Shigeru Obayashi, and Takeshi Kimura. Kriging-Model-Based Multi-Objective Robust Optimization and Trade-Off-Rule Mining Using Association Rule with Aspiration Vector. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 522–529, Trondheim, Norway, May 2009. IEEE Press.
- [6054] Nasri Sulaiman and Tughrul Arslan. A Multi-objective Genetic Algorithm for On-chip Real-time Optimisation of Word Length and Power Consumption in a Pipelined FFT Processor targeting a MC-CDMA Receiver. In Jason Lohn, David Gwaltney, Gregory Hornby, Ricardo Zebulum, Didier Keymeulen, and Adrian Stoica, editors, *2005 NASA/DoD Conference on Evolvable Hardware*, pages 154–159, Los Alamitos, California, July 2005. IEEE Computer Society Press.
- [6055] S.I. Sulaiman, T.K.A. Rahman, and I. Musirin. Multi-Objective Evolutionary Programming for Optimal Grid-Connected Photovoltaic System Design. *International Review of Electrical Engineering-IREE Part B*, 5(6):2936–2944, November-December 2010.
- [6056] André Süßflow, Nicole Drechsler, and Rolf Drechsler. Robust Multi-objective Optimization in High Dimensional Spaces. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 715–726, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [6057] Dalia Sulieman, Laetitia Jourdan, and El-Ghazali Talbi. Using multiobjective metaheuristics to solve VRP with uncertain demands. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4571–4578, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6058] B. Suman. Study of self-stopping PDMOSA and performance measure in multiobjective optimization. *Computers & Chemical Engineering*, 29(5):1131–1147, April 2005.

- [6059] B. Suman and P. Kumar. A survey of simulated annealing as a tool for single and multiobjective optimization. *Journal of the Operational Research Society*, 57(10):1143–1160, October 2006.
- [6060] Balram Suman. Multiobjective simulated annealing—A metaheuristic technique for multiobjective optimization of a constrained problem. *Foundations of Computing and Decision Sciences*, 27(3):171–191, 2002.
- [6061] Balram Suman. Simulated Annealing-Based Multiobjective Algorithms and Their Application for System Reliability. *Engineering Optimization*, 35(4):391–416, August 2003.
- [6062] Balram Suman. Study of simulated annealing based algorithms for multiobjective optimization of a constrained problem. *Computers & Chemical Engineering*, 28:1849–1871, 2004.
- [6063] Balram Suman, Nazish Hoda, and Shweta Jha. Orthogonal simulated annealing for multiobjective optimization. *Computers & Chemical Engineering*, 34(10):1618–1631, October 12 2010.
- [6064] Dazhi Sun, Rahim F. Benekohal, and S. Travis Waller. Multi-objective Traffic Signal Timing Optimization Using Non-dominated Sorting Genetic Algorithm II. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 2420–2421. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [6065] Fei Sun, Srivaths Ravi, Arland Raghunathan, and Niraj K. Jha. A synthesis methodology for hybrid custom instruction and coprocessor generation for extensible processors. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 26(11):2035–2045, November 2007.
- [6066] Guangyong Sun, Guangyao Li, Zhihui Gong, Xiangyang Cui, Xujing Yang, and Qing Li. Multiobjective robust optimization method for drawbead design in sheet metal forming. *Materials & Design*, 31(4):1917–2929, April 2010.
- [6067] Guangyong Sun, Guangyao Li, Shiwei Zhou, Hongzhou Li, Shujuan Hou, and Qing Li. Crashworthiness design of vehicle by using multiobjective robust optimization. *Structural and Multidisciplinary Optimization*, 44(1):99–110, July 2011.
- [6068] H. J. Sun, C. H. Peng, J. F. Guo, and H. S. Li. Non-dominated Sorting Differential Evolution Algorithm for Multi-objective Optimal Integrated Generation Bidding and Scheduling. In *IEEE International Conference on Intelligent Computing and Intelligent Systems, 2009. (ICIS'2009)*, pages 372–376, Shanghai, China, November 2009. IEEE Computer Society.
- [6069] Hongtao Sun and Michael Schaefer. Reduced Order Model Assisted Evolutionary Algorithms for Multi-objective Flow Design Optimization. *Engineering Optimization*, 43(1):97–114, 2011.

- [6070] Jing Sun, Dunwei Gong, and Xiaoyan Sun. Solving Interval Multi-Objective Optimization Problems Using Evolutionary Algorithms with Preference Polyhedron. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 729–736, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6071] Jun Sun, Xiaojun Wu, Wei Fang, Yangrui Ding, Haixia Long, and Webo Xu. Multiple sequence alignment using the Hidden Markov Model trained by an improved quantum-behaved particle swarm optimization. *Information Sciences*, 182(1):93–114, January 1 2012.
- [6072] M. Sun, A. Stam, and R. Steuer. Solving multiple objective programming problems using feed-forward artificial neural networks: The interactive FFANN procedure. *Management Science*, 42:835–849, 1996.
- [6073] M. Sun, A. Stam, and R. Steuer. Interactive multiple objective programming using tchebycheff programs and artificial neural networks. *Computers and Operations Research*, 27:601–620, 2000.
- [6074] Y.F. Sun, B.W. Liu, X.H. Wang, and Y.C. Zeng. Air-Flow Field of the Melt-Blowing Slot Die via Numerical Simulation and Multiobjective Genetic Algorithms. *Journal of Applied Polymer Science*, 122(6):3520–3527, December 15 2011.
- [6075] Yi Sun, Chaoyong Zhang, Liang Gao, and Xiaojuan Wang. Multi-objective optimization algorithms for flow shop scheduling problem: a review and prospects. *International Journal of Advanced Manufacturing Technology*, 55(5-8):723–739, July 2011.
- [6076] Yijie Sun and Gongzhang Shen. Improved NSGA-II Multi-objective Genetic Algorithm Based on Hybridization-encouraged Mechanism. *Chinese Journal of Aeronautics*, 21(6):540–549, December 2008.
- [6077] R. Sundararajan, S. Azarm, P. McCluskey, and N. Palli. A Stress Model for Multiobjective Design Optimization of a Power Electronic Module. *Mechanics of Structures and Machines*, 27(2):163–183, 1999.
- [6078] A. Suppaitnarm, G.T. Parks, K. Shea, and P.J. Clarkson. A Multiobjective Optimisation Approach for the Conceptual Design of Frame Structures. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture V*, pages 109–120, London, 2002. Springer-Verlag.
- [6079] A. Suppaitnarm, G.T. Parks, K. Shea, and P.J. Clarkson. Conceptual Design of Bicycle Frames by Multiobjective Shape Annealing. *Engineering Optimization*, 36(2):165–188, April 2004.
- [6080] A. Suppaitnarm, K.A. Seffen, G.T. Parks, and P.J. Clarkson. A simulated annealing algorithm for multiobjective optimization. *Engineering Optimization*, 33(1):59–85, 2000.

- [6081] A. Suppapitnarm, K.A. Seffen, G.T. Parks, and A.M. Connor. Multiobjective optimisation of bicycle frames using simulated annealing. In *Proceedings of the First ASMO/ISSMO Conference on Engineering Design Optimization*, volume 1, pages 357–364, Ilkley, West Yorkshire, 1999.
- [6082] A. Suppapitnarm, K.A. Seffen, G.T. Parks, and J.-S. Liu. Design by multi-objective optimisation using simulated annealing. In *Proceedings of the 12th International Conference in Engineering Design (ICED'99)*, volume 3, pages 1395–1400, Munich, Germany, 1999.
- [6083] G. Suresh and S. Sahu. Multiobjective Facility Layout Using Simulated Annealing. *International Journal of Production Economics*, 32(2):239–254, September 1993.
- [6084] Kaushik Suresh, Debarati Kundu, Sayan Ghosh, Swagatam Das, and Ajith Abraham. Automatic Clustering with Multi-objective Differential Evolution Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2590–2597, Trondheim, Norway, May 2009. IEEE Press.
- [6085] Kaushik Suresh, Debarati Kundu, Sayan Ghosh, Swagatam Das, and Ajith Abraham. Data Clustering Using Multi-objective Differential Evolution Algorithms. *Fundamenta Informaticae*, 97(4):381–403, 2009.
- [6086] Kaushik Suresh, Debarati Kundu, Sayan Ghosh, Swagatam Das, Ajith Abraham, and Sang Yong Han. Multi-Objective Differential Evolution for Automatic Clustering with Application to Micro-Array Data-Analysis. *Sensors*, 9(5):3981–4004, May 2009.
- [6087] R.K. Suresh and K.M. Mohanasundaram. Pareto Archived Simulated Annealing for Job Shop Scheduling with Multiple Objectives. *International Journal of Advanced Manufacturing Technology*, 29(1-2):184–196, 2006.
- [6088] S. Suresh, P. B. Sujit, and A. K. Rao. Particle swarm optimization approach for multi-objective composite box-beam design. *Composite Structures*, 81(4):598–605, December 2007.
- [6089] Patrick D. Surry and Nicholas J. Radcliffe. The COMOGA Method: Constrained Optimisation by Multiobjective Genetic Algorithms. *Control and Cybernetics*, 26(3):391–412, 1997.
- [6090] Patrick D. Surry, Nicholas J. Radcliffe, and Ian D. Boyd. A Multi-Objective Approach to Constrained Optimisation of Gas Supply Networks : The COMOGA Method. In Terence C. Fogarty, editor, *Evolutionary Computing. AISB Workshop. Selected Papers*, Lecture Notes in Computer Science, pages 166–180, Sheffield, U.K., 1995. Springer-Verlag.
- [6091] Thorsten Suttrop, Nikolaus Hansen, and Christian Igel. Efficient Covariance Matrix Update for Variable Metric Evolution. *Machine Learning*, 75(2):167–197, May 2009.

- [6092] Thorsten Suttrop and Christian Igel. Multi-Objective Optimization of Support Vector Machines. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 199–220. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [6093] Toshihiro Suzuki, Takeshi Furukashi, Seiichi Matsushita, and Hiroaki Tsutsui. Efficient Fuzzy Modeling under Multiple Criteria by Using Genetic Algorithm. In *IEEE International Conference on Systems, Man, and Cybernetics*, volume 5, pages 314–319. IEEE, 1999.
- [6094] Anil Swarnkar, Nikhil Gupta, and K. R. Niazi. A novel codification for meta-heuristic techniques used in distribution network reconfiguration. *Electric Power Systems Research*, 81(7):1619–1626, July 2011.
- [6095] Francis Dermot Sweeney. *New Sampling Distributions for Evolutionary Algorithms*. PhD thesis, Department of Aeronautics and Astronautics, Stanford University, August 2003.
- [6096] Pawel Swietojanski, Robert Wielgat, and Tomasz Zielinski. Automatic Selection of Pareto-Optimal Topologies of Hidden Markov Models Using Multicriteria Evolutionary Algorithms. In Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcázar, Juan J. Merelo, Ferrante Neri, Mike Preuss, Hendrik Richter, Julian Togelius, and Georgios N. Yannakakis, editors, *Applications of Evolutionary Computation, EvoApplications 2011: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM, and EvoSTOC*, pages 224–233, Torino, Italy, April 27–29 2011. Springer. Lecture Notes in Computer Science Vol. 6624.
- [6097] Anna Syberfeldt, Henrik Grimm, Amos Ng, and Robert I. John. A Parallel Surrogate-Assisted Multi-Objective Evolutionary Algorithm for Computationally Expensive Optimization Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3176–3183, Hong Kong, June 2008. IEEE Service Center.
- [6098] Anna Syberfeldt, Amos Ng, Robert I. John, and Philip Moore. Multi-objective evolutionary simulation-optimisation of a real-world manufacturing problem. *Robotics and Computer-Integrated Manufacturing*, 25(6):926–931, December 2009.
- [6099] Anna Syberfeldt, Amos Ng, Robert I. John, and Philip Moore. Evolutionary optimisation of noisy multi-objective problems using confidence-based dynamic resampling. *European Journal Of Operational Research*, 204(3):533–544, August 1 2010.
- [6100] Gilbert Syswerda and Jeff Palmucci. The Application of Genetic Algorithms to Resource Scheduling. In Richard K. Belew and Lashon B. Booker, editors, *Proceedings of the Fourth International Conference on Genetic Algorithms*, pages 502–508, San Mateo, California, 1991. Morgan Kaufmann.

- [6101] Ricardo Szmit and Amnon Barak. Evolution Strategies for a Parallel Multi-Objective Genetic Algorithm. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee, and Hans-Georg Beyer, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 227–234, San Francisco, California, 2000. Morgan Kaufmann.
- [6102] Andras Szollos, Miroslav Smid, and Jaroslav Hajek. Aerodynamic optimization via multi-objective micro-genetic algorithm with range adaptation, knowledge-based reinitialization, crowding and epsilon-dominance. *Advances in engineering software*, 40(6):419–430, June 2009.
- [6103] Heidi A. Taboada and David W. Coit. Multi-objective scheduling problems: Determination of pruned Pareto sets. *IIE Transactions*, 40(5):552–564, May 2008.
- [6104] Heidi A. Taboada, Jose F. Espiritu, and David W. Coit. MOMS-GA: A multi-objective multi-state genetic algorithm for system reliability optimization design problems. *IEEE Transactions on Reliability*, 57(1):182–191, March 2008.
- [6105] Kanta Tachibana and Takeshi Furuhashi. A Structure Identification Method of Submodels for Hierarchical Fuzzy Modelling Using the Multiple Objective Genetic Algorithm. *International Journal of Intelligent Systems*, 17(5):495–513, May 2002.
- [6106] Tatsuhiko Tachibana, Yoshihiro Murata, Naoki Shibata, Keiichi Yasumoto, and Minoru Ito. A Hardware Implementation Method of Multi-Objective Genetic Algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 10922–10929, Vancouver, BC, Canada, July 2006. IEEE.
- [6107] Ryszard Tadeusiewicz and Arkadiusz Lewicki. The Ant Colony Optimization Algorithm for Multiobjective Optimization Non-compensation Model Problem Staff Selection. In Zhihua Cai, Chengyu Hu, Zhuo Kang, and Yong Liu, editors, *Advances in Computation and Intelligence, 5th International Symposium, ISICA 2010*, pages 44–53, Wuhan, China, October 22-24 2010. Springer. Lecture Notes in Computer Science Vol. 6382.
- [6108] T. Tagami and T. Kawabe. Genetic Algorithm with a Pareto Partitioning Method for Multi-objective Flowshop Scheduling. In *Proceedings of the 1998 International Symposium of Nonlinear Theory and its Applications (NOLTA'98)*, pages 1069–1072, Crans-Montana, 1998.
- [6109] T. Tagami and T. Kawabe. Genetic Algorithms using Pareto Partitioning Method for Multiobjective Optimization Problems. *Transactions of The Institute of Systems, Control and Information Engineers*, 11(11):600–607, 1998. (In Japanese).

- [6110] T. Tagami and T. Kawabe. Genetic Algorithm based on a Pareto Neighborhood Search for Multiobjective Optimization. In *Proceedings of the 1999 International Symposium of Nonlinear Theory and its Applications (NOLTA'99)*, pages 331–334, Hawaii, 1999.
- [6111] Kiyoharu Tagawa and Norihiko Kojima. Multi-Objective Optimum Design of DMS Filters Using Robust Engineering and Genetic Algorithm. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 7972–7978, Vancouver, BC, Canada, July 2006. IEEE.
- [6112] Kiyoharu Tagawa, Yukinori Sasaki, and Hiroyuki Nakamura. Optimum Design of Balanced SAW Filters Using Multi-Objective Differential Evolution. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 466–475, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [6113] Kiyoharu Tagawa, Hidehito Shimizu, and Hiroyuki Nakamura. Indicator-Based Differential Evolution Using Exclusive Hypervolume Approximation and Parallelization for Multi-Core Processors. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 657–664, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6114] Kiyoharu Tagawa, Noboru Wakabayashi, Hiromasa Haneda, and Katsumi Inoue. An Imanishism-Based Genetic Algorithm for Sampling Various Pareto-Optimal Solutions: An Application to the Multiobjective Resource Division Problem. *Electrical Engineering in Japan*, 139(2):23–35, April 2002.
- [6115] Kiyoharu Tagawa, Noboru Wakabayashi, Kenji Kanesige, and Hiromasa Haneda. A New Genetic Algorithm based on Anti-Darwinism for Multi-Objective Part-Tool Grouping Problem. In *Proceedings of the 2000 IEEE International Symposium on Industrial Electronics (ISIE'2000)*, volume 2, pages 782–787. IEEE, 2000.
- [6116] K. Tai and J. Prasad. Target-matching test problem for multiobjective topology optimization using genetic algorithms. *Structural and Multidisciplinary Optimization*, 34(4):333–345, October 2007.
- [6117] K. Tai, N. F. Wang, and Y. W. Yang. Target Geometry Matching Problem with Conflicting Objectives for Multiobjective Topology Design Optimization Using GA. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1873–1878, Hong Kong, June 2008. IEEE Service Center.
- [6118] Roberto Galiasso Tailleur and Ytalo Davila. Optimal hydrogen production through revamping a naphtha-reforming unit: Catalyst deactivation. *Energy & Fuels*, 22(5):2892–2901, September - October 2008.

- [6119] Y. Takada, M. Yamamura, and S. Kobayashi. An Approach to Portfolio Selection Problems Using Multi-Objective Genetic Algorithms. In *Proceedings of the 23rd Symposium on Intelligent Systems*, pages 103–108, 1996.
- [6120] Arita Takahashi and Arkady Borisov. Decision strategies in evolutionary optimization. In Bernd Reusch, editor, *Computational Intelligence: Theory and Applications, International Conference, 7th Fuzzy Days*, pages 345–356. Springer. Lecture Notes in Computer Science Vol. 2206, Dortmund, Germany, October 2001.
- [6121] R.H.C. Takahashi, R.M. Palhares, D.A. Dutra, and L.P.S. Goncalves. Estimation of Pareto sets in the mixed h_2/h_∞ control problem. *International Journal of Systems Science*, 35(1):55–67, January 2004.
- [6122] Ricardo H. C. Takahashi, Frederico G. Guimaraes, Elizabeth F. Wanner, and Eduardo G. Carrano. Feedback-Control Operators for Evolutionary Multiobjective Optimization. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 66–80. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [6123] Ricardo H. C. Takahashi, Eduardo G. Carrano, and Elizabeth F. Wanner. On a Stochastic Differential Equation Approach for Multiobjective Optimization up to Pareto-Criticality. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 61–75, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
- [6124] Ricardo H.C. Takahashi, Reinaldo M. Palhares, Daniel A. Cutra, and Leila P.S. Gonçalves. Synthesis and characterization of pareto-optimal solutions for the mixed H_2/H_∞ control problem. In *Proceedings of the 40th IEEE International Conference on Decision and Control*, volume 4, pages 3997–4002. IEEE, 2001.
- [6125] S. Takahashi, S. Obayashi, and K. Nakahashi. Transonic Shock-Free Wing Design with Multiobjective Genetic Algorithms. In *Proceedings of the International Conference on Fluid Engineering*, volume 1, pages 425–429, Tokyo, Japan, July 1997.
- [6126] S. Takahashi, S. Obayashi, and K. Nakahashi. Inverse Optimization of Transonic Wing Shape for Mid-Size Regional Aircraft. AIAA Paper 98-0601, January 1998.
- [6127] Shingo Takeuchi and Kazuhiro Saitou. Design for Product Embedded Disassembly. In Tina Yu, Lawrence Davis, Cem Baydar, and Rajkumar Roy, editors, *Evolutionary Computation in Practice*, pages 9–39. Springer, 2008. ISBN 978-3-540-75770-2.

- [6128] E.-G. Talbi, S. Cahon, and N. Melab. Designing cellular networks using a parallel hybrid metaheuristic on the computational grid. *Computer Communications*, 30(4):498–713, February 26 2007.
- [6129] E.G. Talbi and H. Meunier. Hierarchical parallel approach for GSM mobile network design. *Journal of Parallel and Distributed Computing*, 66(2):274–290, February 2006.
- [6130] El-Ghazali Talbi. *Metaheuristics. From Design to Implementation*. Wiley, USA, 2009. ISBN 978-0-470-27858-1.
- [6131] El-Ghazali Talbi, Matthieu Basseur, Antonio J. Nebro, and Enrique Alba. Multi-objective optimization using metaheuristics: non-standard algorithms. *International Transactions in Operational Research*, 19(1-2):283–305, January-March 2012.
- [6132] El-Ghazali Talbi, Sanaz Mostaghim, Tatsuya Okabe, Hisao Ishibuchi, Günter Rudolph, and Carlos A. Coello Coello. Parallel Approaches for Multi-objective Optimization. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 349–372. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [6133] El-Ghazali Talbi, Malek Rahoual, Mohamed Hakim Mabed, and Clarisse Dhaenens. A Hybrid Evolutionary Approach for Multicriteria Optimization Problems: Application to the Flow Shop. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 416–428. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [6134] Ata Allah Taleizadeh, Seyed Taghi Akhavan Niaki, and Mir-Bahador Aryanezhad. A hybrid method of Pareto, TOPSIS and genetic algorithm to optimize multi-product multi-constraint inventory control systems with random fuzzy replenishments. *Mathematical and Computer Modelling*, 49(5-6):1044–1057, March 2009.
- [6135] Ata Allah Taleizadeh, Seyed Taghi Akhavan Niaki, and Vahid Hoseini. Optimizing the multi-product, multi-constraint, bi-objective newsboy problem with discount by a hybrid method of goal programming and genetic algorithm. *Engineering Optimization*, 41(5):437–457, May 2009.
- [6136] A. K. M. Khaled Ahsan Talukder and Michael Kirley. A Pareto Following Variation Operator for Evolutionary Dynamic Multi-Objective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2270–2277, Hong Kong, June 2008. IEEE Service Center.
- [6137] A. K. M. Khaled Ahsan Talukder, Michael Kirley, and Rajkumar Buyya. Multi-objective differential evolution for scheduling workflow applications on global

Grids. *Concurrency and Computation-Practice & Experience*, 21(13):1742–1756, September 10 2009.

- [6138] A. K. M. Khaled Ahsan Talukder, Michael Kirley, and Rajkumar Buyya. The Pareto-Following Variation Operator as An Alternative Approximation Model. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 8–15, Trondheim, Norway, May 2009. IEEE Press.
- [6139] A.K.M. Khaled Ahsan Talukder, Michael Kirley, and Rajkumar Buyya. A Pareto Following Variation Operator for Fast-Converging Multiobjective Evolutionary Algorithms. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 721–728, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6140] Hisashi Tamaki, Hajime Kita, and Shigenobu Kobayashi. Multi-Objective Optimization by Genetic Algorithms : A Review. In Toshio Fukuda and Takeshi Furuhashi, editors, *Proceedings of the 1996 International Conference on Evolutionary Computation (ICEC'96)*, pages 517–522, Nagoya, Japan, 1996. IEEE.
- [6141] Hisashi Tamaki, M. Mori, and M. Araki. Generation of a Set of Pareto-Optimal Solutions by Genetic Algorithms. *Transactions of the Society of Instrument and Control Engineers*, 31(8):1185–1192, 1995.
- [6142] Hisashi Tamaki, M. Mori, M. Araki, Y. Mishima, and H. Ogai. Multi-Criteria Optimization by Genetic Algorithms : A Case of Scheduling in Hot Rolling Process. In *Proceedings of the 3rd Conference of the Association of Asian-Pacific Operational Research Societies within IFORS (APORS'94)*, pages 374–381. World Scientific, 1995.
- [6143] Hisashi Tamaki, T. Mukai, K. Kawakami, and M. Araki. Genetic Algorithm Approach to Multi-Objective Scheduling Problems with Regular and Non-Regular Objective Functions. In Toshio Fukuda and Takeshi Furuhashi, editors, *Proceedings of the International Conferences on Advances in Production Management Systems (APMS'96)*, pages 553–556, 1996.
- [6144] Hisashi Tamaki and Etsuo Nishino. A Genetic Algorithm Approach to Multi-Objective Scheduling Problems with Regular and Non-Regular Objective Functions. In *Proceedings of the 8th IFAC/IFORS/IMACS/IFIP Symposium on Large Scale Systems : Theory and Applications (LSS'98)*, pages 289–294, 1998.
- [6145] Hisashi Tamaki, Etsuo Nishino, and Shigeo Abe. A Genetic Algorithm Approach to Multi-Objective Scheduling Problems with Earliness and Tardiness Penalties. In *1999 Congress on Evolutionary Computation*, pages 46–52, Washington, D.C., July 1999. IEEE Service Center.
- [6146] Hiroyuki Tamura. A new multiobjective genetic algorithm with heterogeneous population for solving flowshop scheduling problems. *International Journal of Computer Integrated Manufacturing*, 20(5):465–477, 2007.

- [6147] Hiroyuki Tamura, Tomohiro Shibata, Shinji Tomiyama, and Itsuo Hatono. A meta-heuristic satisficing tradeoff method for solving multiobjective combinatorial optimization problems—with application to flowshop scheduling—. In *1999 IEEE International Conference on Systems, Man, and Cybernetics*, volume 3, pages 539–544. IEEE, 1999.
- [6148] C. H. Tan, C. K. Goh, K. C. Tan, and A. Tay. A Cooperative Coevolutionary Algorithm for Multiobjective Particle Swarm Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3180–3186, Singapore, September 2007. IEEE Press.
- [6149] Dekun Tan, Wenhai Luo, and Qing Liu. Multi-Objective Particle Swarm Optimization Algorithm for Engineering Constrained Optimization Problems. In *IEEE International Conference on Granular Computing, 2009 (GRC'09)*, pages 523–528, Nanchang, China, August 2009. IEEE Computer Society.
- [6150] Guang-Xing Tan and Zong-Yuan Mao. Study on Pareto front of multi-objective optimization using immune algorithm. In Daniel S. Yeung, Zhi-Qiang Liu, Xizhao Wang, and Hong Yan, editors, *Proceedings of 2005 International Conference on Machine Learning and Cybernetics, 2005*, pages 2923–2928, Guangzhou, China, August 2005. Springer. Lecture Notes in Computer Science, Vol. 3930.
- [6151] K. C. Tan, S. C. Chiam, A. A. Mamun, and C. K. Goh. Balancing Exploration and Exploitation with Adaptive Variation for Evolutionary Multi-Objective Optimization. *European Journal of Operational Research*, 197(2):701–713, September 2009.
- [6152] K. C. Tan, T. H. Lee, D. Khoo, and E. F. Khor. MOEA Toolbox for Computer-Aided Multi-Objective Optimization. In *2000 Congress on Evolutionary Computation (CEC'2000)*, volume 1, pages 38–45, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [6153] K. C. Tan, T. H. Lee, and E. F. Khor. Control system design automation with robust tracking thumbprint performance using a multi-objective evolutionary algorithm. In *IEEE Int. Conf. Control Appl. and Sys. Design*, pages 498–503, Hawaii, 1999.
- [6154] K. C. Tan, T. H. Lee, and E. F. Khor. Evolutionary Algorithms with Goal and Priority Information for Multi-Objective Optimization. In *1999 Congress on Evolutionary Computation*, pages 106–113, Washington, D.C., July 1999. IEEE Service Center.
- [6155] K. C. Tan, T. H. Lee, E. F. Khor, and K. Ou. Control system design unification and automation using an incremented multi-objective evolutionary algorithm. In *Proceedings of the 19th IASTED International Conference on Modeling, Identification and Control*, Innsbruck, Austria, 2000.

- [6156] K. C. Tan, T. H. Lee, E. F. Khor, and R. Sathikannan. Incremented multi-objective evolutionary design automation of robust tracking thumbprint performances in QFT. In *Proceedings of the International Conference on Evolutionary Computation for Computer, Communication, Control and Power*, pages 137–142, Chennai, India, 2000.
- [6157] Kay Chen Tan and Chi Keong Goh. Handling Uncertainties in Evolutionary Multi-Objective Optimization. In Jacek M. Zurada, Gary G. Yen, and Jun Wang, editors, *Computational Intelligence: Research Frontiers. IEEE World Congress on Computational Intelligence (WCCI'2008)*, pages 262–292. Springer, Lecture Notes in Computer Science, Vol. 5050, Hong Kong, China, June 1–6 2008. ISBN 978-3-540-68858-7.
- [6158] Kay Chen Tan, Eik Fun Khor, Tong Heng Lee, and Ramasubramanian Sathikannan. An Evolutionary Algorithm with Advanced Goal and Priority Specification for Multi-objective Optimization. *Journal of Artificial Intelligence Research*, 18:183–215, 2003.
- [6159] Kay Chen Tan and Yun Li. Multi-Objective Genetic Algorithm Based Time and Frequency Domain Design Unification of Linear Control Systems. Technical Report CSC-97007, Department of Electronics and Electrical Engineering, University of Glasgow, Glasgow, Scotland, 1997.
- [6160] Kay Chen Tan and Yun Li. Multi-Objective Genetic Algorithm Based Time and Frequency Domain Design Unification of Linear Control Systems. In *Proceedings of the IFAC/IEEE International Symposium on Artificial Intelligence in Real-Time Control*, pages 61–66, Kuala Lumpur, Malaysia, September 1997.
- [6161] Kay Chen Tan and Yun Li. Multi-objective genetic algorithm based time and frequency domain design unification of linear control systems. In *IFAC International Symposium on Artificial Intelligence and Real-Time Control*, pages 61–66, Kuala Lumpur, Malaysia, September 1997.
- [6162] Kay Chen Tan, Ko Poh Phang, and Ying Jie Yang. Feed Optimization for Fluidized Catalytic Cracking using a Multi-Objective Evolutionary Algorithm. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 9, pages 277–300. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
- [6163] K.C. Tan, Y.H. Chew, and L.H. Lee. A hybrid multi-objective evolutionary algorithm for solving truck and trailer vehicle routing problems. *European Journal of Operational Research*, 172(3):855–885, August 2006.
- [6164] K.C. Tan, Y.H. Chew, and L.H. Lee. A hybrid multiobjective evolutionary algorithm for solving vehicle routing problem with time windows. *Computational Optimization and Applications*, 34(1):115–151, May 2006.
- [6165] K.C. Tan, Y.H. Chew, T.H. Lee, and Y.J. Yang. A Cooperative Coevolutionary Algorithm for Multiobjective Optimization. In *Proceedings of the 2003 IEEE*

International Conference on Systems, Man and Cybernetics, volume 1, pages 390–395. IEEE Press, 2003.

- [6166] K.C. Tan, C.K. Goh, A.A. Mamun, and E.Z. Ei. An evolutionary artificial immune system for multi-objective optimization. *European Journal of Operational Research*, 187(2):371–392, June 1 2008.
- [6167] K.C. Tan, C.K. Goh, Y.J. Yang, and T.H. Lee. Evolving better population distribution and exploration in evolutionary multi-objective optimization. *European Journal of Operational Research*, 171(2):463–495, June 2006.
- [6168] K.C. Tan, E.F. Khor, C. M. Heng, and T.H. Lee. Exploratory Multi-Objective Evolutionary Algorithm: Performance Study and Comparisons. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 647–654, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [6169] K.C. Tan, E.F. Khor, and T.H. Lee. *Multiobjective Evolutionary Algorithms and Applications*. Springer-Verlag, London, 2005. ISBN 1-85233-836-9.
- [6170] K.C. Tan, E.F. Khor, T.H. Lee, and Y.J. Yang. A tabu-based exploratory evolutionary algorithm for multiobjective optimization. *Artificial Intelligence Review*, 19(3):231–260, May 2003.
- [6171] K.C. Tan, T.H. Lee, Y.H. Chew, and L.H. Lee. A Hybrid Multiobjective Evolutionary Algorithm For Solving Truck and Trailer Vehicle Routing Problems. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 3, pages 2134–2141, Canberra, Australia, December 2003. IEEE Press.
- [6172] K.C. Tan, T.H. Lee, and E.F. Khor. Automatic Design of Multivariable QFT Control System via Evolutionary Computation. In Stefano Cagnoni et al., editor, *Proceedings of Real World Applications of Evolutionary Computing. EvoWorkshops 2000: EvoIASP, EvoSCONDI, EvoTel, EvoSTIM, EvoRob, and EvoFlight*, pages 178–194, Edinburgh, Scotland, April 2000. Springer. Lecture Notes in Computer Science Vol. 1803.
- [6173] K.C. Tan, T.H. Lee, and E.F. Khor. Automatic design of multi-variable quantitative feedback theory control systems via evolutionary computation. *Proceedings of the Institution of Mechanical Engineers Part I—Journal of Systems and Control Engineering*, 215(I3):245–259, 2001.
- [6174] K.C. Tan, T.H. Lee, and E.F. Khor. Evolutionary Algorithms for Multi-Objective Optimization: Performance Assessments and Comparisons. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 979–986, Piscataway, New Jersey, May 2001. IEEE Service Center.

- [6175] K.C. Tan, T.H. Lee, and E.F. Khor. Evolutionary Algorithms with Dynamic Population Size and Local Exploration for Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 5(6):565–588, December 2001.
- [6176] K.C. Tan, T.H. Lee, and E.F. Khor. Incrementing Multi-Objective Evolutionary Algorithms: Performance Studies and Comparisons. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 111–125. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [6177] K.C. Tan, T.H. Lee, and E.F. Khor. Evolutionary Algorithms for Multi-Objective Optimization: Performance Assessments and Comparisons. *Artificial Intelligence Review*, 17(4):253–290, June 2002.
- [6178] K.C. Tan, Tong H. Lee, D. Khoo, and E.F. Khor. A Multiobjective Evolutionary Algorithm Toolbox for Computer-Aided Multiobjective Optimization. *IEEE Transactions on Systems, Man, and Cybernetics—Part B: Cybernetics*, 31(4):537–556, August 2001.
- [6179] K.C. Tan and Y. Li. Automating Control System Design via a Multiobjective Evolutionary Algorithm. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 155–175. World Scientific, Singapore, 2004.
- [6180] K.C. Tan, R. Sathikannan, W.W. Tan, and A.P. Loh. Evolutionary design and implementation of a hard disk drive servo control system. *Soft Computing*, 11(2):131–139, January 2007.
- [6181] K.C. Tan, K. Sengupta, T.H. Lee, and R. Sthikannan. Autonomous Registration of Disparate Spatial Data via an Evolutionary Algorithm Toolbox. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 31–36, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [6182] K.C. Tan, Y.J. Yang, and C.K. Goh. A Distributed Cooperative Coevolutionary Algorithm for Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 10(5):527–549, October 2006.
- [6183] K.C. Tan, Y.J. Yang, C.K. Goh, and T.H. Lee. Enhanced Distribution and Exploration for Multiobjective Evolutionary Algorithms. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2521–2528, Canberra, Australia, December 2003. IEEE Press.
- [6184] K.C. Tan, Y.J. Yang, and T.H. Lee. A Distributed Cooperative Coevolutionary Algorithm for Multiobjective Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2513–2520, Canberra, Australia, December 2003. IEEE Press.

- [6185] K.C. Tan, Q. Yu, and J.H. Ang. A dual-objective evolutionary algorithm for rules extraction in data mining. *Computational Optimization and Applications*, 34(2):273–294, June 2006.
- [6186] Tse Guan Tan, Hui Keng Lau, and Jason Teo. Cooperative Versus Competitive Coevolution for Pareto Multiobjective Optimization. In Kang Li, Minrui Fei, George W. Irwin, and Shiwei Ma, editors, *Bio-Inspired Computational Intelligence and Applications International Conference on Life System Modeling and Simulation (LSMS 2007)*, pages 63–72. Springer, Lecture Notes in Computer Science, Vol. 4688, Shanghai, China, September 14-17 2007. ISBN 978-3-540-74768-0.
- [6187] Tse Guan Tan and Jason Teo. Evolving Opposition-Based Pareto Solutions: Multiobjective Optimization Using Competitive Coevolution. In H. R. Tizhoosh and M. Ventresca, editors, *Oppositional Concepts in Computational Intelligence*, pages 161–206. Springer. Studies in Computational Intelligence Vol. 155, 2008.
- [6188] Tse Guan Tan and Jason Teo. Improving the Performance of Multiobjective Evolutionary Optimization Algorithms Using Coevolutionary Learning. In Raymond Chiong, editor, *Nature-Inspired Algorithms for Optimisation*, pages 457–487. Springer, Berlin, 2009. ISBN 978-3-642-00266-3.
- [6189] Masahiro Tanaka and Tetsuzo Tanino. Global optimization by the genetic algorithm in a multiobjective decision support system. In *Proceedings of the 10th International Conference on Multiple Criteria Decision Making*, volume 2, pages 261–270, 1992.
- [6190] Masahiro Tanaka, Hikaru Watanabe, Yasuyuki Furukawa, and Tetsuzo Tanino. GA-Based Decision Support System for Multicriteria Optimization. In *Proceedings of the International Conference on Systems, Man, and Cybernetics*, volume 2, pages 1556–1561, Piscataway, NJ, 1995. IEEE.
- [6191] Cheng-Yuan Tang, Yi-Leh Wu, and Chien-Chin Peng. Fundamental matrix estimation by multiobjective genetic algorithm with Taguchi’s method. *Applied Soft Computing*, 12(1):553–558, January 2012.
- [6192] Huajin Tang, Vui Ann Shim, Kay Chen Tan, and Jun Yong Chia. Restricted Boltzmann machine based algorithm for multi-objective optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pages 3958–3965, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6193] Jiangjun Tang, Sameer Alam, Hussein Abbass, and Chris Lokan. Modelling and Evolutionary Multi-objective Evaluation of Interdependencies and Work Processes in Airport Operations. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC’2009)*, pages 977–980, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.

- [6194] K. S. Tang, K. F. Man, and D. W. Gu. Structured Genetic Algorithm for Robust h^∞ Control Systems Design. *IEEE Transactions on Industrial Electronics*, 43(5):575–582, October 1996.
- [6195] K. S. Tang, K. F. Man, and K. T. Ko. Wireless LAN Design using Hierarchical Genetic Algorithm. In Thomas Bäck, editor, *Proceedings of the Seventh International Conference on Genetic Algorithms*, pages 629–635, San Mateo, California, July 1997. Michigan State University, Morgan Kaufmann Publishers.
- [6196] Ke Tang, Zai Wang, Xianbin Cao, and Jun Zhang. A Multi-Objective Evolutionary Approach to Aircraft Landing Scheduling Problems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3651–3657, Hong Kong, June 2008. IEEE Service Center.
- [6197] Ke-Zong Tang, Ting-Kai Sun, and Jing-Yu Yang. An improved genetic algorithm based on a novel selection strategy for nonlinear programming problems. *Computers & Chemical Engineering*, 35(4):615–621, April 2011.
- [6198] Kit-Sang Tang, King-Tim Ko, and Erick W.M. Wong. Optimal File Placement in VOD System Using Genetic Algorithm. *IEEE Transactions on Industrial Electronics*, 48(5):891–897, October 2001.
- [6199] Kit-Sang Tang, Kim-Fung Man, and S. Kwong. Wireless Communication Network Design in IC Factory. *IEEE Transactions on Industrial Electronics*, 48(2):452–459, April 2001.
- [6200] Kit Sang Tang, Richard J. Yin, Sam Kwong, Kai Tat Ng, and Kim F. Man. A Theoretical Development and Analysis of Jumping Gene Genetic Algorithm. *IEEE Transactions on Industrial Informatics*, 7(3):408–418, August 2011.
- [6201] K.S. Tang, K.F. Man, and G. Chen. Solar Plant Control using Genetic Fuzzy PID Controller. In *26th Annual Conference of the IEEE Industrial Electronics Society*, volume 3, pages 1686–1691, 2000.
- [6202] K.S. Tang, Kim-Fung Man, Guanrong Chen, and Sam Kwong. An Optimal Fuzzy PID Controller. *IEEE Transactions on Industrial Electronics*, 48(4):757–765, August 2001.
- [6203] L.C.M. Tang, A.Y.T. Leung, and C.W.Y. Wong. Entropic Risk Analysis by a High Level Decision Support System for Construction SMEs. *Journal of Computing in Civil Engineering*, 24(1):81–94, January-February 2010.
- [6204] Min Tang, Zhangcan Huang, and Guangxi Chen. The Construction of Dynamic Multi-objective Optimization Test Functions. In Lishan Kang, Yong Liu, and Sanyou Zeng, editors, *Advances in Computation and Intelligence. Second International Symposium (ISICA'2007)*, pages 72–79, Wuhan, China, September 21-23 2007. Springer, Lecture Notes in Computer Sciences, Vol. 4683.

- [6205] Qinghu Tang, Ying Bin Lau, Shuangquan Hu, Wenjin Yan, Yanhui Yang, and Tao Chen. Response surface methodology using Gaussian processes: Towards optimizing the trans-stilbene epoxidation over Co^{2+} -NaX catalysts. *Chemical Engineering Journal*, 156(2):423–431, January 15 2010.
- [6206] Wallace K.S. Tang, Sam T.W. Kwong, and Kim F. Man. A Jumping Genes Paradigm: Theory, Verification and Applications. *IEEE Circuits and Systems Magazine*, 8(4):18–36, 2008.
- [6207] Y. Tang, P. Reed, and T. Wagener. How effective and efficient are multiobjective evolutionary algorithms at hydrologic model calibration? *Hydrology and Earth System Sciences*, 10(2):289–307, 2006.
- [6208] Y. Tang, P.M. Reed, and J.B. Kollat. Parallelization strategies for rapid and robust evolutionary multiobjective optimization in water resources applications. *Advances in Water Resources*, 30(3):335–353, March 2007.
- [6209] Yang Tang, Zidong Wang, W. K. Wong, Juergen Kurths, and Jian an Fang. Multiobjective synchronization of coupled systems. *CHAOS*, 21(2), June 2011. Article Number: 025114.
- [6210] Z. Tang, J. Périaux, G. Bugada, and E. Onate. Lift Maximization with Uncertainties for the Optimization of High Lift Devices using Multi-Criterion Evolutionary Algorithms. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2324–2331, Trondheim, Norway, May 2009. IEEE Press.
- [6211] Z. Tang, J. Periaux, G. Bugada, and E. Onate. Lift maximization with uncertainties for the optimization of high-lift devices. *International Journal For Numerical Methods In Fluids*, 64(2):119–135, September 20 2010.
- [6212] Tetsuzo Tanino, Masahiro Tanaka, and Chihirp Hojo. An interactive multicriteria decision making method by using a genetic algorithm. In *Proceedings of 2nd International Conference on Systems Science and Systems Engineering*, pages 381–386, 1993.
- [6213] Emilia Tantar, Clarisse Dhaenens, José Rui Figueira, and El-Ghazali Talbi. A priori Landscape Analysis in Guiding Interactive Multi-Objective Metaheuristics. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 4105–4112, Hong Kong, June 2008. IEEE Service Center.
- [6214] Emilia Tantar, Oliver Schütze, José Rui Figueira, Carlos A. Coello Coello, and El-Ghazali Talbi. Computing and Selecting ε -Efficient Solutions of $\{0,1\}$ -Knapsack Problems. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 379–389. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.

- [6215] Fei Tao, Dongming Zhao, Yefa Hu, and Zude Zhou. Correlation-aware resource service composition and optimal-selection in manufacturing grid. *European Journal of Operational Research*, 201(1):129–143, February 16 2010.
- [6216] Jose Juan Tapia, Edgar E. Vallejo, and Enrique Morett. MOCEA: a multi-objective clustering evolutionary algorithm for inferring protein-protein functional interactions. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1793–1794, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [6217] A. Tarafder, B.C.S. Lee, Ajay K. Ray, and G.P. Rangaiah. Multi-objective optimization of an Industrial Ethylene Reactor using a Non-dominated Sorting Genetic Algorithm. *Industrial and Engineering Chemistry Research*, 44:124–141, 2005.
- [6218] A. Tarafder, G. P. Rangaiah, and A. K. Ray. Multiobjective optimization of an industrial styrene monomer manufacturing process. *Chemical Engineering Science*, 60(2):347–363, January 2005.
- [6219] A. Tarafder, G.P. Rangaiah, and Ajay K. Ray. A study of finding many desirable solutions in multiobjective optimization of chemical processes. *Computers & Chemical Engineering*, 31(10):1257–1271, October 2007.
- [6220] L.A. Tarca, B.P.A. Grandjean, and F. Larachi. Integrated genetic algorithm-artificial neural network strategy for modeling important multiphase-flow characteristics. *Industrial & Engineering Chemistry Research*, 41(10):2543–2551, May 15 2002.
- [6221] Jonathan Tate, Benjamin Woolford-Lim, Iain Bate, and Xin Yao. Comparing Design Of Experiments and Evolutionary Approaches To Multi-Objective Optimisation Of Sensornet Protocols. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1137–1144, Trondheim, Norway, May 2009. IEEE Press.
- [6222] M. Tava and S. Suzuki. Optimal re-entry trajectory design by interactive multi-objective optimization with parallel programming. In L.A. D’Amario, L.L. Sackett, D.J. Scheeres, and B.G. Williams, editors, *Proceedings of the the AAS/AIAA 11th Spaceflight Mechanics Meeting*, volume 108, Parts 1 and 2, pages 1963–1975, 2001.
- [6223] R. Tavakkoli Moghaddam, M. Azarkish, and A. Sadeghnejad Barkousaraie. A new hybrid multi-objective Pareto archive PSO algorithm for a bi-objective job shop scheduling problem. *Expert Systems With Applications*, 38(9):10812–10821, September 2011.
- [6224] R. Tavakkoli-Moghaddam, A. Makui, and Z. Mazloomi. A new integrated mathematical model for a bi-objective multi-depot location-routing problem solved by a multi-objective scatter search algorithm. *Journal of Manufacturing Systems*, 29(2-3):111–119, July 2010.

- [6225] R. Tavakkoli-Moghaddam and A.R. Rahimi-Vahed. A Memetic Algorithm for Multi-Criteria Sequencing Problem for a Mixed-Model Assembly Line in a JIT Production System. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 10350–10355, Vancouver, BC, Canada, July 2006. IEEE.
- [6226] R. Tavakkoli-Moghaddam, A.R. Rahimi-Vahed, and A.H. Mirzaei. Solving a multi-objective no-wait flow shop scheduling problem with an immune algorithm. *International Journal of Advanced Manufacturing Technology*, 36(9–10):969–981, April 2008.
- [6227] R. Tavakkoli-Moghaddam, F. Taheri, M. Bazzazi, M. Izadi, and F. Sassani. Design of a genetic algorithm for bi-objective unrelated parallel machines scheduling with sequence-dependent setup times and precedence constraints. *Computers & Operations Research*, 36(12):3224–3230, December 2009.
- [6228] Reza Tavakkoli-Moghaddam, Mozhgan Azarkish, and Azar Sadeghnejad-Barkousaraie. Solving a Multi-Objective Job Shop Scheduling Problem With Sequence-Dependent Setup Times by a Pareto Archive PSO Combined With Genetic Operators and VNS. *International Journal of Advanced Manufacturing Technology*, 53(5–8):733–750, March 2011.
- [6229] Reza Tavakkoli-Moghaddam, Ali-Reza Rahimi-Vahed, and Ali Hossein Mirzaei. Solving a Bi-Criteria Permutation Flow Shop Problem Using Immune Algorithm. In *IEEE Symposium on Computational Intelligence in Scheduling (SCIS'07)*, pages 49–56, Honolulu, Hawaii, April 2007. IEEE Computer Society.
- [6230] Reza Tavakkoli-Moghaddam, Alireza Rahimi-Vahed, and Ali Hossein Mirzaei. A hybrid multi-objective immune algorithm for a flow shop scheduling problem with bi-objectives: Weighted mean completion time and weighted mean tardiness. *Information Sciences*, 177(22):5072–5090, November 15 2007.
- [6231] Saeed Tavakoli, Ian Griffin, and Peter J. Fleming. Multi-Objective Optimization Approach to the PI Tuning Problem. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3165–3171, Singapore, September 2007. IEEE Press.
- [6232] Peter Messiha Mehanny Tawdross. *Bio-Inspired Circuit Sizing and Trimming Methods for Dynamically Reconfigurable Sensor Electronics in Industrial Embedded Systems*. PhD thesis, Fachbereich Electro- und Informationstechnik der Universität Kaiserslautern, Germany, 2007.
- [6233] Joc Cing Tay and Nhu Binh Ho. Evolving dispatching rules using genetic programming for solving multi-objective flexible job-shop problems. *Computers & Industrial Engineering*, 54(3):453–473, April 2008.
- [6234] Manoj Tayal. Particle Swarm Optimization for Mechanical Design. Master's thesis, The University of Texas at Arlington, Arlington, Texas, USA, December 2003.

- [6235] Ayeley P. Tchangani. Modeling Selecting and Ranking of Alternatives Characterized by Multiple Attributes to Satisfy Multiple Objectives. *Journal of Information and Computing Science*, 4(1):3–16, February 2009.
- [6236] J. Teghem. Multiobjective Combinatorial Optimization. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [6237] Jürgen Teich. Pareto-Front Exploration with Uncertain Objectives. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 314–328. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [6238] Jürgen Teich, Eckart Zitzler, and Shuvra S. Bhattacharyya. 3D Exploration of Software schedules for DSP Algorithms. In *7th International Workshop on Hardware/Software Codesign (CODES'99)*, pages 168–172, May 1999.
- [6239] C. A. Teixeira, W. C. A. Pereira, A. E. Ruano, and M. Graça Ruano. Multi-objective genetic algorithm applied to the structure selection of RBFNN temperature estimators. In Bernardete Ribeiro, Rudolf F. Albrecht, Andrej Dobnikar, David W. Pearson, and Nigel C. Steele, editors, *Adaptive and Natural Computing Algorithms*, pages 506–509, Coimbra, Portugal, March 2005. Springer.
- [6240] Ozan Tekinalp and Gizem Karsli. A new multiobjective simulated annealing algorithm. *Journal of Global Optimization*, 39(1):49–77, September 2007.
- [6241] Hatice Tekiner, David W. Coit, and Frank A. Felder. Multi-period multi-objective electricity generation expansion planning problem with Monte-Carlo simulation. *Electric Power Systems Research*, 80(12):1394–1405, December 2010.
- [6242] J. Teo and H.A. Abbass. Coordination and synchronization of locomotion in a virtual robot. In L. Wang, J. Rajapakse, K. Fukushima, S. Lee, and X. Yao, editors, *Proceedings of the 9th International Conference on Neural Information Processing (ICONIP'02)*, volume 4, pages 1931–1935, 2002.
- [6243] J. Teo and H.A. Abbass. Multi-objectivity for brain-behavior evolution of a physically-embodied organism. In R. Standish, M. Bedau, and H. Abbass, editors, *Artificial Life VIII: The 8th International Conference on Artificial Life*, pages 312–318, Cambridge, Massachusetts, 2002. MIT Press.
- [6244] Jason Teo and Hussein A. Abbass. Trading-off Mind Complexity and Locomotion in a Physically Simulated Quadruped. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution And Learning (SEAL'02)*, volume 2, pages 776–780, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.

- [6245] Jason Teo and Hussein A. Abbass. Elucidating the Benefits of A Self-Adaptive Pareto EMO Approach for Evolving Legged Locomotion in Artificial Creatures. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 755–762, Canberra, Australia, December 2003. IEEE Press.
- [6246] Jason Teo and Hussein A. Abbass. Is a Self-Adaptive Pareto Approach Beneficial for Controlling Embodied Virtual Robots. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 1612–1613. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [6247] Jason Teo and Hussein A. Abbass. Automatic Generation of Controllers for Embodied Legged Organisms: A Pareto Evolutionary Multi-Objective Approach. *Evolutionary Computation*, 12(3):355–394, Fall 2004.
- [6248] Jason Teo and Hussein A. Abbass. Evolutionary Multi-Objective Robotics: Evolving a Physically Simulated Quadruped Using the PDE Algorithm. In Kay Chen Tan, Meng Hiot Lim, Xin Yao, and Lipo Wang, editors, *Recent Advances in Simulated Evolution and Learning*, pages 466–485. World Scientific, Singapore, 2004.
- [6249] Jason Teo and Hussein A. Abbass. Multiobjectivity and Complexity in Embodied Cognition. *IEEE Transactions on Evolutionary Computation*, 9(4):337–360, August 2005.
- [6250] Jason Teo, Linnie D. Neri, Minh H. Nguyen, and Hussein A. Abbass. Walking with EMO: Multi-Objective Robotics for Evolving Two, Four, and Six–Legged Locomotion. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 300–332. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [6251] Jason Teo, Minh Ha Nguyen, and Hussein A. Abbass. Multi-objectivity as a Tool for Constructing Hierarchical Complexity. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part I*, pages 483–494. Springer. Lecture Notes in Computer Science Vol. 2723, July 2003.
- [6252] Jason T.W. Teo. *Pareto Multi-Objective Evolution of Legged Embodied Organisms*. PhD thesis, School of Computer Science, University of New South Wales, Australia, 2003.
- [6253] D. Teodorovic, M. Van Aerde, F.L. Zhu, and F. Dion. Genetic Algorithms Approach to the Problem of the Automated Vehicle Identification Equipment Locations. *Journal of Advanced Transportation*, 36(1):1–21, Winter 2002.
- [6254] Eu J. Teoh, Swee C. Chiam, Chi K. Goh, and Kay C. Tan. Adapting Evolutionary Dynamics of Variation for Multiobjective Optimization. In *2005 IEEE*

- Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1290–1297, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6255] K. Tesch, M.A. Atherton, T.G. Karayiannis, M.W. Collins, and P. Edwards. Determining heat transfer coefficients using evolutionary algorithms. *Engineering Optimization*, 41(9):855–870, September 2009.
 - [6256] Olivier Teytaud. Comparison-Based Complexity of Multiobjective Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 801–806, Dublin, Ireland, July 12-16 2011. ACM Press.
 - [6257] Chris Thachuk, Jose Crossa, Jorge Franco, Susanne Dreisigacker, Marilyn Warburton, and Guy F. Davenport. Core Hunter: and algorithm for sampling genetic resources based on multiple genetic measures. *BMC Bioinformatics*, 10, August 6 2009. Art. Number 243.
 - [6258] Radha Thangaraj, Millie Pant, Pascal Bouvry, and Ajith Abraham. Solving Multi Objective Stochastic Programming Problems Using Differential Evolution. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary, and Memetic Computing, SEMCCO 2010*, pages 54–61, Chennai, India, December 16-18 2010. Springer. Lecture Notes in Computer Science Vol. 6466.
 - [6259] John E. Theisinger and Robert D. Braun. Multi-Objective Hypersonic Entry Aeroshell Shape Optimization. *Journal of Spacecraft and Rockets*, 46(5):957–966, September-October 2009.
 - [6260] D. Thévenin and G. Janiga. *Optimization and Computational Fluid Dynamics*. Springer-Verlag, Berlin, Heidelberg, 2008. ISBN 978-3-540-72152-9.
 - [6261] Jules Thibault. Net Flow and Rough Sets: Two Methods for Ranking the Pareto Domain. In Rangaiah Gade Pandu, editor, *Multi-Objective Optimization Techniques and Applications in Chemical Engineering*, chapter 7, pages 189–236. World Scientific, Singapore, 2009. ISBN 978-981-283-651-9.
 - [6262] Lothar Thiele, Kaisa Miettinen and Pekka J. Korhonen, and Julian Molina. A Preference-Based Evolutionary Algorithm for Multi-Objective Optimization. *Evolutionary Computation*, 17(3):411–436, Fall 2009.
 - [6263] Dirk Thierens. Convergence Time Analysis for the Multi-objective Counting Ones Problem. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 355–364, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
 - [6264] Dirk Thierens and Peter A.N. Bosman. Multi-Objective Mixture-based Iterated Density Estimation Evolutionary Algorithms. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen,

Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 663–670, San Francisco, California, 2001. Morgan Kaufmann Publishers.

- [6265] Dirk Thierens and Peter A.N. Bosman. Multi-Objective Optimization with Iterated Density Estimation Evolutionary Algorithms using Mixture Models. In *Proceedings of the Third International Symposium on Adaptive Systems—Evolutionary Computation and Probabilistic Graphical Models*, pages 129–136, Havana, Cuba, March 19–23 2001. Institute of Cybernetics, Mathematics and Physics.
- [6266] P. Santhi Thilagam and V.S. Ananthanarayana. Extraction and optimization of fuzzy association rules using multi-objective genetic algorithm. *Pattern Analysis and Applications*, 11(2):159–168, 2008.
- [6267] Nikos S. Thomaidis. Active Portofolio Management From a Fuzzy Multi-Objective Programming Perspective. In Cecilia Di Chio, Anthony Brabazon, Gianni A. Di Caro, Marc Ebner, Muddassar Farooq, Andreas Fink, Jörn Grahl, Gary Greenfield, Penousal Machado, Michael O’Neill, Ernesto Tarantino, and Neil Urquhard, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMNET, EvoENVIRONMENT, EvoFIN, EvoMUSART and EvoTRANSLOG*, pages 222–231, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6025.
- [6268] Mark W. Thomas. *A Pareto Frontier for Full Stern Submarines via Genetic Algorithm*. PhD thesis, Ocean Engineering Department, Massachusetts Institute of Technology, Cambridge, MA, June 1998.
- [6269] Mark W. Thomas. Multi-Species Pareto Frontiers in Preliminary Submarine Design. *Foundations of Computing and Decision Sciences*, 25(4):273–289, 2000.
- [6270] Ryan W. Thomas. *Cognitive Networks*. PhD thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA, June 15 2007.
- [6271] Carlos E. Thomaz, Marco Aurélio C. Pacheco, and Marley Maria B.R. Velasco. Mobile Robot Path Planning Using Genetic Algorithms. In José Mira and Juan V. Sánchez-Andrés, editors, *Foundations and Tools for Neural Modeling, International Work-Conference on Artificial and Natural Neural Networks, IWANN’99*, pages 671–679, Alicante, Spain, June 2-4 1999. Springer. Lecture Notes in Computer Science Vol. 1606.
- [6272] H. A. Thompson, P. J. Fleming, and A. J. Chipperfield. Multi-Objective Optimisation of Systems Architectures for Distributed Aero-Engine Control Systems. In *The 43rd ASME Gas Turbine and Aeroengine Technical Congress*, volume 98-GT-045, Stockolm, Sweden, June 1998. ASME Press.

- [6273] H.A. Thompson, A.J. Chipperfield, P.J. Fleming, and C. Legge. Distributed aero-engine control systems architecture selection using multi-objective optimisation. *Control Engineering Practice*, 7(5):655–664, 1999.
- [6274] Robert Thomson and Tughrul Arslan. An Evolutionary Algorithm for the Multi-Objective Optimisation of VLSI Primitive Operator Filters. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 37–42, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [6275] Robert Thomson and Tughrul Arslan. The Evolutionary Design and Synthesis of Non-Linear Digital VLSI Systems. In Jason Lohn, Ricardo Zebulum, James Steincamp, Didier Keymeulen, Adrian Stoica, and Michael I. Ferguson, editors, *Proceedings of the 2003 NASA/DoD Conference on Evolvable Hardware*, pages 125–134, Los Alamitos, California, July 2003. IEEE Computer Society Press.
- [6276] Robert Thomson and Tughrul Arslan. On the Impact of Modelling, Robustness, and Diversity to the Performance of a Multi-Objective Evolutionary Algorithm for Digital VLSI System Design. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 1, pages 382–389, Canberra, Australia, December 2003. IEEE Press.
- [6277] Jing Tian and Lincheng Shen. A Multi-objective Evolutionary Algorithm for Multi-UAV Cooperative Reconnaissance Problem. In Irwin King, Jun Wang, Laiwan Chan, and DeLiang L. Wang, editors, *Neural Information Processing. 13th International Conference (ICONIP 2006)*, pages 900–909. Springer, Lecture Notes in Computer Science, Vol. 4234, Hong Kong, China, October 3-6 2006. ISBN 3-540-46484-0.
- [6278] Lei Tian, Liyan Han, and Hai Huang. Multi-objective Optimal Public Investment: An Extended Model and Genetic Algorithm-Based Case Study. In Bartłomiej Beliczynski, Andrzej Dzielinski, Marcin Iwanowski, and Bernardete Ribeiro, editors, *Adaptive and Natural Computing Algorithms, 8th International Conference, ICANNGA 2007, Part I*, pages 314–322, Warsaw, Poland, April 2007. Springer-Verlag. Lecture Notes in Computer Science Vol. 4431.
- [6279] Zhigang Tian, Ming J. Zuo, and Hong-Zhong Huang. Optimal Redundancy Allocation of Multi-State Systems with Genetic Algorithms. In Gregory Levitin, editor, *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pages 191–214. Springer, Heidelberg, 2007.
- [6280] Chuan-Kang Ting, Chung-Nan Lee, Hui-Chun Chang, and Jain-Shing Wu. Wireless Heterogeneous Transmitter Placement Using Multiobjective Variable-Length Genetic Algorithm. *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, 39(4):945–958, August 2009.
- [6281] Wiwat Tippachon and Dulpichet Rerkpreedapong. Multiobjective optimal placement of switches and protective devices in electric power distribution

systems using ant colony optimization. *Electric Power Systems Research*, 79(7):1171–1178, July 2009.

- [6282] F. L. Tito, G. N. Taranto, and D. M. Falcão. Integrated Tuning of Generator Excitation Systems by a Multiobjective Genetic Algorithm. In *Proceedings of the International Conference on Intelligent System Application to Power Systems (ISAP)*, Rio de Janeiro, Brazil, April 1999.
- [6283] Ashutosh Tiwari, Rajkumar Roy, Graham Jared, and Olivier Munaux. Challenges in Real-Life Engineering Design Optimization: An Analysis. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 289–294, San Francisco, California, July 2001.
- [6284] Ashutosh Tiwari, Victor Oduguwa, and Rajkumar Roy. Rolling System Design using Evolutionary Sequential Process Optimization. *IEEE Transactions on Evolutionary Computation*, 12(2):196–202, April 2008.
- [6285] Ashutosh Tiwari and Rajkumar Roy. Application of Generalised Regression GA for Designing a Turbine Blade Cooling System. In Alwyn M. Barry, editor, *GECCO 2002: Proceedings of the Bird of a Feather Workshops, Genetic and Evolutionary Computation Conference*, pages 108–113, New York, July 2002. AAAI.
- [6286] Ashutosh Tiwari and Rajkumar Roy. Variable Response Interaction and Multi-objective Optimisation. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 602–609, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [6287] Ashutosh Tiwari, Rajkumar Roy, Graham Jared, and Olivier Munaux. Interaction and Multi-Objective Optimisation. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 671–678, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [6288] Ashutosh Tiwari, Christopher Turner, Peter Ball, and Kostas Vergidis. Multi-Objective Optimisation of Web business Processes. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborty, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 573–577, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [6289] Ashutosh Tiwari, Kostas Vergidis, and Basim Majeed. Evolutionary Multi-objective Optimization of Business Processes. In *2006 IEEE Congress on*

Evolutionary Computation (CEC'2006), pages 10448–10454, Vancouver, BC, Canada, July 2006. IEEE.

- [6290] Ashutosh Tiwari, Kostas Vergidis, and Rajkumar Roy. Evolutionary Optimization of Business Process Designs. In Keshav P. Dahal, Kay Chen Tan, and Peter I Cowling, editors, *Evolutionary Scheduling*, Studies in Computational Intelligence (SCI), pages 513–541. Springer, Berlin, 2007. ISBN 3-540-48582-1.
- [6291] M.K. Tiwari, S.K. Tiwari, D. Roy, N.K. Vidyarthi, and S. Kamushwaran. A Genetic Algorithm Based Approach to Solve Process Plan Selection Problems. In *Proceedings of the Second International Conference on Intelligent Processing and Manufacturing of Materials*, volume 1, pages 281–284, 1999.
- [6292] S. Tiwari and N. Chakraborti. Multi-objective optimization of a two-dimensional cutting problem using genetic algorithms. *Journal of Materials Processing Technology*, 173:384–393, 2006.
- [6293] Santosh Tiwari, Georges Fadel, and Kalyanmoy Deb. AMGA2: Improving the Performance of the Archive-Based Micro-Genetic Algorithm for Multi-Objective Optimization. *Engineering Optimization*, 43(4):377–401, 2011.
- [6294] Santosh Tiwari, Georges Fadel, Patrick Koch, and Kalyanmoy Deb. Performance Assessment of the Hybrid Archive-based Micro Genetic Algorithm (AMGA) on the CEC09 Test Problems. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1935–1942, Trondheim, Norway, May 2009. IEEE Press.
- [6295] Santosh Tiwari, Patrick Koch, Georges Fadel, and Kalyanmoy Deb. AMGA: An Archive-based Micro Genetic Algorithm for Multi-objective Optimization. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 729–736, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6296] Vincent T'kindt and Jean-Charles Billaut. *Multicriteria Scheduling. Theory, Models and Algorithms*. Springer, Berlin, 2002. ISBN 3-540-43617-0.
- [6297] Vincent T'kindt, Nicolas Monmarché, Fabrice Tercinet, and Daniel Laügt. An Ant Colony Optimization algorithm to solve a 2-machine bicriteria flowshop scheduling problem. *European Journal of Operational Research*, 142(2):250–257, October 2002.
- [6298] David S. Todd. *Multiple Criteria Genetic Algorithms in Engineering Design and Operation*. PhD thesis, University of Newcastle, Newcastle-upon-Tyne, UK, October 1997.
- [6299] David S. Todd, J. Scott, and Pratyush Sen. A Genetic Algorithm Based Approach to Systems Scheduling. In *IFAC Symposium on Large Scale Systems*, Patras, Greece, July 1998.

- [6300] David S. Todd, J. Scott, and Pratyush Sen. Genetic Algorithms Applied to Ship Design and Manufacturing Processes. In *PRADS 98*, The Hague, September 1998.
- [6301] David S. Todd and Pratyush Sen. A Multiple Criteria Genetic Algorithm for Containership Loading. In Thomas Bäck, editor, *Proceedings of the Seventh International Conference on Genetic Algorithms*, pages 674–681, San Mateo, California, July 1997. Michigan State University, Morgan Kaufmann Publishers.
- [6302] David S. Todd and Pratyush Sen. Multiple Criteria Scheduling using Genetic Algorithms in a Shipyard Environment. In *Proceedings of the 9th International Conference on Computer Applications in Shipbuilding*, Yokohama, Japan, October 1997.
- [6303] David S. Todd and Pratyush Sen. Distributed Task Scheduling and Allocation Using Genetic Algorithms. In *24th International Conference on Computers and Industrial Engineering*, Brunel University, UK, September 1998.
- [6304] David S. Todd and Pratyush Sen. Tackling Complex Job Shop Problems Using Operation Based Scheduling. In Ian Parmee, editor, *The Integration of Evolutionary and Adaptive Computing Technologies with Product/System Design and Realisation*, pages 45–58, Plymouth, United Kingdom, April 1998. Plymouth Engineering Design Centre, Springer-Verlag.
- [6305] David S. Todd and Pratyush Sen. Directed Multiple Objective Search of Design Spaces Using Genetic Algorithms and Neural Networks. In W. Banzhaf, J. Daida, A. E. Eiben, M. H. Garzon, V. Honavar, M. Jakiela, and R. E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 2, pages 1738–1743, San Francisco, California, July 1999. Morgan Kaufmann.
- [6306] A. Toffolo and A. Lazzaletto. Evolutionary algorithms for multi-objective energetic and economic optimization in thermal system design. *Energy*, 27(6):549–567, June 2002.
- [6307] Andrea Toffolo. Evolutionary Multi-Objective Optimization in Energy Conversion Systems: From Component Detail to System Configuration. In Lam Thu Bui and Sameer Alam, editors, *Multi-Objective Optimization in Computational Intelligence: Theory and Practice*, pages 333–363. Information Science Reference, Hershey, PA, USA, 2008. ISBN 978-1-59904-498-9.
- [6308] Andrea Toffolo and Ernesto Benini. A New Pareto-like Evaluation Method for Finding Multiple Global Optima in Evolutionary Algorithms. In *Late Breaking Papers at the 2000 Genetic and Evolutionary Computation Conference*, pages 405–410, Las Vegas, Nevada, July 2000.
- [6309] Andrea Toffolo and Ernesto Benini. Genetic Diversity as an Objective in Multi-Objective Evolutionary Algorithms. *Evolutionary Computation*, 11(2):151–167, Summer 2003.

- [6310] S.F. Toha and M.O. Tokhi. Augmented feedforward and feedback control of a twin rotor system using real-coded MOGA. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1217–1224, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6311] Jari Toivanen, Jari P. Hämäläinen, Kaisa Miettinen, and Pasi Tarvainen. Designing Paper Machine Headbox using GA. *Materials and Manufacturing Processes*, 18(3):533–541, 2003.
- [6312] Paresh Tolay and Rajeev Kumar. Evolution of Hyperheuristics for the Biobjective Graph Coloring Problem Using Multiobjective Genetic Programming. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 1939–1940, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [6313] Thomas Tometzki and Sebastian Engell. Risk conscious solution of planning problems under uncertainty by hybrid multi-objective evolutionary algorithms. *Computers & Chemical Engineering*, 35(11):2521–2539, November 2011.
- [6314] Kuo-Feng Tong. Simultaneous Plant/Controller Optimization of Traction Control for Electric Vehicle. Master's thesis, University of Waterloo, Waterloo, Ontario, Canada, 2007.
- [6315] Siu Tong and David J. Powell. Genetic Algorithms: A Fundamental Component of an Optimization Toolkit for Improved Engineering Designs. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 2347–2359. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [6316] X.Y. Tong, G.B. Cai, Y.T. Zheng, and J. Fang. Optimization of system parameters for gas-generator engines. *Acta Astronautica*, 59(1–5):246–252, July–September 2006.
- [6317] Umut Topal and Uemit Uzman. Multiobjective optimization of angle-ply laminated plates for maximum buckling load. *Finite Elements in Analysis and Design*, 46(3):273–279, March 2010.
- [6318] Ismail H. Toroslu and Yilmaz Arslanoglu. Genetic algorithm for the personnel assignment problem with multiple objectives. *Information Sciences: an International Journal*, 177(3):787–803, February 2007.
- [6319] A. C. Torres-Echeverría, S. Martorell, and H. A. Thompson. Design optimization of a safety-instrumented system based on RAMS plus C addressing IEC 61508 requirements and diverse redundancy. *Reliability Engineering & System Safety*, 94(2):162–179, February 2009.
- [6320] A. C. Torres-Echeverría, S. Martorell, and H. A. Thompson. Modelling and Optimization of proof testing policies for safety instrumented systems. *Reliability Engineering & Systems Safety*, 94(4):838–854, April 2009.

- [6321] Gregorio Toscano Pulido. Optimizacin Multiobjetivo Usando un Micro Algoritmo Gentico. Master's thesis, Maestría en Inteligencia Artificial, Universidad Veracruzana, Xalapa, Veracruz, México, September 2001. (In Spanish).
- [6322] Gregorio Toscano Pulido. *On the Use of Self-Adaptation and Elitism for Multi-objective Particle Swarm Optimization*. PhD thesis, Computer Science Section, Department of Electrical Engineering, CINVESTAV-IPN, Mexico, September 2005.
- [6323] Gregorio Toscano Pulido and Carlos A. Coello Coello. The Micro Genetic Algorithm 2: Towards Online Adaptation in Evolutionary Multiobjective Optimization. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 252–266, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [6324] Gregorio Toscano Pulido and Carlos A. Coello Coello. Using Clustering Techniques to Improve the Performance of a Particle Swarm Optimizer. In Kalyanmoy Deb et al., editor, *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference. Part I*, pages 225–237, Seattle, Washington, USA, June 2004. Springer-Verlag, Lecture Notes in Computer Science Vol. 3102.
- [6325] Gregorio Toscano-Pulido, Carlos A. Coello Coello, and Luis Vicente Santana-Quintero. EMOPSO: A Multi-Objective Particle Swarm Optimizer with Emphasis on Efficiency. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 272–285, Matsushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [6326] V. G. Toshinsky, H. Sekimoto, and G. I. Toshinsky. A method to improve multiobjective genetic algorithm optimization of a self-fuel-providing LMFBR by niche induction among nondominated solutions. *Annals of Nuclear Energy*, 27(5):397–410, March 2000.
- [6327] VG Toshinsky, H Sekimoto, and GI Toshinsky. Multiobjective fuel management optimization for self-fuel-providing LMFBR using genetic algorithms . *Annals Of Nuclear Energy*, 26(9):783–802, June 1999.
- [6328] Khoa Duc Tran. *An Improved Multi-Objective Evolutionary Algorithm with Adaptable Parameters*. PhD thesis, Graduate School of Computer and Information Systems, Nova Southeastern University, August 2006.
- [6329] H. Trautmann, T. Wagner, B. Naujoks, M. Preuss, and J. Menhen. Statistical Methods for Convergence Detection of Multi-Objective Evolutionary Algorithms. *Evolutionary Computation*, 17(4):493–509, Winter 2009.

- [6330] Heike Trautmann, Uwe Ligges, Jörn Mehnen, and Mike Preuss. A Convergence Criterion for Multiobjective Evolutionary Algorithms Based on Systematic Statistical Testing. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature–PPSN X*, pages 825–836. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [6331] Heike Trautmann and Jörn Mehnen. Preference-based pareto optimization in certain and noisy environments. *Engineering Optimization*, 41(1):23–38, January 2009.
- [6332] Heike Trautmann, Jörn Mehnen, and Boris Naujoks. Pareto-Dominance in Noisy Environments. In *2009 IEEE Congress on Evolutionary Computation (CEC’2009)*, pages 3119–3126, Trondheim, Norway, May 2009. IEEE Press.
- [6333] X. L. Jr. Travassos, D. A. G. Vieira, V. Palade, and A. Nicolas. Noise Reduction in a Non-Homogenous Ground Penetrating Radar Problem by Multiobjective Neural Networks. *IEEE Transactions on Magnetics*, 45(3):1454–1457, March 2009.
- [6334] V. Javier Traver and Filiberto Pla. Log-polar mapping template design: From task-level requirements to geometry parameters. *Image and Vision Computing*, 26(10):1354–1370, October 1 2008.
- [6335] Krzysztof Trawinski, Oscar Cordon, and Arnaud Quirin. A Study on the Use of Multiobjective Genetic Algorithms for Classifier Selection in FURIA-based Fuzzy Multiclassifiers. *International Journal of Computational Intelligence Systems*, 5(2):231–253, April 2012.
- [6336] A. Trebi-Ollennu and B. A. White. Multiobjective Fuzzy Genetic Algorithm Optimisation Approach to Nonlinear Control System Design. In *UKACC International Conference on Control*, volume 1, pages 479–484, San Francisco, California, September 1996.
- [6337] A. Trebi-Ollennu and B. A. White. Multiobjective Fuzzy Genetic Algorithm Optimization Approach to Nonlinear Control System Design. *IEE Proceedings, Control Theory and Applications*, 144(2):137–142, March 1997.
- [6338] Martin Trefzer, Jörg Langeheine, Karlheinz Meier, and Johannes Schemmel. Operational amplifiers: An example for multi-objective optimization on an analog evolvable hardware platform. In J. Manuel Moreno, Jordi Madrenas, and Jordi Cosp, editors, *Evolvable Systems: From Biology to Hardware, 6th International Conference, ICES 2005*, pages 86–97, Sitges, Spain, September 2005. Springer. Lecture Notes in Computer Science Vol. 3637.
- [6339] Martin Albrecht Trefzer. *Evolution of Transistor Circuits*. PhD thesis, Ruperto-Carola-University of Heidelberg, Germany, December 2006.

- [6340] Luis M. Torres Trevino, Felipe A. Reyes Valdes, Victor Lopez, and Rolando Praga Alejo. Multi-objective optimization of a welding process by the estimation of the Pareto optimal set. *Expert Systems With Applications*, 38(7):8045–8053, July 2011.
- [6341] P. K. Tripathi, Sanghamitra Bandyopadhyay, and S. K. Pal. Adaptive Multi-objective Particle Swarm Optimization Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2281–2288, Singapore, September 2007. IEEE Press.
- [6342] Praveen K. Tripathi, Sanghamitra Bandyopadhyay, and Sankar K. Pal. Incorporating Distance Domination in Multiobjective Evolutionary Algorithm. In Sankar K. Pal, Sanghamitra Bandyopadhyay, and Sambhunath Biswas, editors, *Pattern Recognition and Machine Intelligence*, pages 684–689. Springer, Lecture Notes in Computer Science, Vol. 3776, Kolkata, India, 2005.
- [6343] Praveen Kumar Tripathi, Sanghamitra Bandyopadhyay, and Sankar Kumar Pal. Multi-objective particle swarm optimization with time variant inertia and acceleration coefficients. *Information Sciences*, 177(22):5033–5049, November 2007.
- [6344] Praveen Kumar Tripathi, Sanghamitra Bandyopadhyay, and Sankar Kumar Pal. An Adaptive Multi-Objective Particle Swarm Optimization algorithm with Constraint Handling. In Bijaya Ketan Panigrahi, Yuhui Shi, and Meng-Hiot Lim, editors, *Handbook of Swarm Intelligence. Concepts, Principles and Applications*, pages 221–239. Springer-Verlag, Berlin, Germany, 2011. ISBN 978-3-642-17389-9.
- [6345] Vipin K. Tripathi and Hiten M. Chauhan. Multi Objective Optimization of Planetary Gear Train. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 578–582, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [6346] Leonardo Trujillo, Gustavo Olague, Evelyne Lutton, and Francisco Fernández de Vega. Multiobjective Design of Operators that Detect Points of Interest in Images. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1299–1306, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6347] Giuseppe A. Trunfio. Exploiting Spatio-temporal Data for the Multiobjective Optimization of Cellular Automata Models. In Emilio Corchado, Hujun Yin, Vicente J. Botti, and Colin Fyfe, editors, *Intelligent Data Engineering and Automated Learning - IDEAL 2006, 7th International Conference*, pages 81–89. Springer. Lecture Notes in Computer Science Vol. 4224, Burgos, Spain, September 20-23 2006.

- [6348] Chang-Chun Tsai, Chao-Hsien Chu, and Xiaodan Wu. An Evolutionary Fuzzy Multi-objective Approach to Cell Formation. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein A. Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006, Proceedings*, pages 377–383, Hefei, China, October 2006. Springer. Lecture Notes in Computer Science Vol. 4247.
- [6349] Chi-Yang Tsai and Szu-Wei Yeh. A multiple objective particle swarm optimization approach for inventory classification. *International Journal of Production Economics*, 114(2):656–666, August 2008.
- [6350] Jinn-Tsong Tsai and Jyh-Homg Chou. Design of optimal digital IIR filters by using an improved immune algorithm. *IEEE Transactions on Signal Processing*, 54(12):4582–4596, December 2006.
- [6351] Jinn-Tsong Tsai, Jyh-Horng Chou, and Tung-Kuan Liu. Optimal design of digital IIR filters by using hybrid Taguchi genetic algorithm. *IEEE Transactions on Industrial Electronics*, 53(3):867–879, June 2006.
- [6352] Men-Shen Tsai and Fu-Yuan Hsu. Application of Grey Correlation Analysis in Evolutionary Programming for Distribution System Feeder Reconfiguration. *IEEE Transactions on Power Systems*, 25(2):1126–1133, May 2010.
- [6353] Shang-Jeng Tsai, Tsung-Ying Sun, Chan-Cheng Liu, Sheng-Ta Hsieh, Wun-Ci Wu, and Shih-Yuan Chiu. An improved multi-objective particle swarm optimizer for multi-objective problems. *Expert Systems With Applications*, 37(8):5872–5886, August 2010.
- [6354] Chi-Ho Tsang, Sam Kwong, and Hanli Wang. Anomaly intrusion detection using multi-objective genetic fuzzy system and agent-based evolutionary computation framework. In *Fifth IEEE International Conference on Data Mining*, pages 789–792. IEEE Press, 27-30 November 2005.
- [6355] Chueh-Yung Tsao. Portfolio selection based on the mean-VaR efficient frontier. *Quantitative Finance*, 10(8):931–945, 2010.
- [6356] Theodore Tsekeris, Loukas Dimitriou, and Antony Stathopoulos. Combined Genetic Computation of Microscopic Trip Demand in Urban Networks. In Andreas Fink and Franz Rothlauf, editors, *Advances in Computational Intelligence in Transport, Logistics and Supply Chain Management*, pages 3–21. Springer. Studies in Computational Intelligence Vol. 144, 2008.
- [6357] Lin-Yu Tseng and Chun Chen. Multiple Trajectory Search for Multiobjective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3609–3616, Singapore, September 2007. IEEE Press.
- [6358] Lin-Yu Tseng and Chun Chen. Multiple Trajectory Search for Unconstrained/Constrained Multi-Objective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1951–1958, Trondheim, Norway, May 2009. IEEE Press.

- [6359] Effie Tsoi, Kit Po Wong, and Chun Che Fung. Hybrid GA/SA Algorithms for Evaluating Trade-off Between Economic Cost and Environmental Impact in Generation Dispatch. In David B. Fogel, editor, *Proceedings of the Second IEEE Conference on Evolutionary Computation (ICEC'95)*, pages 132–137, Piscataway, New Jersey, 1995. IEEE Press.
- [6360] Ching-Shih Tsou. Multi-objective inventory planning using MOPSO and TOPSIS. *Expert Systems with Applications*, 35(1–2):136–142, July–August 2008.
- [6361] Ching-Shih Tsou, Shih-Chia Chang, and Po-Wu Lai. Using Crowding Distance to Improve Multi-Objective PSO with Local Search. In Felix T.S. Chan and Manoj Kumar Tiwari, editors, *Swarm Intelligence. Focus on Ant and Particle Swarm Optimization*, pages 77–86. I-Tech Education and Publishing, Croatia, December 2007.
- [6362] Ching-Shih Tsou, Hsiao-Hua Fang, Hsu-Hwa Chang, and Chia-Hung Kao. An Improved Particle Swarm Pareto Optimizer with Local Search and Clustering. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein A. Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006, Proceedings*, pages 400–407, Hefei, China, October 2006. Springer. Lecture Notes in Computer Science Vol. 4247.
- [6363] Ching-Shih Tsou and Chia-Hung Kao. An Electromagnetism-Like Meta-Heuristic for Multi-Objective Optimization. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3988–3994, Vancouver, BC, Canada, July 2006. IEEE.
- [6364] N. Tsukamoto, Y. Nojima, and H. Ishibuchi. Effects of nongeometric binary crossover on multiobjective 0/1 knapsack problems. *Artificial Life and Robotics*, 13(2):434–437, March 2009.
- [6365] Osman Turan and Hao Cui. A Reinforcement Learning Based Hybrid Evolutionary Algorithm for Ship Stability Design. In Raymond Chiong, Thomas Weise, and Zbigniew Michalewicz, editors, *Variants of Evolutionary Algorithms for Real-World Applications*, pages 281–303, Berlin, 2012.
- [6366] Alessandro Turco. MetaHybrid: Combining Metamodels and Gradient-Based Techniques in a Hybrid Multi-Objective Genetic Algorithm. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 293–307, Rome, Italy, January 17–21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
- [6367] Alessandro Turco and Carlos Kavka. MFGA: A GA for Complex Real-World Optimization Problems. In Bogdan Filipič and Jurij Silč, editors, *Proceedings of the 4th International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2010)*, pages 107–116, Ljubljana, Slovenia, May 20–21 2010. Jozef Stefan Institute Press.

- [6368] PJ Turinsky. Mathematical optimization of incore nuclear fuel management decisions: Status and trends. *ATW-Internationale Zeitschrift Fur Kernenergie*, 44(7):454–+, July 1999.
- [6369] A. Turkcan and M.S. Akturk. A problem space genetic algorithm in multiobjective optimization. *Journal of Intelligent Manufacturing*, 14(3-4):363–378, June-August 2003.
- [6370] Bekir S. Türkmen and Osman Turan. An Application Study of Multi-Agent Systems in Multi-Criteria Ship Design Optimisation. In *Proceedings of the Third International EuroConference on Computer and IT Applications in the Maritime Industries (COMPIT'04)*, pages 340–354, Siguenza, Madrid, 2004.
- [6371] Marianne C. Turley and E. David Ford. Definition and calculation of uncertainty in ecological process models. *Ecological Modelling*, 220(17):1968–1983, September 10 2009.
- [6372] C. C. Tutum and J. H. Hattel. Numerical optimisation of friction stir welding: review of future challenges. *Science and Technology of Welding and Joining*, 16(4):318–324, May 2011.
- [6373] Cem C. Tutum and Jesper H. Hattel. Multi-Objective Optimization of Process Parameters in Friction Stir Welding. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 1323–1324, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [6374] Cem Celal Tutum, Kalyanmoy Deb, and Jesper Hattel. Hybrid Search for Faster Production and Safer Process Conditions in Friction Stir Welding. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 603–612, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.
- [6375] Cem Celal Tutum and Jesper Henri Hattel. A Multi-objective Optimization Application in Friction Stir Welding: Considering Thermo-mechanical Aspects. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 427–434, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6376] Tea Tušar. Design of an Algorithm for Multiobjective Optimization with Differential Evolution. Master's thesis, Faculty of Computer and Information Science, University of Ljubljana, Slovenia, June 2007.
- [6377] Tea Tušar and Bogdan Filipič. Differential Evolution Versus Genetic Algorithms in Multiobjective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*,

pages 257–271, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.

- [6378] Tea Tušar and Bogdan Filipič. Visualizing 4D Approximation Sets of Multiobjective Optimizers with Prosections. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 737–744, Dublin, Ireland, July 12–16 2011. ACM Press.
- [6379] D. Tuytens, J. Teghem, Ph. Fortemps, and K. Van Nieuwenhuyze. Performance of the MOSA Method for the Bicriteria Assignment Problem. *Journal of Heuristics*, 6(3):295–310, August 2000.
- [6380] Daniel Tuytens, Jacques Teghem, and Nasser El-Sherbeny. A Particular Multiobjective Vehicle Routing Problem Solved by Simulated Annealing. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T'kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 133–152. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535, Berlin, 2004.
- [6381] Satish K. Tyagi, Kai Yang, Annu Tyagi, and Suren N. Dwivedi. Development of a fuzzy goal programming model for optimization of lead time and cost in an overlapped product development project using a Gaussian Adaptive Particle Swarm Optimization-based approach. *Engineering Applications of Artificial Intelligence*, 24(5):866–879, August 2011.
- [6382] Tapio Tyni and Jari Ylinen. Evolutionary Bi-objective Controlled Elevator Group Regulates Passenger Service Level and Minimises Energy Consumption. In *Parallel Problem Solving from Nature - PPSN VIII*, pages 822–831, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [6383] Tapio Tyni and Jari Ylinen. Evolutionary bi-objective optimisation in the elevator car routing problem. *European Journal of Operational Research*, 169(3):960–977, March 2006.
- [6384] Gwo.Hshiung Tzeng and Jen-Swei Kuo. Fuzzy Multiobjective Double Sampling Plans with Genetic Algorithms Based on Bayesian Model. In Weiling Chiang and Jonathan Lee, editors, *Proceedings of the International Joint Conference of CFSA/IFIS/SOFT95 on Fuzzy Theory and Applications*, pages 59–64, Singapore, 1995. World Scientific.
- [6385] Steve Uhlig. *Implications of Traffic Characteristics on Interdomain Traffic Engineering*. PhD thesis, Département d'Ingénierie Informatique de l'Université Catholique de Louvain, Belgium, March 2004.
- [6386] Steve Uhlig. A Multiple-Objectives Evolutionary Perspective to Interdomain Traffic Engineering. *International Journal of Computational Intelligence and Applications*, 5(2):215–230, 2005.

- [6387] Steve Uhlig and Olivier Bonaventure. Designing BGP-based outbound traffic engineering techniques for stub ASes. *Computer Communications Review*, 34(5):89–106, October 2004.
- [6388] Tamara Ulrich, Johannes Bader, and Lothar Thiele. Defining and Optimizing Indicator-Based Diversity Measures in Multiobjective Search. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part I*, pages 707–717. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [6389] Tamara Ulrich, Johannes Bader, and Eckart Zitzler. Integrating Decision Space Diversity into Hypervolume-Based Multiobjective Search. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 455–462, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [6390] Tamara Ulrich, Dima Brockhoff, and Eckart Zitzler. Pattern Identification in Pareto-Set Approximations. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 737–744, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6391] Tamara Ulrich and Lothar Thiele. Maximizing Population Diversity in Single-Objective Optimization. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 641–648, Dublin, Ireland, July 12–16 2011. ACM Press.
- [6392] E.L. Ulungu. *Optimisation Combinatoire multicritère: Détermination de l'ensemble des solutions efficaces et méthodes interactives*. PhD thesis, Université de Mons-Hainaut, Faculté des Sciences, Mons, Belgique, 1993.
- [6393] E.L. Ulungu, J. Teghem, and Ph. Fortemps. Heuristics for multi-objective combinatorial optimization by simulated annealing. In J. Gu, G. Chen, Q. Wei, and S. Wang, editors, *Multiple Criteria Decision Making: Theory and Applications. Proceedings of the 6th National Conference on Multiple Criteria Decision Making*, pages 228–238, Windsor, UK, 1995. Sci-Tech.
- [6394] E.L. Ulungu, J. Teghem, Ph. Fortemps, and D. Tuytens. MOSA Method: A Tool for Solving Multiobjective Combinatorial Optimization Problems. *Journal of Multi-Criteria Decision Analysis*, 8(4):221–236, 1999.
- [6395] E.L. Ulungu, J. Teghem, and Ch. Ost. Efficiency of interactive multi-objective simulated annealing through a case study. *Journal of the Operational Research Society*, 49:1044–1050, 1998.
- [6396] Prakarn Unachak and Erik Goodman. Solving Multiobjective Flexible Job-Shop Scheduling Using an Adaptive Representation. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 737–742, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.

- [6397] Takeshi Uno, Kosuke Kato, and Hideshi Katagiri. An Application of Interactive Fuzzy Satisficing Approach with Particle Swarm Optimization for Multiobjective Emergency Facility Location Problem with A-distance. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 368–373, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [6398] Ahmet Ünveren and Adnan Acan. Multi-Objective Optimization with Cross Entropy Method: Stochastic Learning with Clustered Pareto Fronts. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3065–3071, Singapore, September 2007. IEEE Press.
- [6399] Habib ur Rehman, Imran Zaka, Muhammad Naeem, Syed Ismail Shah, and Jamil Ahmad. Minimum Bit Error Rate Multiuser Detection for OFDM-SDMA Using Particle Swarm Optimization. In De-Shuang Huang, Laurent Heutte, and Marco Loog, editors, *Advanced Intelligent Computing Theories and Applications, Third International Conference on Intelligent Computing, ICIC 2007*, pages 1247–1256, Qingdao, China, August 21–24 2007. Springer. Lecture Notes in Computer Science Vol. 4681.
- [6400] Neil Urquhart, Emma Hart, and Cathy Scott. Building Low CO₂ Solutions to the Vehicle Routing Problem with Time Windows Using an Evolutionary Algorithm. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1394–1399, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6401] Rasmus K. Ursem. *Models for Evolutionary Algorithms and Their Applications in System Identification and Control Optimization*. PhD thesis, Department of Computer Science, University of Aarhus, Denmark, April 2003.
- [6402] Rasmus K. Ursem and Peter Dueholm Justesen. The Multi-Objective Distinct Candidates Optimization Approach. In Bogdan Filipič and Jurij Silč, editors, *Proceedings of the 4th International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2010)*, pages 55–66, Ljubljana, Slovenia, May 20–21 2010. Jozef Stefan Institute Press.
- [6403] Rasmus K. Ursem and Peter Dueholm Justesen. Multi-objective Distinct Candidates Optimization: Locating a few highly different solutions in a circuit component sizing problem. *Applied Soft Computing*, 12(1):255–265, January 2012.
- [6404] James Vaccaro and Clark Guest. Evolutionary Bayesian Network Dynamic Planner for Game RISK. In Günther R. Raidl et al., editor, *Applications of Evolutionary Computing. Proceedings of Evoworkshops 2004: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoMUSART, and EvoSTOC*, pages 549–560, Coimbra, Portugal, April 2004. Springer. Lecture Notes in Computer Science Vol. 3005.
- [6405] Jean-Philippe Vacher, Alain Cardon, and Thierry Galinho. Genetic Algorithms on Multi-Agents Systems. In *Proceedings of EUROGEN'97*, Trieste, Italie, December 1997.

- [6406] Jean-Philippe Vacher, Alain Cardon, and Thierry Galinho. Algorithmes Génétiques Multi-Objectif en Ordonnancement de Production de type Job-Shop. In *FRANCORO II*, page 58, Sousse, Tunisie, Avril 1998. (In French).
- [6407] Jean-Philippe Vacher, Alain Cardon, and Thierry Galinho. Genetic Algorithm using Multi-Objective in a Multi-Agent System. In *The Second International Symposium On Intelligent Manufacturing Systems IMS'98*, pages 273–282, Sakarya, Turquie, August 1998.
- [6408] Jean-Philippe Vacher, Alain Cardon, and Thierry Galinho. Heuristics Granularity in a Multi-Agents Systems (MAS): Application to the Production Management. In *Proceedings of ????*, page 8, Guildford, UK, March 1998.
- [6409] Jean-Philippe Vacher, Alain Cardon, and Thierry Galinho. Information System for Management : Random generators for Job-Shop Scheduling Problems. In *The Seventh International Conference Information Systems Development ISD'98*, Bled, Slovenia, September 1998.
- [6410] Jean-Philippe Vacher, Alain Cardon, and Thierry Galinho. Information Systems for Management in Job-Shop Scheduling Problems using a Multi-Objective Genetic Algorithm. In *NIMES'98, Complex Systems, Intelligent Systems & Interfaces*, pages 97–100, May 1998.
- [6411] Jean-Philippe Vacher, Alain Cardon, and Thierry Galinho. Macrophagic Agents in Multi-agent Systems to Resolve Job-Shop Scheduling Problem. In *The 32th Hawaii International Conference on System Sciences HICSS-32*, Maui, Hawaii, January 1999.
- [6412] Jean-Philippe Vacher, Alain Cardon, Franck Lesage, and Thierry Galinho. Genetic Algorithms in a Multi-Agent System. In *Proceedings IEEE International Joint Symposia on Intelligence and Systems*, pages 17–26, Rockville, MD, USA, May 1998.
- [6413] Jean-Philippe Vacher and Thierry Galinho. A Multi-Agent System Using Multi-Objective Genetic Algorithm: A Solution with Macrophagic Agents. In *Proceedings of the 4th International Conference on Information Systems, Analysis and Synthesis, ISAS'98, World Multiconference on Systems, Cybernetics and Informatics (SCI'98)*, pages 326–332, Orlando, Florida, July 1998.
- [6414] Jean-Philippe Vacher, Thierry Galinho, and Zoubir Mammeri. Une application des algorithmes génétiques à l'ordonnancement d'atelier. In Ed. Hermes, editor, *Proceeding de la conférence MOSIM'97*, pages 43–50, Mont-Saint-Aignan, Juin 1997. (in French).
- [6415] Prahlad Vadakkepat, Kay Chen Tan, and Wang Ming-Liang. Evolutionary Artificial Potential Fields and Their Application in Real-Time Robot Path Planning. In *Proceedings of the 2000 Congress on Evolutionary Computation*, volume 1, pages 256–263. IEEE, 2000.

- [6416] Srikanth Vadde, Abe Zeid, and Sagar V. Kamarthi. Pricing decisions in a multi-criteria setting for product recovery facilities. *Omega-International Journal Of Management Science*, 39(2):186–193, April 2011.
- [6417] B. Vahdani and M. Zandieh. Scheduling trucks in cross-docking systems: Robust meta-heuristics. *Computers & Industrial Engineering*, 58(1):12–24, February 2010.
- [6418] Ali Vahdat, Malcolm Heywood, and Nur Zincir-Heywood. Bottom-up Evolutionary Subspace Clustering. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1371–1378, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6419] J. J. Valdés and A. J. Barton. Visualizing High Dimensional Objective Spaces for Multi-objective Optimization: A Virtual Reality Approach. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4199–4206, Singapore, September 2007. IEEE Press.
- [6420] Julio J. Valdés, Alan J. Barton, and Robert Orchard. Virtual Reality High Dimensional Objective Spaces for Multi-Objective Optimization: An Improved Representation. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4191–4198, Singapore, September 2007. IEEE Press.
- [6421] Sergio Ivvan Valdez Peña, Salvador Botello Rionda, and Arturo Hernández Aguirre. Multiobjective Shape Optimization Using Estimation Distribution Algorithms and Correlated Information. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 664–676, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [6422] Sergio Ivvan Valdez Peña, Salvador Botello Rionda, and Arturo Hernández Aguirre. Multiobjective Shape Optimization with Constraints based on Estimation Distribution Algorithms and Correlated Information. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 749–750, New York, USA, June 2005. ACM Press.
- [6423] Julio J. Valdés and Alan J. Barton. Multi-objective Evolutionary Optimization for Visual Data Mining with Virtual Reality Spaces: Application to Alzheimer Gene Expressions. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 723–730, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [6424] Julio J. Valdés and Alan J. Barton. Virtual Reality Spaces for Visual Data Mining with Multiobjective Evolutionary Optimization: Implicit and Explicit Function Representations Mixing Unsupervised and Supervised Properties. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 5591–5598, Vancouver, BC, Canada, July 2006. IEEE.

- [6425] Christine L. Valenzuela. A Simple Evolutionary Algorithm for Multi-Objective Optimization (SEAMO). In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 717–722, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [6426] Manuel Valenzuela-Rendón and Eduardo Uresti-Charre. A Non-Generational Genetic Algorithm for Multiobjective Optimization. In Thomas Bäck, editor, *Proceedings of the Seventh International Conference on Genetic Algorithms*, pages 658–665, San Mateo, California, July 1997. Michigan State University, Morgan Kaufmann Publishers.
- [6427] Juan Jose Valera Garcia, Vicente Gomez Garay, Eloy Irigoyen Gordo, Fernando Artaza Fano, and Mikel Larrea Sukia. Intelligent Multi-Objective Non-linear Model Predictive Control (iMO-NMPC): Towards the ‘on-line’ optimization of highly complex control problems. *Expert Systems with Applications*, 39(7):6527–6540, June 1 2012.
- [6428] Peter Vamplew, Richard Dazeley, Adam Berry, Rustam Issabekov, and Evan Dekker. Empirical evaluation methods for multiobjective reinforcement learning algorithms. *Machine Learning*, 84(1-2):51–80, July 2011.
- [6429] L.S. Vamvakieridou-Lyroudia, G.A. Walters, and D.A. Savic. Fuzzy multiobjective optimization of water distribution networks. *Journal of Water Resources Planning and Management-ASCE*, 131(6):467–476, November-December 2005.
- [6430] René A. Van den Braembussche. Numerical Optimization for Advanced Turbomachinery Design. In Dominique Thévenin and Gábor Janiga, editors, *Optimization and Computational Fluid Dynamics*, chapter 6, pages 147–189. Springer-Verlag, Berlin, 2008.
- [6431] Vincent van der Goes, Ofer M. Shir, and Thomas Bäck. Niche Radius Adaptation with Asymmetric Sharing. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature-PPSN X*, pages 195–204. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [6432] Niels van Hoorn, Julian Togelius, Daan Wierstra, and Jürgen Schmidhuber. Robust Player Imitation Using Multiobjective Evolution. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 652–659, Trondheim, Norway, May 2009. IEEE Press.
- [6433] Thé Van Luong, Nouredine Melab, and El-Ghazali Talbi. GPU-Based Approaches for Multiobjective Local Search Algorithms. A Case Study: The Flowshop Scheduling Problem. In Peter Merz and Jin-Kao Hao, editors, *Evolutionary Computation in Combinatorial Optimization, 11th European Conference, EvoCOP 2011*, pages 155–166, Torino, Italy, April 27-29 2011. Springer. Lecture Notes in Computer Science Vol. 6622.

- [6434] David A. Van Veldhuizen, Jesse B. Zydallis, and Gary B. Lamont. Issues in Parallelizing Multiobjective Evolutionary Algorithms for Real World Applications. In *Proceedings of the 17th ACM Symposium on Applied Computing*, pages 595–602, Madrid, Spain, 2002. ACM Press.
- [6435] David A. Van Veldhuizen, Jesse B. Zydallis, and Gary B. Lamont. Considerations in Engineering Parallel Multiobjective Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, 7(2):144–173, April 2003.
- [6436] P. Vanbommel, T. Vanderweide, and C. B. Lucasius. Genetic Algorithms for Optimal Logical Database Design. *Information and Software*, 36(12):725–732, December 1994.
- [6437] M. Varadarajan and K.S. Sworup. Solving multi-objective optimal power flow using differential evolution. *IET Generation Transmission & Distribution*, 2(5):720–730, September 2008.
- [6438] Ramiro Varela, Camino R. Vela, Jorge Puente, Maria Sierra, and Ines Gonzalez-Rodriguez. An effective solution for a real cutting stock problem in manufacturing plastic rolls. *Annals of Operations Research*, 166(1):125–146, February 2009.
- [6439] Varun and Siddhartha. Thermal performance optimization of a flat plate solar air heater using genetic algorithm. *Applied Energy*, 87(5):1793–1799, May 2010.
- [6440] J.A. Vasconcelos, R.L.S. Adriano, D.A.G. Vieira, G.F.D. Souza, and H.S. Azevedo. NSGA with Elitism Applied to Solve Multiobjective Optimization Problems. *Journal of Microwaves and Optoelectronics*, 2(6):59–69, December 2002.
- [6441] M. Vasile and F. Zuiani. Multi-agent collaborative search: an agent-based memetic multi-objective optimization algorithm applied to space trajectory design. *Proceedings of the Institution of Mechanical Engineers Part G-Journal of Aerospace Engineering*, 225(G11):1211–1227, November 2011.
- [6442] Massimiliano Vasile. Hybrid Behavioral-Based Multiobjective Space Trajectory Optimization. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 11, pages 231–253. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [6443] Massimiliano Vasile and Nicolas Croisard. Robust Preliminary Space Mission Design under Uncertainty. In Yoel Tenne and Chi-Keong Goh, editors, *Computational Intelligence in Expensive Optimization Problems*, pages 543–570. Springer, Berlin, Germany, 2010. ISBN 978-3-642-10700-9.
- [6444] Massimiliano Vasile and Federico Zuiani. A Hybrid Multiobjective Optimization Algorithm Applied to Space Trajectory Optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 308–315, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [6445] Igor Vatolkin, Mike Preuß, and Günter Rudolph. Multi-Objective Feature Selection in Music Genre and Style Recognition Task. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 411–418, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6446] Elisa Vazquez, Joaquim Ciurana, Ciro A. Rodriguez, Thanongsak Thepsonthi, and Tugrul Ozel. Swarm Intelligent Selection and Optimization of Machining System Parameters for Microchannel Fabrication in Medical Devices. *Materials and Manufacturing Processes*, 26(3):403–414, 2011.
- [6447] Jose Antonio Vazquez-Castillo, Josue Addiel Venegas-Sanchez, Juan Gabriel Segovia-Hernandez, Hector Hernandez-Escoto, Salvador Hernandez, Claudia Gutierrez-Antonio, and Abel Briones-Ramirez. Design and optimization, using genetic algorithms, of intensified distillation systems for a class of quaternary mixtures. *Computers & Chemical Engineering*, 33(11):1841–1850, November 12 2009.
- [6448] Matej Črepinšek, Marjan Mernik, Barbara Zadobovšek, and Shih-Hsi Liu. Ancestry Tree as Base for Analysis of Exploration and Exploitation in Evolutionary Algorithms. In Bogdan Filipič and Jurij Šilc, editors, *Proceedings of the 4th International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2010)*, pages 31–42, Ljubljana, Slovenia, May 20-21 2010. Jozef Stefan Institute Press.
- [6449] Massimo Vecchio, Roberto Lopez-Valcarce, and Francesco Marcelloni. A two-objective evolutionary approach based on topological constraints for node localization in wireless sensor networks. *Applied Soft Computing*, 12(7):1891–1901, July 2012.
- [6450] Ganesh Vedarajan, Louis Chi Chan, and David E. Goldberg. Investment Portfolio Optimization using Genetic Algorithms. In John R. Koza, editor, *Late Breaking Papers at the Genetic Programming 1997 Conference*, pages 255–263, Stanford University, California, July 1997. Stanford Bookstore.
- [6451] Christian Veenhuis, Mario Köppen, and Raul Vicente-Garcia. Evolutionary multi-objective optimization of particle swarm optimizers. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2273–2280, Singapore, September 2007. IEEE Press.
- [6452] Kalyan Veeramachaneni and Lisa Ann Osadciw. Dynamic Sensor Management Using Multi Objective Particle Swarm Optimizer. In Belur V. Dasarathy, editor, *Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications 2004. Proceedings of the SPIE*, pages 205–216, Orlando, Florida, USA, April 2004. SPIE–The International Society for Optical Engineering.
- [6453] Kalyan Veeramachaneni, Katya Vladislavleva, Matt Burland, Jason Parcon, and Una-May O'Reilly. Evolutionary Optimization of Flavors. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation*

- (*GECCO'2010*), pages 1291–1298, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [6454] Kalyan Veeramachaneni, Weizhong Yan, Kai Goebel, and Lisa Osadciw. Improving Classifier Fusion using Particle Swarm Optimization. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 128–135, Honolulu, Hawaii, USA, April 2007. IEEE Press.
 - [6455] Nadarajen Veerapen and Frédéric Saubion. Pareto Autonomous Local Search. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 392–406, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
 - [6456] Miguel A. Vega-Rodríguez, Juan A. Gómez-Pulido, Enrique Alba, David Vega-Pérez, Silvio Priem-Mendes, and Guillermo Molina. Evaluation of different metaheuristics solving the rnd problem. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2007: EvoCOMNET, EvoFIN, EvoIASP, EvoINTERACTION, EvoMUSART, EvoSTOC and EvoTRANSLOG*, pages 101–110, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4448.
 - [6457] Tamie Lynne Veith. *Agricultural BMP placement for cost-effective pollution control at the watershed level*. PhD thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, April 2002.
 - [6458] David A. Van Veldhuizen. *Multiobjective Evolutionary Algorithms: Classifications, Analyses, and New Innovations*. PhD thesis, Department of Electrical and Computer Engineering, Graduate School of Engineering, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, May 1999.
 - [6459] David A. Van Veldhuizen and Gary B. Lamont. Evolutionary Computation and Convergence to a Pareto Front. In John R. Koza, editor, *Late Breaking Papers at the Genetic Programming 1998 Conference*, pages 221–228, Stanford University, California, July 1998. Stanford University Bookstore.
 - [6460] David A. Van Veldhuizen and Gary B. Lamont. Multiobjective Evolutionary Algorithm Research: A History and Analysis. Technical Report TR-98-03, Department of Electrical and Computer Engineering, Graduate School of Engineering, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, 1998.
 - [6461] David A. Van Veldhuizen and Gary B. Lamont. Genetic Algorithms, Building Blocks, and Multiobjective Optimization. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 125–126, Orlando, Florida, July 1999.
 - [6462] David A. Van Veldhuizen and Gary B. Lamont. MOEA Test Suite Generation, Design & Use. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 113–114, Orlando, Florida, July 1999.

- [6463] David A. Van Veldhuizen and Gary B. Lamont. Multiobjective Evolutionary Algorithm Test Suites. In Janice Carroll, Hisham Haddad, Dave Oppenheim, Barrett Bryant, and Gary B. Lamont, editors, *Proceedings of the 1999 ACM Symposium on Applied Computing*, pages 351–357, San Antonio, Texas, 1999. ACM.
- [6464] David A. Van Veldhuizen and Gary B. Lamont. Multiobjective Evolutionary Algorithms: Analyzing the State-of-the-Art. *Evolutionary Computation*, 8(2):125–147, 2000.
- [6465] David A. Van Veldhuizen and Gary B. Lamont. Multiobjective Optimization with Messy Genetic Algorithms. In *Proceedings of the 2000 ACM Symposium on Applied Computing*, pages 470–476, Villa Olmo, Como, Italy, 2000. ACM.
- [6466] David A. Van Veldhuizen and Gary B. Lamont. On Measuring Multiobjective Evolutionary Algorithm Performance. In *2000 Congress on Evolutionary Computation*, volume 1, pages 204–211, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [6467] David A. Van Veldhuizen, Brian S. Sandlin, , Robert M. Marmelstein, and Gary B. Lamont. Finding Improved Wire-Antenna Geometries with Genetic Algorithms. In David B. Fogel, editor, *Proceedings of the 1998 International Conference on Evolutionary Computation*, pages 102–107, Piscataway, New Jersey, 1998. IEEE.
- [6468] V. Rao Vemuri and Walter Cedeño. A New Genetic Algorithm for Multi-Objective Optimization in Water Resource Management. In *1996 Knowledge-based Computer Systems*, Bombay, India, December 1996. KBIS Proceedings.
- [6469] V. Rao Vemuri and Walter Cede no. A New Genetic Algorithm for Multi Objective Optimization in Water Resource Management. In *Proceedings of the Second IEEE International Conference on Evolutionary Computation*, pages 495–500, Piscataway, New Jersey, 1995. IEEE Press.
- [6470] Neelakantam V. Venkaratayalu and Tapabrata Ray. Application of Multiobjective Optimization in Electromagnetic Design. In Nadia Nedjah and Luiza de Macedo Mourelle, editors, *Real-World Multi-Objective System Engineering*, pages 77–100. Nova Science Publishers, New York, 2005.
- [6471] Neelakantam V. Venkatarayalu and Tapabrata Ray. Single and Multi-objective design of Yagi-Uda Antennas using Computational Intelligence. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 1237–1242, Canberra, Australia, December 2003. IEEE Press.
- [6472] G. Venter and R. T. Haftka. Constrained particle swarm optimization using a bi-objective formulation. *Structural and Multidisciplinary Optimization*, 40(1-6):65–76, January 2010.

- [6473] Sebastián Ventura, Cristóbal Romero, Amelia Zafra, José A. Delgado, and César Hervás. Jclec: a java framework for evolutionary computation. *Soft Computing*, 12(4):381–392, February 2008.
- [6474] V. Venugopal and T. T. Narendran. A Genetic Algorithm Approach to the Machine-Component Grouping Problem with Multiple Objectives. *Computers and Industrial Engineering*, 22(4):469–480, 1992.
- [6475] Griet Verbeeck. Life Cycle Optimization of Extremely Low Energy Dwellings. *Journal of Building Physics*, 31(2):143–177, October 2007.
- [6476] Griet Verbeeck. *Optimisation of Extremely Low Energy Residential Buildings*. PhD thesis, Katholieke Universiteit Leuven, Faculteit Ingenieurswetenschappen, Leuven, Belgium, May 2007.
- [6477] Sébastien Verel, Arnaud Liefooghe, and Clarisse Dhaenens. Set-Based Multi-objective Fitness Landscapes: A Preliminary Study. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 769–776, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6478] Sébastien Verel, Arnaud Liefooghe, Jérémie Humeau, Laetitia Jourdan, and Clarisse Dhaenens. On the Effect of Connectedness for Biobjective Multiple and Long Path Problems. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 31–45, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
- [6479] Sébastien Verel, Arnaud Liefooghe, Laetitia Jourdan, and Clarisse Dhaenens. Analyzing the Effect of Objective Correlation on the Efficient Set of MNK-Landscapes. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 116–130, Rome, Italy, January 17-21 2011. Springer. Lecture Notes in Computer Science Vol. 6683.
- [6480] Sébastien Verel, Arnaud Liefooghe, Laetitia Jourdan, and Clarisse Dhaenens. Pareto Local Optima of Multiobjective NK-Landscapes with Correlated Objectives. In Peter Merz and Jin-Kao Hao, editors, *Evolutionary Computation in Combinatorial Optimization, 11th European Conference, EvoCOP 2011*, pages 226–237, Torino, Italy, April 27-29 2011. Springer. Lecture Notes in Computer Science Vol. 6622.
- [6481] Kostas Vergidis and Ashutosh Tiwari. Business Process Design and Attribute Optimization within an Evolutionary Framework. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 668–675, Hong Kong, June 2008. IEEE Service Center.
- [6482] Kostas Vergidis, Ashutosh Tiwari, and Basim Majeed. Composite Business Processes: An Evolutionary Multi-objective Optimization Approach. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2672–2678, Singapore, September 2007. IEEE Press.

- [6483] Theodoros Vergidis, Kostas Vergidis, and Ashutosh Tiwari. The Evaluation Line: A Posteriori Preference Articulation Approach. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2699–2705, Hong Kong, June 2008. IEEE Service Center.
- [6484] Gaurav Verma, Arun Kumar, and Krishna K. Mishra. A Novel Non-dominated Sorting Algorithm. In Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das, and Suresh Chandra Satapathy, editors, *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pages 274–281, Visakhapatnam, Andhra Pradesh, India, December 19–21 2011. Springer. Lecture Notes in Computer Science Vol. 7076.
- [6485] Manish Verma, Vedat Verter, and Michel Gendreau. A Tactical Planning Model for Railroad Transportation of Dangerous Goods. *Transportation Science*, 45(2):163–174, May 2011.
- [6486] Rodrigo Verschae, Javier Ruiz del Solar, Mario Köppen, and Raul Vicente Garcia. Improvement of a Face Detection System by Evolutionary Multi-Objective Optimization. In Nadia Nedjah, Luiza M. Mourelle, Marley M.B.R. Vellasco, Ajith Abraham, and Mario Köppen, editors, *Fifth International Conference on Hybrid Intelligent Systems (HIS'05)*, pages 361–366, Los Alamitos, California, USA, November 2005. IEEE Computer Society.
- [6487] Christophe Versele, Olivier Deblecker, and Jacques Lobry. A computer-aided design tool dedicated to isolated DC-DC converters based on multiobjective optimization using genetic algorithms. *Compel-the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 31(2):583–603, 2012.
- [6488] Christophe Versele, Olivier Deblecker, and Jacques Lobry. A Response Surface Methodology Approach to Study the Influence of Specifications or Model Parameters on the Multiobjective Optimal Design of Isolated DC-DC Converters. *IEEE Transactions on Power Electronics*, 27(7):3383–3395, July 2012.
- [6489] Andreea Vescan. Optimal Component Selection Using a Multiobjective Evolutionary Algorithm. *Neural Network World*, 19(2):201–213, 2009.
- [6490] Dalessandro Soares Vianna and José Elias Claudio Arroyo. A GRASP algorithm for the multi-objective knapsack problem. In *XXIV International Conference of the Chilean Computer Science Society (SCCC'04)*, pages 69–75, Arica, Chile, November 2004. IEEE Computer Society.
- [6491] A Vicini and D Quagliarella. Airfoil and wing design through hybrid optimization strategies. *AIAA Journal*, 37(5):634–641, May 1999.
- [6492] Alessandro Vicini and Domenico Quagliarella. Inverse and Direct Airfoil Design Using a Multiobjective Genetic Algorithm. *AIAA Journal*, 35(9):1499–1505, September 1997.

- [6493] Alessandro Vicini and Domenico Quagliarella. Multipoint transonic airfoil design by means of a multiobjective genetic algorithm. In *35th AIAA Aerospace Sciences Meeting and Exhibit*, Reno, Nevada, January 1997. American Institute of Aeronautics and Astronautics (AIAA). AIAA Paper 97-0082.
- [6494] Alessandro Vicini and Domenico Quagliarella. Airfoil and Wing Design Through Hybrid Optimization Strategies. In *16th Applied Aerodynamics Conference*, Albuquerque, New Mexico, June 1998. American Institute of Aeronautics and Astronautics (AIAA). AIAA Paper 98-2729.
- [6495] T. A. A. Victoire and P. N. Suganthan. Improved MOCLPSO algorithm for environmental/economic dispatch. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3072–3076, Singapore, September 2007. IEEE Press.
- [6496] Juan C. Vidal, Manuel Mucientes, Alberto Bugarin, and Manuel Lama. Machine Scheduling in Custom Furniture Industry Through Neuro-Evolutionary Hybridization. *Applied Soft Computing*, 11(2):1600–1613, March 2011.
- [6497] Y. Vidyakiran, B. Mahanty, and N. Chakraborti. A genetic-algorithms-based multiobjective approach for a three-dimensional guillotine cutting problem. *Materials and Manufacturing Processes*, 20(4):697–715, 2005.
- [6498] Deo Vidyarthi and Lutfi Khanbary. Multi-objective optimization for channel allocation in mobile computing using NSGA-II. *International Journal of Network Management*, 21(3):247–266, May 2011.
- [6499] Douglas A.G. Vieira, Ricardo L.S. Adriano, Joao A. Vasconcelos, and Laurent Krähenbühl. Treating Constraints as Objectives in Multiobjective Optimization Problems Using Niche Pareto Genetic Algorithm. *IEEE Transactions on Magnetics*, 40(2):1188–1191, March 2004.
- [6500] Douglas A.G. Vieira, Ricardo L.S. Adriano, Laurent Krähenbühl, and Joao A. Vasconcelos. Handling Constraints as Objectives in a Multiobjective Genetic Based Algorithm. *Journal of Microwaves and Optoelectronics*, 2(6):50–58, December 2002.
- [6501] Fabio R. J. Vieira and Valmir C. Barbosa. Optimization of supply diversity for the self-assembly of simple objects in two and three dimensions. *Natural Computing*, 10(1):551–581, March 2011.
- [6502] Susana M. Vieira, Joao M. C. Sousa, and Thomas A. Runkler. Multi-Criteria Ant Feature Selection Using Fuzzy Classifiers. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 2, pages 19–36. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [6503] Susana M. Vieira, Joao M. C. Sousa, and Uzay Kaymak. Fuzzy criteria for feature selection. *Fuzzy Sets and Systems*, 189(1):1–18, February 16 2012.

- [6504] Rémy Viennet, Christian Fontiex, and Ivan Marc. New Multicriteria Optimization Method Based on the Use of a Diploid Genetic Algorithm: Example of an Industrial Problem. In J.-M. Alliot, E. Lutton, E. Ronald, M. Schoenauer, and D. Snyers, editors, *Proceedings of Artificial Evolution (European Conference, selected papers)*, pages 120–127, Brest, France, September 1995. Springer-Verlag. Lecture Notes in Computer Science Vol. 1063.
- [6505] Rémy Viennet, Christian Fontiex, and Ivan Marc. Multicriteria Optimization Using a Genetic Algorithm for Determining a Pareto Set. *International Journal of Systems Science*, 27(2):255–260, 1996.
- [6506] Mario Villalobos-Arias, Carlos A. Coello Coello, and Onésimo Hernández-Lerma. Convergence Analysis of a Multiobjective Artificial Immune System Algorithm. In Giuseppe Nicosia, Vincenzo Cutello, Peter J. Bentley, and Jon Timmis, editors, *Artificial Immune Systems. Proceedings of the Third International Conference (ICARIS'2004)*, pages 226–235, Catania, Sicily, Italy, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3239.
- [6507] Mario Villalobos-Arias, Carlos A. Coello Coello, and Onésimo Hernández-Lerma. Asymptotic Convergence of some Metaheuristics used for Multiobjective Optimization. In A.H. Wright et al., editor, *Foundations of Genetic Algorithms (FOGA 2005)*, pages 95–111, Aizu, Japan, 2005. Springer-Verlag. Lecture Notes in Computer Science Vol. 3469.
- [6508] Mario Villalobos-Arias, Carlos A. Coello Coello, and Onésimo Hernández-Lerma. Asymptotic convergence of a simulated annealing algorithm for multiobjective optimization problems. *Mathematical Methods of Operations Research*, 64(2):353–362, October 2006.
- [6509] Mario Villalobos-Arias, Carlos A. Coello Coello, and Onésimo Hernández-Lerma. Asymptotic Convergence of Metaheuristics for Multiobjective Optimization Problems. *Soft Computing*, 10(11):1001–1005, September 2006.
- [6510] Mario Alberto Villalobos Arias. *Analysis of Optimization Heuristics for Multiobjective Problems*. PhD thesis, Department of Mathematics, CINVESTAV-IPN, Mexico, D.F., Mexico, August 2005.
- [6511] Mario Alberto Villalobos-Arias, Gregorio Toscano Pulido, and Carlos A. Coello Coello. A Proposal to Use Stripes to Maintain Diversity in a Multi-Objective Particle Swarm Optimizer. In *2005 IEEE Swarm Intelligence Symposium (SIS'05)*, pages 22–29, Pasadena, California, USA, June 2005. IEEE Press.
- [6512] Laura Villanova, Paolo Falcaro, Davide Carta, Irene Poli, Rob Hyndman, and Kate Smith-Miles. Functionalization of microarray devices: Process optimization using a multiobjective PSO and multiresponse MARS modeling. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2562–2569, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [6513] José Villar, Adolfo Otero, José Otero, and Luciano Sánchez. Genetic algorithms for estimating longest path from inherently fuzzy data acquired with GPS. In Emilio Corchado, Hujun Yin, Vicente J. Botti, and Colin Fyfe, editors, *Intelligent Data Engineering and Automated Learning—IDEAL 2006*, pages 232–240, Burgos, Spain, September 2006. Springer-Verlag. Lecture Notes in Computer Science Vol. 4224.
- [6514] Jose Villar, Adolfo Otero, Jose Otero, and Luciano Sanchez. Taximeter verification using imprecise data from GPS. *Engineering Applications of Artificial Intelligence*, 22(2):250–260, March 2009.
- [6515] Jose Villar, Adolfo Otero, Jose Otero, and Luciano Sanchez. Taximeter verification with GPS and soft computing techniques. *Soft Computing*, 14(4):405–418, February 2010.
- [6516] Jose R. Villar, Alba Berzosa, Enrique de la Cal, Javier Sedano, and Marco Garcia-Tamargo. Multi-objective learning of white box models with low quality data. *Neurocomputing*, 75(1):219–225, January 1 2012.
- [6517] J.G. Villegas, F. Palacios, and A.L. Medaglia. Solution methods for the bi-objective (cost-coverage) unconstrained facility location problem with an illustrative example. *Annals of Operations Research*, 147(1):109–141, October 2006.
- [6518] Angela Vincenti, Mohammad Reza Ahmadian, and Paolo Vannucci. BIANCA: a genetic algorithm to solve hard combinatorial optimisation problems in engineering. *Journal Of Global Optimization*, 48(3):399–421, November 2010.
- [6519] K. Vink and P. Schot. Multiple-objective optimization of drinking water production strategies using a genetic algorithm. *Water Resources Research*, 38(9), September 2002. Article Number: 1181.
- [6520] B. Virginas, C. Voudouris, G. Owusu, and G. Anim-Ansah. ARMS Collaborator—Intelligent Agents Using Markets to Organise Resourcing in Modern Enterprises. *BT Technology Journal*, 21(4):59–64, October 2003.
- [6521] S. Visalakshi and S. Baskar. Multiobjective Decentralized Congestion Management Using Modified NSGA-II. *Arabian Journal for Science and Engineering*, 36(5):827–840, August 2011.
- [6522] Israel Vite-Silva, Nareli Cruz-Cortés, Gregorio Toscano-Pulido, and Luis G. de la Fraga. Optimal Triangulation in 3D Computer Vision Using a Multi-objective Evolutionary Algorithm. In Mario Giacobini et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2007: EvoCOMNET, EvoFIN, EvoIASP, EvoINTERACTION, EvoMUSART, EvoSTOC and EvoTRANSLOG*, pages 330–339, Valencia, Spain, April 2007. Springer. Lecture Notes in Computer Science Vol. 4448.

- [6523] J. E. Vitela and O. Castaños. A Real-Coded Niching Memetic Algorithm for Continuous Multimodal Function Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2170–2177, Hong Kong, June 2008. IEEE Service Center.
- [6524] Maria Vittoria Avolio, Donato D'Ambrosio, Salvatore Di Gregorio, Valeria Lupiano, Rocco Rongo, William Spataro, and Giuseppe A. Trunfio. Evaluating Cellular Automata Models by Evolutionary Multiobjective Calibration. In Hiroshi Umeo, Shin Morishita, Katsuhiro Nishinari, Toshihiko Komatsuzaki, and Stefania Bandini, editors, *Cellular Automata, 8th International Conference on Cellular Automata for Research and Industry, ACRI 2008*, pages 114–119, Yokohama, Japan, September 23–26 2008. Springer. Lecture Notes in Computer Science Vol. 5191.
- [6525] John G. Vlachogiannis and Kwang Y. Lee. Multi-objective based on parallel vector evaluated particle swarm optimization for optimal steady-state performance of power systems. *Expert Systems with applications*, 36(8):10802–10808, October 2009.
- [6526] C. Vlachos, D. Williams, and J. B Gomm. Solution to the Shell standard control problem using genetically tuned PID controllers. *Control Engineering Practice*, 10(2):151–163, February 2002.
- [6527] Ekaterina J. Vladislavleva, Guido F. Smits, and Dick den Hertog. Order of Nonlinearity as a Complexity Measure for Models Generated by Symbolic Regression via Pareto Genetic Programming. *IEEE Transactions on Evolutionary Computation*, 13(2):333–349, April 2009.
- [6528] S. Voget. Multiobjective optimization with genetic algorithm and fuzzy control. In *Proceedings of the Fourth European Conference on Intelligent Techniques and Soft Computing (EUFIT'96)*, pages 391–394, Aachen, Germany, 1996.
- [6529] Stefan Voget and Michael Kolonko. Multidimensional Optimization with a Fuzzy Genetic Algorithm. *Journal of Heuristics*, 4(3):221–244, September 1998.
- [6530] Christian Daniel von Lücken Martínez. Algoritmos evolutivos para optimización multiobjetivo: Un estudio comparativo en un ambiente paralelo asíncrono. Master's thesis, Universidad Nacional de Asunción, Paraguay, 2003. (In Spanish).
- [6531] Thomas Voß, Nicola Beume, Günter Rudolph, and Christian Igel. Scalarization Versus Indicator-Based Selection in Multi-Objective CMA Evolution Strategies. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 3041–3048, Hong Kong, June 2008. IEEE Service Center.
- [6532] Thomas Voß, Nikolaus Hansen, and Christian Igel. Recombination for Learning Strategy Parameters in the MO-CMA-ES. In Matthias Ehrgott, Carlos M.

- Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 155–168. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
- [6533] Thomas Voss, Nikolaus Hansen, and Christian Igel. Improved Step Size Adaptation for the MO-CMA-ES. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 487–494, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [6534] Thomas Voß, Heike Trautmann, and Christian Igel. New Uncertainty Handling Strategies in Multi-objective Evolutionary Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part II*, pages 260–269. Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September 2010.
- [6535] Gholamreza Vossoughi and Siavash Rezazadeh. Optimization of the Calibration for an Internal Combustion Engine Management System Using Multi-Objective Genetic Algorithms. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1254–1261, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6536] Ivan Voutchkov and A.J. Keane. Multiobjective Optimization using Surrogates. In I.C. Parmee, editor, *Adaptive Computing in Design and Manufacture 2006. Proceedings of the Seventh International Conference*, pages 167–175, Bristol, UK, April 2006. The Institute for People-centred Computation.
- [6537] Dana Vrajitoru. Hybrid Multiobjective Optimization Genetic Algorithms for Graph Drawing. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 912, London, UK, July 2007. ACM Press.
- [6538] Jasper A. Vrugt and Bruce A. Robinson. Improved evolutionary optimization from genetically adaptive multimethod search. *Proceedings of the National Academy of Sciences of the United States of America*, 104(3):708–711, January 16 2007.
- [6539] Damir Vucina, Zeljan Lozina, and Frane Vlák. NPV-based decision support in multi-objective design using evolutionary algorithms. *Engineering Applications Of Artificial Intelligence*, 23(1):48–60, February 2010.
- [6540] Hiroshi Wada, Junichi Suzuki, Yuji Yamano, and Katsuya Oba. Evolutionary deployment optimization for service-oriented clouds. *Software-Practice & Experience*, 41(5):469–493, April 2011.
- [6541] Tobias Wagner, Nicola Beume, and Boris Naujoks. Pareto-, Aggregation-, and Indicator-Based Methods in Many-Objective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko

- Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 742–756, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [6542] Tobias Wagner, Michael Emmerich, André Deutz, and Wolfgang Ponweiser. On Expected-Improvement Criteria for Model-Based Multi-objective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Proceedings, Part I*, pages 718–727. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
 - [6543] Tobias Wagner, Thomas Michelitsch, and Alexei Sacharov. On the Design of Optimisers for Surface Reconstruction. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 2195–2202, London, UK, July 2007. ACM Press.
 - [6544] Tobias Wagner and Heike Trautmann. Integration of Preferences in Hypervolume-Based Multiobjective Evolutionary Algorithms by Means of Desirability Functions. *IEEE Transactions on Evolutionary Computation*, 14(5):688–701, October 2010.
 - [6545] Tobias Wagner and Heike Trautmann. Online convergence detection for evolutionary multi-objective algorithms revisited. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3554–3561, Barcelona, Spain, July 18–23 2010. IEEE Press.
 - [6546] Tobias Wagner, Heike Trautmann, and Luis Martí. A Taxonomy of On-line Stopping Criteria for Multi-Objective Evolutionary Algorithms. In Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner, and Salvatore Grecco, editors, *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pages 16–30, Ouro Preto, Brazil, April 2011. Springer. Lecture Notes in Computer Science Vol. 6576.
 - [6547] Tobias Wagner, Heike Trautmann, and Boris Naujoks. OCD: Online Convergence Detection for Evolutionary Multi-Objective Algorithms Based on Statistical Testing. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, pages 198–215. Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009.
 - [6548] Benjamin W. Wah, Arthur Ieumwananonthachai, Lon-Chan Chu, and Akiko N. Aizawa. Genetics-based learning of new heuristics: Rational scheduling of experiments and generalization. *IEEE Transactions on Knowledge and Data Engineering*, 7(5):763–785, October 1995.
 - [6549] Mohamed E. Wahed and Wesam Z. Ibrahim. Neural network and genetic algorithms for optimizing the plate element of Egyptian research reactor problems. *Nuclear Engineering and Design*, 240(1):191–197, January 2010.

- [6550] Mohamend El-Sayed Wahed, Wesam Zakaria Ibrahim, and Ahmed Mostafa Effat. Multiobjective Optimization of the Plate Element of Egyptian Research Reactor Using Genetic Algorithm. *Nuclear Science and Engineering*, 162(3):275–281, July 2009.
- [6551] Antony Waldock and David Corne. Multi-Objective Probability Collectives. In Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcázar, Chi-Keong Goh, Juan J. Merelo, Ferrante Neri, Mike Preuss, Julian Togelius, and Georgios N. Yannakakis, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM, and EvoSTOC*, pages 461–470, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6024.
- [6552] Antony Waldock and David Corne. Multiple Objective Optimisation Applied to Route planning. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1827–1834, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6553] David J. Walker, Richard M. Everson, and Jonathan E. Fieldsend. Visualisation and ordering of many-objective populations. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3664–3671, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6554] James Alfred Walker, James A. Hilder, Dave Reid, Asen Asenov, Scott Roy, Campbell Millar, and Andy M. Tyrrell. The evolution of standard cell libraries for future technology nodes. *Genetic Programming and Evolvable Machines*, 12(3):235–256, September 2011.
- [6555] M. Walker and R.E. Smith. A technique for the multiobjective optimisation of laminated composite structures using genetic algorithms and finite element analysis. *Composite Structures*, 62(1):123–128, October 2003.
- [6556] David R. Wallace, Mark J. Jakiela, and W.C. Flowers. Design Search Under Probabilistic Specifications Using Genetic Algorithms. *Computer-Aided Design*, 28(5):405–421, 1996.
- [6557] Jennifer G. Walston. *Search Techniques for Multi-Objective Optimization of Mixed-Variable Systems Having Stochastic Responses*. PhD thesis, Air Force Institute of Technology, Graduate School of Engineering and Management, Wright-Patterson Air Force Base, Dayton, Ohio, USA, September 2007.
- [6558] Chen-Shu Wang and Ching-Ter Chang. Integrated genetic algorithm and goal programming for network topology design problem with multiple objectives and multiple criteria. *IEEE-ACM Transactions on Networking*, 16(3):680–690, June 2008.
- [6559] Chia-Ming Wang and Yin-Fu Huang. Evolutionary-Based Feature Selection Approaches With New Criteria for Data Mining: A Case Study of Credit Approval Data. *Expert Systems With Applications*, 36(3):5900–5908, April 2009.

- [6560] Chung-Ho Wang and Cheng-Hsiang Li. Optimization of an established multi-objective delivering problem by an improved hybrid algorithm. *Expert Systems With Applications*, 38(4):4361–4367, April 2011.
- [6561] D.D. Wang, A.K. Tieu, and Giovanni D’Alessio. Computational intelligence-based process optimization for tandem cold rolling. *Materials and Manufacturing Processes*, 20(3):479–496, 2005.
- [6562] Fang Wang and Yuhui Qiu. Multimodal Function Optimizing by a New Hybrid Nonlinear Simplex Search and Particle Swarm Algorithm. In Jo ao Gama, Rui Camacho, Pavel Brazdil, Alípio Jorge, and Luís Torgo, editors, *16th European Conference on Machine Learning (ECML 2005)*, pages 759–766, Porto, Portugal, October 3-7 2005. Springer. Lecture Notes in Computer Science Vol. 3720.
- [6563] Gaoping Wang and JianJun Wu. A New Fuzzy Dominance GA Applied to Solve Many-Objective Optimization Problem. In *ICICIC ’07: Proceedings of the Second International Conference on Innovative Computing, Information and Control*, page 617, Washington, DC, USA, 2007. IEEE Computer Society. ISBN 0-7695-2882-1.
- [6564] Guilong Wang, Guoqun Zhao, Huiping Li, and Yanjin Guan. Multi-objective optimization design of the heating/cooling channels of the steam-heating rapid thermal response mold using particle swarm optimization. *International Journal of Thermal Sciences*, 50(5):790–802, May 2011.
- [6565] Hanli Wang, Sam Kwong, Yaochu Jin, and Chi-Ho Tsang. Agent Based Multi-Objective Approach to Generating Interpretable Fuzzy Systems. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 339–364. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [6566] H.L. Wang, S. Kwong, Y.C. Jin, W. Wei, and K.F. Man. Multi-objective hierarchical genetic algorithm for interpretable fuzzy rule-based knowledge extraction. *Fuzzy Sets and Systems*, 149(1):149–186, 2005.
- [6567] Hongfeng Wang, Shengxiang Yang, W. H. Ip, and Dingwei Wang. Adaptive PrimalDual Genetic Algorithms in Dynamic Environments. *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, 39(6):1348–1361, December 2009.
- [6568] Jiachuan Wang and Janis P. Terpenney. Interactive Preference Incorporation in Evolutionary Engineering Design. In Yaochu Jin, editor, *Knowledge Incorporation in Evolutionary Computation*, pages 525–543. Springer, Berlin Heidelberg, 2005. ISBN 3-540-22902-7.
- [6569] Jiang Feng Wang and Jacques Periaux. Multi-Point Optimization using GAs and Nash/Stackelberg Games for High Lift Multi-airfoil Design in Aerodynamics. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC’2001)*, volume 1, pages 552–559, Piscataway, New Jersey, May 2001. IEEE Service Center.

- [6570] JianWei Wang, Jianming Zhang, and Xiaopeng Wei. Evolutionary Multi-objective Optimization Algorithm with Preference for Mechanical Design. In Daniel S. Yeung, Zhi-Qiang Liu, Xizhao Wang, and Hong Yan, editors, *Advances in Machine Learning and Cybernetics, 4th International Conference, ICMLC 2005*, pages 497–506. Springer. Lecture Notes in Computer Science Vol. 3930, Guangzhou, China, August 2006.
- [6571] JinFeng Wang, KwongSak Leung, KinHong Lee, ZhenYuan Wang, and Jun Xu. Multiregression based on upper and lower nonlinear integrals. *International Journal of Intelligent Systems*, 27(6):519–538, June 2012.
- [6572] Jun Wang, Ning Jing, Jun Li, and Huizhong Chen. A Multi-Objective Imaging Scheduling Approach for Earth Observing Satellites. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 2211–2218, London, UK, July 2007. ACM Press.
- [6573] Jun Wang, Hong Peng, and Peng Shi. An optimal image watermarking approach based on a multi-objective genetic algorithm. *Information Sciences*, 181(24):5501–5514, December 15 2011.
- [6574] Ling Wang and Ling-Po Li. Fixed-Structure H-infinity Controller Synthesis Based on Differential Evolution with Level Comparison. *IEEE Transactions on Evolutionary Computation*, 15(1):120–129, February 2011.
- [6575] Ling Wang, Yunfei Mao, Qun Niu, and Minrui Fei. A Multi-Objective Binary Harmony Search Algorithm. In Ying Tan, Yuhui Shi, Yi Chai, and Guoyin Wang, editors, *Advances in Swarm Intelligence, Second International Conference, ICSI 2011*, pages 74–81, Chongqing, China, June 12-15 2011. Springer. Lecture Notes in Computer Science Vol. 6729.
- [6576] Ling Wang, Xiang Zhong, and Min Liu. A novel group search optimizer for multi-objective optimization. *Expert Systems With Applications*, 39(3):2939–2946, February 15 2012.
- [6577] Lingfeng Wang and Chanan Singh. Multi-Objective Stochastic Power Dispatch Through A Modified Particle Swarm Optimization Algorithm. In *2006 Swarm Intelligence Symposium (SIS'06)*, pages 128–135, Indianapolis, Indiana, USA, May 2006. IEEE Press.
- [6578] Lingfeng Wang and Chanan Singh. Environmental/economic power dispatch using a fuzzified multi-objective particle swarm optimization algorithm. *Electric Power Systems Research*, 77(12):1654–1664, October 2007.
- [6579] Lingfeng Wang and Chanan Singh. PSO-Based Multi-Criteria Optimum Design of A Grid-Connected Hybrid Power System With Multiple Renewable Sources of Energy. In *Proceedings of the 2007 IEEE Swarm Intelligence Symposium (SIS 2007)*, Honolulu, Hawaii, USA, April 2007. IEEE Press.

- [6580] Lingfeng Wang and Chanan Singh. Stochastic combined heat and power dispatch based on multi-objective particle swarm optimization. *International Journal of Electrical Power & Energy Systems*, 30(3):226–234, March 2008.
- [6581] Lingfeng Wang and Chanan Singh. Reserve-constrained multiarea environmental/economic dispatch based on particle swarm optimization with local search. *Engineering Applications of Artificial Intelligence*, 22(2):298–307, March 2009.
- [6582] Lingfeng Wang and Chanan Singh. Risk and Cost Tradeoff in Economic Dispatch Including Wind Power Penetration Based on Multi-Objective Memetic Particle Swarm Optimization. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 10, pages 209–230. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [6583] Lingjuan Wang, Chengjian Wei, and Shuai Huang. Computing Nash equilibria with particle swarm optimization algorithm. *Dynamics of Continuous Discrete and Impulsive System-Series B-Applications & Algorithms*, 13:26–30, December 2006.
- [6584] Long Wang, Tong guang Wang, and Yuan Luo. Improved non-dominated sorting genetic algorithm (NSGA)-II in multi-objective optimization studies of wind turbine blades. *Applied Mathematics and Mechanics-English Edition*, 32(6):739–748, June 2011.
- [6585] Luyi Wang, Hiroyuki Ishida, Tomoyuki Hiroyasu, and Mitsunori Miki. Examination of Multi-Objective Optimization Method for Global Search Using DIRECT and GA. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2451–2456, Hong Kong, June 2008. IEEE Service Center.
- [6586] Mingna Wang, Dayong Qin, Chuiyu Lu, and Yunpeng Li. Modeling Anthropogenic Impacts and Hydrological Processes on a Wetland in China. *Water Resources Management*, 24(11):2743–2757, September 2010.
- [6587] N. Wang and K. Tai. Handling Objectives as Adaptive Constraints for Multiobjective Structural Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3922–3929, Singapore, September 2007. IEEE Press.
- [6588] N. Wang and K. Tai. A Hybrid Genetic Algorithm for Multiobjective Structural Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2948–2955, Singapore, September 2007. IEEE Press.
- [6589] N. F. Wang and K. Tai. Target matching problems and an adaptive constraint strategy for multiobjective design optimization using genetic algorithms. *Computers & Structures*, 88(19-20):1064–1076, October 2010.

- [6590] N. F. Wang, Y. W. Yang, and K. Tai. Optimization of Structures Under Load Uncertainties Based on Hybrid Genetic Algorithm. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 4040–4045, Hong Kong, June 2008. IEEE Service Center.
- [6591] Nenzi Wang and Kuo-Chiang Cha. Multi-objective optimization of air bearings using hypercube-dividing method. *Tribology International*, 43(9):1631–1638, September 2010.
- [6592] N.F. Wang and Y.W. Yang. Target Geometry Matching Problem for Hybrid Genetic Algorithm Used to Design Structures Subjected to Uncertainty. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1644–1651, Trondheim, Norway, May 2009. IEEE Press.
- [6593] Nianfeng Wang and Kang Tai. A Structural Optimization Problem Formulation for Design of Compliant Gripper Using a Genetic Algorithm. In C. A. Mota-soares, J. A. C. Martins, H. C. Rodrigues, Jorge A. C. Ambrósio, C. A. B. Pina, C. M. Motasoes, E. B. R. Pereira, and J. Folgado, editors, *III European Conference on Computational Mechanics. Solids, Structures and Coupled Problems in Engineering: Book of Abstracts*, page 456, Lisbon, Portugal, June 5-8 2006. Springer. ISBN 978-1-4020-4994-1.
- [6594] N.Z. Wang. Multi-criterion optimization for heel-toe running. *Journal of Biomechanics*, 38(8):1712–1716, August 2005.
- [6595] Pan Wang, Jianjian Zhang, Li Xu, Hong Wang, Shan Feng, and Haoshen Zhu. How to measure adaptation complexity in evolvable systems - A new synthetic approach of constructing fitness functions. *Expert Systems With Applications*, 38(8):10414–10419, August 2011.
- [6596] Shen Wang and Mahdi Mahfouf. Efficient multi-objective optimization with fitness landscape – A special application to the optimal design of alloy-steels. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 2060–2067, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6597] Shuan Wang, Dapeng Hua, Zhiguo Zhang, Ming Li, Ke Yao, and Zhanyou Wen. Robust Controller Design for Main Steam Pressure Based on SPEA2. In De-Shuang Huang, Yong Gan, Prashan Premaratne, and Kyungsook Han, editors, *Bio-Inspired Computing and Applications, 7th International Conference on Intelligent Computing, ICIC 2011*, pages 176–182, Zhengzhou, China, August 11-14 2012. Springer. Lecture Notes in Computer Science Vol. 6840.
- [6598] Shuyan Wang, Changwen Zheng, and Yuxin Wang. A Time-Fuel Optimal Algorithm for Spacecraft Formation Reconfiguration. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 994–999, Singapore, September 2007. IEEE Press.
- [6599] W. M. Wang, R. Zmeureanu, and H. Rivard. Applying multi-objective genetic algorithms in green building design optimization. *Building and Environment*, 40(11):1512–1525, November 2005.

- [6600] Wenliang Wang. New Application of Multiobjective Optimization Algorithm: Optical Thin Film Design. In *Proceedings of the Second International Joint Conference on Computational Sciences and Optimization, CSO 2009*, pages 769–772, Sanya, Hainan, China, April 24–26 2009. IEEE Computer Society Press.
- [6601] W.L. Wang, X.J. Yang, G.X. Xu, and Y. Huang. Multi-objective design optimization of the complete valve system in an adjustable linear hydraulic damper. *Proceedings of the Institution of Mechanical Engineers Part C-Journal of Mechanical Engineering Science*, 225(C3):679–699, 2011.
- [6602] W.M. Wang, H. Rivard, and R. Zmeureanu. An object-oriented framework for simulation-based green building design optimization with genetic algorithms. *Advanced Engineering Informatics*, 19(1):5–23, January 2005.
- [6603] X. D. Wang, C. Hirsch, Sh. Kang, and C. Lacor. Multi-objective optimization of turbomachinery using improved NSGA-II and approximation model. *Computer Methods in Applied Mechanics and Engineering*, 200(9–12):883–895, 2011.
- [6604] Xiaoqing Wang, Jiafu Tang, and Kai leung Yung. Optimization of the multi-objective dynamic cell formation problem using a scatter search approach. *International Journal of Advances Manufacturing Technology*, 44(3–4):318–329, September 2009.
- [6605] Xingwei Wang, Pengcheng Liu, and Min Huang. Genetic Algorithm and Pareto Optimum Based QoS Multicast Routing Scheme in NGI. In Yuping Wang, Yiuming Cheung, and Hailin Liu, editors, *Computational Intelligence and Security, International Conference, CIS 2006*, pages 115–122, Guangzhou, China, November 2007. Springer. Lecture Notes in Computer Science 4456.
- [6606] X.L. Wang and M. Mahfouf. ACSAMO: An Adaptive Multiobjective Optimization Algorithm using the Clonal Selection Principle. In *2nd European Symposium on Nature-Inspired Smart Information Systems*, Puerto de la Cruz, Tenerife, Spain, November 29–December 1 2006.
- [6607] Xuesong Wang, Minglin Hao, Yuhu Cheng, and Ruhai Lei. PDE-PEDA: A New Pareto-Based Multi-objective Optimization Algorithm. *Journal of Universal Computer Science*, 15(4):722–741, 2009.
- [6608] Y. B. Wang, P. T. Wu, X. N. Xiao, J. L. Li, L. Lv, and H. B. Shao. The Optimization for Crop Planning and Some Advances for Water-Saving Crop Planning in the Semiarid Loess Plateau of China. *Journal of Agronomy and Crop Science*, 196(1):55–65, February 2010.
- [6609] Yan Wang, Jian-Chao Zeng, and Ying Tan. An Artificial Physics Optimization Algorithm for Multi-Objective Problems Based on Virtual Force Sorting Proceedings. In Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan, and Subhransu Sekhar Dash, editors, *Swarm, Evolutionary, and*

Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010, pages 615–622. Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16–18 2010.

- [6610] Yao Wang and Mark Wineberg. Estimation of evolvability genetic algorithm and dynamic environments. *Genetic Programming and Evolvable Machines*, 7(4):355–382, December 2006.
- [6611] Yao-Nan Wang, Liang-Hong Wu, and Xiao-Fang Yuan. Multi-objective self-adaptive differential evolution with elitist archive and crowding entropy-based diversity measure. *Soft Computing*, 14(3):193–209, February 2010.
- [6612] Yaping Wang and Pham Hoang. A Multi-Objective Optimization of Imperfect Preventive Maintenance Policy for Dependent Competing Risk Systems With Hidden Failure. *IEEE Transactions on Reliability*, 60(4):770–781, December 2011.
- [6613] Ye Wang, Hongongfu Zuo, and Defeng Lv. Improved Multiobjective Maintenance Optimization of Aircraft Equipment using Strength Pareto Genetic Algorithms with Immunity. In *Fourth International Conference on Natural Computation (ICNC 2008)*, pages 621–624, Jinan, Shandong, China, October 18–20 2008. IEEE Computer Society Press.
- [6614] Yen-Wen Wang, Chin-Yuan Fan, and Chen-Hao Liu. Applying sub-population memetic algorithm for multi-objective scheduling problems. In *6th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2009)*, pages 376–379, Milan, Italy, July 2009.
- [6615] Y.H. Wang, S.Y. Yang, G.Z. Ni, P.H. Ni, and S.L. Ho. An emigration genetic algorithm for vector optimizations of electromagnetic devices. *International Journal of Applied Electromagnetics and Mechanics*, 19(1–4):103–109, 2004.
- [6616] Yong Wang and Zixing Cai. A Constrained Optimization Evolutionary Algorithm Based on Multiobjective Optimization Techniques. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1081–1087, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6617] Yong Wang and Zixing Cai. Combining Multiobjective Optimization with Differential Evolution to Solve Constrained Optimization Problems. *IEEE Transactions on Evolutionary Computation*, 16(1):117–134, February 2012.
- [6618] Yong Wang, Zixing Cai, Guanqi Guo, and Yuren Zhou. Multiobjective optimization and hybrid evolutionary algorithm to solve constrained optimization problems. *IEEE Transactions on Systems, Man and Cybernetics Part B–Cybernetics*, 37(3):560–575, June 2007.
- [6619] Yu Wang and Bin Li. Investigation of Memory-Based Multi-Objective Optimization Evolutionary Algorithm in Dynamic Environment. In *2009 IEEE*

Congress on Evolutionary Computation (CEC'2009), pages 630–637, Trondheim, Norway, May 2009. IEEE Press.

- [6620] Yu Wang, Bin Li, and Yunbi Chen. Digital IIR filter design using multi-objective optimization evolutionary algorithm. *Applied Soft Computing*, 11(2):1851–1857, March 2011.
- [6621] Yuhuai Wang, Shiyong Yang, Guangzheng Ni, S.L. Ho, and Z.J. Liu. An Emigration Genetic Algorithm and Its Application to Multiobjective Optimal Designs of Electromagnetic Devices. *IEEE Transactions on Magnetics*, 40(2):1240–1243, March 2004.
- [6622] Yujia Wang and Yupu Yang. Handling Multiobjective Problems with a Novel Interactive Multi-Swarm PSO. In De-Shuang Huang, Donald C. Wunsch II, Daniel S. Levine, and Kang-Hyun Jo, editors, *Advanced Intelligent Computing Theories and Applications With Aspects of Artificial Intelligence, 4th International Conference on Intelligent Computing, ICIC'2008*, pages 575–582. Springer, Lecture Notes in Artificial Intelligence, Vol. 5227, Shanghai, China, September 15–18 2008. ISBN 978-3-540-85983-3.
- [6623] Yujia Wang and Yupu Yang. Particle swarm optimization with preference order ranking for multi-objective optimization. *Information Sciences*, 179(12):1944–1959, May 30 2009.
- [6624] Yujia Wang and Yupu Yang. Particle swarm with equilibrium strategy of selection for multi-objective optimization. *European Journal of Operational Research*, 200(1):187–197, January 1 2010.
- [6625] Yuping Wang and Chuangyin Dang. Improving Multiobjective Evolutionary Algorithm by Adaptive Fitness and Space Division. In Lipo Wang, Ke Chen, and Yew-Soon Ong, editors, *Advances in Natural Computation. First International Conference, ICNC 2005*, pages 392–398. Springer, Lecture Notes in Computer Science, Vol. 3612, Changsha, China, 2005.
- [6626] Yuping Wang and Chuangyin Dang. An evolutionary algorithm for dynamic multi-objective optimization. *Applied Mathematics and Computation*, 205(1):6–18, November 1 2008.
- [6627] Yuping Wang, Chuangyin Dang, Hecheng Li, Lixia Han, and Jingxuan Wei. A Clustering Multi-objective Evolutionary Algorithm Based on Orthogonal and Uniform Design. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 2927–2933, Trondheim, Norway, May 2009. IEEE Press.
- [6628] Yuping Wang, Dalian Liu, and Yiu-Ming Cheung. Preference Bi-objective Evolutionary Algorithm for Constrained Optimization. In *Computational Intelligence and Security. International Conference, CIS 2005*, pages 184–191, Xi'an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.

- [6629] Zai Wang, Tianshi Chen, Ke Tang, and Xin Yao. A Multi-Objective Approach to Redundancy Allocation Problem in Parallel-Series Systems. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 582–589, Trondheim, Norway, May 2009. IEEE Press.
- [6630] Zai Wang, Ke Tang, and Xin Yao. A multi-objective approach to testing resource allocation in modular software systems. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1148–1153, Hong Kong, June 2008. IEEE Service Center.
- [6631] Zai Wang, Ke Tang, and Xin Yao. Multi-Objective Approaches to Optimal Testing Resource Allocation in Modular Software Systems. *IEEE Transactions on Reliability*, 59(3):563–575, September 2010.
- [6632] Zai Wang, Zhenyu Yang, Ke Tang, and Xin Yao. Adaptive Differential Evolution for Multi-objective Optimization. In Yong Shi, Shouyang Wang, Yi Peng, Jianping Li, and Yong Zeng, editors, *Cutting-Edge Research Topics on Multiple Criteria Decision Making (MCDM'2009)*, pages 9–16. Springer, Communications in Computer and Information Science, Vol. 35, Heidelberg, Germany, 2009.
- [6633] Zhaohua Wang, Jianhua Yin, and Weimin Ma. A Reverse Logistics Optimization Model for Hazardous Waste in the Perspective of Fuzzy Multi-Objective Programming Theory. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1576–1580, Hong Kong, June 2008. IEEE Service Center.
- [6634] Zhi-Gang Wang, M. Rahman, and Yoke-San Wong. Multi-Niche Crowding in the Development of Parallel Genetic Simulated Annealing. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1555–1556, New York, USA, June 2005. ACM Press.
- [6635] Elizabeth F. Wanner, Frederico G. Guimaraes, Ricardo H.C. Takahashi, and Peter J. Fleming. Local Search with Quadratic Approximations into Memetic Algorithms for Optimization with Multiple Criteria. *Evolutionary Computation*, 16(2):185–224, Summer 2008.
- [6636] Elizabeth F. Wanner, Frederico G. Guimaraes, Ricardo H.C. Takahashi, and Peter J. Fleming. A Quadratic Approximation-Based Local Search Procedure for Multiobjective Genetic Algorithms. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3361–3368, Vancouver, BC, Canada, July 2006. IEEE.
- [6637] S. Watanabe, T. Hiroyasu, and M. Miki. Parallel Evolutionary Multi-Criterion Optimization for Mobile Telecommunication Networks Optimization. In K.C. Giannakoglou, D.T. Tsahalis, J. Periaux, K.D. Papailiou, and T. Fogarty, editors, *Evolutionary Methods for Design, Optimization and Control with Applications to Industrial Problems. Proceedings of the EUROGEN'2001. Athens.*

Greece, September 19-21, pages 167–172, Barcelona, Spain, 2001. International Center for Numerical Methods in Engineering(CIMNE).

- [6638] Shinya Watanabe and Tomoyuki Hiroyasu. Multi-Objective Rectangular Packing Problem. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 581–602. World Scientific, Singapore, 2004.
- [6639] Shinya Watanabe, Tomoyuki Hiroyasu, and Mitsunori Miki. Parallel Evolutionary Multi-Criterion Optimization for Block Layout Problems. In *2000 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2000)*, pages 667–673, 2000.
- [6640] Shinya Watanabe, Tomoyuki Hiroyasu, and Mitsunori Miki. LCGA: Local Cultivation Genetic Algorithm for Multi-Objective Optimization Problems. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, page 702, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [6641] Shinya Watanabe, Tomoyuki Hiroyasu, and Mitsunori Miki. NCGA: Neighborhood Cultivation Genetic Algorithm for Multi-Objective Optimization Problems. In Erick Cantú-Paz, editor, *2002 Genetic and Evolutionary Computation Conference. Late-Breaking Papers*, pages 458–465, New York, July 2002.
- [6642] Shinya Watanabe, Tomoyuki Hiroyasu, and Mitsunori Miki. Neighborhood Cultivation Genetic Algorithm for Multi-Objective Optimization Problems. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 198–202, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [6643] Shinya Watanabe, Tomoyuki Hiroyasu, and Mitsunori Miki. Multi-objective Rectangular Packing Problem and Its Applications. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 565–577, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [6644] Shinya Watanabe and Kazutoshi Sakakibara. The Effectiveness of Multiobjective Optimizer in Single-objective Optimization Environment. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 829–830, New York, USA, June 2005. ACM Press.
- [6645] Shinya Watanabe and Kazutoshi Sakakibara. Multi-objective approaches in a single-objective optimization environment. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1714–1721, Edinburgh, Scotland, September 2005. IEEE Service Center.

- [6646] Shinya Watanabe and Kazutoshi Sakakibara. A Multiobjectivization Approach for Vehicle Routing Problems. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 660–672, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [6647] Shinya Watanabe, Hiroyuki Shioya, and Kazutoshi Gohara. Phase retrieval based on an Evolutionary Multicriterion Optimisation method. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3778–3785, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6648] Yuta Watanabe, Kota Watanabe, and Hajime Igarashi. Optimization of Meander Line Antenna Considering Coupling Between Nonlinear Circuit and Electromagnetic Waves for UHF-Band RFID. *IEEE Transactions on Magnetics*, 47(5):1506–1509, May 2011.
- [6649] Richard A. Watson. Problem Decomposition and Multi-Objective Optimization. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.
- [6650] Warin Wattanapornprom, Panuwat Olanviwitchai, Parames Chutima, and Prabhas Chongstitvatana. Multi-objective Combinatorial Optimisation with Coincidence Algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 1675–1682, Trondheim, Norway, May 2009. IEEE Press.
- [6651] Andrew Webb. *Evolutionary Techniques Applied to Wide Area Network Planning*. PhD thesis, School of Engineering, Circuits And Systems Research Group, University of Wales Cardiff, UK, July 2000.
- [6652] A. Weber, S. Fasoulas, and K. Wolf. Conceptual interplanetary space mission design using multi-objective evolutionary optimization and design grammars. *Proceedings of the Institution of Mechanical Engineers Part G–Journal of Aerospace Engineering*, 225(G11):1253–1261, November 2011.
- [6653] Jigxuan Wei and Yuping Wang. Multi-objective fuzzy particle swarm optimization based on elite archiving and its convergence. *Journal of Systems Engineering and Electronics*, 19(5):1035–1040, October 2008.
- [6654] Jingxuan Wei and Yuping Wang. A Novel Multi-objective PSO Algorithm for Constrained Optimization Problems. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Cheng, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 174–180, Hefei, China, October 2006. Springer. Lecture Notes in Computer Science Vol. 4247.
- [6655] Jingxuan Wei and Yuping Wang. A New Model Based Hybrid Particle Swarm Algorithm for Multi-objective Optimization. In *Third International Conference on Natural Computation, 2007 (ICNC'2007)*, pages 497–501, Haikou, Hainan, China, August 24-27 2007. IEEE Computer Society Press.

- [6656] Jingxuan Wei and Yuping Wang. A New Model Based Multi-objective PSO Algorithm. In Yuping Wang, Yiu ming Cheung, and Hailin Liu, editors, *Computational Intelligence and Security, International Conference, CIS 2006*, pages 87–94. Springer. Lecture Notes in Computer Science Vol. 4456, Guangzhou, China, November 3–6 2007.
- [6657] Jingxuan Wei and Yuping Wang. An Infeasible Elitist Based Particle Swarm Optimization For Constrained Multiobjective Optimization And Its Convergence. *International Journal of Pattern Recognition and Artificial Intelligence*, 24(3):381–400, May 2010.
- [6658] Jingxuan Wei, Yuping Wang, and Hua Wang. A Hybrid Particle Swarm Evolutionary Algorithm For Constrained Multi-Objective Optimization. *Computing and Informatics*, 29(5):701–718, 2010.
- [6659] Jingxuan Wei and Mengjie Zhang. Simplex Model Based Evolutionary Algorithm for Dynamic Multi-Objective Optimization. In Dianhui Wang and Mark Reynolds, editors, *AI 2011: Advances in Artificial Intelligence, 24th Australasian Joint Conference*, pages 372–381, Perth, Australia, December 5–8 2011. Springer. Lecture Notes in Computer Science Vol. 7106.
- [6660] Shuang Wei and Henry Leung. A Novel Ranking Method Based on Subjective Probability Theory for Evolutionary Multiobjective Optimization. *Mathematical Problems in Engineering*, 695087, 2011.
- [6661] Wei Wei, Yixiong Feng, Jianrong Tan, and Zhongkai Li. Product platform two-stage quality optimization design based on multiobjective genetic algorithm. *Computers & Mathematics with Applications*, 57(11–12):1929–1937, June 2009.
- [6662] Zhe Wei, Yixiong Feng, Jianrong Tan, Junhao Wu, Dandan Yang, and Jinlong Wang. Research on quality performance conceptual design based on SPEA2+. *Computers & Mathematics with Applications*, 57(11–12):1943–1948, June 2009.
- [6663] Zhe Wei, Dandan Yang, Xiaoyi Wang, and Jinlong Wang. Multi-objectives optimal model of heavy equipment using improved Strength Pareto Evolutionary Algorithm. *International Journal of Advanced Manufacturing Technology*, 45(3–4):389–396, November 2009.
- [6664] Dun wei Gong, Yong Zhang, and Cheng liang Qi. Environmental/economic power dispatch using a hybrid multi-objective optimization algorithm. *International Journal Of Electrical Power & Energy Systems*, 32(6):607–614, July 2010.
- [6665] Nicole Weicker, Gabor Szabo, Karsten Weicker, and Peter Widmayer. Evolutionary Multiobjective Optimization for Base Station Transmitter Placement with Frequency Assignment. *IEEE Transactions on Evolutionary Computation*, 7(2):189–203, April 2003.

- [6666] D. S. Weile and E. Michielssen. Integer coded Pareto genetic algorithm design of constrained antenna arrays. *Electronics Letters*, 32(19):1744–1745, September 1996.
- [6667] D. S. Weile and E. Michielssen. Integer coded Pareto genetic algorithm design of constrained antenna arrays. Technical Report CCEM-13-96, Electrical and Computer Engineering Department, Center for Computational Electromagnetics, University of Illinois at Urbana-Champaign, November 1996.
- [6668] D. S. Weile and E. Michielssen. Multiobjective optimization of electromagnetic devices using Pareto genetic algorithms. In *Proceedings of the 1996 Antenna Applications Symposium*, pages 1–18, Amherst, Massachusetts, 1996.
- [6669] D. S. Weile, E. Michielssen, and D. E. Goldberg. Genetic algorithm design of pareto optimal broad-band microwave absorbers. Technical Report CCEM-4-96, Electrical and Computer Engineering Department, Center for Computational Electromagnetics, University of Illinois at Urbana-Champaign, May 1996.
- [6670] D. S. Weile, E. Michielssen, and D. E. Goldberg. Genetic algorithm design of Pareto optimal broadband microwave absorbers. *IEEE Transactions on Electromagnetic Compatibility*, 38(3):518–525, August 1996.
- [6671] D. S. Weile, E. Michielssen, and D. E. Goldberg. Multiobjective synthesis of electromagnetic devices using nondominated sorting genetic algorithms. In *1996 IEEE Antennas and Propagation Society International Symposium Digest*, volume 1, pages 592–595, Baltimore, Maryland, July 1996.
- [6672] K. Weinert, J. Mehnen, Th. Michelitsch, K. Schmitt, and Th. Bartz-Beielstein. A Multiobjective Approach to Optimize Temperature Control Systems of Molding Tools. *Production Engineering Research and Development, Annals of the German Academic Society for Production Engineering*, XI(7):77–80, 2004.
- [6673] K. Weinert, J. Mehnen, and M. Stautner. The Application of Multiobjective Evolutionary Algorithms to the Generation of Optimized Tool Paths for Multi-Axis Die and Mould Making. In *Intelligent Computation in Manufacturing Engineering, 4th CIRP International Seminar on Intelligent Computation in Manufacturing Engineering (CIRP ICME'04)*, pages 405–412, Sorrento, Naples, Italy, July 2004.
- [6674] K. Weinert, A. Zabel, P. Kersting, T. Michelitsch, and T. Wagner. On the Use of Problem-Specific Candidate Generators for the Hybrid Optimization of Multi-Objective Production Engineering Problems. *Evolutionary Computation*, 17(4):527–544, Winter 2009.
- [6675] Thomas Weise. *Global Optimization Techniques and Genetic Programming Applied to Distributed Computing*. Thomas Weise, may 10, 2007 edition, May 2007.

- [6676] Thomas Weise and Kurt Geihs. DGPF—An Adaptable Framework for Distributed Multi-Objective Search Algorithms Applied to the Genetic Programming of Sensor Networks. In Bogdan Filipič and Jurij Šilc, editors, *Bioinspired Optimization Methods and their Applications*, pages 157–166. Jožef Stefan Institute, October 2006.
- [6677] Thomas Weise, Stefan Niemczyk, Hendrik Skubch, Roland Reichle, and Kurt Geihs. A Tunable Model for Multi-Objective, Epistatic, Rugged, and Neutral Fitness Landscapes. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 795–802, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6678] Thomas Weise, Michael Zapf, Raymond Chiong, and Antonio J. Nebro. Why Is Optimization Difficult? In Raymond Chiong, editor, *Nature-Inspired Algorithms for Optimisation*, pages 1–50. Springer, Berlin, 2009. ISBN 978-3-642-00266-3.
- [6679] Yao Weixiong, Yang Yi, and Zeng Bin. Novel methodology for casting process optimization using Gaussian process regression and genetic algorithm. *China Foundry*, 6(3):232–240, August 2009.
- [6680] L.A. Welser, R.C. Mancini, J.A. Koch, N. Izumi, H. Dalhed, H. Scott, T.W. Barbee, R.W. Lee, I.E. Golovkin, F. Marshall, J. Delettrez, and L. Klein. Analysis of the spatial structure of inertial confinement fusion implosion cores at OMEGA. *Journal of Quantitative Spectroscopy & Radiative Transfer*, 81(1–4):487–497, September–November 2003.
- [6681] L.A. Welser, R.C. Mancini, J.A. Koch, N. Izumi, S.J. Louis, I.E. Golovkin, T.W. Barbee, S.W. Haan, J.A. Delettrez, F.J. Marshall, R.P. Regan, V.A. Smalyuk, D.A. Haynes, and R.W. Lee. Multi-objective spectroscopic analysis of core gradients: Extension from two to three objectives. *Journal of Quantitative Spectroscopy & Radiative Transfer*, 99(1–3):649–657, May–June 2006.
- [6682] Feng Wen, Xiaohao Gao, and Mitsuo Gen. A Novel Approach to Route Selection in Car Navigation Systems by a Multiobjective Genetic Algorithm. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 767–768, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6683] Feng Wen and Mitsuo Gen. A Multistage Method for Multiobjective Route Selection. *IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences*, E92A(10):2618–2625, October 2009.
- [6684] Feng Wen, Mitsuo Gen, and Xinjie Yu. Multilayer Traffic Network Optimized by Multiobjective Genetic Clustering Algorithm. *IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences*, E92A(8):2107–2115, August 2009.

- [6685] Wei Wen-long, Li Bin, and Zhuang Zhen-quan. Multi-objective Q-bit Coding Genetic Algorithm for Hardware-Software Co-synthesis of Embedded Systems. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 865–872. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [6686] Guo Wenzhong, Chen Guolong, Huang Min, and Chen Shuili. A Discrete Particle Swarm Optimization Algorithm for the Multiobjective Permutation Flowshop Sequencing Problem. In Bing-Yuan Cao, editor, *Fuzzy Information and Engineering, Second International Conference of Fuzzy Information and Engineering (ICFIE'2007)*, pages 323–331. Springer, Advances in Soft Computing, Vol. 40, Guangzhou, China, May 13-16 2007. ISBN 978-3-540-71440-8.
- [6687] Simon Wessing, Nicola Beume, Günter Rudolph, and Boris Naujoks. Parameter Tuning Boosts Performance of Variation Operators in Multiobjective Optimization. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 728–737. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [6688] Simon Wessing and Boris Naujoks. Sequential parameter optimization for multi-objective problems. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 4063–4070, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6689] J. F. Whidborne, D.-W. Gu, and I. Postlethwaite. Algorithms for the Method of Inequalities — A Comparative Study. In *Proceedings of the 1995 American Control Conference*, pages 3393–3397, Seattle, Washington, 1995.
- [6690] J.F. Whidborne. A Genetic Algorithm Approach to Designing Finite-Precision PID Controller Structures. In *Proceedings of the 1999 American Control Conference*, volume 6, pages 4338–4342. IEEE, 1999.
- [6691] J.F. Whidborne, D.W. Gu, and I. Postlethwaite. Simulated Annealing for multiobjective control system design. *IEE Proceedings-Control Theory and Applications*, 144(6):582–588, November 1997.
- [6692] J.F. Whidborne and R.S.H. Istepanian. Genetic algorithm approach to designing finite-precision controller structures. *IEE Proceedings on Control Theory and Applications*, 148(5):377–382, September 2001.
- [6693] Lyndon While. A New Analysis of the LebMeasure Algorithm for Calculating Hypervolume. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 326–340, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.

- [6694] Lyndon While, Lucas Bradstreet, and Luigi Barone. A Fast Way of Calculating Exact Hypervolumes. *IEEE Transactions on Evolutionary Computation*, 16(1):86–95, February 2012.
- [6695] Lyndon While, Lucas Bradstreet, Luigi Barone, and Philip Hingston. Heuristics for Optimising the Calculation of Hypervolume for Multi-Objective Optimization Problems. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2225–2232, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6696] Lyndon While, Phil Hingston, Luigi Barone, and Simon Huband. A Faster Algorithm for Calculating Hypervolume. *IEEE Transactions on Evolutionary Computation*, 10(1):29–38, February 2006.
- [6697] David R. White, Andrea Arcuri, and John A. Clark. Evolutionary Improvement of Programs. *IEEE Transactions on Evolutionary Computation*, 15(4):515–538, August 2011.
- [6698] David R. White, John Clark, Jeremy Jacob, and Simon Poulding. Searching for Resource-Efficient Programs: Low-Power Pseudorandom Number Generators. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 1775–1782, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6699] Upali K. Wickramasinghe, Robert Carrese, and Xiaodong Li. Designing airfoils using a reference point based evolutionary many-objective particle swarm optimization algorithm. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1857–1869, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6700] Upali K. Wickramasinghe and Xiaodong Li. Using a distance metric to guide PSO algorithms for many-objective optimization. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 667–674, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [6701] W. R. M. U. K. Wickramasinghe and X. Li. Integrating User Preferences with Particle Swarms for Multi-objective Optimization. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 745–752, Atlanta, USA, July 2008. ACM Press. ISBN 978-1-60558-131-6.
- [6702] Bong Chin Wie and Wang Yin Chai. An Intelligent GIS-Based Spatial Zoning System with Multiobjective Hybrid Metaheuristic Method. In Bob Orchard, Chunsheng Yang, and Moonis Ali, editors, *Innovations in Applied Artificial Intelligence, 17th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, IEA/AIE 2004*, pages 769–778, Ottawa, Canada, May 17-20 2004. Springer. Lecture Notes in Artificial Intelligence Vol. 3029.

- [6703] P. B. Wienke, C. Lucasius, and G. Kateman. Multicriteria target optimization of analytical procedures using a genetic algorithm. *Analytica Chimica Acta*, 265(2):211–225, 1992.
- [6704] A. L. Wiens and B. J. Ross. Gentropy: involving 2D textures. *Computers & Graphics-UK*, 26(1):75–88, February 2002.
- [6705] Andrew Wildman and Geoff Parks. A Comparative Study of Selective Breeding Strategies in a Multiobjective Genetic Algorithm. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 418–432, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [6706] E.A. Williams, W.A. Crossley, and T.J. Lang. Average and maximum revisit time trade studies for satellite constellations using a multiobjective Genetic Algorithm. *Journal of the Astronautical Sciences*, 49(3):385–400, July-September 2001.
- [6707] Kyle Willick, Slawomir Wesolkowski, and Michael Mazurek. Multiobjective evolutionary algorithm with risk minimization applied to a fleet mix problem. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3411–3417, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6708] Lars Willmes and Thomas Bäck. Evolution strategies for engineering design optimisation. In K.J. Bathe, editor, *Computational Fluid and Solid Mechanics 2003. Proceedings of the Second MIT Conference on Computational Fluid and Solid Mechanics*, volume 2, pages 2394–2397, The Netherlands, June 2003. Elsevier.
- [6709] Lars Willmes and Thomas Bäck. Multi-criteria Airfoil Design with Evolution Strategies. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 782–795, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [6710] L.A. Wilson and M.D. Moore. Cross-pollinating parallel genetic algorithms for multiobjective search and optimization. *International Journal of Foundations of Computer Science*, 16(2):261–280, April 2005.
- [6711] P. B. Wilson and M. D. Macleod. Low implementation cost IIR digital filter design using genetic algorithms. In *IEE/IEEE Workshop on Natural Algorithms in Signal Processing*, pages 4/1–4/8, Chelmsford, U.K., 1993.
- [6712] P. Winslow, S. Pellegrino, and S. B. Sharma. Multi-objective optimization of free-form grid structures. *Structural and Multidisciplinary Optimization*, 40(1-6):257–269, January 2010.

- [6713] M. Woehrle, D. Brockhoff, T. Hohm, and S. Bleuler. Investigating Coverage and Connectivity Trade-offs in Wireless Sensor Networks: The Benefits of MOEAs. TIK Report 294, Computer Engineering and Networks Lab, ETH Zurich, October 2008.
- [6714] Matthias Woehrle, Dimo Brockhoff, Tim Hohm, and Stefan Bleuler. Investigating Coverage and Connectivity Trade-offs in Wireless Sensor Networks: The Benefits of MOEAs. In Matthias Ehrgott, Boris Naujoks, Theodor J. Stewart, and Jyrki Wallenius, editors, *Multiple Criteria Decision Making for Sustainable Energy and Transportation Systems*, pages 211–221. Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010.
- [6715] Kumlachew M. Woldemariam and Gary G. Yen. Vaccine Enhanced Artificial Immune System for Multimodal Function Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2143–2150, Hong Kong, June 2008. IEEE Service Center.
- [6716] Yonas G. Woldesenbet, Biruk G. Tessema, and Gary G. Yen. Constraint Handling in Multi-Objective Evolutionary Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3077–3084, Singapore, September 2007. IEEE Press.
- [6717] Yonas Gebre Woldesenbet, Gary G. Yen, and Biruk G. Tessema. Constraint Handling in Multiobjective Evolutionary Optimization. *IEEE Transactions on Evolutionary Computation*, 13(3):514–525, June 2009.
- [6718] Sebastien J. Wolff. *Statically Stable Assembly Sequence Generation and Structure Optimization for a Large Number of Identical Building Blocks*. PhD thesis, George W. Woodru School of Mechanical Engineering, Georgia Institute of Technology, December 2006.
- [6719] Jin-Myung Won, Ki-Moon Lee, Jin S. Lee, and Frakhreddine Karray. Guideway Network Design of Personal Rapid Transit System: A Multiobjective Genetic Algorithm Approach. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 7979–7985, Vancouver, BC, Canada, July 2006. IEEE.
- [6720] Kok Sung Won and Tapabrata Ray. Performance of Kriging and Cokriging based Surrogate Models within the Unified Framework for Surrogate Assisted Optimization. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1577–1585, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [6721] CC Wong, DA Chiang, and HM Feng. Multituning fuzzy control systems design. *Cybernetics And Systems*, 31(6):713–729, September 2000.
- [6722] Eugene Y. C. Wong, Henry Y. K. Lau, and K. L. Mak. Immunity-based evolutionary algorithm for optimal global container repositioning in liner shipping. *OR Spectrum*, 32(3):739–763, July 2010.

- [6723] Eugene Y.C. Wong, Henry S.C. Yeung, and Henry Y.K. Lau. Immunity-based hybrid evolutionary algorithm for multi-objective optimization in global container repositioning. *Engineering Applications of Artificial Intelligence*, 22(6):842–854, September 2009.
- [6724] Joseph Kit Lun Wong. *Automatic Planning and Optimisation of In-building CDMA Systems*. PhD thesis, Department of Electrical & Computer Engineering, The University of Auckland, New Zealand, March 2007.
- [6725] Ka-Chun Wong, Kwong-Sak Leung, and Man-Hon Wong. An evolutionary algorithm with species-specific explosion for multimodal optimization. In *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pages 923–930, Montreal, Canada, July 8–12 2009. ACM Press. ISBN 978-1-60558-325-9.
- [6726] Ka-Chun Wong, Kwong-Sak Leung, and Man-Hon Wong. Effect of Spatial Locality on an Evolutionary Algorithm for Multimodal Optimization. In Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcazar, Chi-Keong Goh, Juan J. Merelo, Ferrante Neri, Mike Preuss, Julian Togelius, and Georgios N. Yannakakis, editors, *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM and EvoSTOC*, pages 481–490, Istanbul, Turkey, April 7-9 2010. Springer. Lecture Notes in Computer Science Vol. 6024.
- [6727] Ka-Chun Wong, Kwong-Sak Leung, and Man-Hon Wong. Protein Structure Prediction on a Lattice Model Via Multimodal Optimization Techniques. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 155–162, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [6728] Man-Leung Wong and Geng Cui. Data mining using parallel Multi-Objective Evolutionary algorithms on graphics hardware. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1812–1819, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6729] Tony Wong, Pascal Côté, and Robert Sabourin. A Hybrid MOEA for the Capacitated Exam Proximity Problem. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1495–1501, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [6730] Piotr Woźniak. Dimensionality Reduction in Evolutionary Multiobjective Design: Case Study. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, page 913, London, UK, July 2007. ACM Press.
- [6731] Piotr Woźniak. Multi-Objective Control System Design with Criteria Reduction. In Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain,

Varun Aggarwal, Jürgen Branke, Sushil J. Louis, and Kay Chen Tan, editors, *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pages 583–587, Kanpur, India, December 1-4 2010. Springer. Lecture Notes in Computer Science Vol. 6457.

- [6732] Piotr Wozniak. Preferences in multi-objective evolutionary optimisation of electric motor speed control with hardware in the loop. *Applied Soft Computing*, 11(1):49–55, January 2011.
- [6733] J. Wright, H.A. Loosemore, and R. Farmani. Optimization of building thermal design and control by multi-criterion genetic algorithm. *Energy and Buildings*, 34(9):959–972, October 2002.
- [6734] Jonathan Wright and Heather Loosemore. An Infeasibility Objective for Use in Constrained Pareto Optimization. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 256–268. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [6735] Jonathan Wright and Heather Loosemore. The Multi-Criterion Optimization of Building Thermal Design and Control. In *7th IBPSA Conference: Building Simulation*, volume 2, pages 873–880, Rio de Janeiro, Brazil, 2001. ISBN 85-901939-3-4.
- [6736] Jacob Wronski. A Design Tool Architecture for the Rapid Evaluation of Product Design Tradeoffs in an Internet-based System Modeling Environment. Master’s thesis, Department of Mechanical Engineering, Massachusetts Institute of Technology, USA, May 2005.
- [6737] Feng Wu, Hao Zhou, Tao Ren, Ligang Zheng, and Kefa Cen. Combining support vector regression and cellular genetic algorithm for multi-objective optimization of coal-fired utility boilers. *Fuel*, 88(10):1864–4870, October 2009.
- [6738] Feng Wu, Hao Zhou, Jia-Pei Zhao, and Ke-Fa Cen. A Comparative Study of the Multi-Objective Optimization Algorithms for Coal-Fired Boilers. *Expert Systems With Applications*, 38(6):7179–7185, June 2011.
- [6739] Jin Wu. *Quality Assisted Multiobjective and Multidisciplinary Genetic Algorithms*. PhD thesis, Department of Mechanical Engineering, University of Maryland at College Park, College Park, Maryland, 2001.
- [6740] Jin Wu and Shapour Azarm. Metrics for Quality Assessment of a Multiobjective Design Optimization Solution Set. *Transactions of the ASME, Journal of Mechanical Design*, 123:18–25, 2001.
- [6741] Jin Wu and Shapour Azarm. On a New Constraint Handling Technique for Multi-Objective Genetic Algorithms. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*

- (*GECCO'2001*), pages 741–748, San Francisco, California, 2001. Morgan Kaufmann Publishers.
- [6742] L. H. Wu, Y. N. Wang, X. F. Yuan, and S. W. Zhou. Environmental/economic power dispatch problem using multi-objective differential evolution algorithm. *Electric Power Systems Research*, 80(9):1171–1181, September 2010.
 - [6743] Lianghong Wu, Yaonan Wang, Xiaofang Yuan, and Zhenlong Chen. Multi-objective Optimization of HEV Fuel Economy and Emissions Using the Self-Adaptive Differential Evolution Algorithm. *IEEE Transactions on Vehicular Technology*, 60(6):2458–2470, July 2011.
 - [6744] Paul Wu, Reece Clothier, Duncan Campbell, and Rodney Walker. Fuzzy multi-objective mission flight planning in unmanned aerial systems. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 2–9, Honolulu, Hawaii, USA, April 2007. IEEE Press.
 - [6745] Wenyan Wu, Angus R. Simpson, and Holger R. Maier. Accounting for Greenhouse Gas Emissions in Multiobjective Genetic Algorithm Optimization of Water Distribution Systems. *Journal of Water Resources Planning and Management-ASCE*, 136(2):146–155, March-April 2010.
 - [6746] Xiaolan Wu. *Quantification and Optimization of Spatial Contiguity in Land Use Planning*. PhD thesis, The Ohio State University, USA, 2005.
 - [6747] Xiaolan Wu and Tony H. Grubestic. Identifying irregularly shaped crime hot-spots using a multiobjective evolutionary algorithm. *Journal of Geographical Systems*, 12(4):409–433, December 2010.
 - [6748] Xiaolan Wu, Alan T. Murray, and Ningchuan Xiao. A multiobjective evolutionary algorithm for optimizing spatial contiguity in reserve network design. *Landscape Ecology*, 26(3):425–437, March 2011.
 - [6749] Yong Gang Wu and Wei Gu. Study on Improving the Fitness Value of Multi-objective Evolutionary Algorithms. In Yong Shi, Shouyang Wang, Yi Peng, Jianping Li, and Yong Zeng, editors, *Cutting-Edge Research Topics on Multiple Criteria Decision Making (MCDM'2009)*, pages 243–250. Springer, Communications in Computer and Information Science, Vol. 35, Heidelberg, Germany, 2009.
 - [6750] W.J. Xia and Z.M. Wu. An effective hybrid optimization approach for multi-objective flexible job-shop scheduling problems. *Computers & Industrial Engineering*, 48(2):409–425, March 2005.
 - [6751] Tieming Xiang, K.F. Man, K.M. Luk, and C.H. Chan. Design of multiband miniature handset antenna by MoM and HGA. *IEEE Antennas and Wireless Propagation Letters*, 5:179–182, 2006.

- [6752] Fei Xiao and James D. McCalley. Power System Risk Assessment and Control in a Multiobjective Framework. *IEEE Transactions on Power Systems*, 24(1):78–85, February 2009.
- [6753] Hong Xiao, Yuan Li, Kaifu Zhang, Jianfeng Yu, Zhenxing Liu, and Jianbin Su. Multi-objective Optimization Method for Automatic Drilling and Riveting Sequence Planning. *Chinese Journal of Aeronautics*, 23(6):734–742, December 2010.
- [6754] Ningchuan Xiao and Marc P. Armstrong. A Specialized Island Model and Its Application in Multiobjective Optimization. In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 1530–1540. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [6755] Ningchuan Xiao, David A. Bennet, and Marc P. Armstrong. Using evolutionary algorithms to generate alternatives for multiobjective site-search problems. *Environment and Planning A*, 34(4):639–656, April 2002.
- [6756] Ningchuan Xiao, David A. Bennett, and Marc P. Armstrong. Interactive evolutionary approaches to multiobjective spatial decision making: A synthetic review. *Computers Environment and Urban Systems*, 31(3):232–252, May 2007.
- [6757] Ying Xiao, Yong-Hua Song, and Chen-Ching Liu. An Interactive Compromise Programming-Based Multiobjective Approach to FACTS Control. In Kwang Y. Lee and Mohamed A. El-Sharkawi, editors, *Modern Heuristic Optimization Techniques. Theory and Applications to Power Systems*, chapter 18, pages 501–523. Wiley-Interscience, USA, 2008.
- [6758] Zhang Xiao-hua, Meng Hong-yun, and Jiao Li-cheng. Intelligent Particle Swarm Optimization in Multiobjective Optimization. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 714–719, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6759] Jia Xiaoping, Zhang Tianzhu, Wang Fang, and Han Fangyu. Multi-objective modeling and optimization for cleaner production processes. *Journal of Cleaner Production*, 14(2):146–151, 2006.
- [6760] Dexin Xie, Xiaowen Sun, Baodong Bai, and Shiyong Yang. Multiobjective Optimization Based on Response Surface Model and Its Application to Engineering Shape Design. *IEEE Transactions on Magnetics*, 44(6):1006–1009, June 2008.
- [6761] Jing-Xin Xie, Chun-Tian Cheng, and Zhen-Hui Ren. An Improved Discrete Immune Network for Multimodal Optimization. In Emilio Corchado, Hujun Yin, Vicente J. Botti, and Colin Fyfe, editors, *Intelligent Data Engineering and Automated Learning - IDEAL 2006, 7th International Conference*, pages 1079–1086. Springer. Lecture Notes in Computer Science Vol. 4224, Burgos, Spain, September 20–23 2006.

- [6762] Hai-Yun Helen Xing. *Building Load Control and Optimization*. PhD thesis, Department of Architecture, The Massachusetts Institute of Technology, Cambridge, Massachusetts, USA, February 2004.
- [6763] Li-Ning Xing, Ying-Wu Chen, and Ke-Wei Yang. Interactive Fuzzy Multi-objective Ant Colony Optimization with Linguistically Quantified Decision Functions for Flexible Job Shop Scheduling Problems. In Daniel Howard, Phill Kyu Rhee, Saman Halgamuge, and Seong-Joon Yoo, editors, *Frontiers in the Convergence of Bioscience and Information Technologies (FBIT 2007)*, pages 801–806, Cheju Island, Korea, October 2007. IEEE Computer Society.
- [6764] Hugang Xiong and Haozhong Cheng. Optimal reactive power flow incorporating static voltage stability based on multi-objective adaptive immune algorithm. *Energy Conversion and Management*, 49(5):1175–1181, May 2008.
- [6765] J. H. Xiong, P. D. Zhang, X. Z. Shi, Y. K. Zhang, and G. W. Xu. The multicriteria-decision-making simultaneous optimization based on genetic algorithm in chiral capillary electrophoresis separation. *Chemical Journal of Chinese Universities-Chinese*, 25(5):896–899, May 2004.
- [6766] Jian Xiong, Ke wei Yang, Jing Liu, Qing song Zhao, and Ying wu Chen. A two-stage preference-based evolutionary multi-objective approach for capability planning problems. *Knowledge-Based Systems*, 31:128–139, July 2012.
- [6767] Shengwu Xiong and Feng Li. Parallel Strength Pareto Multi-objective Evolutionary Algorithm. In *Proceedings of the Fourth International Conference on Applications and Technologies (PDCAT'2003)*, pages 681–683. IEEE, August 2003.
- [6768] Shengwu Xiong and Feng Li. Parallel Strength Pareto Multi-objective Evolutionary Algorithm for Optimization Problems. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2712–2718, Canberra, Australia, December 2003. IEEE Press.
- [6769] Ying Xiong and Yaping Kuang. Applying an ant colony optimization algorithm-based multiobjective approach for time-cost trade-off. *Journal of Construction Engineering and Management-ASCE*, 134(2):153–156, February 2008.
- [6770] Zhou XiuLing, Sun ChengYi, Mao Ning, and Li WenJuan. Generalization of HSO Algorithm for Computing Hypervolume for Multiobjective Optimization Problems. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3114–3118, Singapore, September 2007. IEEE Press.
- [6771] Hua Xu and Jianhua Xu. Designing a Multi-label Kernel Machine with Two-Objective Optimization. In Fu Lee Wang, Hepu Deng, Yang Gao, and Jingsheng Lei, editors, *Artificial Intelligence and Computational Intelligence, International Conference, AICI 2010*, pages 282–291, Sanya, China, October 23-24 2010. Springer. Lecture Notes in Computer Science Vol. 6319.

- [6772] Jian-Xin Xu, Sanjib Kumar Panda, and Qing Zheng. Multiobjective Optimization of Current Waveforms for Switched Reluctance Motors by Genetic Algorithm. In *Congress on Evolutionary Computation (CEC'2002)*, volume 2, pages 1860–1865, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [6773] Jiefeng Xu, Milind Sohoni, Mike McCleery, and T. Glenn Bailey. A dynamic neighborhood based tabu search algorithm for real-world flight instructor scheduling problems. *European Journal of Operational Research*, 169:978–993, 2006.
- [6774] Jiuping Xu and Can Ding. A class of chance constrained multiobjective linear programming with birandom coefficients and its application to vendors selection. *International Journal of Production Economics*, 131(2):709–720, June 2011.
- [6775] Jiuping Xu and Fang Yan. A multi-objective decision making model for the vendor selection problem in a bifuzzy environment. *Expert Systems With Applications*, 38(8):9684–9695, August 2011.
- [6776] Jiuping Xu and Lihui Zhao. A multi-objective decision-making model with fuzzy rough coefficients and its application to the inventory problem. *Information Sciences*, 180(5):679–696, March 1 2010.
- [6777] J.X. Xu, C.S. Chang, and X.W. Wang. Constrained multiobjective global optimisation of longitudinal interconnected power system by genetic algorithm. *IEE Proceedings on Generation, Transmission and Distribution*, 143(5):435–446, September 1996.
- [6778] Kai Xu, Sushil J. Louis, and Roberto C. Mancini. A Scalable Parallel Genetic Algorithm for X-ray Spectroscopic Analysis. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 811–816, New York, USA, June 2005. ACM Press.
- [6779] Li Xu and Chunping Li. Multi-objective Parameters Selection for SVM Classification Using NSGA-II. In Petra Perner, editor, *Advances in Data Mining, Applications in Medicine, Web Mining, Marketing, Image and Signal Mining 6th Industrial Conference on Data Mining, ICDM 2006*, pages 365–376, Leipzig, Germany, July 14-15 2006. Springer. Lecture Notes in Computer Science Vol. 4065.
- [6780] Lihong Xu, Haigen Hu, and Bingkun Zhu. Energy-saving Control of Greenhouse Climate Based on MOCC Strategy. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 645–650, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [6781] Lihong Xu, Qingsong Hu, and Erik D. Goodman. A Compatible Energy-Saving Control Algorithm for a Class of Conflicted Multi-Objective Control Problem. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 4446–4453, Singapore, September 2007. IEEE Press.

- [6782] Lihong Xu, Bingkun Zhu, and Erik D. Goodman. An Improved MOCC with Feedback Control Structure Based on Preference. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 651–656, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [6783] Mian Xu, Shrikant Bhat, Robin Smith, Gill Stephens, and Jhuma Sadhukhan. Multi-objective optimisation of metabolic productivity and thermodynamic performance. *Computers & Chemical Engineering*, 33(9):1438–1450, September 9 2009.
- [6784] Qinzhen Xu, Qiangfu Zhao, Wenjiang Pei, Luxi Yang, and Zhenya He. Interpretable Neural Network Tree for Continuous-Feature Data Sets. *Neural Information Processing*, 3(3):77–84, June 2004.
- [6785] Shuo Xu, Ze Ji, Duc Troung Pham, and Fan Yu. Bio-Inspired Binary Bees Algorithm for a Two-Level Distribution Optimisation Problem. *Journal Of Bionic Engineering*, 7(2):161–167, June 2010.
- [6786] Shuo Xu, Ze Ji, Duc Truong Pham, and Fan Yu. Binary Bees Algorithm - bioinspiration from the foraging mechanism of honeybees to optimize a multiobjective multidimensional assignment problem. *Engineering Optimization*, 43(11):1141–1159, 2011.
- [6787] Y. Xu and R. Qu. Solving multi-objective multicast routing problems by evolutionary multi-objective simulated annealing algorithms with variable neighbourhoods. *Journal of the Operational Research Society*, 62(2):313–325, February 2011.
- [6788] Feng Xue. *Multi-Objective Differential Evolution: Theory and Applications*. PhD thesis, Rensselaer Polytechnic Institute, Troy, New York, September 2004.
- [6789] Feng Xue, Arthur C. Sanderson, Piero P. Bonissone, and Robert J. Graves. Fuzzy Logic Controlled Multi-Objective Differential Evolution. In *The 14th IEEE International Conference on Fuzzy Systems (FUZZ'05)*, pages 720–725. IEEE Press, May 2005.
- [6790] Feng Xue, Arthur C. Sanderson, and Robert J. Graves. Multi-Objective Differential Evolution and Its Application to Enterprise Planning. In *Proceedings of the 2003 IEEE International Conference on Robotics and Automation (ICRA'03)*, volume 3, pages 3535–3541, Taipei, Taiwan, September 2003. IEEE.
- [6791] Feng Xue, Arthur C. Sanderson, and Robert J. Graves. Pareto-based Multi-Objective Differential Evolution. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 862–869, Canberra, Australia, December 2003. IEEE Press.
- [6792] Feng Xue, Arthur C. Sanderson, and Robert J. Graves. Modeling and convergence analysis of a continuous multi-objective differential evolution algorithm.

- In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 228–235, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6793] Feng Xue, Arthur C. Sanderson, and Robert J. Graves. Multi-objective differential evolution - algorithm, convergence analysis, and applications. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 743–750, Edinburgh, Scotland, September 2005. IEEE Service Center.
 - [6794] Feng Xue, Arthur C. Sanderson, and Robert J. Graves. Multi-objective evolutionary decision support for design-supplier-manufacturing planning. In *2005 IEEE International Conference on Automation Science and Engineering*, pages 197–202, Edmonton, Canada, August 2005. IEEE Computer Society.
 - [6795] Feng Xue, Arthur C. Sanderson, and Robert J. Graves. Multiobjective Evolutionary Decision Support for Design-Supplier-Manufacturing Planning. *IEEE Transactions on Systems Man and Cybernetics Part A-Systems and Humans*, 39(2):309–320, March 2009.
 - [6796] Betul Yagmahan and Mehmet Mutlu Yenisey. Ant colony optimization for multi-objective flow shop scheduling problem. *Computers and Industrial Engineering*, 5(3):411–420, April 2008.
 - [6797] H. Yamachi, Y. Tsujimura, Y. Kambayashi, and H. Yamamoto. Multi-objective genetic algorithm for solving N-version program design problem. *Reliability Engineering & System Safety*, 91(9):1083–1094, September 2006.
 - [6798] Hidemi Yamachi, Yasuhiro Tsujimura, Hisashi Yamamoto, and Yasushi Kambayashi. An Application and Characteristic Analysis of MOGA for Bi-objective Optimal Component Allocation Problem in Series-Parallel Redundant System. *Electronics and Communications in Japan*, 92(9):7–16, September 2009.
 - [6799] Hidemi Yamachi, Hisashi Yamamoto, Yushiro Tsujimura, and Yasushi Kambayashi. A Solution Method Employing a Multi-Objective Genetic Algorithm to Search for Pareto Solution of Series-Parallel System Component Allocation Problem. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3058–3064, Singapore, September 2007. IEEE Press.
 - [6800] Kazuo Yamasaki. Dynamic Pareto Optimum GA against the changing environments. In *2001 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 47–50, San Francisco, California, July 2001.
 - [6801] Daisuke Yamashiro, Tomohiro Yoshikawa, and Takeshi Furuhashi. Visualization of Search Process and Improvement of Search Performance in Multi-Objective Genetic Algorithm. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3967–3972, Vancouver, BC, Canada, July 2006. IEEE.
 - [6802] Nannan Yan and Zhengca Fu. Optimization and Coordination of UPFC Controls Using MOPSO. *International Review of Electrical Engineering-IREE*, 5(5):2327–2332, September–October 2011.

- [6803] Zhenyu Yan, Linghai Zhang, Lishan Kang, and Guangming Lin. A New MOEA for Multi-objective TSP and Its Convergence Property Analysis. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 342–354, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
- [6804] Toshihiko Yanase and Hitoshi Iba. Evolutionary Motion Design for Humanoid Robots. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 2, pages 1825–1832, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [6805] Ang Yang, Hussein A. Abbass, and Ruhul Sarker. Characterizing warfare in red teaming. *IEEE Transactions on Systems, Man, and Cybernetics, Part B–Cybernetics*, 36(2):268–285, April 2006.
- [6806] Ang Yang, Hussein A. Abbass, and Ruhul Sarker. Land Combat Scenario Planning: A Multiobjective Approach. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 837–844. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [6807] BS Yang, YS Yeun, and WS Ruy. Managing approximation models in multiobjective optimization. *Structural And Multidisciplinary Optimization*, 24(2):141–156, September 2002.
- [6808] Chao-Chung Yang, Liang-Cheng Chang, Chang-Shian Chen, and Ming-Sheng Yeh. Multi-objective Planning for Conjunctive Use of Surface and Subsurface Water Using Genetic Algorithm and Dynamics Programming. *Water Resources Management*, 23(3):417–437, February 2009.
- [6809] Dongdong Yang, Licheng Jiao, and Maoguo Gong. Adaptive multi-objective optimization based on nondominated solutions. *Computational Intelligence*, 25(2):84–108, May 2009.
- [6810] Dongdong Yang, Licheng Jiao, Maoguo Gong, and Hongxiao Feng. Hybrid Multiobjective Estimation of Distribution Algorithm by Local Linear Embedding and an Immune Inspired Algorithm. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 463–470, Trondheim, Norway, May 2009. IEEE Press.
- [6811] Dongdong Yang, Licheng Jiao, Maoguo Gong, and Jie Feng. Adaptive Ranks Clone And k-Nearest Neighbor List-Based Immune Multi-Objective Optimization. *Computational Intelligence*, 26(4):359–385, December 2010.
- [6812] Dongdong Yang, Licheng Jiao, Maoguo Gong, and Fang Liu. Artificial immune multi-objective SAR image segmentation with fused complementary features. *Information Sciences*, 181(13):2797–2812, July 1 2011.

- [6813] Erfu Yang, Ahmet T. Erdogan, Tughrul Arslan, and Nick H. Barton. Multi-objective Evolutionary Optimizations of a Space-based Reconfigurable Sensor Network Under Hard Constraints. *Soft Computing*, 15(1):25–36, January 2011.
- [6814] F. Yang and C. S. Chang. Multiobjective Evolutionary Optimization of Maintenance Schedules and Extents for Composite Power Systems. *IEEE Transactions on Power Systems*, 24(4):1694–1702, November 2009.
- [6815] F. Yang and C. S. Chang. Optimisation of maintenance schedules and extents for composite power systems using multi-objective evolutionary algorithm. *IET Generation Transmission & Distribution*, 3(10):930–940, October 2009.
- [6816] F. Yang, Chung Min Kwan, and C.S. Chang. Multiobjective evolutionary optimization of substation maintenance using decision-varying Markov model. *IEEE Transactions on Power Systems*, 23(3):1328–1335, August 2008.
- [6817] Guang Ya Yang. *Applying Advanced Methods to Power System Planning Studies*. PhD thesis, The University of Queensland, Australia, October 2008.
- [6818] I-Tung Yang. Pareto archived PSO optimization for time-cost tradeoff analysis. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3329–3334, Singapore, September 2007. IEEE Press.
- [6819] I-Tung Yang. Using elitist particle swarm optimization to facilitate bicriterion time-cost trade-off analysis. *Journal of Construction Engineering and Management-ASCE*, 133(7):498–505, July 2007.
- [6820] I-Tung Yang and Jui-Sheng Chou. Multiobjective optimization for manpower assignment in consulting engineering firms. *Applied Soft Computing*, 11(1):1183–1190, January 2011.
- [6821] J. Ou Yang, Q.R. Yuan, F. Yang, H.J. Zhou, Z.P. Nie, and Z.Q. Zhao. Synthesis of Conformal Phased Array With Improved NSGA-II Algorithm. *IEEE Transactions on Antennas and Propagation*, 57(12):4006–4009, December 2009.
- [6822] Junjie Yang, Jianzhong Zhou, Li Liu, and Yinghai Li. A novel strategy of pareto-optimal solution searching in multi-objective particle swarm optimization (MOPSO). *Computers & Mathematics with Applications*, 57(11–12):1995–2000, June 2009.
- [6823] Lingyun Yang, David Robin, Fernando Sannibale, Christoph Steier, and Weishi Wan. Global optimization of an accelerator lattice using multiobjective genetic algorithms. *Nuclear Instruments & Methods in Physics Research Section A-Accelerators Spectrometers Detectors and Associated Equipment*, 609(1):50–57, October 1 2009.
- [6824] Ming Yang, Lishan Kang, and Jing Guan. Multi-Algorithm Co-evolution Strategy for Dynamic Multi-Objective TSP. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 466–471, Hong Kong, June 2008. IEEE Service Center.

- [6825] Nien-Che Yang and Tsai-Hsiang Chen. Dual Genetic Algorithm-Based Approach to Fast Screening Process for Distributed-Generation Interconnections. *IEEE Transactions on Power Delivery*, 26(2):850–858, April 2011.
- [6826] S. H. Yang and U. Natarajan. Multi-objective optimization of cutting parameters in turning process using differential evolution and non-dominated sorting genetic algorithm-II approaches. *International Journal Of Advanced Manufacturing Technology*, 49(5-8):773–784, July 2010.
- [6827] S. H. Yang, U. Natarajan, M. Sekar, and S. Palani. Prediction of surface roughness in turning operations by computer vision using neural network trained by differential evolution algorithm. *International Journal Of Advanced Manufacturing Technology*, 51(9-12):965–971, December 2010.
- [6828] Seung-Han Yang, J. Srinivas, Sekar Mohan, Dong-Mok Lee, and Sree Balaji. Optimization of electric discharge machining using simulated annealing. *Journal of Materials Processing Technology*, 209(9):4471–4475, May 1 2009.
- [6829] S.M. Yang, D.G. Shao, and Y.J. Luo. A novel evolution strategy for multiobjective optimization problem. *Applied Mathematics and Computation*, 170(2):850–873, November 15 2005.
- [6830] S.Y. Yang, J.R. Cardoso, S.L. Ho, P.H. Ni, J.M. Machado, and E.W.C. Lo. An improved tabu-based vector optimal algorithm for design optimizations of electromagnetic devices. *IEEE Transactions on Magnetics*, 40(2):1140–1143, Part 2, March 2004.
- [6831] Wan'an Yang, Chao Hu, Mao Li, Max Q.-H. Meng, and Shuang Song. A New tracking System for Three Magnetic Objectives. *IEEE Transactions on Magnetics*, 46(12):4023–4029, November 2010.
- [6832] XF Yang and M. Gen. Evolution Program For Bicriteria Transportation Problem. *Computers & Industrial Engineering*, 27(1-4):481–484, September 1994.
- [6833] Xiaofeng Yang and Mitsuo Gen. Evolution program for bicriteria transportation problem. In M. Gen and T. Kobayashi, editors, *Proceedings of the 16th International Conference on Computers and Industrial Engineering*, pages 451–454, Ashikaga, Japan, 1994. Pergamon Press.
- [6834] Xixiang Yang and Weihua Zhang. An Improved Multi-Objective Particle Swarm Optimization. *Advanced Science Letters*, 4(4-5):1491–1495, April-May 2011.
- [6835] Xue-Song Yang, Kai Tat Ng, Sai Ho Yeung, and Kim Fung Man. Jumping Genes Multiobjective Optimization Scheme for Planar Monopole Ultrawideband Antenna. *IEEE Transactions on Antennas and Propagation*, 56(12):3659–3666, December 2008.

- [6836] Yahong Yang, Guiling Wu, Jianping Chen, and Wei Dai. Multi-objective optimization based on ant colony optimization in grid over optical burst switching networks. *Expert Systems with Applications*, 37(2):1769–1775, March 2010.
- [6837] Yingxu Yang and S.A. Billings. Extracting Boolean Rules from CA Patterns. *IEEE Transactions on Systems, Man, and Cybernetics—Part B: Cybernetics*, 30(4):573–580, August 2000.
- [6838] Zichen Yang and Bo Meng. A Multi-objective Genetic Algorithms Method for Generating Pareto Solutions in Bilateral Negotiations. In *Proceedings of the 4th World Congress on Intelligent Control and Automation*, volume 2, pages 1985–1989, 2002.
- [6839] Hai yang Li, Ya-Zhong Luo, Jin-Zhang, and Guo-Jin Tang. Optimal multi-objective linearized impulsive rendezvous under uncertainty. *Acta Astronautica*, 66(3-4):439–445, February - March 2010.
- [6840] Bo Yang Qu, Pushpan Gouthanan, and Ponnuthurai Nagaratnam Suganthan. Dynamic Grouping Crowding Differential Evolution with Ensemble of Parameters for Multi-Modal optimization. *Swarm Evolutionary and Memetic Computing*, 1(1):19–28, December 2010.
- [6841] Bo yang Qu and Ponnuthurai-Nagaratnam Suganthan. Multi-objective differential evolution with diversity enhancement. *Journal of Zhejiang University-Science C-Computers & Electronics*, 11(7):538–543, July 2010.
- [6842] A. E. Yankovskaya and Y. R. Tsoy. Selection of Optimal Set of Diagnostic Tests with Use of Evolutionary Approach in Intelligent Systems. In *New Dimensions in Fuzzy Logic and Related Technologies, Vol. I*, pages 267–270, Czech Republic, 2007. University of Ostrava.
- [6843] Thaise Yano, Eliane Martins, and Fabiano Luis de Sousa. A Multi-Objective Evolutionary Algorithm to Obtain Test Cases with Variable Lengths. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 1875–1882, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6844] Jie Yao, Nawwaf Kharma, and Peter Grogono. BMPGA: A Bi-Objective Multipopulation Genetic Algorithm for Multi-modal Function Optimization. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 1, pages 816–823, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6845] Jie Yao, Nawwaf Kharma, and Peter Grogono. Bi-objective Multipopulation Genetic Algorithm for Multimodal Function Optimization. *IEEE Transactions on Evolutionary Computation*, 14(1):80–102, February 2010.
- [6846] Leehter Yao, William A. Sethares, and Daniel C. Kammer. Sensor Placement for On-Orbit Modal Identification via a Genetic Algorithm. *AIAA Journal*, 31(10):1922–1928, October 1993.

- [6847] Wangshu Yao, Chen Shifu, and Chen Zhaoqian. SDMOGA: A New Multi-objective Genetic Algorithm Based on Objective Space Divided. In Irwin King, Jun Wang, Laiwan Chan, and DeLiang L. Wang, editors, *Neural Information Processing, 13th International Conference, ICONIP 2006, Part III*, pages 754–762, Hong Kong, China, October 2006. Springer-Verlag. Lecture Notes in Computer Science Vol. 4234.
- [6848] H. Yapicioglu, H. Liu, A.E. Smith, and G. Dozier. Hybrid approach for pareto front expansion in heuristics. *Journal of the Operational Research Society*, 62(2):348–359, February 2011.
- [6849] Haluk Yapicioglu, Gerry Dozier, and Alice E. Smith. Bi-criteria Model for Locating a Semi-desirable Facility on a Plane Using Particle Swarm Optimization. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 2328–2334, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [6850] Haluk Yapicioglu, Gerry Dozier, and Alice E. Smith. Neural Network Enhancement of Multiobjective Evolutionary Search. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6800–6806, Vancouver, BC, Canada, July 2006. IEEE.
- [6851] Haluk Yapicioglu, Alice E. Smith, and Gerry Dozier. Solving the semi-desirable facility location problem using bi-objective particle swarm. *European Journal of Operational Research*, 177(2):733–749, March 1 2007.
- [6852] P. O. Yapo, H. V. Gupta, and S. Sorooshian. Multi-Objective Global Optimization for Hydrologic Models. *Journal of Hydrology*, 204:83–97, 1998.
- [6853] Patrice Ogou Yapo. *A multiobjective global optimization algorithm with application to the calibration of hydrologic models*. PhD thesis, Department of Systems and Industrial Engineering, The University of Arizona, Tucson, Arizona, 1996.
- [6854] Keiichiro Yasuda, Osamu Yamazaki, and Takao Watanabe. Proposal of a cannibalism bug-based search strategy using genetic algorithms (C-BUGS) and its application to multiobjective optimization problems. *Electrical Engineering in Japan*, 139(1):51–64, April 2002.
- [6855] Yi Jack Yau, Jason Teo, and Patricia Anthony. Pareto Evolution and Co-evolution in Cognitive Game AI Synthesis. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 227–241, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [6856] Hossein Yazdani, Halina Kwasnicka, and Daniel Ortiz-Arroyo. Multiobjective Particle Swarm Optimization Using Fuzzy Logic. In Piotr Jędrzejowicz,

- Ngoc Thanh Nguyen, and Kiem Hoang, editors, *Computational Collective Intelligence, Third International Conference, ICCCI 2011*, pages 224–233, Gdynia, Poland, September 21–23 2011. Springer. Lecture Notes in Computer Science Vol. 6922.
- [6857] M. Ye and G. Zhouz. A local genetic approach to multi-objective, facility layout problems with fixed aisles. *International Journal of Production Research*, 45(22):5243–5264, 2007.
 - [6858] A. K. Y. Yee, A. K. Ray, and G. P. Rangaiah. Multiobjective optimization of an industrial styrene reactor. *Computers & Chemical Engineering*, 27(1):111–130, January 15 2003. Article Number: PII.
 - [6859] Chao-Hsien Yeh and John W. Labadie. Multiobjective Watershed-Level Planning of Storm-Water Detention Systems. *Journal of Water Resources Planning and Management*, 123(6):336–343, November/December 1997.
 - [6860] Wei-Chang Yeh and Mei-Chi Chuang. Using multi-objective genetic algorithm for partner selection in green supply chain problems. *Expert Systems With Applications*, 38(4):4244–4253, April 2011.
 - [6861] Gary G. Yen. Multi-Objective Evolutionary Algorithm for Radial Basis Function Neural Network Design. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 221–239. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
 - [6862] Gary G. Yen. Multi-objective Evolutionary Algorithm for Temporal Linguistic Rule Extraction. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 365–383. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
 - [6863] Gary G. Yen and Wen Fung Leong. Constraint handling procedure for multiobjective particle swarm optimization. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 1704–1711, Barcelona, Spain, July 18–23 2010. IEEE Press.
 - [6864] Gary G. Yen and Weng Fung Leong. Dynamic Multiple Swarms in Multiobjective Particle Swarm Optimization. *IEEE Transactions on Systems Man and Cybernetics Part A—Systems and Humans*, 39(4):890–911, July 2009.
 - [6865] Gary G. Yen and Haiming Lu. Hierarchical Rank Density Genetic Algorithm for Radial-Basis Function Neural Network Design. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 25–30, Piscataway, New Jersey, May 2002. IEEE Service Center.
 - [6866] Gary G. Yen and Haiming Lu. Dynamic Multiobjective Evolutionary Algorithm: Adaptive Cell-Based Rank and Density Estimation. *IEEE Transactions on Evolutionary Computation*, 7(3):253–274, June 2003.

- [6867] Kai Yen and Lajos Hanzo. Genetic Algorithm Based Antenna Diversity Assisted Multiuser Detection for Synchronous CDMA Systems. In *IEEE Vehicular Technology Conference*, volume 3, pages 1794–1798. IEEE, 2001.
- [6868] S. H. Yeung and K. F. Man. A New Jumping Genes Paradigm for an E-Shaped Folded Patch Feed Antenna Design. *International Journal of Microwave Science and Technology*, 2007:1–10, 2007.
- [6869] S. H. Yeung, K. F. Man, and W. S. Chan. ISM Band Antenna Design Based on Fuzzy MCDM Selection Technique. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 200–204, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [6870] Sai Ho Yeung and Kim Fung Man. Multiobjective Optimization. *IEEE Microwave Magazine*, 12(6):120–133, October 2011.
- [6871] Sai Ho Yeung, Kim Fung Man, and Wing Shing Chan. The Multiple Circular Sectors Structures for Phase Shifter Designs. *IEEE Transactions on Microwave Theory and Techniques*, 59(2):278–285, February 2011.
- [6872] Sai-Ho Yeung, Hoi-Kuen Ng, and Kim-Fung Man. Multi-criteria design methodology of a dielectric resonator antenna with jumping genes evolutionary algorithm. *AEU-International Journal of Electronics and Communications*, 62(4):266–276, 2008.
- [6873] Sun Yijie and Shen Gongzhang. Improved NSGA-II Multi-objective Genetic Algorithm Based on Hybridization-encouraged Mechanism. *Chinese Journal of Aeronautics*, 21(6):540–549, December 2008.
- [6874] Ali R. Yildiz and Kazuhiro Saitou. Topology Synthesis of Multi-Component Structural Assemblies in Continuum Domains. In *ASME 2008 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2008)*, pages 1–11, New York City, New York, USA, August 2008. ASME.
- [6875] Ali R. Yildiz and Kazuhiro Saitou. Topology Synthesis of Multicomponent Structural Assemblies in Continuum Domains. *Journal of Mechanical Design*, 133(1), January 2011. Article Number: 011008.
- [6876] Ali Riza Yildiz. *Development of A Multi Objective Search Based System For Solving of Design Optimization Problem*. PhD thesis, University of Uludag, Turkey, 2006.
- [6877] Ali Riza Yildiz. A novel hybrid immune algorithm for global optimization in design and manufacturing. *Robotics and Computer-Integrated Manufacturing*, 25(2):261–270, April 2009.

- [6878] Ali Riza Yildiz. An Effective hybrid immune-hill climbing optimization approach for solving design and manufacturing optimization problems in industry. *Journal of Materials Processing Technology*, 209(6):2773–2780, March 19 2009.
- [6879] Ali Riza Yildiz, N. Ozturk, Necmettin Kaya, and Ferruh Ozturk. Hybrid multi-objective shape design optimization using Taguchi’s method and genetic algorithm. *Structural and Multidisciplinary Optimization*, 34(4):317–332, 2007.
- [6880] A.R. Yildiz and F. Ozturk. Hybrid enhanced genetic algorithm to select optimal machining parameters in turning operation. *Proceedings of the Institution of Mechanical Engineers Part B—Journal of Engineering Manufacture*, 220(12):2041–2053, December 2006.
- [6881] Hanfeng Yin, Guilin Wen, Shujuan Hou, and Kai Chen. Crushing analysis and multiobjective crashworthiness optimization of honeycomb-filled single and bitubular polygonal tubes. *Materials & Design*, 32(8-9):4449–4460, September 2011.
- [6882] Peng-Yeng Yin and Jing-Yu Wang. Optimal multiple-objective resource allocation using hybrid particle swarm optimization and adaptive resource bounds technique. *Journal of Computational and Applied Mathematics*, 216(1):73–86, June 15 2008.
- [6883] Peng-Yeng Yin, Shih-Sheng Yu, Pei-Pei Yang, and Yi-Te Wang. Multi-objective task allocation in distributed computing systems by hybrid particle swarm optimization. *Applied Mathematics and Computation*, 184(2):407–420, January 15 2007.
- [6884] Y.F. Yin. Multiobjective bilevel optimization for transportation planning and management problems. *Journal of Advanced Transportation*, 36(1):93–105, Winter 2002.
- [6885] L. Yinzen, K. Ida, and M. Gen. Improved Genetic Algorithm for Solving Multiobjective Solid Transportation Problem with Fuzzy Numbers. *Computers and Industrial Engineering*, 33(3):589–592, December 1997.
- [6886] Liu Yong, Jiang Hong, and Huang Yu Qing. Design of Cognitive Radio Wireless Parameters Based on Multi-objective Immune Genetic Algorithm. In *International Conference on Communications and Mobile Computing (CMC’09)*, pages 92–96, Yunnan, China, January 2009. IEEE Computer Society.
- [6887] Sun Yong, Li Zhimin, and Zhang Dongsheng. Optimal Multi-objective Design of Power System Damping Controller Using Synergy of Bacterial Forging and Particle Swarm Optimization. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC’2009)*, pages 1037–1040, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.

- [6888] Wang Yong and Cai Zixing. A Constrained Optimization Evolutionary Algorithm Based on Multiobjective Optimization Techniques. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1081–1087, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [6889] J. Yoo and P. Hajela. Immune network simulations in multicriterion design. *Structural Optimization*, 18:85–94, 1999.
- [6890] J. Yoo and P. Hajela. Fuzzy Multicriterion Design Using Immune Network Simulation. *Structural and Multidisciplinary Optimization*, 22(3):188–197, 2001.
- [6891] Myungryun Yoo. Real-time task scheduling by multiobjective genetic algorithm. *Journal of Systems and Software*, 82(4):619–628, April 2009.
- [6892] Seung-Ryul Yoo. *Determination of Operational Frequencies on Express Bus Service using Dynamic Niche Sharing Pareto GA*. PhD thesis, Graduate School of Korea University, Department of Industrial Engineering, Korea, 1997. (in Korean).
- [6893] Shin Yoo and Mark Harman. Pareto Efficient Multi-Objective Test Case Selection. In *Proceedings of the 2007 International Symposium on Software Testing and Analysis (ISSTA '07)*, pages 140–150, London, United Kingdom, July 2007. ACM Press.
- [6894] Shin Yoo and Mark Harman. Using hybrid algorithm for Pareto efficient multi-objective test suite minimisation. *Journal of Systems and Software*, 83(4):689–701, April 2010.
- [6895] Koji Yoshida, Masayuki Yamamura, and Shigenobu Kobayashi. Generating Pareto Optimal Decision Trees by GAs. In *Proceedings of the 4th International Conference on Soft Computing (IIZUKA'96)*, pages 854–859, 1996.
- [6896] Tomohiro Yoshikawa, Daisuke Yamashiro, and Takeshi Furuhashi. A Proposal of Visualization of Multi-Objective Pareto Solutions-Development of Mining Technique for Solutions-. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 172–177, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [6897] Kazuyuki Yoshimura and Ryohei Nakano. Genetic Algorithms for Information Operator Scheduling. In David B. Fogel, editor, *Proceedings of the 1998 International Conference on Evolutionary Computation*, pages 277–282, Piscataway, New Jersey, 1998. IEEE.
- [6898] M. Yoshimura and Y. Shimizu. Generation of moving Structural Systems in Multiple Evolutionary Environments. *Structural Optimization*, 16(4):258–268, December 1998.

- [6899] Susumu Yoshizawa, Tohru Kawabe, and Sadaaki Miyamoto. Robust Control Configured Design Method for Systems with Multi-objective Specifications. In *Joint 9th IFSA World Congress and 20th NAFIPS International Conference*, volume 3, pages 1746–1751. IEEE, 2001.
- [6900] Sang you Zeng, Guang Chen, Liang Zheng, Hiu Shi, Hugo de Garis, Lixin Ding, and Lishan Kang. A Dynamic Multi-Objective Evolutionary Algorithm Based on an Orthogonal Design. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 2588–2595, Vancouver, BC, Canada, July 2006. IEEE.
- [6901] Abdalnasser Younes, Hamada Ghenniwa, and Shawki Areibi. An Adaptive Genetic Algorithm for Multi Objective Flexible Manufacturing Systems. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 1241–1248, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [6902] Nicholas Young. Blended Ranking to Cross Infeasible Regions in Constrained Multiobjective Problems. In *Proceedings of the 2005 International Conference on Computational Intelligence for Modelling, Control and Automation, and International Conference on Intelligent Agents, Web Technologies and Internet Commerce (CIMCA-IAWTIC'05)*, pages 191–196. IEEE Press, November 2005.
- [6903] Nicholas Young. *Coevolution and Encoding of Fuzzy Systems, and Multiobjective Optimisation*. PhD thesis, Faculty of Business and Informatics, Central Queensland University, Australia, February 2007.
- [6904] Nicholas Young and Russel Stonier. Blended Rank Evolutionary Algorithm for the Constrained Multiobjective Crop Rotation Problem. In *International Conference on Computational Intelligence for Modelling Control and Automation, and International Conference on Intelligent Agents, Web Technologies and Internet Commerce (CIMCA-IAWTIC'06)*, Los Alamitos, California, USA, 28 November–1 December 2006. IEEE Computer Society Press.
- [6905] H. Youssef, S. M. Sait, and H. Adiche. Evolutionary algorithms, simulated annealing and tabu search: a comparative study. *Engineering Applications of Artificial Intelligence*, 14(2):167–181, April 2011.
- [6906] Habib Youssef, Sadiq M. Sait, and Salman A. Khan. Fuzzy Simulated Evolution Algorithm for Topology Design on Campus Networks. In *2000 Congress on Evolutionary Computation*, volume 1, pages 180–187, Piscataway, New Jersey, July 2000. IEEE Service Center.
- [6907] Habib Youssef, Sadiq M. Sait, and Salman A. Khan. Fuzzy Evolutionary Hybrid Metaheuristic for Network Topology Design. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, edi-

- tors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 400–415. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.
- [6908] Feili Yu, Fang Tu, and Krishna R. Pattipati. Integration of a holonic organizational control architecture and multiobjective evolutionary algorithm for flexible distributed scheduling. *IEEE Transactions on Systems, Man, and Cybernetics Part A—Systems and Humans*, 38(5):1001–1017, September 2008.
 - [6909] Gang Yu, Tianyou Chai, and Xiaochuan Luo. Multiobjective Production Planning Optimization Using Hybrid Evolutionary Algorithms for Mineral Processing. *IEEE Transactions on Evolutionary Computation*, 15(4):487–514, August 2011.
 - [6910] L. Yu and P. N. Suganthan. Empirical comparison of niching methods on hybrid composition functions. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2194–2201, Hong Kong, June 2008. IEEE Service Center.
 - [6911] Li Yu and Liya Wang. Product portfolio identification with data mining based on multi-objective GA. *Journal of Intelligent Manufacturing*, 21(6):797–810, December 2010.
 - [6912] W.F. Yu, K. Hidajat, and A.K. Ray. Application of multiobjective optimization in the design and operation of reactive SMB and its experimental verification. *Industrial & Engineering Chemistry Research*, 42(26):6823–6831, December 2003.
 - [6913] Y. Yu, JB. Y. Zhang, and M. C. Schell. Multi-objective Stochastic Reasoning and Genetic Algorithm Optimization: Applications in Radiotherapy Treatment Planning. In D. W. Pearson, editor, *Proceedings of the Second International ICSC Symposium on Soft Computing*, pages 231–237, Nîmes, France, September 1997. ICSC Academic Press.
 - [6914] Yan Yu. Multi-objective decision theory for computational optimization in radiation therapy. *Medical Physics*, 24:1445–1454, 1997.
 - [6915] Zhiwen Yu, Hau-San Wong, Dingwen Wang, and Ming Wei. Neighborhood Knowledge-Based Evolutionary Algorithm for Multiobjective Optimization Problems. *IEEE Transactions on Evolutionary Computation*, 15(6):812–831, December 2011.
 - [6916] Ming yue Feng, Xian qing Yi, Guo hui Li, Shao xun Tang, and Jun He. An Orthogonal Genetic Algorithm for Job Shop Scheduling Problems with Multiple Objectives. In *Fourth International Conference on Natural Computation (ICNC 2008)*, pages 546–550, Jinan, Shandong, China, IEEE Computer Society Press 2008.
 - [6917] Chan Ching Yuen, Aatmeeyata, Santosh K. Gupta, and Ajay K. Ray. Multi-objective optimization of membrane separation modules using genetic algorithm. *Journal of Membrane Science*, 176(2):177–196, August 2000.

- [6918] Michael A. Yukish. *Algorithms to Identify Pareto Points in Multi-Dimensional Data Sets*. PhD thesis, College of Engineering, Pennsylvania State University, USA, August 2004.
- [6919] Y. Yun, M. Yoon, and H. Nakayama. Genetic algorithm for multi-objective optimization using GDEA. In *Advances in Natural Computation, Pt 3, Proceedings*, pages 409–416. Springer. Lecture Notes in Computer Science Vol. 3612, 2005.
- [6920] Y.B. Yun, H. Nakayama, and M. Arakawa. Multiple criteria decision making with generalized DEA and an aspiration level method. *European Journal of Operational Research*, 158(3):697–706, November 2004.
- [6921] Y.B. Yun, H. Nakayama, T. Tanino, and M. Arakawa. A Multi-Objective Optimization Method Combining Generalized Data Envelopment Analysis and Genetic Algorithms. In *1999 IEEE International Conference on Systems, Man, and Cybernetics*, volume 1, pages 671–676. IEEE, 1999.
- [6922] Yeboon Yun, Hirotaka Nakayama, and Masao Arakawa. Fitness Evaluation using Generalized Data Envelopment in MOGA. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 464–471, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [6923] Yeboon Yun, Hirotaka Nakayama, and Min Yoon. Sequential Approximation Method in Multi-objective Optimization Using Aspiration Level Approach. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 317–329, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [6924] Yeboon Yun, Min Yoon, and Hirotaka Nakayama. Multi-objective optimization based on meta-modeling by using support vector regression. *Optimization and Engineering*, 10(2):167–181, June 2009.
- [6925] Hong yun Meng, Xiao hua Zhang, and San yang Liu. New Quality Measures for Multiobjective Programming. In Lipo Wang, Ke Chen, and Yew Soon Ong, editors, *Advances in Natural Computation, First International Conference, ICNC 2005*, pages 1044–1048, Changsha, China, August 27-29 2005. Springer. Lecture Notes in Computer Science Vol. 3611.
- [6926] John Paul T. Yusiong and Prospero C. Naval Jr. Training Neural Networks Using Multiobjective Particle Swarm Optimization. In Licheng Jiao, Lipo Wang, Xinbo Gao, Jing Liu, and Feng Wu, editors, *Advances in Natural Computation, Second International Conference, ICNC 2006*, pages 879–888, Xi'an, China, September 24-28 2006. Springer. Lecture Notes in Computer Science. Volume 4221.
- [6927] Ugur Yuzgec. Performance comparison of differential evolution techniques on optimization of feeding profile for an industrial scale baker's yeast fermentation process. *Isa Transactions*, 49(1):167–176, January 2010.

- [6928] E.P. Zafiropoulos and E.N. Dialynas. Reliability and cost optimization of electronic devices considering the component failure rate uncertainty. *Reliability Engineering and System Safety*, 84(3):271–284, June 2004.
- [6929] Amelia Zafra, Eva L. Gibaja, and Sebastian Ventura. Multiple instance learning with multiple objective genetic programming for web mining. *Applied Soft Computing*, 11(1):93–102, January 2011.
- [6930] Daniela Zaharie and Dana Petcu. Adaptive Pareto Differential Evolution and Its Parallelization. In Roman Wyrzykowski, Jack Dongarra, Marcin Paprzycki, and Jerzy Wasniewski, editors, *Parallel Processing and Applied Mathematics*, pages 261–268. Springer, Lecture Notes in Computer Science, Vol. 3019, Heidelberg, Germany, 2004.
- [6931] Seyed-Hamid Zahiri and Seyed-Alireza Seyedin. Using Multi-Objective Particle Swarm Optimization for Designing Novel Classifiers. In Carlos Artemio Coello Coello, Satchidananda Dehuri, and Susmita Ghosh, editors, *Swarm Intelligence for Multi-objective Problems in Data Mining*, chapter 4, pages 65–92. Springer. Studies in Computational Intelligence. Vol. 242, Berlin, 2009.
- [6932] Banafsheh Zahraie and Mehdi Tavakolan. Stochastic Time-Cost-Resource Utilization Optimization Using Nondominated Sorting Genetic Algorithm and Discrete Fuzzy Sets. *Journal of Construction Engineering and Management-ASCE*, 135(11):1162–1171, November 2009.
- [6933] Jacek Zak, Andrej Jazkiewickz, and Adam Redmer. Multiple Criteria Optimization Method for the Vehicle Assignment Problem in a Bus Transportation Company. *Journal of Advanced Transportation*, 43(2):203–243, 2009.
- [6934] R. Romero Zaliz, I. Zwir, and E. Ruspini. Generalized Analysis of Promoters: A Method for DNA Sequence Description. In Carlos A. Coello Coello and Gary B. Lamont, editors, *Applications of Multi-Objective Evolutionary Algorithms*, pages 427–449. World Scientific, Singapore, 2004.
- [6935] A.M.S. Zalzala, M.C. Ang, M. Chen, A.S. Rana, and Q. Wang. Evolutionary algorithms for robotic systems: principles and implementations. In A.M.S. Zalzala and P.J. Fleming, editors, *Genetic Algorithms in Engineering Systems*, chapter 8, pages 161–202. The Institution of Electrical Engineers. Control Engineering Series 55, Bath, UK, 1997.
- [6936] Ales Zamuda, Janez Brest, Borko Bošković, and Viljem Žumer. Differential Evolution with Self-Adaptation and Local Search for Constrained Multiobjective Optimization. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 195–202, Trondheim, Norway, May 2009. IEEE Press.
- [6937] Alešs Zamuda, Janez Brest, Borko Boškovic, and Viljem Žumer. Differential Evolution for Multiobjective Optimization with Self Adaptation. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3617–3624, Singapore, September 2007. IEEE Press.

- [6938] Ali Zangeneh, Jadid Shahram, and Ashkan Rahimi-Kian. Promotion strategy of clean technologies in distributed generation expansion planning. *Renewable Energy*, 34(12):2765–2773, December 2009.
- [6939] V. Zanic, J. Andric, and P. Prebeg. Design environment for structural design: application to modern multideck ships. *Proceedings Of The Institution Of Mechanical Engineers Part M-Journal Of Engineering For The Maritime Environment*, 223(M1):105–120, February 2009.
- [6940] Saúl Zapotecas-Martínez and Carlos A. Coello Coello. Hybridizing an Evolutionary Algorithm with Mathematical Programming Techniques for Multi-Objective Optimization. In *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pages 769–770. ACM Press, Atlanta, USA, July 2008. ISBN 978-1-60558-131-6.
- [6941] Saúl Zapotecas Martínez and Carlos A. Coello Coello. A Proposal to Hybridize Multi-Objective Evolutionary Algorithms with Non-Gradient Mathematical Programming Techniques. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 837–846. Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [6942] Saúl Zapotecas Martínez and Carlos A. Coello Coello. A Memetic Algorithm with Non Gradient-Based Local Search Assisted by a Meta-Model. In Robert Schaefer, Carlos Cotta, Joanna Kołodziej, and Günter Rudolph, editors, *Parallel Problem Solving from Nature—PPSN XI, 11th International Conference, Proceedings, Part I*, pages 576–585. Springer, Lecture Notes in Computer Science Vol. 6238, Kraków, Poland, September 2010.
- [6943] Saúl Zapotecas Martínez and Carlos A. Coello Coello. A Multi-Objective Meta-Model Assisted Memetic Algorithm with Non Gradient-Based Local Search. In *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pages 537–538, Portland, Oregon, USA, July 7–11 2010. ACM Press. ISBN 978-1-4503-0072-8.
- [6944] Saúl Zapotecas Martínez and Carlos A. Coello Coello. A Multi-objective Particle Swarm Optimizer Based on Decomposition. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 69–76, Dublin, Ireland, July 12-16 2011. ACM Press.
- [6945] Saúl Zapotecas Martínez, Edgar G. Yáñez Oropeza, and Carlos A. Coello Coello. Self-Adaptation Techniques Applied to Multi-Objective Evolutionary Algorithms. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, pages 567–581, Rome, Italy, January 17-21 2011. Springer, Lecture Notes in Computer Science Vol. 6683.
- [6946] Mahdi Zarghaami, Reza Ardakanian, and Ferenec Szidarovszky. Obtaining robust decisions under uncertainty by sensitivity analysis on owa operator. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Mul-*

ticriteria Decision Making (MCDM'2007), pages 280–287, Honolulu, Hawaii, USA, April 2007. IEEE Press.

- [6947] Christos Zaroliagis. Recent Advances in Multiobjective Optimization. In Oleg B. Lupanov, Oktay M. Kasim-Zade, Alexander V. Chaskin, and Kathleen Steinhöfel, editors, *Stochastic Algorithms: Foundations and Applications, Third International Symposium, SAGA 2005*, pages 45–47, Moscow, Russia, October 20–22 2005. Springer. Lecture Notes in Computer Science Vol. 3777.
- [6948] Oussama Zebdi, Rachid Boukhili, and Francois Trochu. Optimum Design of a Composite Helical Spring by Multi-criteria Optimization. *Journal of Reinforced Plastics and Composites*, 28(14):1713–1732, July 2009.
- [6949] R. S. Zebulum, M. A. Pacheco, and M. Vellasco. A multi-objective optimisation methodology applied to the synthesis of low-power operational amplifiers. In Ivan Jorge Cheuri and Carlos Alberto dos Reis Filho, editors, *Proceedings of the XIII International Conference in Microelectronics and Packaging*, volume 1, pages 264–271, Curitiba, Brazil, August 1998.
- [6950] R. S. Zebulum, M. A. Pacheco, and M. Vellasco. Synthesis of CMOS operational amplifiers through Genetic Algorithms. In *Proceedings of the Brazilian Symposium on Integrated Circuits, SBCCI'98*, pages 125–128, Rio de Janeiro, Brazil, September 1998. IEEE.
- [6951] Ricardo Salem Zebulum, Marco Aurélio Pacheco, and Marley Vellasco. Artificial Evolution of Active Filters: A Case Study. In *Proceedings of the First NASA/DoD Workshop on Evolvable Hardware*, pages 66–75, Los Alamitos, California, July 1999. IEEE Computer Society.
- [6952] Emily M. Zechman and S. Ranji Ranjithan. Are the “Best” Solutions to a Real Optimization Problem Always Found in the Noninferior Set? Evolutionary Algorithm for Generating Alternatives (EAGA). In Erick Cantú-Paz et al., editor, *Genetic and Evolutionary Computation—GECCO 2003. Proceedings, Part II*, pages 1622–1623. Springer. Lecture Notes in Computer Science Vol. 2724, July 2003.
- [6953] Joao A. Zeferino, Antonio P. Antunes, and Maria C. Cunha. Multi-objective model for regional wastewater systems planning. *Civil Engineering and Environmental Systems*, 27(2):95–106, 2010.
- [6954] Milan Zeleny. The Evolution of Optimality: De Novo Programming. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 1–13, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [6955] Fanchao Zeng, James Decraene, Malcolm Yoke Hean Low, Philip Hingston, Cai Wentong, Zhou Suiping, and Mahinthan Chandramohan. Autonomous Bee Colony Optimization for multi-objective function. In *2010 IEEE Congress on*

Evolutionary Computation (CEC'2010), pages 1279–1286, Barcelona, Spain, July 18–23 2010. IEEE Press.

- [6956] Sanyou Zeng, Guang Chen, Rui Wang, Hui Li, Hui Shi, Lixin Ding, and Lishan Kang. A New Technique for Assessing the Diversity of Close-Pareto-Optimal Front. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 344–349, Hong Kong, June 2008. IEEE Service Center.
- [6957] SanYou Zeng, LiXin Ding, Yuping Chen, and LiShan Kang. A New Multiobjective Evolutionary Algorithm: OMOEA. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 2, pages 898–905, Canberra, Australia, December 2003. IEEE Press.
- [6958] Sanyou Zeng, Shuzhen Yao, Lishan Kang, and Yong Liu. An Efficient Multi-objective Evolutionary Algorithm: OMOEA-II. In Carlos A. Coello Coello, Arturo Hernández Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pages 108–119, Guanajuato, México, March 2005. Springer. Lecture Notes in Computer Science Vol. 3410.
- [6959] Sanyou Y. Zeng, Lishan S. Kang, and Lixin X. Ding. An Orthogonal Multi-objective Evolutionary Algorithm for Multi-objective Optimization Problems with Constraints. *Evolutionary Computation*, 12(1):77–98, Spring 2004.
- [6960] Xianhui Zeng, Wai-Keung Wong, and Sunney Yung-Sun Leung. An operator allocation optimization model for balancing control of the hybrid assembly lines using Pareto utility discrete differential evolution algorithm. *Computers & Operations Research*, 39(5):1145–1159, May 2012.
- [6961] Yan Zenyhu, Kang Lishan, Bob McKay, and Fu Penghui. SEEA For Multiobjective Optimization: Reinforcing Elitist MOEA Through Multi-Parent Crossover, Steady Elimination and Swarm Hill Climbing. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim, and Xin Yao, editors, *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 21–25, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
- [6962] M. Zhai, Y. C. Lam, and C. K. Au. Runner sizing in multiple cavity injection mould by non-dominated sorting genetic algorithm. *Engineering with Computers*, 25(3):237–245, September 2009.
- [6963] Byoung-Tak Zhang and Heinz Mühlenbein. Adaptive Fitness Functions for Dynamic Growing/Pruning of Program Trees. In Peter J. Angeline and Jr. Kenneth E. Kinnear, editors, *Advances in Genetic Programming 2*, pages 241–256. MIT Press, 1996.
- [6964] Chengbin Zhang, Yongping Chen, Mingheng Shi, and G.P. Peterson. Optimization of heat pipe with axial “Omega”-shaped micro grooves based on a niched Pareto genetic algorithm (NPGA). *Applied Thermal Engineering*, 29(16):3340–3345, November 2009.

- [6965] Chi Zhang, Jose Emmanuel Ramirez-Marquez, and Claudio M. Sanseverino. A holistic method for reliability performance assessment and critical components detection in complex networks. *IIE Transactions*, 43(9):661–675, 2011.
- [6966] Dan Zhang and Zhen Gao. Forward kinematics, performance analysis, and multi-objective optimization of a bio-inspired parallel manipulator. *Robotics and Computer-Integrated Manufacturing*, 28(4):484–492, August 2012.
- [6967] Deng Zhang, Shingo Mabu, and Kotaro Hirasawa. Image Denoising Using Pulse Coupled Neural Network with an Adaptive Pareto Genetic Algorithm. *IEEE Transactions on Electrical and Electronic Engineering*, 6(5):474–482, September 2011.
- [6968] Guohui Zhang, Xinyu Shao, Peigen Li, and Liang Gao. An effective hybrid particle swarm optimization algorithm for multi-objective flexible job-shop scheduling problem. *Computers & Industrial Engineering*, 56(4):1309–1318, May 2009.
- [6969] Hong Zhang and Feng Xing. Fuzzy-multi-objective particle swarm optimization for time-cost-quality tradeoff in construction. *Automation in Construction*, 19(8):1067–1075, December 2010.
- [6970] Jian Zhang, Xiaohui Yuan, and Bill P. Buckles. Subspace FDC for Sharing Distance Estimation. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 2, pages 1735–1742, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [6971] Jingqiao Zhang. *Parameter Adaptive Differential Evolution for Multi-Modal Function Optimization*. PhD thesis, Rensselaer Polytechnic Institute, Troy, New York, USA, August 2008.
- [6972] Jingqiao Zhang and Arthur C. Sanderson. Self-Adaptive Multi-Objective Differential Evolution with Direction Information Provided by Archived Inferior Solutions. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2806–2815, Hong Kong, June 2008. IEEE Service Center.
- [6973] Jinya Zhang, Hongwu Zhu, Chun Yang, Yan Li, and Huan Wei. Multi-objective shape optimization of helico-axial multiphase pump impeller based on NSGA-II and ANN. *Energy Conversion and Management*, 52(1):538–546, January 2011.
- [6974] Jun Zhang, De-Shuang Huang, and Kun-Hong Liu. Multi-Sub-Swarm Particle Swarm Optimization Algorithm for Multimodal Function Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3215–3220, Singapore, September 2007. IEEE Press.
- [6975] L. B. Zhang, C. G. Zhou, X. L. Xu, C. T. Sun, and M. Liu. Multi-Objective Evolutionary Algorithm Based on Max-Min Distance Density. In *International Conference on Computational Intelligence and Security (ICCIS'2006)*, pages 312–315, New York, 2006. IEEE Press.

- [6976] L.B. Zhang, C.G. Zhou, X.H. Liu, Z.Q. Ma, and Y.C. Liang. Solving Multi Objective Optimization Problems Using Particle Swarm Optimization. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2400–2405, Canberra, Australia, December 2003. IEEE Press.
- [6977] Min Zhang, Huantong Geng, Wenjian Luo, Linfeng Huang, and Xufa Wang. A hybrid of differential evolution and genetic algorithm for constrained multi-objective optimization problems. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Cheng, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 318–327, Hefei, China, October 2006. Springer. Lecture Notes in Computer Science Vol. 4247.
- [6978] Min Zhang, Wenjian Luo, Xingxin Pei, and Xufa Wang. The Self-Adaption Strategy for Parameter ε in ε -MOEA. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 2945–2952, Hong Kong, June 2008. IEEE Service Center.
- [6979] Mingming Zhang, Shuguang Zhao, and Xu Wang. Multi-Objective Evolutionary Algorithm Based on Adaptive Discrete Differential Evolution. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 614–621, Trondheim, Norway, May 2009. IEEE Press.
- [6980] P. Zhang and A.H. Coonick. Coordinated Synthesis of PSS Parameters in Multi-Machine Power Systems Using the Method of Inequalities Applied to Genetic Algorithms. *IEEE Transactions on Power Systems*, 15(2):811–816, May 2000.
- [6981] Q. Zhang, H. Manier, and M.-A. Manier. A General Model for Job Shop Problems Using Immune-Genetic Algorithm and Multiobjective Optimization Techniques. In *6th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2009)*, pages 390–393, Milan, Italy, July 2009.
- [6982] Qian Zhang and Mahdi Mahfouf. A New Reduced Space Searching Algorithm (RSSA) and Its Application in Optimal Design of Alloy Steels. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 1815–1822, Singapore, September 2007. IEEE Press.
- [6983] Qian Zhang and Mahdi Mahfouf. A Modified PSO with a Dynamically Varying Population and Its Application to the Multi-Objective Optimal Design of Alloy Steels. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 3241–3248, Trondheim, Norway, May 2009. IEEE Press.
- [6984] Qian Zhang and Mahdi Mahfouf. A Hierarchical Mamdani-Type Fuzzy Modelling Approach With New Training Data Selection and Multi-Objective Optimisation Mechanisms: A Special Application for the Prediction of Mechanical Properties of Alloy Steels. *Applied Soft Computing*, 11(2):2419–2443, March 2011.

- [6985] Qian Zhang, Mahdi Mahfouf, John R. Yates, Christophe Pinna, George Panoutsos, Soufiene Boumaiza, Richard J. Greene, and Luis de Leon. Modeling and Optimal Design of Machining-Induced Residual Stresses in Aluminium Alloys Using a Fast Hierarchical Multiobjective Optimization Algorithm. *Materials and Manufacturing Processes*, 26(3):508–520, 2011.
- [6986] Qian Zhang and Mandi Mahfouf. A nature-inspired multi-objective optimisation strategy based on a new reduced space searching algorithm for the design of alloy steels. *Engineering Applications of Artificial Intelligence*, 23(5):660–675, August 2010.
- [6987] Qingfu Zhang and Hui Li. MOEA/D: A Multiobjective Evolutionary Algorithm Based on Decomposition. *IEEE Transactions on Evolutionary Computation*, 11(6):712–731, December 2007.
- [6988] Qingfu Zhang, Hui Li, Dietmar Maringer, and Edward Tsang. MOEA/D with NBI-style Tchebycheff approach for portfolio management. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3308–3315, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [6989] Qingfu Zhang, Wudong Liu, and Hui Li. The Performance of a New Version of MOEA/D on CEC09 Unconstrained MOP Test Instances. In *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pages 203–208, Trondheim, Norway, May 2009. IEEE Press.
- [6990] Qingfu Zhang, Wudong Liu, Edward Tsang, and Botond Virginas. Expensive Multiobjective Optimization by MOEA/D With Gaussian Process Model. *IEEE Transactions On Evolutionary Computation*, 14(3):456–474, June 2010.
- [6991] Qingfu Zhang, Aimin Zhou, and Yaochu Jin. RM-MEDA: A Regularity Model-Based Multiobjective Estimation of Distribution Algorithm. *IEEE Transactions on Evolutionary Computation*, 12(1):41–63, February 2008.
- [6992] Tao Zhang, W. A. Chaovalitwongse, and Yuejie Zhang. Scatter search for the stochastic travel-time vehicle routing problem with simultaneous pick-ups and deliveries. *Computers & Operations Research*, 39(10):2277–2290, October 2012.
- [6993] Taohong Zhang, Linxin Li, Fujun Liang, and Bingru Yang. Parameter optimization of laser die-surface hardening using the particle swarm optimization technique. *International Journal of Advanced Manufacturing Technology*, 36(11-12):1104–1112, April 2008.
- [6994] Wen Zhang and Yutian Liu. Multi-objective reactive power and voltage control based on fuzzy optimization strategy and fuzzy adaptive particle swarm. *International Journal of Electrical Power & Energy Systems*, 30(9):525–532, November 2008.

- [6995] Wenqiang Zhang and Shigeru Fujimura. Multiobjective process planning and scheduling using improved vector evaluated genetic algorithm with archive. *IEEE Transactions on Electrical and Electronic Engineering*, 7(3):258–267, May 2012.
- [6996] Wenqiang Zhang and Mitsuo Gen. Process Planning and Scheduling in Distributed Manufacturing System Using Multiobjective Genetic Algorithm. *IEEE Transactions on Electrical and Electronic Engineering*, 5(1):62–72, January 2010.
- [6997] Wenqiang Zhang and Mitsuo Gen. An efficient multiobjective genetic algorithm for mixed-model assembly line balancing problem considering demand ratio-based cycle time. *Journal of Intelligent Manufacturing*, 22(3):367–378, January 2011.
- [6998] X. Zhang, R. C. Izaurralde, D. Manowitz, T. O. West, W. M. Post, A. M. Thomson, V. P. Bandaruw, J. Nichols, and J. R. Williams. An integrative modeling framework to evaluate the productivity and sustainability of biofuel crop production systems. *Global Change Biology Bioenergy*, 2(5):258–277, October 2010.
- [6999] X. Zhang, R. Srinivasan, and M. Van Liew. Multi-site Calibration of the SWAT Model for Hydrologic Modeling. *Transactions of the ASABE*, 51(6):2039–2049, November-December 2008.
- [7000] Xiangrong Zhang, Bin Lu, Shuiping Gou, and Licheng Jiao. Immune Multiobjective Optimization Algorithm Using Unsupervised Feature Selection. In Franz Rothlauf et al., editor, *Applications of Evolutionary Computing. EvoWorkshops 2006: EvoBIO, EvoCOMNET, EvoHOT, EvoIASP, EvoINTERACTION, EvoMUSART, and EvoSTOC*, pages 484–494, Budapest, Hungary, April 2006. Springer, Lecture Notes in Computer Science Vol. 3907.
- [7001] Xiaohua Zhang, Hongyun Meng, and Licheng Jiao. Improving PSO-Based Multiobjective Optimization Using Competition and Immunity Clonal. In Yue Hao et al., editor, *Computational Intelligence and Security. International Conference, CIS 2005*, pages 839–845, Xi'an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.
- [7002] Xiaoli Zhang and Carl A. Nelson. Multiple-Criteria Kinematic Optimization for the Design of Spherical Serial Mechanisms Using Genetic Algorithms. *Journal of Mechanical Design*, 133(1), January 2011. Article Number 011005.
- [7003] Xingdong Zhang and Marc P. Armstrong. Genetic algorithms and the corridor location problem: multiple objectives and alternative solutions. *Environment and Planning B—Planning & Design*, 35(1):148–168, January 2008.
- [7004] Xuesong Zhang. *Evaluating and Developing Parameter Optimization and Uncertainty Analysis Methods for a Computationally Intensive Distributed Hydrological Model*. PhD thesis, Texas A&M University, USA, August 2008.

- [7005] Xuesong Zhang, Raghavan Srinivasan, Jeff Arnold, R. Cesar Izaurralde, and David Bosch. Simultaneous calibration of surface flow and baseflow simulations: a revisit of the SWAT model calibration framework. *Hydrological Processes*, 25(14):2313–2320, July 1 2011.
- [7006] Xuesong Zhang, Raghavan Srinivasan, and Michael Van Liew. On the use of multi-algorithm, genetically adaptive multi-objective method for multi-site calibration of the SWAT model. *Hydrological Processes*, 24(8):955–969, April 15 2010.
- [7007] Yan Zhang, Kus Hidajat, and Ajay K. Ray. Optimal design and operation of SMB bioreactor: production of high fructose syrup by isomerization of glucose. *Biochemical Engineering Journal*, 21(2):111–121, October 2004.
- [7008] Yang Zhang, HongYu Li, Mahesan Niranjan, and Peter Rockett. Applying Cost-Sensitive Multiobjective Genetic Programming to Feature Extraction for Spam E-mail Filtering. In Michael O'Neill, Leonardo Vanneschi, Steven Gustafson, Anna Isabel Esparcia Alcázar, Ivanoe De Falco, Antonio Della Cioppa, and Ernesto Tarantino, editors, *Genetic Programming, 11th European Conference, EuroGP 2008*, pages 325–336. Springer. Lecture Notes in Computer Science Vol. 4971, Naples, Italy, March 2008.
- [7009] Yang Zhang and Peter Rockett. A Comparison of three evolutionary strategies for multiobjective genetic programming. *Artificial Intelligence Review*, 27(2-3):149–163, March 2007.
- [7010] Yang Zhang and Peter I. Rockett. Evolving Optimal Feature Extraction using Multi-objective Genetic Programming: A Methodology and Preliminary Study on Edge Detection. In Hans-Georg Beyer et al., editor, *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 795–802, New York, USA, June 2005. ACM Press.
- [7011] Yang Zhang and Peter I Rockett. Multiobjective Genetic Programming Feature Extraction with Optimized Dimensionality. In Janusz Kacprzyk, editor, *Soft Computing in Industrial Applications*, chapter 15, pages 159–168. Springer. Advances in Soft Computing, Vol. 39, Berlin, 2007.
- [7012] Yang Zhang and Peter I. Rockett. Application of Multiobjective Genetic Programming to the Design of Robot Failure Recognition Systems. *IEEE Transactions on Automation Science and Engineering*, 6(2):372–376, April 2009.
- [7013] Yang Zhang and Peter I. Rockett. A generic multi-dimensional feature extraction method using multiobjective genetic programming. *Evolutionary Computation*, 17(1):89–115, Spring 2009.
- [7014] Yang Zhang and Peter I. Rockett. A generic optimising feature extraction method using multiobjective genetic programming. *Applied Soft Computing*, 11(1):1087–1097, January 2011.

- [7015] Yifeng Zhang and Kai-Yew Lum. Integrated-Optimal Design of Airplane and Flight Control Using Genetic Algorithms. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 2980–2987, Singapore, September 2007. IEEE Press.
- [7016] Ying Zhang. *MEMS Design Synthesis Based on Hybrid Evolutionary Computation*. PhD thesis, Civil and Environmental Engineering, University of California, Berkeley, USA, 2006.
- [7017] Ying Zhang, Raffi Kamalian, Alice M. Agogino, and Carlo H. Séquin. Design Synthesis of Microelectromechanical Systems Using Genetic Algorithms with Component-Based Genotype Representation. In Maarten Keijzer et al., editor, *2006 Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 731–738, Seattle, Washington, USA, July 2006. ACM Press. ISBN 1-59593-186-4.
- [7018] Yong Zhang, Xiao bei Wu, Zong yi Xing, and Wei-Li Hu. On generating interpretable and precise fuzzy systems based on Pareto multi-objective cooperative co-evolutionary algorithm. *Applied Soft Computing*, 11(1):1284–1294, January 2011.
- [7019] Yong Zhang, Dun-Wei Gong, and Zhonghai Ding. A bare-bones multi-objective particle swarm optimization algorithm for environmental/economic dispatch. *Information Sciences*, 192:213–227, June 1 2012.
- [7020] Yong Zhang, Guangyong Sun, Guangyao Li, Zhen Luo, and Qing Li. Optimization of foam-filled bitubal structures for crashworthiness criteria. *Materials & Design*, 38:99–109, June 2012.
- [7021] Yong Zhang, Dun wei Gong, and Zhong hai Ding. Handling multi-objective optimization problems with a multi-swarm cooperative particle swarm optimizer. *Expert Systems with Applications*, 38(11):13933–13941, October 2011.
- [7022] Yuanyuan Zhang, Mark Harman, Anthony Finkelstein, and S. Afshin Mansouri. Comparing the performance of metaheuristics for the analysis of multi-stakeholder tradeoffs in requirements optimisation. *Information and Software Technology*, 53(7):761–773, July 2011.
- [7023] Yuanyuan Zhang, Mark Harman, and S. Afshin Mansouri. The Multi-Objective Next Release Problem. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 1129–1136, London, UK, July 2007. ACM Press.
- [7024] Yudong Zhang, Yan Jun, Geng Wei, and Lenan Wu. Find multi-objective paths in stochastic networks via chaotic immune PSO. *Expert Systems with Applications*, 37(3):1911–1919, March 15 2010.
- [7025] Z. Zhang, M. Mazzotti, and M. Morbidelli. Multiobjective optimization of simulated moving bed and Varicol processes using genetic algorithm. *Journal of Chromatography A*, 989(1):95–108, March 7 2003.

- [7026] Zhuhong Zhang. Immune optimization algorithm for constrained nonlinear multiobjective optimization problems. *Applied Soft Computing*, 7(3):840–857, June 2007.
- [7027] Zhuhong Zhang. Multiobjective optimization immune algorithm in dynamic environments and its application to greenhouse control. *Applied Soft Computing*, 8(2):959–971, March 2008.
- [7028] Zhuhong Zhang and Shuqu Qian. Multi-Objective Immune Optimization in Dynamic Environments and Its Application to Signal Simulation. In *2009 International Conference on Measuring Technology and Mechatronics Automation (ICMTMA'09)*, pages 246–250, Zhangjiajie, Hunan, China, April 2009. IEEE Computer Society.
- [7029] Zhuhong Zhang and Shuqu Qian. Artificial immune system in dynamic environments solving time-varying non-linear constrained multi-objective problems. *Soft Computing*, 15(7):1333–1349, July 2011.
- [7030] Zhuhong Zhang and Xin Tu. Probabilistic dominance-based multi-objective immune optimization algorithm in noisy environments. *Journal of Computational and Theoretical Nanoscience*, 4(7-8):1380–1387, November-December 2007.
- [7031] Ziyang Zhang, K. Hidajat, Ajay K. Ray, and M. Morbidelli. Multiobjective Optimization of SMB and Varicol Process for Chiral Separation. *AIChE Journal*, 48(12):2800–2816, December 2002.
- [7032] Ziyang Zhang, Ajay K. Ray, and K. Hidajat. Multiobjective optimization of simulated countercurrent moving bed chromatographic reactor (SCMCR) for MTBE synthesis. *Industrial and Engineering Chemistry Research*, 41(13):3213–3232, June 2002.
- [7033] Bo Zhao and Yi jia Cao. Multiple objective particle swarm optimization technique for economic load dispatch. *Journal of Zhejiang University SCIENCE*, 6A(5):420–427, 2005.
- [7034] F.Q. Zhao, Q.Y. Zhang, D.M. Yu, and X.H. Chen. A hybrid algorithm based on PSO and simulated annealing and its applications for partner selection in virtual enterprise. In *Advances in Intelligent Computing, Pt 1, Proceedings*, pages 380–389. Springer. Lecture Notes in Computer Science Vol. 3644, 2005.
- [7035] Han-Hua Zhao, Zhaoheng Liu, and My-Thien Dao. Reliability optimization using multiobjective ant colony system approaches. *Reliability Engineering & System Safety*, 92(1):109–120, January 2007.
- [7036] Huimin Zhao. A multi-objective genetic programming approach to developing pareto optimal decision trees. *Decision Support Systems*, 43(3):809–826, April 2007.

- [7037] Lihua Zhao, Lizhong Xu, Xianjian Xiao, Xiaofeng Ding, and Jun Liu. Research on Algorithm and Project Application for Distribution Automation Optimization Planning. In *International Conference on Sustainable Power Generation and Supply, 2009. (SUPERGEN'09)*, pages 1–7, Nanjing, China, April 2009. IEEE Computer Society.
- [7038] S. Z. Zhao, M. Willjuice Iruthayarajan, S. Baskar, and P. N. Suganthan. Multi-objective robust PID controller tuning using two lbests multi-objective particle swarm optimization. *Information Sciences*, 181(16):3323–3335, August 15 2011.
- [7039] S.-Z. Zhao and P.N. Suganthan. Two-lbests based multi-objective particle swarm optimizer. *Engineering Optimization*, 43(1):1–17, January 2011.
- [7040] Shi-Zheng Zhao and Ponnuthurai Nagaratnam Suganthan. Multi-Objective Evolutionary Algorithm with Ensemble of External Archives. *International Journal of Innovative Computing Information and Control*, 6(4):1713–1726, April 2010.
- [7041] Shuguang Zhao and Licheng Jiao. Multi-objective evolutionary design and knowledge discovery of logic circuits on an adaptive genetic algorithm. *Genetic Programming and Evolvable Machines*, 7(3):195–210, October 2006.
- [7042] Shuguang Zhao, Licheng Jiao, Jianxun Zhao, and Yuping Wang. Evolutionary Design of Analog Circuits with a Uniform-Design Based Multi-Objective Adaptive Genetic Algorithm. In Jason Lohn, David Gwaltney, Gregory Hornby, Ricardo Zebulum, Didier Keymeulen, and Adrian Stoica, editors, *2005 NASA/DoD Conference on Evolvable Hardware*, pages 26–29, Los Alamitos, California, July 2005. IEEE Computer Society Press.
- [7043] Shuguang Zhao, Licheng Jiao, and Jun Zhao. Multi-objective Evolutionary Design and Knowledge Discovery of Logic Circuits with an Improved Genetic Algorithm. In *Computational Intelligence and Security. International Conference, CIS 2005*, pages 273–278, Xi'an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.
- [7044] Shuguang Zhao, Xinquan Lai, and Mingying Zhao. A Uniform-Design Based Multi-objective Adaptive Genetic Algorithm and Its Application to Automated Design of Electronic Circuits. In Licheng Jiao, Lipo Wang, Xinbo Gao, Jing Liu, and Feng Wu, editors, *2006 Second International Conference on Advances in Natural Computation (ICNC 2006)*, pages 653–656. Springer. Lecture Notes in Computer Science, Vol. 4221, Xi'an, China, 2006. ISBN 3-540-45901-4.
- [7045] Shuguang Zhao, Jianxun Zhao, and Licheng Jia. Adaptive Genetic Algorithm Based Approach for Evolutionary Design and Multi-objective Optimization of Logic Circuits. In Jason Lohn, David Gwaltney, Gregory Hornby, Ricardo Zebulum, Didier Keymeulen, and Adrian Stoica, editors, *2005 NASA/DoD Conference on Evolvable Hardware*, pages 67–72, Los Alamitos, California, July 2005. IEEE Computer Society Press.

- [7046] Wenjing Zhao, Jing Liu, Hussein A. Abbass, and Axel Bender. A Multi-Objective Risk-Based Approach for Airlift Task Scheduling Using Stochastic Bin Packing. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 442–449, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [7047] Yong Zhao, Carlos A. Brizuela, and Nobuo Sannomiya. Application of the Partial Enumeration Selection Method in Genetic Algorithms to Solving a Multi-Objective Flowshop Problem. In *2001 IEEE International Conference on Systems, Man, and Cybernetics*, volume 4, pages 2365–2370, 2001.
- [7048] Yongxiang Zhao, Shengwu Xiong, and Meifang Li. Constrained Single- and Multiple-Objective Optimization with Differential Evolution. In *Third International Conference on Natural Computation (ICNC 2007)*, pages 451–455, Haikou, Hainan, China, August 24–27 2007. IEEE Computer Society.
- [7049] Zeng Zhen. *Coordinated Rescheduling of Precast Production*. PhD thesis, Department of Civil Engineering, National University of Singapore, Singapore, 2006.
- [7050] D. X. M. Zheng, S. T. Ng, and M. M. Kumaraswamy. Applying pareto ranking and niche formation to genetic algorithm-based multiobjective time-cost optimization. *Journal of Construction Engineering and Management-ASCE*, 131(1):81–91, January 2005.
- [7051] D.X.M. Zheng, S.T. Ng, and M.M. Kumaraswamy. Applying a genetic algorithm-based multiobjective approach for time-cost optimization. *Journal of Construction Engineering and Management-ASCE*, 130(2):168–176, March–April 2004.
- [7052] Jinhua Zheng, Zhongzhi Shi, Charles X. Ling, and Yong Xie. Some Discussions about MOGAs: Individual Relations, Non-dominated Set, and Application on Automatic Negotiation. In *2004 Congress on Evolutionary Computation (CEC'2004)*, volume 1, pages 706–712, Portland, Oregon, USA, June 2004. IEEE Service Center.
- [7053] Ligang Zheng, Hao Zhou, Chunlin Wang, and Kefa Cen. Combining support vector regression and ant colony optimization to reduce NO_x emissions in coal-fired utility boilers. *ENERGY & FUELS*, 22(2):1034–1040, March - April 2008.
- [7054] Shao Yong Zheng, Sai Ho Yeung, Wing Shing Chan, Kim Fung Man, Shu Hung Leung, and Quan Xue. Dual-band rectangular patch hybrid coupler. *IEEE Transactions on Microwave Theory and Techniques*, 56(7):1721–1728, July 2008.
- [7055] Xiangwei Zheng and Hong Liu. A hybrid vertical mutation and self-adaption based MOPSO. *Computers & Mathematics with Applications*, 57(11–12):2030–2038, June 2009.

- [7056] Xiangwei Zheng and Hong Liu. A Scalable Coevolutionary Multi-Objective Particle Swarm Optimizer. *International Journal of Computational Intelligence Systems*, 3(5):590–600, October 2010.
- [7057] Yang Zheng and Peter I. Rockett. Feature Extraction Using Multi-Objective Genetic Programming. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 75–99. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [7058] Guan zheng Tan, Dai ming Zhou, Bin Jiang, and Mamady I. Dioubiate. Elitism-based immune genetic algorithm and its application to optimization of complex multi-modal functions. *Journal of Central South University Technology*, 15(6):845–852, December 2008.
- [7059] Jing-Hui Zhong and Jun Zhang. Adaptive Multi-Objective Differential Evolution with Stochastic Coding Strategy. In *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pages 665–672, Dublin, Ireland, July 12–16 2011. ACM Press.
- [7060] Aimin Zhou, Yaochu Jin, Qingfu Zhang, Bernhard Sendhoff, and Edward Tsang. Combining Model-based and Genetic-based Offspring Generation for Multi-objective Optimization Using a Convergence Criterion. In *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 3234–3241, Vancouver, BC, Canada, July 2006. IEEE.
- [7061] Aimin Zhou, Yaochu Jin, Qingfu Zhang, Bernhard Sendhoff, and Edward Tsang. Prediction-Based Population Re-initialization for Evolutionary Dynamic Multi-objective Optimization. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 832–846, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [7062] Aimin Zhou, Bo-Yang Qu, Hui Li, Shi-Zheng Zhao, Ponnuthurai Nagaratnam Suganthan, and Qingfu Zhang. Multiobjective evolutionary algorithms: A survey of the state of the art. *Swarm and Evolutionary Computation*, 1(1):32–49, March 2011.
- [7063] Aimin Zhou, Qingfu Zhang, and Yaochu Jin. Approximating the Set of Pareto-Optimal Solutions in Both the Decision and Objective Spaces by an Estimation of Distribution Algorithm. *IEEE Transactions on Evolutionary Computation*, 13(5):1167–1189, October 2009.
- [7064] Aimin Zhou, Qingfu Zhang, Yaochu Jin, and Bernhard Sendhoff. Adaptive Modelling Strategy for Continuous Multi-Objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 431–437, Singapore, September 2007. IEEE Press.

- [7065] Aimin Zhou, Qingfu Zhang, Yaochu Jin, and Bernhard Sendhoff. Combination of EDA and DE for Continuous Biobjective Optimization. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1447–1454, Hong Kong, June 2008. IEEE Service Center.
- [7066] Aimin Zhou, Qingfu Zhang, Yaochu Jin, Bernhard Sendhoff, and Edward Tsang. Global Multiobjective Optimization via Estimation of Distribution Algorithm with Biased Initialization and Crossover. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 1, pages 617–622, London, UK, July 2007. ACM Press.
- [7067] Aimin Zhou, Qingfu Zhang, Yaochu Jin, Bernhard Sendhoff, and Edward Tseng. Modelling the Population Distribution in Multi-objective Optimization by Generative Topographic Mapping. In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 443–452. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
- [7068] Aimin Zhou, Qingfu Zhang, Yaochu Jin, Edward Tsang, and Tatsuya Okabe. A Model-Based Evolutionary Algorithm for Bi-objective Optimization. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2568–2575, Edinburgh, Scotland, September 2005. IEEE Service Center.
- [7069] Chang-Chun Zhou, Guo-Fu Yin, and Xiao-Bing. Multi-objective optimization of material selection for sustainable products: Artificial neural networks and genetic algorithm approach. *Materials & Design*, 30(4):1209–1215, April 2009.
- [7070] Chi Zhou, Xuejun Zhang, Kaiquan Cai, and Jun Zhang. Comprehensive Learning Multi-Objective Particle Swarm Optimizer for Crossing Waypoints Location in Air Route Network. *Chinese Journal of Electronics*, 20(3):533–538, July 2011.
- [7071] Fangbin Zhou, Santosh K. Gupta, and Ajay K. Ray. Multiobjective Optimization of the Continuous Casting Process for Poly (methyl methacrylate) Using Adapted Genetic Algorithm. *Journal of Applied Polymer Science*, 78(7):1439–1458, November 2000.
- [7072] FB Zhou, SK Guptam, and AK Ray. Modeling of the sheet-molding process for poly(methyl methacrylate). *Journal Of Applied Polymer Science*, 81(8):1951–1971, August 22 2001.
- [7073] Gengui Zhou and Mitsuo Gen. Evolutionary Computation on Multicriteria Production Process Planning Problem. In *Proceedings of the 1997 IEEE International Conference on Evolutionary Computation*, pages 419–424, Piscataway, New Jersey, April 1997. IEEE Press.

- [7074] Gengui Zhou and Mitsuo Gen. Genetic Algorithm Approach on Multi-Criteria Minimum Spanning Tree Problem. *European Journal of Operational Research*, 114(1), April 1999.
- [7075] Hao Zhou, Ligang Zheng, and Kefa Cen. Computational intelligence approach for NOx emissions minimization in a coal-fired utility boiler. *Energy Conversion and Management*, 51(3):580–586, March 2010.
- [7076] Ningning Zhou. *Simulation and Synthesis of MicroElectroMechanical Systems*. PhD thesis, Department of Mechanical Engineering, The University of California at Berkeley, Berkeley, California, Spring 2002.
- [7077] Shang-Ming Zhou and John Q. Gan. Multiple Objective Learning for Constructing Interpretable Takagi-Sugeno Fuzzy Model. In Yaochu Jin, editor, *Multi-Objective Machine Learning*, pages 385–403. Springer. Studies in Computational Intelligence, Volume 16, Berlin, 2006.
- [7078] Shihua Zhou, Qiang Zhang, Jing Zhao, and Jinsong Li. DNA encodings based on multi-objective particle swarm. *Journal of Computational and Theoretical Nanoscience*, 4(7-8):1249–1252, November-December 2007.
- [7079] Xiuling Zhou, Ning Mao, Chengyi Sun, and Wenjuan Li. An Improved CHSO Algorithm for Multi-Objective Optimization Problem. In *2008 Congress on Evolutionary Computation (CEC'2008)*, pages 1769–1776, Hong Kong, June 2008. IEEE Service Center.
- [7080] Y.R. Zhou and J. He. The convergence of a multi-objective evolutionary algorithm based on grids. In *Advances in Natural Computation, Pt 2, Proceedings*, pages 1015–1024. Springer. Lecture Notes in Computer Science Vol. 3611, 2005.
- [7081] Yuren Zhou and Jun He. Convergence analysis of a self-adaptive multi-objective evolutionary algorithm based on grids. *Information Processing Letters*, 104(4):117–122, November 2007.
- [7082] Bo Zhu, Ho Seong Lee, Lin Guo, and Masayoshi Tomizuka. Robust Tuning of Fixed-Structure Controller for Disk Drives using Statistical Model and Multi-Objective Genetic Algorithms. In *Proceedings of the 2001 American Control Conference*, volume 4, pages 2773–2778. IEEE, 2001.
- [7083] Qingzheng Zhu, Jing Si, and Lei Wang. Association Based Immune Network for Multimodal Optimization. In *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pages 657–664, Shanghai, China, June 12-14 2009. ACM Press. ISBN 978-1-60558-326-6.
- [7084] Weihang Zhu, Ashraf Yaseen, and Yaohang Li. DEMCMC-GPU: An Efficient Multi-Objective Optimization Method with GPU Acceleration on the Fermi Architecture. *New Generation Computing*, 29(2):163–184, 2011.

- [7085] Zexuan Zhu, Yew-Soon Ong, and Jer-Lai Kuo. Feature Selection Using Single/Multi-Objective Memetic Frameworks. In Chi-Keong Goh, Yew-Soon Ong, and Kay Chen Tan, editors, *Multi-Objective Memetic Algorithms*, chapter 6, pages 111–131. Springer, Studies in Computational Intelligence, Vol. 171, Berlin, Germany, 2009. ISBN 978-3-540-88050-9.
- [7086] Zhong-Yao Zhu. *An Evolutionary Approach to Multi-Objective Optimization Problems*. PhD thesis, The Chinese University of Hong Kong, August 2002.
- [7087] Zhong-Yao Zhu and Kwong-Sak Leung. Asynchronous Self-Adjustable Island Genetic Algorithm for Multi-Objective Optimization Problems. In *Congress on Evolutionary Computation (CEC'2002)*, volume 1, pages 837–842, Piscataway, New Jersey, May 2002. IEEE Service Center.
- [7088] Zhong-Yao Zhu and Kwong-Sak Leung. An Enhanced Annealing Genetic Algorithm for Multi-Objective Optimization Problems. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 658–665, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [7089] Z.Q. Zhu, H.M. Li, J. Li, and R.X. Yu. Genetic algorithms in bidisciplinary (aerodynamics/electromagnetism) optimization. *Science in China Series E-Technological Sciences*, 44(6):572–580, December 2001.
- [7090] Karin Zielinski. *Optimizing Real-World Problems with Differential Evolution and Particle Swarm Optimization*. PhD thesis, Universität Bremen, Germany, February 2009.
- [7091] Karin Zielinski and Rainer Laur. Adaptive Parameter Setting for a Multi-Objective Particle Swarm Optimization Algorithm. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3019–3026, Singapore, September 2007. IEEE Press.
- [7092] Karin Zielinski and Rainer Laur. Differential Evolution with Adaptive Parameter Setting for Multi-Objective Optimization. In *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 3585–3592, Singapore, September 2007. IEEE Press.
- [7093] Karin Zielinski and Rainer Laur. Variants of Differential Evolution for Multi-Objective Optimization. In *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2007)*, pages 91–98, Honolulu, Hawaii, USA, April 2007. IEEE Press.
- [7094] Lyudmila Zinchenko, Matthias Radecker, and Fabio Bisogno. Multi-Objective Univariate Marginal Distribution Optimisation of Mixed Analogue-Digital Signal Circuits. In Dirk Thierens, editor, *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, volume 2, pages 2242–2249, London, UK, July 2007. ACM Press.

- [7095] Arnaud Zinflou, Caroline Gagne, and Marc Gravel. GISMOO: A new hybrid genetic/immune strategy for multiple-objective optimization. *Computers & Operations Research*, 39(9):1951–1968, September 2012.
- [7096] Arnaud Zinflou, Caroline Gagné, Marc Gravel, and Wilson L. Price. Pareto memetic algorithm for multiple objective optimization with an industrial application. *Journal of Heuristics*, 14(4):313–333, August 2008.
- [7097] E. Zio, P. Baraldi, and G. Gola. Feature-based classifier ensembles for diagnosing multiple faults in rotating machinery. *Applied Soft Computing*, 8(4):1365–1380, September 2008.
- [7098] E. Zio, P. Baraldi, and N. Pedroni. Optimal power system generation scheduling by multi-objective genetic algorithms with preferences. *Reliability Engineering & System Safety*, 94(2):432–444, February 2009.
- [7099] E. Zio and R. Bazzo. A clustering procedure for reducing the number of representative solutions in the Pareto Front of multiobjective optimization problems. *European Journal of Operational Research*, 210(3):624–634, May 1 2011.
- [7100] E. Zio and R. Bazzo. Level diagrams analysis of pareto front for multiobjective system redundancy allocation. *Reliability Engineering & System Safety*, 96(5):569–580, May 2011.
- [7101] Marcin Ziolkowski and Stanislaw Gratkowski. Genetic algorithm-based optimization of an exciter for magnetic induction tomography. *Compel-The International Journal for Computation and Mathematics in Electrical And Electronic Engineering*, 28(5):1121–1128, 2009.
- [7102] Marcin Ziolkowski and Stanislaw Gratkowski. Multi-Objective Optimization in Magnetic Induction Tomography Exciter Design. *Przegląd Elektrotechniczny*, 86(5):69–73, 2010.
- [7103] E. Zitzler, L. Thiele, and J. Bader. On Set-Based Multiobjective Optimization. Technical Report 300, Computer Engineering and Networks Laboratory, ETH Zurich, February 2008.
- [7104] E. Zitzler, L. Thiele, M. Laumanns, C. M. Fonseca, and V. Grunert da Fonseca. Performance Assessment of Multiobjective Optimizers: An Analysis and Review. Technical Report 139, Computer Engineering and Networks Laboratory, ETH Zurich, June 2002.
- [7105] Eckart Zitzler. *Evolutionary Algorithms for Multiobjective Optimization: Methods and Applications*. PhD thesis, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, November 1999.
- [7106] Eckart Zitzler. Evolutionary Algorithms for Multiobjective Optimization. In *Evolutionary Methods for Design, Optimisation, and Control (EUROGEN 2001)*, pages 19–26, Barcelona, Spain, 2002. CIMNE.

- [7107] Eckart Zitzler, Dimo Brockhoff, and Lothar Thiele. The Hypervolume Indicator Revisited: On the Design of Pareto-compliant Indicator Via Weighted Integration. In Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu, and Tadahiko Murata, editors, *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pages 862–876, Matshushima, Japan, March 2007. Springer. Lecture Notes in Computer Science Vol. 4403.
- [7108] Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele. Comparison of Multiobjective Evolutionary Algorithms: Empirical Results. Technical Report 70, Computer Engineering and Networks Laboratory (TIK), Swiss Federal Institute of Technology (ETH) Zurich, Gloriastrasse 35, CH-8092 Zurich, Switzerland, December 1999.
- [7109] Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele. Comparison of Multiobjective Evolutionary Algorithms on Test Functions of Different Difficulty. In Annie S. Wu, editor, *Proceedings of the 1999 Genetic and Evolutionary Computation Conference. Workshop Program*, pages 121–122, Orlando, Florida, July 1999.
- [7110] Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele. Comparison of Multiobjective Evolutionary Algorithms: Empirical Results. *Evolutionary Computation*, 8(2):173–195, Summer 2000.
- [7111] Eckart Zitzler, Joshua Knowles, and Lothar Thiele. Quality Assessment of Pareto Set Approximations. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Slowinski, editors, *Multiobjective Optimization. Interactive and Evolutionary Approaches*, pages 373–404. Springer. Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008.
- [7112] Eckart Zitzler and Simon Künzli. Indicator-based Selection in Multiobjective Search. In Xin Yao et al., editor, *Parallel Problem Solving from Nature - PPSN VIII*, pages 832–842, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [7113] Eckart Zitzler, Marco Laumanns, and Stefan Bleuler. A Tutorial on Evolutionary Multiobjective Optimization. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and Vincent T’kindt, editors, *Metaheuristics for Multiobjective Optimisation*, pages 3–37, Berlin, 2004. Springer. Lecture Notes in Economics and Mathematical Systems Vol. 535.
- [7114] Eckart Zitzler, Marco Laumanns, and Lothar Thiele. SPEA2: Improving the Strength Pareto Evolutionary Algorithm. Technical Report 103, Computer Engineering and Networks Laboratory (TIK), Swiss Federal Institute of Technology (ETH) Zurich, Gloriastrasse 35, CH-8092 Zurich, Switzerland, May 2001.
- [7115] Eckart Zitzler, Marco Laumanns, and Lothar Thiele. SPEA2: Improving the Strength Pareto Evolutionary Algorithm. In K. Giannakoglou, D. Tsahalis, J. Periaux, P. Papailou, and T. Fogarty, editors, *EUROGEN 2001. Evolutionary*

Methods for Design, Optimization and Control with Applications to Industrial Problems, pages 95–100, Athens, Greece, 2002.

- [7116] Eckart Zitzler, Marco Laumanns, Lothar Thiele, Carlos M. Fonseca, and Viviane Grunert da Fonseca. Why Quality Assessment of Multiobjective Optimizers Is Difficult. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 666–673, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [7117] Eckart Zitzler, Jürgen Teich, and Shuvra S. Bhattacharyya. Evolutionary Algorithm Based Exploration of Software Schedules for Digital Signal Processors. In W. Banzhaf, J. Daida, A. E. Eiben, M. H. Garzon, V. Honavar, M. Jakiela, and R. E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 2, pages 1762–1769, San Francisco, California, July 1999. Morgan Kaufmann.
- [7118] Eckart Zitzler, Jürgen Teich, and Shuvra S. Bhattacharyya. Multidimensional Exploration of Software Implementations for DSP Algorithms. *Journal of VLSI Signal Processing Systems for Signal Image and Video Technology*, 24(1):83–98, February 2000.
- [7119] Eckart Zitzler and Lothar Thiele. An Evolutionary Algorithm for Multiobjective Optimization: The Strength Pareto Approach. Technical Report 43, Computer Engineering and Communication Networks Lab (TIK), Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, May 1998.
- [7120] Eckart Zitzler and Lothar Thiele. Multiobjective Optimization Using Evolutionary Algorithms—A Comparative Study. In A. E. Eiben, editor, *Parallel Problem Solving from Nature V*, pages 292–301, Amsterdam, September 1998. Springer-Verlag.
- [7121] Eckart Zitzler and Lothar Thiele. Multiobjective Evolutionary Algorithms: A Comparative Case Study and the Strength Pareto Approach. *IEEE Transactions on Evolutionary Computation*, 3(4):257–271, November 1999.
- [7122] Eckart Zitzler, Lothar Thiele, and Johannes Bader. SPAM: Set Preference Algorithm for Multiobjective Optimization. In Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni, and Nicola Beume, editors, *Parallel Problem Solving from Nature—PPSN X*, pages 847–858. Springer. Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
- [7123] Eckart Zitzler, Lothar Thiele, and Johannes Bader. On Set-Based Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, 14(1):58–79, February 2010.

- [7124] Eckart Zitzler, Lothar Thiele, Marco Laumanns, Carlos M. Fonseca, and Viviane Grunert da Fonseca. Performance Assessment of Multiobjective Optimizers: An Analysis and Review. *IEEE Transactions on Evolutionary Computation*, 7(2):117–132, April 2003.
- [7125] Vincent Zoete, Aurelien Grosdidier, and Olivier Michelin. Docking, Virtual High Throughput Screening and in Silico Fragment-Based Drug Design. *Journal of Cellular and Molecular Medicine*, 13(2):238–248, February 2009.
- [7126] N. Zong and X. Hong. Nonlinear channel equalizer design using directional evolutionary multi-objective optimization. *International Journal of Systems Science*, 36(12):737–755, October 2005.
- [7127] Xinlu Zong, Shengwu Xiong, Zhixiang Fang, and Qiuping Li. Multi-ant colony system for evacuation routing problem with mixed traffic flow. In *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pages 3324–3329, Barcelona, Spain, July 18–23 2010. IEEE Press.
- [7128] Fernando Alonso Zotes and Matilde Santos Penas. Multi-criteria genetic optimisation of the manoeuvres of a two-stage launcher. *Information Sciences*, 180(6):896–910, March 15 2010.
- [7129] Wenping Zou, Yunlong Zhu, Hanning Chen, and Beiwei Zhang. Solving Multi-objective Optimization Problems Using Artificial Bee Colony Algorithm. *Discrete Dynamics in Nature and Society*, 2011.
- [7130] X. K. Zou, C.M. Chan, G. Li, and Q. Wang. Multiobjective optimization for performance-based design of reinforced concrete frames. *Journal of Structural Engineering–ASCE*, 133(10):1462–1474, October 2007.
- [7131] X.F. Zou and L.S. Kang. Fast annealing genetic algorithm for multi-objective optimization problem. *International Journal of Computer Mathematics*, 82(8):931–940, August 2005.
- [7132] Xiufen Zou, Yu Chen, Minzhong Liu, and Lishan Kang. A New Evolutionary Algorithm for Solving Many-Objective Optimization Problems. *IEEE Transactions on Systems, Man, and Cybernetics–Part B: Cybernetics*, 38(5):1402–1412, October 2008.
- [7133] Xiufen Zou, Yu Chen, and Zishu Pan. Modeling and Optimization of the Specificity in Cell Signaling Pathways Based on a High Performance Multi-Objective Evolutionary Algorithm. In Tzai-Der Wang, Xiaodong Li, Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen, and Xin Yao, editors, *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pages 774–781. Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.
- [7134] Xiufen Zou, Minzhong Liu, Lishan Kang, and Jun He. A High Performance Multi-objective Evolutionary Algorithm Based on the Principles of Thermodynamics. In Xin Yao et al., editor, *Parallel Problem Solving from Nature*

- *PPSN VIII*, pages 922–931, Birmingham, UK, September 2004. Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
- [7135] Zhenyu Zou, Quanyuan Jiang, Pengxiang Zhang, and Yijia Cao. Application of Multi-objective Evolutionary Algorithm in Coordinated Design of PSS and SVC Controllers. In Yue Hao et al., editor, *Computational Intelligence and Security. International Conference, CIS 2005*, pages 1106–1111, Xi'an, China, December 2005. Springer, Lecture Notes in Artificial Intelligence Vol. 3801.
 - [7136] Wenjie Zuo, Tao Xu, Hao Zhang, and Tianshuang Xu. Fast structural optimization with frequency constraints by genetic algorithm using adaptive eigenvalue reanalysis methods. *Structural and Multidisciplinary Optimization*, 43(6):799–810, June 2011.
 - [7137] Xinquan Zuo, Hongwei Mo, and Jianping Wu. A robust scheduling method based on a multi-objective immune algorithm. *Information Sciences*, 179(19):3359–3369, September 2009.
 - [7138] Z. H. Zuo, Y. M. Xie, and X. Huang. An Improved Bi-Directional Evolutionary Topology Optimization Method for Frequencies. *International Journal of Structural Stability and Dynamics*, 10(1):55–75, March 2010.
 - [7139] I. Zwir, R. Romero Zaliz, and E.H. Ruspini. Automated biological sequence description by genetic multiobjective generalized clustering. *Annals of the New York Academy of Sciences*, 980:65–82, 2002.
 - [7140] Igor S. Zwir and Enrique H. Ruspini. Qualitative Object Description: Initial Reports of the Exploration of the Frontier. In *Proceedings of the Joint EUROFUSE—SIC'99 International Conference*, Budapest, Hungary, 1999.
 - [7141] Jesse B. Zydallis. *Explicit Building-Block Multiobjective Genetic Algorithms: Theory, Analysis, and Development*. PhD thesis, Air Force Institute of Technology, Department of the Air Force, Air University, Wright-Patterson, Airforce Base, Ohio, USA, March 2003.
 - [7142] Jesse B. Zydallis and Gary B. Lamont. Solving of Discrete Multiobjective Problems Using an Evolutionary Algorithm with a Repair Mechanism. In *Proceedings of the IEEE 2001 Midwest Symposium on Circuits and Systems*, volume 1, pages 470–473. IEEE, 2001.
 - [7143] Jesse B. Zydallis and Gary B. Lamont. Explicit Building-Block Multiobjective Evolutionary Algorithms for NPC Problems. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC'2003)*, volume 4, pages 2685–2695, Canberra, Australia, December 2003. IEEE Press.
 - [7144] Jesse B. Zydallis, Gary B. Lamont, and David A. Van Veldhuizen. Messy Genetic Algorithm Based Multi-Objective Optimization: A Comparative Statistical Analysis. In *PPSN/SAB Workshop on Multiobjective Problem Solving from Nature (MPSN)*, Paris, France, September 2000.

- [7145] Jesse B. Zydallis, Todd A. Sriver, and Gary B. Lamont. Multiobjective Evolutionary Algorithm Approach for Solving Integer Based Optimization Problems. In W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M.A. Potter, A.C. Schultz, J.F. Miller, E. Burke, and N. Jonoska, editors, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, page 1276, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
- [7146] Jesse B. Zydallis, David A. Van Veldhuizen, and Gary B. Lamont. A Statistical Comparison of Multiobjective Evolutionary Algorithms Including the MOMGA-II. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *First International Conference on Evolutionary Multi-Criterion Optimization*, pages 226–240. Springer-Verlag. Lecture Notes in Computer Science No. 1993, 2001.