

CURRICULUM VITAE

Carlos Artemio Coello Coello

February 27th, 2021

Personal Information

DATE OF BIRTH : October 18, 1967
PLACE OF BIRTH : Tonalá, Chiapas, México
PHONE : +52 (55) 5747 3800 x 6564
EMAIL : ccoello@cs.cinvestav.mx
WORLD WIDE WEB : <http://delta.cs.cinvestav.mx/~ccoello>
CURRENT WORKPLACE: Departamento de Computación
CINVESTAV-IPN, Av. IPN No. 2508, México, D.F. 07360, México
CURRENT POSITION: Investigador CINVESTAV 3F (Professor with Distinction)
ORCID ID: 0000-0002-8435-680X
ResearcherID: B-1845-2008
Scopus Author ID: 7003514400

Academic Degrees

- BSc in Civil Engineering, Universidad Autónoma de Chiapas, 1985–1990. Degree awarded in 1991 with the thesis “Analysis of Grid Structures using a personal computer (stiffness method)” (*summa cum laude*).
- Master of Science in Computer Science, Tulane University, New Orleans, Louisiana, EUA, 1991–1993. Degree awarded in December, 1993.
- PhD in Computer Science, Tulane University, New Orleans, Louisiana, EUA, 1993–1996. Degree awarded in May, 1996, with the thesis entitled “An Empirical Study of Evolutionary Techniques for Multiobjective Optimization in Engineering Design”. Advisor: Dr. Alan D. Christiansen.

Most Relevant Publications

Monographic Books

1. Carlos A. Coello Coello, David A. Van Veldhuizen and Gary B. Lamont, *Evolutionary Algorithms for Solving Multi-Objective Problems*, Kluwer Academic Publishers, New York, USA, May 2002, ISBN 0-3064-6762-3.
2. Carlos A. Coello Coello, Gary B. Lamont and David A. Van Veldhuizen, *Evolutionary Algorithms for Solving Multi-Objective Problems*, Springer, New York, USA, Second Edition, ISBN 978-0-387-33254-3, September 2007.

Edited Books

1. Carlos A. Coello Coello and Gary B. Lamont (eds), *Applications of Multi-Objective Evolutionary Algorithms*, World Scientific, Singapore, 2004, ISBN 981-256-106-4.
2. Carlos Artemio 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.
3. 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.

Edited Proceedings

1. Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello & David Corne (editors), *Evolutionary Multi-Criterion Optimization. First International Conference, EMO 2001*, Springer-Verlag, Berlin, Lecture Notes in Computer Science, Vol. 1993, March 2001, ISBN 3-540-41745-1.
2. Carlos A. Coello Coello, Arturo Hernández Aguirre and Eckart Zitzler (Editors), *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, Springer-Verlag, Berlin, Lecture Notes in Computer Science Vol. 3410, March 2005, ISBN 3-540-24983-4.
3. Carlos A. Coello Coello (Editor), *Learning and Intelligent Optimization, 5th International Conference, LION5*, Springer, Lecture Notes in Computer Science Vol. 6683, January 2011, ISBN 978-3-642-25565-6.
4. Oliver Schütze, Carlos A. Coello Coello, Alexandru-Adrian Tantar, Emilia Tantar, Pascal Bouvry, Pierre Del Moral and Pierrick Legrand (editors), *EVOLVE - A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computation II*, Springer, Advances in Intelligent Systems and Computing Vol. 175, Berlin, Germany, 2012, ISBN 978-3-642-31519-0.
5. Carlos A. Coello Coello, Vincenzo Cutello, Kalyanmoy Deb, Stephanie Forrest, Giuseppe Nicosia and Mario Pavone (Eds.), *Parallel Problem Solving from Nature - PPSN XII, 12th International Conference*, Springer, Lecture Notes in Computer Science Vol. 7491, Taormina, Italy, September 1-5, 2012, ISBN 978-3-642-32936-4.
6. Carlos A. Coello Coello, Julie Greensmith, Natalio Krasnogor, Pietro Liò, Giuseppe Nicosia and Mario Pavone (Eds), *Artificial Immune Systems, 11th International Conference, ICARIS 2012*, Springer, Lecture Notes in Computer Science Vol. 7597, Taormina, Italy, August 28-31, 2012, ISBN 978-3-642-33756-7.
7. Ying Tan, Yuhui Shi and Carlos A. Coello Coello (Eds), *Advances in Swarm Intelligence, 5th International Conference, ICSI 2014*, Springer, Lecture Notes in Computer Science Vols. 8794 and 8795, Hefei, China, October 17-20, 2014 (2 volumes).
8. António Gaspar-Cunha, Carlos Henggeler Antunes and Carlos Coello Coello (Eds.), *Evolutionary Multi-Criterion Optimization, 8th International Conference, EMO 2015*, Springer, Lecture Notes in Computer Science Vols. 9018 and 9019, Guimarães, Portugal, March 29–April 1, 2015 (2 volumes).

Book Chapters

1. Ian C. Parmee, Carlos A. Coello Coello and Andrew H. Watson, “Data Representations for Evolutionary Computation”, in H. Cartwright, (Editor), *Intelligent Data Analysis in Science*, Chapter 5, pp. 95–122, Oxford University Press, UK, 2000, ISBN 0-19-850233-8.
2. Carlos A. Coello Coello, “Evolutionary Multi-Objective Optimization: A Critical Review”, in Ruhul Sarker, Masoud Mohammadian and Xin Yao (Editores), *Evolutionary Optimization*, Chapter 5, pp. 117–146, Kluwer Academic Publishers, Boston, USA, February 2002, ISBN 0-7923-7654-4.
3. Ruhul Sarker and Carlos A. Coello Coello, “Assessment Methodologies for Multiobjective Evolutionary Algorithms”, in Ruhul Sarker, Masoud Mohammadian and Xin Yao (Editores), *Evolutionary Optimization*, Chapter 7, pp. 177–195, Kluwer Academic Publishers, Boston, USA, February 2002, ISBN 0-7923-7654-4.
4. Carlos A. Coello Coello and Carlos E. Mariano Romero, “Evolutionary Algorithms and Multiple Objective Optimization”, in Xavier Gandibleux & Matthias Ehrgott (editors), *Multiple Criteria Optimization. State of the Art Annotated Bibliographic Survey*, Chapter 6, pp. 277–331, Kluwer’s International Series in Operations Research and Management Science, Volume 52, Kluwer Academic Publishers, Norwell, Massachusetts, USA, June 2002, ISBN 1-4020-7128-0.
5. 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*, Chapter 24, pp. 243–256, Springer-Verlag, Berlin, Germany, September 2003, ISBN 1-85233-755-9.
6. Ricardo Landa Becerra and Carlos A. Coello Coello, “A Cultural Algorithm for Solving the Job-Shop Scheduling Problem”, algorithms in Yaochu Jin (editor) *Knowledge Incorporation in Evolutionary Computation*, Chapter 3, pp. 37–55, Studies in Fuzziness and Soft Computing, Vol. 167, Springer, Berlin, Germany, 2005, ISBN 3-540-22902-7.
7. Dragan Cvetkovic and Carlos A. Coello Coello, “Human Preferences and Their Applications in Evolutionary Multi-Objective Optimization”, in Yaochu Jin (editor) *Knowledge Incorporation in Evolutionary Computation*, Chapter 22, pp. 479–502, Studies in Fuzziness and Soft Computing, Vol. 167, Springer, Berlin, Germany, 2005, ISBN 3-540-22902-7.
8. 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*, Chapter 15, pp. 213–231, Springer-Verlag, Berlin, Germany, 2005, ISBN 1-8523-3866-0.

9. 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*, Chapter 2, pp. 7–32, Springer-Verlag, London, UK, 2005, ISBN 1-85233-787-7.
10. 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*, Chapter 10, pp. 229–254, Springer-Verlag, London, UK, 2005, ISBN 1-85233-787-7.
11. Efrén Mezura-Montes, Arturo Hernández Aguirre and Carlos A. Coello Coello, “Using Evolution Strategies to Solve Constrained Optimization Problems”, in William Annicchiarico, Jacques Périaux, Miguel Cerrolaza and Gabriel Winter (editors), *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization*, Chapter 1, pp. 1–25, WIT Press, CIMNE Barcelona, España, 2005, ISBN 1-84564-038-1.
12. 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, pp. 73–88, IEEE Computational Intelligence Society, USA, 2006, ISBN 0-9787135-0-8.
13. 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*, Chapter VI, pp. 74–88, Vol. I, Idea Group Reference, Hershey, USA, 2006, ISBN 1-59140-984-5.
14. 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*, Chapter 12, pp. 269–296, Springer, Berlin, Germany, 2007, ISBN 978-3-540-49772-1.
15. Leticia Cagnina, Susana C. Esquivel and Carlos A. Coello Coello, “Hybrid Particle Swarm Optimizers in the Single Machine Scheduling Problem: An Experimental Study”, in Keshav Dahal, Kay Chan Tan and Peter Cowling (editors), *Evolutionary Scheduling*, Chapter 6, pp. 143–164, Springer-Verlag, Berlin, Germany, 2007, ISBN 3-540-48582-1.
16. Carlos A. Coello Coello, “Evolutionary Algorithms: Basic Concepts and Applications in Biometrics”, in Svetlana N. Yanushkevich, Patrick S.P. Wang, Marina L. Gavrilova and Sargur N. Srihari (editors), *Image Pattern Recognition: Synthesis and Analysis in Biometrics*, Chapter 12, pp. 289–320, World Scientific, Singapore, 2007, ISBN 981-256-908-1.
17. 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*, Chapter 16, pp. 329–351, Springer, Berlin, Germany, 2008, ISBN 978-3-540-72959-4.
18. 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*, Chapter 3, pp. 53–75, Springer, Berlin, Germany, 2008, ISBN 978-3-540-72963-1.
19. 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*, Chapter 2, pp. 23–46, Springer, Berlin, Germany 2008, ISBN 978-3-540-77466-2.
20. 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*, Chapter 7, pp. 173–196, Springer-Verlag, Berlin, Germany, 2008, ISBN 978-3-540-68827-3.
21. 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*, Chapter 6, pp. 81–98, Springer-Verlag, Berlin, Germany, 2008, ISBN 978-3-540-77474-7.
22. 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*, Chapter 4, pp. 79–102, Springer, Berlin, Germany, 2008, ISBN 978-3-540-78533-0.
23. 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*, Chapter 13, pp. 349–372, Springer, Lecture Notes in Computer Science Vol. 5252, Berlin, Germany, 2008, ISBN 978-3-540-88907-6.
24. 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*, Chapter IV, pp. 76–105, Information Science Reference, Hershey, USA, 2008, ISBN 978-1-59904-498-9.

25. 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*, Chapter I, pp. 1–21, Medical Information Science Reference, Hershey, USA, 2009, ISBN 978-1-60566-310-4.
26. 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, pp. 61–90, World Scientific, Singapore, 2009, ISBN 978-981-283-651-9.
27. Guillermo Leguizamón and Carlos Coello Coello, “Boundary Search for Constrained Numerical Optimization Problems”, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Optimization*, Chapter 2, pp. 25–49, Springer-Verlag, Berlin, Germany, 2009, ISBN 978-3-642-00618-0.
28. 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*, Chapter 15, pp. 413–434, Springer, Berlin, Germany, 2009, ISBN 978-3-642-00266-3.
29. 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*, Chapter 2, pp. 23–49, Springer, Berlin, Germany, 2009, ISBN 978-3-642-01261-7.
30. 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, pp. 9–37, Springer-Verlag, Berlin, Germany, 2009, ISBN 978-3-642-04224-9.
31. 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*, pp. 1–17, Springer, Berlin, Studies in Computational Intelligence Vol. 242, 2009, ISBN 978-3-642-03624-8.
32. 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, pp. 83–104, Springer, Berlin, Germany, 2010, ISBN 978-3-642-05164-7.
33. Luis V. Santana-Quintero, Alfredo Arias Montañó 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*, Chapter 2, pp. 29–59, Springer, Berlin, Germany, 2010, ISBN 978-3-642-10700-9.
34. 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*, pp. 1–21, Springer, Berlin, Studies in Computational Intelligence Vol. 272, 2010, ISBN 978-3-642-11217-1.
35. Julio Barrera and Carlos A. Coello Coello, “Test Function Generators for Assessing Performance of PSO Algorithms in Multimodal Optimization”, in Bijaya Ketan Panigrahi, Yuhui Shi and Meng-Hiot Lim (editors), *Handbook on Swarm Intelligence - Concepts, Principles and Applications*, Chapter 4, pp. 89–117, Springer-Verlag, Berlin, Germany, 2011, ISBN 978-3-642-17389-9. **(Outstanding Chapter Award)**
36. Carlos A. Coello Coello, “Fundamentals of Evolutionary Multi-Objective Optimization”, in Bogdan M. Wilamowski and J. David Irwin (Editors), *Industrial Electronics Handbook. Intelligent Systems*, Second Edition, Chapter 25, pp. 25-1–25-11, CRC Press, Boca Raton, Florida, USA, 2011, ISBN 978-1-4398-0283-0.
37. Alfredo Arias Montañó, 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, pp. 211–240, Springer, Berlin, Germany, 2011, ISBN 978-3-642-20858-4.
38. 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, pp. 29–57, Nova Science Publishers, New York, 2011, ISBN 978-1-61122-818-2.
39. 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, pp. 67–94, World Scientific, Singapore, 2011, ISBN 978-981-4280-14-3.
40. Mohsen Davarynejad, Jos Vrancken, Jan van den Berg, and Carlos A. Coello Coello, “A Fitness Granulation Approach for Large-Scale Structural Design Optimization”, in Raymond Chiong, Thomas Weise and Zbigniew Michalewicz (editors), *Variants of Evolutionary Algorithms for Real-World Applications*, pp. 245–280, Springer, Berlin, 2011, ISBN 978-3-642-23423-1.

41. Luis Gerardo de la Fraga and Carlos A. Coello Coello, “A Review of Applications of Evolutionary Algorithms in Pattern Recognition”, in Patrick S.P. Wang (editor), *Pattern Recognition, Machine Intelligence and Biometrics*, pp. 3–28, Higher Education Press, Beijing and Springer-Verlag, Berlin, 2011, ISBN 978-3-642-22406-5.
42. 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*, pp. 3–12, Springer, Advances in Intelligent and Soft Computing Series, Vol. 96, Berlin, 2011, ISBN 978-3-642-20504-0.
43. Guillermo Leguizamón and Carlos A. Coello Coello, “An Introduction to the Use of Evolutionary Computation Techniques for Dealing with ECG Signals”, in Adam Gacek and Witold Pedrycz (editors), *ECG Signal Processing, Classification and Interpretation: A Comprehensive Framework of Computational Intelligence*, Chapter 6, pp. 135–153, Springer, London, 2012, ISBN 978-0-85729-867-6.
44. Victoria S. Aragón, Susana C. Esquivel and Carlos A. Coello Coello, “Artificial Immune System for Solving Dynamic Constrained Optimization Problems”, in Enrique Alba, Amir Nakib and Patrick Siarry (editors), *Metaheuristics for Dynamic Optimization*, pp. 225–263, Springer, ISBN 978-3-642-30664-8, Berlin, Germany, 2013.
45. Adriana Lara, Oliver Schütze and Carlos A. Coello Coello, “On Gradient-based Local Search to Hybridize Multi-objective Evolutionary Algorithms”, in Emilia Tantar, Alexandru-Adrian Tantar, Pascal Bouvry, Pierre Del Moral, Pierrick Legrand, Carlos A. Coello Coello and Oliver Schütze (editors), *EVOLVE - A bridge between Probability, Set Oriented Numerics and Evolutionary Computation*, Chapter 9, pp. 305–332, Springer-Verlag, Heidelberg, Germany, Studies in Computational Intelligence Vol. 447, 2013, ISBN 978-3-642-32725-4.
46. Antonio López Jaimes and Carlos A. Coello Coello, “Interactive Approaches Applied to Multiobjective Evolutionary Algorithms”, in Michael Doumpos and Evangelos Grigoroudis (editors), *Multicriteria decision aid and artificial intelligence: Theory and applications*, Chapter 8, pp. 191–207, John Wiley & Sons, Chichester, UK, 2013, ISBN 978-1-119-97639-4.
47. Alfredo Arias Montaña, Carlos A. Coello Coello and Oliver Schütze, “Multiobjective Optimization for Space Mission Design Problems”, in Massimiliano Vasile and Victor M. Becerra (Editors), *Computational Intelligence in Aerospace Sciences*, pp. 1–46, AIAA Press, Progress in Astronautics and Aeronautics Vol. 244, Reston, Virginia, USA, 2014, ISBN 978-1-62410-260-8.
48. Carlos A. Coello Coello, “Multi-objective Evolutionary Algorithms in Real-World Applications: Some Recent Results and Current Challenges”, in David Greiner, Blas Galván, Jacques Périaux, Nicolas Gauger, Kyriakos Giannakoglou and Gabriel Winter (editors), *Advances in Evolutionary and Deterministic Methods for Design, Optimization and Control in Engineering and Sciences*, Chapter 1, pp. 3–18, Springer, Computational Methods in Applied Sciences Vol. 36, Switzerland, 2015, ISBN 978-3-319-11540-5.
49. Antonio López Jaimes and Carlos A. Coello Coello, “Many-objective Problems: Challenges and Methods”, in Janusz Kacprzyk and Witold Pedrycz (editors), *Springer Handbook of Computational Intelligence, Part E*, pp. 1033–1046, Springer-Verlag, Heidelberg, Germany, 2015, ISBN 978-3-662-43504-5.
50. Carlos A. Coello Coello, Carlos Segura and Gara Miranda, “History and Philosophy of Evolutionary Computation”, in Plamen Parvanov Angelov (editor), *Handbook on Computational Intelligence*, Volume 2: Evolutionary Computation, Hybrid Systems, and Applications, Chapter 14, pp. 509–545, World Scientific, Singapore, 2016, ISBN 978-981-4675-04-8.
51. Saku Kukkonen and Carlos A. Coello Coello, “Generalized Differential Evolution for Numerical and Evolutionary Optimization”, in Oliver Schütze, Leonardo Trujillo, Pierrick Legrand and Yazmin Maldonado (Editors), *NEO 2015. Results of the Numerical and Evolutionary Optimization Workshop NEO 2015 held at September 23-25 2016 in Tijuana, Mexico*, pp. 253–279, Springer, Switzerland, 2017, ISBN 1860-9503.
52. Saúl Zapotecas-Martínez, Adriana Lara and Carlos A. Coello Coello, “Hybridizing MOEAs with Mathematical-Programming Techniques”, in Raghu Nandan Sengupta, Aparna Gupta and Joydeep Gupta (Editors), *Decision Sciences. Theory and Practice*, CRC Press, Boca Raton, Florida, 2017. ISBN 978-1-4665-6430-5.
53. Carlos A. Coello Coello, Raquel Hernández Gómez and Luis Miguel Antonio, “Fundamentals of Evolutionary Optimization: Single- and Multiobjective Problems”, in John G. Webster (Editor), *Wiley Encyclopedia of Electrical and Electronics Engineering*, John Wiley & Sons, Inc., New York, USA, May 2018, ISBN 978-0-471-134608-1.
54. Juan M. Ramirez, Miguel A. Medina and Carlos A. Coello Coello, “A multi-objective teaching-learning algorithm for power losses reduction in power systems”, in Ahmed F. Zobaa, Shady H.E. Abdel Aleem and Almoataz Youssef Abdalaziz (editors), *Classical and Recent Aspects of Power System Optimization*, Chapter 18, pp. 505–542, Academic Press, London, UK, 2018, ISBN 978-0-12-812441-3.
55. Carlos A. Coello Coello, “Multiobjective Optimization”, in Rafael Martí, Pardalos Panos and Mauricio G. C. Resende (editors), *Handbook of Heuristics*, pp. 177–204, Springer, Cham, Switzerland, 2018, ISBN 978-3-319-07153-4.
56. Raquel Hernández Gómez, Carlos A. Coello Coello and Enrique Alba, “A Parallel Island Model for Hypervolume-Based Many-Objective Optimization”, in Thomas Bartz-Beielstein, Bogdan Filipič, Peter Korošec and El-Ghazali Talbi (Editors), *High-Performance Simulation-Based Optimization*, pp. 247–273, Springer, Studies in Computational Intelligence Vol. 833, Switzerland, 2020, ISBN 978-3-030-18763-7.

57. Carlos A. Coello Coello, Silvia González Brambila, Josué Figueroa Gamboa and Ma. Guadalupe Castillo Tapia, “Multi-Objective Evolutionary Algorithms: Past, Present, and Future”, in P.M. Pardalos et al. (Editors), *Black Box Optimization, Machine Learning, and No-Free Lunch Theorems*, Springer, Optimization and Its Applications Series Vol. 170, 2021 (*in press*).
58. Jesús Guillermo Falcón-Cardona, Guillermo Leguizamón, Carlos A. Coello Coello and Ma. Guadalupe Castillo, “Multi-Objective Ant Colony Optimization: An Updated Review of Approaches and Applications”, in Satchidanada Dehuri, Susmita Ghosh and Sung Bae Cho (editors), *Integration of Swarm Intelligence and Artificial Neural Network*, World Scientific, Singapore, 2021 (*in press*).
59. Carlos A. Coello Coello and Ma. Guadalupe Castillo Tapia, “Cultural Algorithms for Optimization]Cultural Algorithms for Optimization”, in Patrick Siarry and Anand Kulkarni (Editors), *Handbook of AI-based Metaheuristics*, Springer, 2021 (*in press*).

Papers Published in Journals indexed in the *Journal Citations Report*

Published

1. Carlos A. Coello Coello, Alan D. Christiansen and Francisco Alonso Farrera, “A Genetic Algorithm for the Optimal Design of Axially Loaded Non-prismatic Columns”, *Civil Engineering Systems*, Vol. 14, No. 2, pp. 111–146, 1996, DOI: 10.1080/02630259608970214. (**I.F. = 0.286¹; Q3**).
2. Carlos A. Coello Coello and Alan D. Christiansen, “A simple genetic algorithm for the design of reinforced concrete beams”, *Engineering with Computers*, Vol. 13, No. 4, pp. 185–196, 1997, DOI: 10.1007/BF01200046. (**I.F. = 0.542; Q2**).
3. Carlos A. Coello Coello, Filiberto Santos Hernández and Francisco Alonso Farrera, “Optimal Design of Reinforced Concrete Beams using Genetic Algorithms”, *Expert Systems with Applications*, Vol. 12, No. 1, pp. 101–108, January 1997, DOI: 10.1016/S0957-4174(96)00084-X. (**I.F. = 5.452; Q1**).
4. Carlos A. Coello Coello and Alan D. Christiansen, “Two new GA-based methods for multiobjective optimization”, *Civil Engineering and Environmental Systems*, Vol. 15, No. 3, pp. 207–243, 1998, DOI: 10.1080/02630259808970240. (**I.F. = 1.04; Q4**).
5. 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*, Vol. 16, No. 4, pp. 401–414, July-August 1998, DOI: 10.1017/S0263574798000034. (**I.F. = 1.509; Q3**).
6. Carlos A. Coello Coello and Alan D. Christiansen, “MOSES: A Multiobjective Optimization Tool for Engineering Design”, *Engineering Optimization*, Vol. 31, No. 3, pp. 337–368, 1999, DOI: 10.1080/03052159908941377. (**I.F. = 2.165; Q2**).
7. Carlos A. Coello Coello, “A Comprehensive Survey of Evolutionary-Based Multiobjective Optimization Techniques”, *Knowledge and Information Systems*, Vol. 1, No. 3, pp. 269–308, August 1999, DOI: 10.1007/BF03325101. (**I.F. = 2.936; Q2**).
8. Carlos A. Coello Coello, “Use of a Self-Adaptive Penalty Approach for Engineering Optimization Problems”, *Computers in Industry*, Vol. 41, No. 2, pp. 113–127, March 2000, DOI: 10.1016/S0166-3615(99)00046-9. (**I.F. = 3.954; Q1**).
9. Carlos A. Coello Coello, “Treating Constraints as Objectives for Single-Objective Evolutionary Optimization”, *Engineering Optimization*, Vol. 32, No. 3, pp. 275–308, February 2000, DOI: 10.1080/03052150008941301. (**I.F. = 2.165; Q2**).
10. Carlos A. Coello Coello, “An Updated Survey of GA-Based Multiobjective Optimization Techniques”, *ACM Computing Surveys*, Vol. 32, No. 2, pp. 109–143, June 2000, DOI: 10.1145/358923.358929. (**I.F. = 7.99; Q1**).
11. Carlos A. Coello Coello and Alan D. Christiansen, “Multiobjective Optimization of Trusses using Genetic Algorithms”, *Computers & Structures*, Vol. 75, No. 6, pp. 647–660, May 2000, DOI: 10.1016/S0045-7949(99)00110-8. (**I.F. = 3.664; Q1**).
12. Carlos A. Coello Coello, “Constraint-handling using an evolutionary multiobjective optimization technique”, *Civil Engineering and Environmental Systems*, Vol. 17, No. 4, pp. 319–346, 2000, DOI: 10.1080/02630250008970288. (**I.F. = 1.04; Q4**).
13. Carlos A. Coello Coello, Alan D. Christiansen and Arturo Hernández Aguirre, “Towards Automated Evolutionary Design of Combinational Circuits”, *Computers and Electrical Engineering*, Vol. 27, No. 1, pp. 1–28, January 2001, DOI: 10.1016/S0045-7906(00)00004-5. (**I.F. = 2.663; Q2**).
14. Carlos A. Coello Coello, Rosa Laura Zavala Gutiérrez, Benito Mendoza García and Arturo Hernández Aguirre, “Automated Design of Combinational Logic Circuits using the Ant System”, *Engineering Optimization*, Vol. 34, No. 2, pp. 109–127, March 2002, DOI: 10.1080/03052150210918. (**I.F. = 2.165; Q2**).
15. Carlos A. Coello Coello, “Theoretical and Numerical Constraint-Handling Techniques used with Evolutionary Algorithms: A Survey of the State of the Art”, *Computer Methods in Applied Mechanics and Engineering*, Vol. 191, No. 11–12, pp. 1245–1287, January 2002, DOI: 10.1016/S0045-7825(01)00323-1. (**I.F. = 5.763; Q1**).

¹I.F. = Impact factor according to the version of the *Journal Citations Report* released in 2020.

16. Carlos A. Coello Coello and Arturo Hernández Aguirre, "Design of Combinational Logic Circuits through an Evolutionary Multi-objective Optimization Approach", *AIEDAM: Artificial Intelligence for Engineering, Design, Analysis and Manufacture*, Vol. 16, No. 1, pp. 39–53, January 2002, DOI: 10.1017/S0890060401020054. **(I.F. = 1.119; Q4)**.
17. Carlos A. Coello Coello and Efrén Mezura Montes, "Constraint-Handling in Genetic Algorithms Through the Use of Dominance-based Tournament Selection", *Advanced Engineering Informatics*, Vol. 16, No. 3, pp. 193–203, July 2002, DOI: 10.1016/S1474-0346(02)00011-3. **(I.F. = 3.879; Q2)**.
18. Eduardo Islas Pérez, Carlos A. Coello Coello and Arturo Hernández Aguirre, "Extracting and Re-Using Design Patterns from Genetic Algorithms using Case-Based Reasoning", *Engineering Optimization*, Vol. 35, No. 2, pp. 121–141, April 2003, DOI: 10.1080/0305215031000091569. **(I.F. = 2.165; Q2)**.
19. Arturo Hernández Aguirre and Carlos A. Coello Coello, "Evolutionary Synthesis of Logic Circuits using Information Theory", *Artificial Intelligence Review*, Vol. 20, Nos. 3–4, pp. 445–471, December 2003, DOI: 10.1023/B:AIRE.0000006603.98023.97. **(I.F. = 5.747; Q1)**.
20. 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*, Vol. 59, No. 15, pp. 1989–2017, April 21, 2004, DOI: 10.1002/nme.947. **(I.F. = 2.866; Q1)**.
21. Carlos A. Coello Coello and Ricardo Landa Becerra, "Efficient Evolutionary Optimization through the use of a Cultural Algorithm", *Engineering Optimization*, Vol. 36, No. 2, pp. 219–236, April 2004, DOI: 10.1080/03052150410001647966. **(I.F. = 2.165; Q2)**.
22. Carlos A. Coello Coello, Gregorio Toscano Pulido and Maximino Salazar Lechuga, "Handling Multiple Objectives with Particle Swarm Optimization", *IEEE Transactions on Evolutionary Computation*, Vol. 8, No. 3, pp. 256–279, June 2004, DOI: 10.1109/tevc.2004.826067. **(I.F. = 11.169; Q1)**.
23. Carlos A. Coello Coello and Nareli Cruz Cortés, "Hybridizing a Genetic Algorithm with an Artificial Immune System for Global Optimization", *Engineering Optimization*, Vol. 36, No. 5, pp. 607–634, October 2004, DOI: 10.1080/03052150410001704845. **(I.F. = 2.165; Q2)**.
24. Arturo Hernández Aguirre and Carlos A. Coello Coello, "Using Genetic Programming and Multiplexers for the Synthesis of Logic Circuits", *Engineering Optimization*, Vol. 36, No. 4, pp. 491–511, August 2004, DOI: 10.1080/03052150410001686503. **(I.F. = 2.165; Q2)**.
25. Eduardo Islas Pérez, Carlos A. Coello Coello and Arturo Hernández Aguirre, "Extraction and Reuse of Design Patterns from Genetic Algorithms using Case-Based Reasoning", *Soft Computing*, Vol. 9, No. 1, pp. 44–53, January 2005, DOI: 10.1007/s00500-003-0333-8. **(I.F. = 3.05; Q2)**.
26. Efrén Mezura Montes and Carlos A. Coello Coello, "A Simple Multimembered Evolution Strategy to Solve Constrained Optimization Problems", *IEEE Transactions on Evolutionary Computation*, Vol. 9, No. 1, pp. 1–17, February 2005, DOI: 10.1109/TEVC.2004.836819. **(I.F. = 11.169; Q1)**.
27. Carlos A. Coello Coello and Nareli Cruz Cortés, "Solving Multiobjective Optimization Problems using an Artificial Immune System", *Genetic Programming and Evolvable Machines*, Vol. 6, No. 2, pp. 163–190, June 2005, DOI: 10.1007/s10710-005-6164-x. **(I.F. = 1.781; Q2)**.
28. Xiaolin Hu, Carlos A. Coello Coello and Zhangcan Huang, "A new multi-objective evolutionary algorithm: neighbourhood exploring evolution strategy", *Engineering Optimization*, Vol. 37, No. 4, pp. 351–379, June 2005, DOI: 10.1080/03052150500035658. **(I.F. = 2.165; Q2)**.
29. Carlos A. Coello Coello and Gregorio Toscano Pulido, "Multiobjective Structural Optimization using a Microgenetic Algorithm", *Structural and Multidisciplinary Optimization*, Vol. 30, No. 5, pp. 388–403, November 2005, DOI: 10.1007/s00158-005-0527-z. **(I.F. = 3.377; Q1)**.
30. Carlos A. Coello Coello, "Evolutionary Multi-objective Optimization: A Historical View of the Field", *IEEE Computational Intelligence Magazine*, Vol. 1, No. 1, pp. 28–36, February 2006, DOI: 10.1109/MCI.2006.1597059. **(I.F. = 9.083 ; Q1)**.
31. Carlos A. Coello Coello, "The EMOO repository: a resource for doing research in evolutionary multiobjective optimization", *IEEE Computational Intelligence Magazine*, Vol. 1, No. 1, pp. 37–45, February 2006, DOI: 10.1109/MCI.2006.1597060. **(I.F. = 9.083; Q1)**.
32. Ricardo Landa Becerra and Carlos A. Coello Coello, "Cultured differential evolution for constrained optimization", *Computer Methods in Applied Mechanics and Engineering*, Vol. 195, Nos. 33–36, pp. 4303–4322, July 1, 2006, DOI: 10.1016/j.cma.2005.09.006. **(I.F. = 5.763; Q1)**.
33. Mario Villalobos-Arias, Carlos A. Coello Coello and Onésimo Hernández-Lerma, "Asymptotic Convergence of Metaheuristics for Multiobjective Optimization Problems", *Soft Computing*, Vol. 10, No. 11, pp. 1001–1005, September 2006, DOI: 10.1007/s00500-005-0027-5. **(I.F. = 3.05; Q2)**.

34. Mario Villalobos-Arias, Carlos A. Coello Coello, Onésimo Hernández-Lerma, “Asymptotic Convergence of a Simulated Annealing Algorithm for Multiobjective Optimization Problems”, *Mathematical Methods of Operations Research*, Vol. 64, No. 2, pp. 353–362, October 2006, DOI: 10.1007/s00186-006-0082-4. **(I.F. = 1.0; Q3)**.
35. Susana C. Esquivel and Carlos A. Coello Coello, “Hybrid Particle Swarm Optimizer for a Class of Dynamic Fitness Landscape”, *Engineering Optimization*, Vol. 38, No. 8, pp. 873–888, December 2006, DOI: 10.1080/03052150600772226. **(I.F. = 2.165; Q2)**.
36. Daniel Cortés Rivera, Ricardo Landa Becerra and Carlos A. Coello Coello, “Cultural Algorithms, an Alternative Heuristic to Solve the Job Shop Scheduling Problem”, *Engineering Optimization*, Vol. 39, No. 1, pp. 69–85, January 2007, DOI: 10.1080/03052150600956811. **(I.F. = 2.165; Q2)**.
37. Jorge Mendoza, Dario Morales, Rodrigo López, Enrique López, Jean-Claude Vannier and Carlos A. Coello Coello, “Multiobjective Location of Automatic Voltage Regulators in a Radial Distribution Network Using a Micro Genetic Algorithm”, *IEEE Transactions on Power Systems*, Vol. 22, No. 1, pp. 404–411, February 2007, DOI: 10.1109/TPWRS.2006.887963. **(I.F. = 6.074; Q1)**.
38. Enrique Alba, Gabriel Luque, Carlos A. Coello Coello and Erika Hernández Luna, “Comparative Study of Serial and Parallel Heuristics Used to Design Combinational Logic Circuits”, *Optimization Methods and Software*, Vol. 22, No. 3, pp. 485–509, June 2007, DOI: 10.1080/10556780600724979. **(I.F. = 1.431; Q3)**.
39. 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*, Vol. 19, No. 4, pp. 397–441, March 25, 2007, DOI: 10.1002/cpe.1107. **(I.F. = 1.447; Q3)**.
40. E. Mezura-Montes, C. A. Coello Coello, J. Velázquez-Reyes and L. Muñoz-Dávila, “Multiple trial vectors in differential evolution for engineering design”, *Engineering Optimization*, Vol. 39, No. 5, pp. 567–589, July 2007, DOI: 10.1080/03052150701364022. **(I.F. = 2.165; Q2)**.
41. 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*, Vol. 71, No. 8, pp. 883–901, August 2007, DOI: 10.1002/nme.1967. **(I.F. = 2.866; Q1)**.
42. Alfredo G. Hernández-Díaz, Luis V. Santana-Quintero, Carlos A. Coello Coello and Julián Molina, “Pareto-adaptive ϵ -dominance”, *Evolutionary Computation*, Vol. 15, No. 4, pp. 493–517, Winter 2007, DOI: 10.1162/evco.2007.15.4.493. **(I.F. = 3.933; Q1)**.
43. Pablo E. Oñate, Juan M. Ramirez and Carlos A. Coello Coello, “Optimal power flow subject to security constraints solved with a particle swarm optimizer”, *IEEE Transactions on Power Systems*, Vol. 23, No. 1, pp. 33–40, February 2008, DOI: 10.1109/TPWRS.2007.913196. **(I.F. = 6.074; Q1)**.
44. Nareli Cruz Cortés, Francisco Rodríguez-Henríquez and Carlos A. Coello Coello, “An Artificial Immune System Heuristic for Generating Short Addition Chains”, *IEEE Transactions on Evolutionary Computation*, Vol. 12, No. 1, pp. 1–24, February 2008, DOI: 10.1109/TEVC.2007.906082. **(I.F. = 11.169; Q1)**.
45. 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*, Vol. 40, No. 5, pp. 383–402, May 2008, DOI: 10.1080/03052150701821328. **(I.F. = 2.165; Q2)**.
46. Efrén Mezura-Montes and Carlos A. Coello Coello, “An Empirical Study About The Usefulness of Evolution Strategies to Solve Constrained Optimization Problems”, *International Journal of General Systems*, Vol. 37, No. 4, pp. 443–473, August 2008, DOI: 10.1080/03081070701303470. **(I.F. = 1.671; Q2)**.
47. Oliver Schütze, Marco Laumanns, Carlos A. Coello Coello, Michael Dellnitz and El-ghazali Talbi, “Convergence of Stochastic Search Algorithms to Finite Size Pareto Set Approximations”, *Journal of Global Optimization*, Vol. 41, No. 4, pp. 559–577, August 2008, DOI: 10.1007/s10898-007-9265-7. **(I.F. = 1.805; Q1)**.
48. Carlos A. Coello Coello and Ricardo Landa Becerra, “Evolutionary Multiobjective Optimization in Materials Science and Engineering”, *Materials and Manufacturing Processes*, Vol. 24, No. 2, pp. 119–129, February 2009, DOI: 10.1080/10426910802609110. **(I.F. = 3.046; Q2)**.
49. Guillermo Leguizamón and Carlos A. Coello Coello, “Boundary Search for Constrained Numerical Optimization Problems with an Algorithm Inspired by the Ant Colony Metaphor”, *IEEE Transactions on Evolutionary Computation*, Vol. 13, No. 2, pp. 350–368, April 2009, DOI: 10.1109/TEVC.2008.926731. **(I.F. = 11.169; Q1)**.
50. Y. Pablo Oñate, Juan M. Ramirez and Carlos A. Coello Coello, “An optimal power flow plus transmission costs solution”, *Electric Power Systems Research*, Volume 79, No. 8, pp. 1240–1246, August 2009, DOI: 10.1016/j.epsr.2009.03.005. **(I.F. = 3.211; Q2)**.
51. 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*, Vol. 197, No. 2, pp. 685–692, September 2009, DOI: 10.1016/j.ejor.2008.07.015. **(I.F. = 4.213; Q1)**.

52. Jorge E. Rodríguez, Andrés L. Medaglia and Carlos A. Coello Coello, “Design of a motorcycle frame using neuroacceleration strategies in MOEAs”, *Journal of Heuristics*, Vol. 15, No. 2, pp. 177–196, April 2009, DOI: 10.1007/s10732-007-9069-4. (I.F. = 1.577; Q2).
53. 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*, Vol. 3, No. 1, pp. 18–30, March 2009, DOI: 10.1007/s11704-009-0005-7. (I.F. = 0.266; Q4).
54. 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*, Vol. 3, No. 9, pp. 825–840, September 2009, DOI: 10.1049/iet-gtd.2009.0009. (I.F. = 2.862; Q2).
55. Adriana Lara, Gustavo Sanchez, Carlos A. Coello Coello and Oliver Schütze, “HCS: A New Local Search Strategy for Memetic Multiobjective Evolutionary Algorithms”, *IEEE Transactions on Evolutionary Computation*, Vol. 14, No. 1, pp. 112–132, February 2010, DOI: 10.1109/TEVC.2009.2024143. (I.F. = 11.169; Q1).
56. 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*, Vol. 37, No. 2, pp. 390–395, February 2010, DOI: 10.1016/j.cor.2009.06.004. (I.F. = 3.424; Q2).
57. 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*, Vol. 37, No. 3, pp. 470–480, March 2010, DOI: 10.1016/j.cor.2009.02.006. (I.F. = 3.424; Q2).
58. M. Davarynejad, C. W. Ahn, J. Vrancken, J. van den Berg and C. A. Coello Coello, “Evolutionary Hidden Information Detection by Granulation-Based Fitness Approximation”, *Applied Soft Computing*, Vol. 10, No. 3, pp. 719–729, June 2010, DOI: 10.1016/j.asoc.2009.09.001. (I.F. = 5.472; Q1).
59. 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*, Vol. 18, No. 1, pp. 65–96, Spring 2010, DOI: 10.1162/evco.2010.18.1.18103. (I.F. = 3.933; Q1).
60. J.J. Durillo, A.J. Nebro, C.A. Coello Coello, J. García-Nieto, F. Luna and E. Alba, “A Study of Multiobjective Metaheuristics when Solving Parameter Scalable Problems”, *IEEE Transactions on Evolutionary Computation*, Vol. 14, No. 4, pp. 618–635, August 2010, DOI: 10.1109/TEVC.2009.2034647. (I.F. = 11.169; Q1).
61. Victoria S. Aragón, Susana C. Esquivel and Carlos A. Coello Coello, “A modified version of a T-Cell Algorithm for constrained optimization problems”, *International Journal for Numerical Methods in Engineering*, Vol. 84, No. 3, pp. 351–378, 15 October 2010, DOI: 10.1002/nme.2904. (I.F. = 2.866; Q1).
62. Daniel Ortiz-Arroyo, Francisco Rodríguez-Henríquez and Carlos A. Coello Coello, “The Turing-850 Project: Developing a Personal Computer in the Early 1980s in Mexico”, *IEEE Annals of the History of Computing*, Vol. 32, No. 4, pp. 60–71, October–December 2010, DOI: 10.1109/MAHC.2010.68. (I.F. = 0.741; Q4).
63. 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*, Vol. 42, No. 1, pp. 1095–1117, December 2010, DOI: 10.1080/03052151003668151. (I.F. = 2.165; Q2).
64. 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*, Vol. 84, No. 11, pp. 1344–1375, 10 December, 2010, DOI: 10.1002/nme.2944. (I.F. = 2.866; Q1).
65. Antonin Ponsich and Carlos A. Coello Coello, “Differential Evolution performances for the solution of mixed integer constrained Process Engineering problems”, *Applied Soft Computing*, Vol. 11, No. 1, pp. 399–409, January 2011, DOI: 10.1016/j.asoc.2009.11.030. (I.F. = 5.472; Q1).
66. Carlos Soza Canales, Ricardo Landa Becerra, María Cristina Riff and Carlos Coello Coello, “Solving Timetabling Problems using a Cultural Algorithm”, *Applied Soft Computing*, Vol. 11, No. 1, pp. 337–344, January 2011, DOI: 10.1016/j.asoc.2009.11.024. (I.F. = 5.472; Q1).
67. Eduardo Fernández González, Edy López, Fernando López and Carlos A. Coello Coello, “Increasing Selective Pressure Towards the Best Compromise in Evolutionary Multiobjective Optimization: The Extended NOSGA Method”, *Information Sciences*, Vol. 181, pp. 44–56, 2011, DOI: 10.1016/j.ins.2010.09.007. (I.F. = 5.91; Q1).
68. Oliver Schütze, Massimiliano Vasile and Carlos A. Coello Coello, “Computing the Set of epsilon-efficient Solutions in Multiobjective Space Mission Design”, *Journal of Aerospace Computing, Information, and Communication*, Vol. 8, No. 3, pp. 53–70, March 2011, DOI: 10.2514/1.46478. (I.F. = 1.0; Q1).

69. Luis Martí, Jesús García, Antonio Berlanga, Carlos A. Coello Coello and José M. Molina, “MB-GNG: Addressing Drawbacks in Multi-Objective Optimization Estimation of Distribution Algorithms”, *Operations Research Letters*, Vol. 39, No. 2, pp. 150–154, March 2011, DOI: 10.1016/j.orl.2011.01.002. **(I.F. = 0.757; Q4)**.
70. Leticia Cecilia Cagnina, Susana Cecilia Esquivel and Carlos A. Coello Coello, “A Fast Particle Swarm Algorithm For Solving Smooth and Non-smooth Economic Dispatch Problems”, *Engineering Optimization*, Vol. 43, No. 5, pp. 485–505, May 2011, DOI: 10.1080/0305215X.2010.497186. **(I.F. = 2.165; Q2)**.
71. Alfredo G. Hernández-Díaz, Luis V. Santana-Quintero, Carlos A. Coello Coello, Julián Molina and Rafael Caballero, “Improving the efficiency of ϵ -dominance based grids”, *Information Sciences*, Vol. 181, No. 15, pp. 3101–3129, 1 August 2011, DOI: 10.1016/j.ins.2011.02.030. **(I.F. = 5.91; Q1)**.
72. Edgar Alfredo Portilla-Flores, Efrén Mezura-Montes, Jaime Alvarez Gallegos, Carlos A. Coello Coello, Carlos A. Cruz-Villar and Miguel G. Villareal-Cervantes, “Parametric Reconfiguration Improvement in Non-Iterative Concurrent Mechatronic Design Using an Evolutionary-Based Approach”, *Engineering Applications of Artificial Intelligence*, Vol. 24, No. 5, pp. 757–771, August 2011, DOI: 10.1016/j.engappai.2011.02.019. **(I.F. = 4.201; Q1)**.
73. Oliver Schütze, Adriana Lara, 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*, Vol. 15, No. 4, pp. 444–455, August 2011, DOI: 10.1109/TEVC.2010.2064321. **(I.F. = 11.169; Q1)**.
74. Leticia Cecilia Cagnina, Susana Cecilia Esquivel and Carlos A. Coello Coello, “Solving Constrained Optimization Problems with a Hybrid Particle Swarm Optimization Algorithm”, *Engineering Optimization*, Vol. 43, No. 8, pp. 843–866, August 2011, DOI: 10.1080/0305215X.2010.522707. **(I.F. = 2.165; Q2)**.
75. Victoria S. Aragón, Susana C. Esquivel and Carlos A. Coello Coello, “A T-Cell Algorithm for Solving Dynamic Optimization Problems”, *Information Sciences*, Vol. 181, No. 17, pp. 3614–3637, 1 September 2011, DOI: 10.1016/j.ins.2011.04.028. **(I.F. = 5.91; Q1)**.
76. Carlos A. Coello Coello, “Evolutionary Multi-Objective Optimization”, *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, Vol. 1, No. 5, pp. 444–447, September/October 2011, DOI: 10.1002/widm.43. **(I.F. = 4.476; Q1)**.
77. D.A. Bloch and C.A. Coello Coello, “Smiling at Evolution”, *Applied Soft Computing*, Vol. 11, No. 8, pp. 5724–5734, December 2011, DOI: 10.1016/j.asoc.2011.03.016. **(I.F. = 5.472; Q1)**.
78. Efrén Mezura-Montes and Carlos A. Coello Coello, “Constraint-Handling in Nature-Inspired Numerical Optimization: Past, Present and Future”, *Swarm and Evolutionary Computation*, Vol. 1, No. 4, pp. 173–194, December 2011, DOI: 10.1016/j.swevo.2011.10.001. **(I.F. = 6.912; Q1)**.
79. Oliver Schütze, Adriana Lara, Carlos A. Coello Coello and Massimiliano Vasile, “On the Detection of Nearly Optimal Solutions in the Context of Single-Objective Space Mission Design Problems”, *Proceedings of the Institution of Mechanical Engineers, Part G, Journal of Aerospace Engineering*, Vol. 225, No. 11, pp. 1229–1242, 2011, DOI: 10.1177/0954410011413693. **(I.F. = 1.244; Q3)**.
80. B. Bernábe-Loranca, C.A. Coello-Coello and M. Osorio-Lama, “A Multiobjective Approach for the Heuristic Optimization of Compactness and Homogeneity in the Optimal Zoning”, *Journal of Applied Research and Technology*, Vol. 10, No. 3, pp. 447–457, June 2012. **(I.F. = 0.447; Q4)**.
81. Mario Villalobos-Arias, Gregorio Toscano Pulido and Carlos A. Coello Coello, “A New Mechanism to Maintain Diversity in Multi-Objective Metaheuristics”, *Optimization*, Vol. 61, No. 7, pp. 823–854, July 2012, DOI: 10.1080/02331934.2010.534476. **(I.F. = 1.52; Q3)**.
82. Oliver Schütze, Xavier Esquivel, Adriana Lara and Carlos A. Coello Coello, “Using the Averaged Hausdorff Distance as a Performance Measure in Evolutionary Multiobjective Optimization”, *IEEE Transactions on Evolutionary Computation*, Vol. 16, No. 4, pp. 504–522, August 2012, DOI: 10.1109/TEVC.2011.2161872. **(I.F. = 11.169; Q1)**.
83. Alfredo Arias-Montaña, Carlos A. Coello Coello and Efrén Mezura-Montes, “Multiobjective Evolutionary Algorithms in Aeronautical and Aerospace Engineering”, *IEEE Transactions on Evolutionary Computation*, Vol. 16, No. 5, pp. 662–694, October 2012, DOI: 10.1109/TEVC.2011.2169968. **(I.F. = 11.169; Q1)**.
84. Antonin Ponsich and Carlos A. Coello Coello, “A Hybrid Differential Evolution-Tabu Search Algorithm for the Solution of Job-Shop Scheduling Problems”, *Applied Soft Computing*, Vol. 13, No. 1, pp. 462–474, January 2013, DOI: 10.1016/j.asoc.2012.07.034. **(I.F. = 5.472; Q1)**.
85. Eduardo Fernández, Edy López, Gustavo Mazcorro, Rafael Olmedo and Carlos A. Coello Coello, “Application of the non-outranked sorting genetic algorithm to public project portfolio selection”, *Information Sciences*, Vol. 228, pp. 131–149, 10 April 2013, DOI: 10.1016/j.ins.2012.11.018. **(I.F. = 5.91; Q1)**.

86. Antonin Ponsich, Antonio López Jaimes and Carlos A. Coello Coello, “A Survey on Multiobjective Evolutionary Algorithms for the Solution of the Portfolio Optimization Problem and Other Finance and Economics Applications”, *IEEE Transactions on Evolutionary Computation*, Vol. 17, No. 3, pp. 321–344, June 2013, DOI: 10.1109/TEVC.2012.2196800. **(I.F. = 11.169; Q1)**.
87. Eduardo Vázquez-Fernández, Carlos A. Coello Coello and Feliú D. Sagols Troncoso, “An evolutionary algorithm with a history mechanism for tuning a chess evaluation function”, *Applied Soft Computing*, Vol. 13, No. 7, pp. 3234–3247, July 2013, DOI: 10.1016/j.asoc.2013.02.015. **(I.F. = 5.472; Q1)**.
88. Carlos Segura, Carlos A. Coello Coello, Gara Miranda and Coromoto León, “Using Multi-objective Evolutionary Algorithms for Single-Objective Optimization”, *4OR—A Quarterly Journal of Operations Research*, Vol. 11, No. 3, pp. 201–228, September 2013 **(invited paper)**, DOI: 10.1007/s10288-013-0248-x. **(I.F. = 1.143; Q4)**.
89. Miguel A. Medina, Carlos A. Coello Coello and Juan M. Ramirez, “Reactive Power Handling by a Multi-Objective Teaching Learning Optimizer based on Decomposition”, *IEEE Transactions on Power Systems*, Vol. 28, No. 4, pp. 3629–3637, November 2013, DOI: 10.1109/TPWRS.2013.2272196. **(I.F. = 6.074; Q1)**.
90. Anirban Mukhopadhyay, Ujjwal Maulik, Sanghamitra Bandyopadhyay and Carlos Artemio Coello Coello, “A Survey of Multiobjective Evolutionary Algorithms for Data Mining: Part I”, *IEEE Transactions on Evolutionary Computation*, Vol. 18, No. 1, pp. 4–19, February 2014, DOI: 10.1109/TEVC.2013.2290086. **(I.F. = 11.169; Q1)**.
91. Anirban Mukhopadhyay, Ujjwal Maulik, Sanghamitra Bandyopadhyay and Carlos Artemio Coello Coello, “Survey of Multiobjective Evolutionary Algorithms for Data Mining: Part II”, *IEEE Transactions on Evolutionary Computation*, Vol. 18, No. 1, pp. 20–35, February 2014, DOI: 10.1109/TEVC.2013.2290082. **(I.F. = 11.169; Q1)**.
92. Gustavo Zavala, Antonio J. Nebro, Francisco Luna and Carlos A. Coello Coello, “A Survey of Multi-Objective Metaheuristics Applied to Structural Optimization”, *Structural and Multidisciplinary Optimization*, Vol. 49, No. 4, pp. 537–558, April 2014, DOI: 10.1007/s00158-013-0996-4. **(I.F. = 3.377; Q1)**.
93. Antonio López Jaimes, Carlos A. Coello Coello, Hernán Aguirre and Kiyoshi Tanaka, “Objective Space Partitioning Using Conflict Information for Solving Many-Objective Problems”, *Information Sciences*, Vol. 268, pp. 305–327, 1 June 2014, DOI: 10.1016/j.ins.2014.02.002. **(I.F. = 5.91; Q1)**.
94. Isolina Alberto, Carlos A. Coello Coello and Pedro M. Mateo, “A Comparative Study of Variation Operators used for Evolutionary Multi-Objective Optimization”, *Information Sciences*, Vol. 273, pp. 33–48, 20 July 2014, DOI: 10.1016/j.ins.2014.03.042. **(I.F. = 5.91; Q1)**.
95. Antonio López Jaimes and Carlos A. Coello Coello, “Including preferences into a multiobjective evolutionary algorithm to deal with many-objective engineering optimization problems”, *Information Sciences*, Vol. 277, pp. 1–20, September 1, 2014, DOI: 10.1016/j.ins.2014.04.023. **(I.F. = 5.91; Q1)**.
96. Miguel A. Medina, Swagatam Das, Carlos A. Coello Coello, and Juan M. Ramírez, “Decomposition-based Modern Metaheuristic Algorithms for Multi-Objective Optimal Power Flow—A Comparative Study”, *Engineering Applications of Artificial Intelligence*, Vol. 32, pp. 10–20, June 2014, DOI: 10.1016/j.engappai.2014.01.016. **(I.F. = 4.201; Q1)**.
97. Alejandro Rosales-Pérez, Jesus A. Gonzalez, Carlos A. Coello Coello, Hugo Jair Escalante and Carlos A. Reyes-Garcia, “Multi-Objective Model Type Selection”, *Neurocomputing*, Vol. 46, pp. 83–94, 25 December 2014, DOI: 10.1016/j.neucom.2014.05.077. **(I.F. = 4.438; Q1)**.
98. V.S. Aragón, S.C. Esquivel and C.A. Coello Coello, “An Immune Algorithm with Power Redistribution for Solving Economic Dispatch Problems”, *Information Sciences*, Vol. 209, pp. 609–632, February 20, 2015, DOI: 10.1016/j.ins.2014.10.026. **(I.F. = 5.91; Q1)**.
99. Alejandro Rosales-Pérez, Jesus A. Gonzalez, Carlos A. Coello Coello, Hugo Jair Escalante and Carlos A. Reyes-Garcia, “Surrogate-Assisted Multi-Objective Model Selection for Support Vector Machines”, *Neurocomputing*, Vol. 150, Part A, pp. 163–172, February 2015, DOI: 10.1016/j.neucom.2014.08.075. **(I.F. = 4.438; Q1)**.
100. Carlos Segura, Carlos A. Coello Coello, Eduardo Segredo and Coromoto León, “On the Adaptation of the Mutation Scale Factor in Differential Evolution”, *Optimization Letters*, pp. 189–198, Vol. 9, No. 1, January 2015, DOI: 10.1007/s11590-014-0723-0. **(I.F. = 1.502; Q2)**.
101. Carlos Segura, Carlos A. Coello Coello and Alfredo G. Hernández-Díaz, “Improving the Vector Generation Strategy of Differential Evolution for Large-Scale Optimization”, *Information Sciences*, Vol. 323, pp. 106–129, 1 December 2015, DOI: 10.1016/j.ins.2015.06.029. **(I.F. = 5.91; Q1)**.
102. Saúl Zapotecas Martínez and Carlos A. Coello Coello, “MONSS: A Multi-Objective Nonlinear Simplex Search Approach”, *Engineering Optimization*, Vol. 48, No. 1, pp. 16–38, 2016, DOI: 10.1080/0305215X.2014.992889. **(I.F. = 2.165; Q2)**.
103. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “Selection mechanisms based on the maximin fitness function to solve multi-objective optimization problems”, *Information Sciences*, Vol. 332, pp. 131–152, March 1, 2016, DOI: 10.1016/j.ins.2015.11.008. **(I.F. = 5.91; Q1)**.

104. Oliver Schütze, Adanay Martín, Adriana Lara, Sergio Alvarado, Eduardo Salinas and Carlos A. Coello Coello, “The Directed Search Method for Multi-Objective Memetic Algorithms”, *Computational Optimization and Applications*, Vol. 63, No. 2, pp. 305–332, March 2016, DOI: 10.1007/s10589-015-9774-0. (I.F. = 1.743; Q1).
105. Qiuzhen Lin, Zhiwang Liu, Qiao Yan, Zhihua Du, Carlos A. Coello Coello, Zhengping Liang, Wenjun Wang and Jianyong Chen, “Adaptive composite operator selection and parameter control for multiobjective evolutionary algorithm”, *Information Sciences*, Vol. 339, pp. 332–352, April 20, 2016, DOI: 10.1016/j.ins.2015.12.022. (I.F. = 5.91; Q1).
106. Gustavo R. Zavala, Antonio J. Nebro, Francisco Luna and Carlos A. Coello Coello, “Structural Design using Multi-objective Metaheuristics. Comparative Study and Application to a Real-World Problem”, *Structural and Multidisciplinary Optimization*, Vol. 53, No. 3, pp. 545–566, 2016, DOI: 10.1007/s00158-015-1291-3. (I.F. = 3.377; Q1).
107. Carlos Segura, Carlos A. Coello Coello, Gara Miranda and Coromoto León, “Using multi-objective evolutionary algorithms for single-objective constrained and unconstrained optimization”, *Annals of Operations Research*, Vol. 240, No. 1, pp. 217–250, May 2016, DOI: 10.1007/s10479-015-2017-z. (I.F. = 2.583; Q2).
108. Francisco Luna, Gustavo R. Zavala, Antonio J. Nebro, Juan J. Durillo and Carlos A. Coello Coello, “Distributed multi-objective metaheuristics for real-world structural optimization problems”, *Computer Journal*, Vol. 59, No. 6, pp. 777–792, June 2016, DOI: 10.1093/comjnl/bxu082. (I.F. = 1.077; Q4).
109. Alejandro Rosales-Pérez, Jesus A. Gonzalez, Carlos A. Coello Coello, Carlos A. Reyes-Garcia and Hugo Jair Escalante, “EMOPG +FS: Evolutionary Multi-Objective Prototype Generation and Feature Selection”, *Intelligent Data Analysis*, Vol. 20, No. s1, pp. S37–S51, 2016, DOI: 10.3233/IDA-160844. (I.F. = 0.651; Q4).
110. Qiuzhen Lin, Jianyong Chen, Zhi-Hui Zhan, Wei-neng Chen, Carlos A. Coello Coello, Yilong Yin, Chih-Min Lin and Jun Zhang, “A Hybrid Evolutionary Immune Algorithm for Multiobjective Optimization Problems”, *IEEE Transactions on Evolutionary Computation*, Vol. 20, No. 5, pp. 711–728, October 2016, DOI: 10.1109/TEVC.2015.2512930. (I.F. = 11.169; Q1).
111. Carlos Segura, Carlos A. Coello Coello, Eduardo Segredo, and Arturo Hernández Aguirre, “A Novel Diversity-Based Replacement Strategy for Evolutionary Algorithms”, *IEEE Transactions on Cybernetics*, Vol. 46, No. 12, pp. 3233–3246, December 2016, DOI: 10.1109/TCYB.2015.2501726. (I.F. = 11.079; Q1).
112. Laura Cruz-Reyes, Eduardo Fernandez, Patricia Sanchez, Carlos A. Coello Coello and Claudia Gomez, “Incorporation of implicit decision-maker preferences in Multi-Objective Evolutionary Optimization using a multi-criteria classification method”, *Applied Soft Computing*, Vol. 50, pp. 48–57, January 2017, DOI: 10.1016/j.asoc.2016.10.037. (I.F. = 5.472; Q1).
113. Adriana Menchaca-Méndez and Carlos A. Coello Coello, “An alternative hypervolume-based selection mechanism for multi-objective evolutionary algorithms”, *Soft Computing*, Vol. 21, No. 4, pp. 861–884, February 2017, DOI: 10.1007/s00500-015-1819-x. (I.F. = 3.05; Q2).
114. Jesús Guillermo Falcón-Cardona and Carlos A. Coello Coello, “A New Indicator-Based Many-Objective Ant Colony Optimizer for Continuous Search Spaces”, *Swarm Intelligence*, Vol. 11, No. 1, pp. 71–100, March 2017, DOI: 10.1007/s11721-017-0133-x. (I.F. = 2.556; Q2).
115. Qingling Zhu, Qiuzhen Lin, Weineng Chen, Ka-Chun Wong, Carlos A. Coello Coello, Jianyong Chen and Jun Zhang, “An External Archive-Guided Multiobjective Particle Swarm Optimization Algorithm”, *IEEE Transactions on Cybernetics*, Vol. 47, No. 9, pp. 2794–2808, September 2017, DOI: 10.1109/TCYB.2017.2710133. (I.F. = 11.079; Q1).
116. Saber Elsayed, Ruhul Saker and Carlos A. Coello Coello, “Sequence-based Deterministic Initialization for Evolutionary Algorithms”, *IEEE Transactions on Cybernetics*, Vol. 47, No. 9, pp. 2911–2923, September 2017, DOI: 10.1109/TCYB.2016.2630722. (I.F. = 11.079; Q1).
117. Alan Díaz-Manríquez, Gregorio Toscano and Carlos A. Coello Coello, “Comparison of Metamodeling Techniques in Evolutionary Algorithms”, *Soft Computing*, pp. 5647–5663, Vol. 21, No. 19, October 2017, DOI: 10.1007/s00500-016-2140-z. (I.F. = 3.05; Q2).
118. Saber Elsayed, Ruhul Sarker, Tapabrata Ray and Carlos Coello Coello, “Consolidated Optimization Algorithm for Resource-constrained Project Scheduling Problems”, *Information Sciences*, pp. 346–362, Vols. 418-419, December 2017, DOI: 10.1016/j.ins.2017.08.023. (I.F. = 5.91; Q1).
119. Alejandro Rosales-Pérez, Salvador García, Jesus A. Gonzalez, Carlos A. Coello Coello and Francisco Herrera, “An Evolutionary Multiobjective Model and Instance Selection for Support Vector Machines with Pareto-based Ensembles”, *IEEE Transactions on Evolutionary Computation*, Vol. 21, No. 6, pp. 863–877, December 2017, DOI: 10.1109/TEVC.2017.2688863. (I.F. = 11.169; Q1).
120. Qiuzhen Liu, Songbai Liu, Chaoyu Tang, Ruizhen Song, Jianyong Chen, Carlos A. Coello Coello and Jun Zhang, “Particle Swarm Optimization with a Balanceable Fitness Estimation for Many-objective Optimization Problems”, *IEEE Transactions on Evolutionary Computation*, Vol. 22, No. 1, pp. 32–46, February 2018, DOI: 10.1109/TEVC.2016.2631279. (I.F. = 11.169; Q1).

121. Qiuzhen Lin, Yueping Ma, Jianyong Chen, Qingling Zhu, Carlos A. Coello Coello, Ka-Chun Wong and Fei Chen, “An Adaptive Immune-inspired Multi-objective Algorithm with Multiple Differential Evolution Strategies”, *Information Sciences*, pp. 46–64, Vols. 430-431, March 2018, DOI: 10.1016/j.ins.2017.11.030. (I.F. = 5.91; Q1).
122. Alejandro Rosales-Pérez, Salvador García, Hugo Terashima-Marín, Carlos A. Coello Coello and Francisco Herrera, “MC²ESVM: Multiclass Classification based on Cooperative Evolution of Support Vector Machines”, *IEEE Computational Intelligence Magazine*, Vol. 13, No. 2, pp. 18–29, May 2018, DOI: 10.1109/MCI.2018.2806997 (I.F. = 9.083; Q1).
123. Ivan Amaya, José C. Ortiz-Bayliss, Alejandro Rosales-Pérez, Andrés E. Gutiérrez-Rodríguez, Santiago E. Conant-Pablos, Hugo Terashima-Marín and Carlos A. Coello Coello, “Enhancing Selection Hyper-heuristics via Feature Transformations”, *IEEE Computational Intelligence Magazine*, Vol. 13, No. 2, pp. 30–41, May 2018, DOI: 10.1109/MCI.2018.2807018. (I.F. = 9.083; Q1).
124. Stjepan Picek, Carlos A. Coello Coello, Domagoj Jakobovic and Nele Mentens, “Finding Short and Implementation-friendly Addition Chains with Evolutionary Algorithms”, *Journal of Heuristics*, Vol. 24, No. 3, pp. 457–481, June 2018, DOI: 10.1007/s10732-017-9340-2. (I.F. = 1.577; Q2).
125. Qiuzhen Lin, Genmiao Jin, Yueping Ma, Ka-Chun Wong, Carlos A. Coello Coello, Jianqiang Li, Jianyong Chen and Jun Zhang, “A Diversity-Enhanced Resource Allocation Strategy for Decomposition-based Multiobjective Evolutionary Algorithm”, *IEEE Transactions on Cybernetics*, Vol. 48, No. 8, pp. 2388–2401, August 2018, DOI: 10.1109/TCYB.2017.2739185. (I.F. = 11.079; Q1).
126. Luis Miguel Antonio, José A. Molinet Berenguer and Carlos A. Coello Coello, “Evolutionary Many-objective Optimization based on Linear Assignment Problem Transformations”, *Soft Computing*, Vol. 22, No. 6, pp. 5491–5512, August 2018, DOI: 10.1007/s00500-018-3164-3. (I.F. = 3.05; Q2).
127. Saber Elsayed, Ruhul Sarker, Carlos Coello Coello, Tapabrata Ray, “Adaptation of Operators and Continuous Control Parameters in Differential Evolution for Constrained Optimization”, *Soft Computing*, Vol. 22, No. 19, pp. 6595–6616, October 2018, DOI: 10.1007/s00500-017-2712-6. (I.F. = 3.05; Q2).
128. Sumit Mishra, Samrat Modalb, Sriparna Saha and Carlos A. Coello Coello, “GBOS: Generalized Best Order Sort Algorithm for Non-dominated Sorting”, *Swarm and Evolutionary Computation*, Vol. 43, pp. 244–264, December 2018, DOI: 10.1016/j.swevo.2018.06.003. (I.F. = 6.912; Q1).
129. Qiuzhen Lin, Xiaozhou Wang, Bishan Hu, Lijia Ma, Fei Chen, Li Jian-qiang and Carlos A. Coello Coello, “Multi-objective Personalized Recommendation Algorithm using Extreme Point Guided Evolutionary Computation”, *Complexity*, Volume 2018, Article ID 1716352, 2018, DOI: 10.1155/2018/1716352. (I.F. = 2.462; Q2).
130. Luis Miguel Antonio and Carlos A. Coello Coello, “Coevolutionary Multiobjective Evolutionary Algorithms: Survey of the State-of-the-Art”, *IEEE Transactions on Evolutionary Computation*, Vol. 22, No. 6, pp. 851–865, December 2018, DOI: 10.1109/TEVC.2017.2767023 (I.F. = 11.169; Q1).
131. Saber Elsayed, Ruhul Sarker and Carlos Coello Coello, “Fuzzy Rule-based Design of Evolutionary Algorithm for Optimization”, *IEEE Transactions on Cybernetics*, Vol. 49, No. 1, pp. 301–314, January 2019, DOI: 10.1109/TCYB.2017.2772849. (I.F. = 11.079; Q1).
132. Efrain Solares, Carlos A. Coello Coello, Eduardo Fernandez and Jorge Navarro, “Handling uncertainty through confidence intervals in portfolio optimization”, *Swarm and Evolutionary Computation*, Vol. 44, pp. 774–787, February 2019, DOI: 10.1016/j.swevo.2018.08.010. (I.F. = 6.912; Q1).
133. Sumit Mishra, Sriparna Saha, Samrat Mondal and Carlos A. Coello Coello, “A Divide-and-Conquer based Efficient Non-dominated Sorting Approach”, *Swarm and Evolutionary Computation*, Vol. 44, pp. 748–773, February 2019, DOI: 10.1016/j.swevo.2018.08.011. (I.F. = 6.912; Q1).
134. Saúl Zapotecas-Martínez, Carlos A. Coello Coello, Hernán E. Aguirre and Kiyoshi Tanaka. “A Review of Features and Limitations of Existing Scalable Multiobjective Test Suites”, *IEEE Transactions on Evolutionary Computation*, Vol. 23, No. 1, pp. 130–142, February 2019, DOI: 10.1109/TEVC.2018.2836912. (I.F. = 11.169; Q1).
135. Yuchao Su, Jia Wang, Lijia Ma, Xiaozhou Wang, Qiuzhen Lin, Carlos A. Coello Coello, Jianyong Chen, “A hybridized angle-encouragement-based decomposition approach for many-objective optimization problems”, *Applied Soft Computing*, Vol. 78, pp. 355–372, May 2019, DOI: 10.1016/j.asoc.2019.02.026. (I.F. = 5.472; Q1).
136. Eduardo Fernandez, Jorge Navarro, Efrain Solares and Carlos A. Coello Coello, “A Novel Approach to Select the Best Portfolio Considering the Preferences of the Decision Maker”, *Swarm and Evolutionary Computation*, Vol. 46, pp. 140–153, May 2019, DOI: 10.1016/j.swevo.2019.02.002. (I.F. = 6.912; Q1).
137. Qiuzhen Lin, Songbai Liu, Ka-Chun Wong, Carlos A. Coello Coello, Jianyong Chen and Jun Zhang, “A Clustering-based Evolutionary Algorithm for Many-objective Optimization Problems”, *IEEE Transactions on Evolutionary Computation*, Vol. 23, No. 3, pp. 391–405, June 2019, DOI: 10.1109/TEVC.2018.2866927. (I.F. = 11.169; Q1).

138. Sumit Mishra and Carlos A. Coello Coello, “Parallelism in Divide-and-Conquer Non-dominated Sorting: A Theoretical Study Considering the PRAM-CREW Model”, *Journal of Heuristics*, Vol. 25, No. 3, pp. 455–483, June 2019, DOI: 10.1007/s10732-019-09407-y. (I.F. = 1.577; Q2).
139. Javier Del Ser, Eneko Osaba, Daniel Molina, Xin-She Yang, Sancho Salcedo-Sanz, David Camacho, Swagatam Das, Ponnuthurai N. Suganthan, Carlos A. Coello Coello and Francisco Herrera, “Bio-Inspired Computation: Where We Stand and What’s Next”, *Swarm and Evolutionary Computation*, Vol. 48, pp. 220–250, August 2019, DOI: 10.1016/j.swevo.2019.04.008. (I.F. = 6.912; Q1).
140. Wenjun Wang, Shaoqiang Yang, Qiuzhen Lin, Qingfu Zhang, Ka-Chun Wong, Carlos A. Coello Coello and Jianyong Chen, “An Effective Ensemble Framework for Multiobjective Optimization”, *IEEE Transactions on Evolutionary Computation*, Vol. 23, No. 4, pp. 645–659, August 2019, DOI: 10.1109/TEVC.2018.2879078. (I.F. = 11.169; Q1).
141. Lingjie Li, Qiuzhen Lin, Songbai Liu, Dunwei Gong, Carlos A. Coello Coello and Zhong Ming, “A novel multi-objective immune algorithm with a decomposition-based clonal selection”, *Applied Soft Computing*, Vol. 81, Article no. UNSP 105490, August 2019, DOI: 10.1016/j.asoc.2019.105490. (I.F. = 5.472; Q1).
142. Songbai Liu, Qiuzhen Lin, Ka-Chun Wong, Lijia Ma, Carlos A. Coello Coello and Dunwei Gong, “A novel multi-objective evolutionary algorithm with dynamic decomposition strategy”, *Swarm and Evolutionary Computation*, Vol. 48, pp. 182–200, August 2019, DOI: 10.1016/j.swevo.2019.02.010. (I.F. = 6.912; Q1).
143. Lijia Ma, Jianqiang Li, Qiuzhen Lin, Maoguo Gong, Carlos A. Coello Coello and Zhong Ming, “Reliable Link Inference for Network Data with Community Structures”, *IEEE Transactions on Cybernetics*, Vol. 49, No. 9, pp. 3347–3361, September 2019, DOI: 10.1109/TCYB.2018.2860284. (I.F. = 11.079; Q1).
144. Luis Fernando Plata-González, Ivan Amaya, José Carlos Ortiz-Bayliss, Santiago Enrique Conant-Pablos, Hugo Terashima-Marín and Carlos A. Coello Coello “Evolutionary-Based Tailoring of Synthetic Instances for the Knapsack Problem”, *Soft Computing*, Vol. 23, No. 23, pp. 12711–12728, December 2019, DOI: 10.1007/s00500-019-03822-w. (I.F. = 3.05; Q2).
145. Adriana Menchaca-Méndez, Elizabeth Montero, Luis Miguel Antonio, Saúl Zapotecas-Martínez, Carlos A. Coello Coello and María-Cristina Riff, “A Co-Evolutionary Scheme for Multi-Objective Evolutionary Algorithms based on ϵ -Dominance”, *IEEE Access*, Vol. 7, No. 1, pp. 18267–18283, December 2019, DOI: 10.1109/ACCESS.2019.2896962. (I.F. = 3.745; Q1).
146. Sumit Mishra, Sriparna Saha, Samrat Mondal and Carlos A. Coello Coello, “Divide-and-Conquer Based Non-dominated Sorting with Reduced Comparisons”, *Swarm and Evolutionary Computation*, Vol. 51, Article no. 100580, December 2019, DOI: 10.1016/j.swevo.2019.100580. (I.F. = 6.912; Q1).
147. Zohreh Masoumi, Carlos A. Coello Coello and Ali Mansourian, “Dynamic Urban Land-Use Change Management Using Multi-Objective Evolutionary Algorithms”, *Soft Computing*, Vol. 24, pp. 4165–4190, 2020, DOI: 10.1007/s00500-019-04182-1. (I.F. = 3.05; Q2).
148. Laura Cruz-Reyes, Eduardo Fernandez, J. Patricia Sanchez-Solis, Carlos A. Coello Coello and Claudia Gomez, “Hybrid Evolutionary Multi-Objective Optimisation using Outranking-Based Ordinal Classification Methods”, *Swarm and Evolutionary Computation*, Vol. 54, Article 100652, May 2020, DOI: 10.1016/j.swevo.2020.100652. (I.F. = 6.912; Q1).
149. Efrain Solares, Eduardo Fernandez, Jorge Navarro and Carlos Coello Coello, “Using evolutionary computation to infer the decision maker’s preference model in presence of imperfect knowledge: a case study in portfolio optimization”, *Swarm and Evolutionary Computation*, Vol. 54, Article 100648, May 2020, DOI: 10.1016/j.swevo.2020.100648. (I.F. = 6.912; Q1).
150. Jesús Guillermo Falcón-Cardona and Carlos A. Coello Coello, “Indicator-based Multi-Objective Evolutionary Algorithms: A Comprehensive Survey”, *ACM Computing Surveys*, Vol. 53, No. 2, Article No. 29, March 2020, DOI: 10.1145/3376916. (I.F. = 7.99; Q1).
151. Saber Mohammed Elsayed, Ruhul Sarker, Daryl Essam and Carlos Coello Coello, “Evolutionary Approach for Large-Scale Mine Scheduling”, *Information Sciences*, Vol. 523, pp. 77–90, June 2020, DOI: 10.1016/j.ins.2020.02.074. (I.F. = 5.91; Q1).
152. Carlos A. Coello Coello, Silvia González Brambila, Josué Figueroa Gamboa, Ma Guadalupe Castillo Tapia and Raquel Hernández Gómez, “Evolutionary multiobjective optimization: open research areas and some challenges lying ahead”, *Complex & Intelligent Systems*, Vol. 6, pp. 221–236, July 2020, DOI: 10.1007/s40747-019-0113-4. (I.F. = 3.791; Q2).
153. David Guirguis, Nikola Aulig, Renato Picelli, Bo Zhu, Yuqing Zhou, William Vicente, Francesco Iorio, Markus Olhofer, Wojciech Matusik, Carlos Artemio Coello Coello and Kazuhiro Saitou, “Evolutionary Black-Box Topology Optimization: Challenges and Promises”, *IEEE Transactions on Evolutionary Computation*, Vol. 24, No. 4, pp. 613–633, August 2020, DOI: 10.1109/TEVC.2019.2954411. (I.F. = 11.169; Q1).
154. Lijia Ma, Jianqiang Li, Qiuzhen Lin, Maoguo Gong, Carlos A. Coello Coello and Zhong Ming, “Cost-aware Robust Control of Signed Networks for using a Memetic Algorithm with Problem-specific Knowledge”, *IEEE Transactions on Cybernetics*, Vol. 50, No. 10, pp. 4430–4443, October 2020. (I.F. = 11.079; Q1).

155. Maha Elarbi, Slim Bechikh, Carlos A. Coello Coello, Mohamed Makhlof and Lamjed Ben Said, “Approximating Complex Pareto Fronts with Predefined Normal-Boundary Intersection Directions”, *IEEE Transactions on Evolutionary Computation*, Vol. 24, No. 5, pp. 809–823, October 2020. (I.F. = 11.169; Q1).
156. Man-Fai Leung, Carlos A. Coello Coello, Chi-Chung Cheung, Sin-Chun Ng and Kwow-Fai Lui, “A Hybrid Leader Selection Strategy for Many-Objective Particle Swarm Optimization”, *IEEE Access*, Vol. 8, pp. 189527–189545, 14 October 2020.
157. Zohreh Masoumi, Jamshid Maleki, Farshad Hakimpour and Carlos Coello Coello, “A spatial land use planning support system based on game theory”, *Land Use Policy*, Vol. 99, Paper number 105013, December 2020. (I.F. = 3.682; Q1).
158. Forhad Zaman, Saber Elsayed, Ruhul Sarker, Daryl Essam and Carlos Coello Coello, “An Evolutionary Approach for Resource Constrained Project Scheduling with Uncertain Changes”, *Computers & Operations Research*, Vol. 125, Article number: 105104, January 2021. (I.F. = 3.424; Q2).
159. Ali Ahrari, Saber Elsayed, Ruhul Sarker, Daryl Essam and Carlos A. Coello Coello, “Weighted Pointwise Prediction Method for Dynamic Multiobjective Optimization”, *Information Sciences*, Vol. 546, pp. 349–367, 6 February 2021. (I.F. = 5.91; Q1).
160. Ali Ahrari, Saber Elsayed, Ruhul Sarker, Daryl Essam and Carlos A. Coello Coello, “Weighted Pointwise Prediction Method for Dynamic Multiobjective Optimization”, *Information Sciences*, Vol. 546, pp. 349–367, 6 February 2021. (I.F. = 5.91; Q1).
161. Wu Lin, Qiuzhen Lin, Junkai Ji, Zexuan Zhu, Carlos A. Coello Coello and Ka-Chun Wong, “Decomposition-Based Multiobjective Optimization with Bicriteria Assisted Adaptive Operator Selection”, *Swarm and Evolutionary Computation*, Vol. 60, Paper number 100790, February 2021.
162. Qingling Zhu, Qiuzhen Lin, Carlos A. Coello Coello, Zhong Ming, Jianyong Chen and Jun Zhang, “An Elite Gene Guided Reproduction Operator for Many-objective Optimization”, *IEEE Transactions on Cybernetics*, Vol. 51, No. 2, pp. 765–778, February 2021. (I.F. = 11.079; Q1).
163. Qiuzhen Lin, Wu Lin, Zexuan Zhu, Maoguo Gong, Jianqiang Li and Carlos A. Coello Coello, “Multimodal Multi-objective Evolutionary Optimization with Dual Clustering in Decision and Objective Spaces”, *IEEE Transactions on Evolutionary Computation*, Vol. 25, No. 1, pp. 130–144, February 2021. (I.F. = 11.169; Q1).
164. Ali Ahrari, Saber Elsayed, Ruhul Sarker, Daryl Essam and Carlos A. Coello Coello, “A Heredity-based Adaptive Variation Operator for Reinitialization in Dynamic Multi-objective Problems”, *Applied Soft Computing*, Volume 101, Article No. 107027, March 2021.

In Press

1. Songbai Liu, Qiuzhen Lin, Ka-Chun Wong, Carlos A. Coello Coello, Jianqiang Li and Jun Zhang, “A Self-guided Reference Vector Strategy for Many-objective Optimization”, *IEEE Transactions on Cybernetics*, 2021 (in press).
2. Songbai Liu, Qiuzhen Lin, Kay Chen Tan, Maoguo Gong and Carlos A. Coello Coello, “A Fuzzy Decomposition based Multi/Many-objective Evolutionary Algorithm”, *IEEE Transactions on Cybernetics*, 2021 (in press).
3. Lijia Ma, Yuchun Ma, Qiuzhen Lin, Junkai Ji, Carlos A. Coello Coello and Maoguo Gong, “SNEGAN: Signed Network Embedding by Using Generative Adversarial Nets”, *IEEE Transactions on Emerging Topics in Computational Intelligence*, 2021 (in press).
4. Sumit Mishra and Carlos A. Coello Coello, “A Parallel Naive Approach for Non-dominated Sorting: A Theoretical Study Considering PRAM CREW Model”, *Soft Computing*, 2021 (in press).
5. Ali Ahrari, Saber Elsayed, Ruhul Sarker, Daryl Essam and Carlos A. Coello Coello, “Adaptive Multilevel Prediction Method for Dynamic Multimodal Optimization”, *IEEE Transactions on Evolutionary Computation*, 2021 (in press).
6. Jesús Guillermo Falcón-Cardona, Hisao Ishibuchi, Carlos A. Coello Coello and Michael Emmerich, “On the Effect of the Cooperation of Indicator-based Multi-Objective Evolutionary Algorithms”, *IEEE Transactions on Evolutionary Computation*, 2021 (in press).

Papers Published in Proceedings of Peer-Reviewed International Conferences

1. Carlos A. Coello Coello, “Discrete Optimization of Trusses Using Genetic Algorithms”, in J. G. Chen, F. G. Attia and D. L. Crabtree (Editors), *Expert Systems Applications and Artificial Intelligence (EXPERTSYS-94)*, I.I.T.T. International, Technology Transfer Series, pp. 331–336, Houston, Texas, USA, 1994, ISBN 978-2907669306.
2. Carlos A. Coello Coello, Michael Rudnick and Alan D. Christiansen, “Using Genetic Algorithms for Optimal Design of Trusses”, in *Proceedings of the Sixth International Conference on Tools with Artificial Intelligence (TAI’94)*, pp. 88–94, IEEE Computer Society Press, New Orleans, Louisiana, USA, November 6-9, 1994, ISBN 0-8186-6785-0.

3. Carlos A. Coello Coello and Alan D. Christiansen, "Using Genetic Algorithms for Optimal Design of Axially Loaded Non-Prismatic Columns", in D.W. Pearson, N.C. Steele and R.F. Albrecht (editors), *Proceedings of the International Conference on Artificial Neural Nets and Genetic Algorithms, ICANNGA'95*, pp. 460–463, Springer-Verlag, Ecole des Mines d'Alès, France, April 18-21, 1995, ISBN 3-211-82692-0.
4. Carlos A. Coello Coello, Filiberto Santos Hernández and Francisco Alonso Farrera, "Using Genetic Algorithms for Optimal Design of Reinforced Concrete Beams", in M.H. Hamza (editor), *Proceedings of the IASTED International Conference on Applied Modelling, Simulation and Optimization*, pp. 141–144, IASTED-ACTA Press, Cancún, México, June 15–17, 1995, ISBN 1-85312-325-0.
5. Carlos A. Coello Coello and Francisco Alonso Farrera, "Optimal Design of Axially Loaded Non-Prismatic Columns via Genetic Algorithms", in Peter Jan Pahl and Heinrich Wener (editors), *6th International Conference on Computing in Civil and Building Engineering*, pp. 691–696, Vol. 1, A. A. Balkema, Rotterdam, The Netherlands, July 12–15, 1995, ISBN 90-5410-556-9.
6. Carlos A. Coello Coello and Alan D. Christiansen, "An Approach to Multiobjective Optimization Using Genetic Algorithms", in C.H. Dagli, M.C.L.P. Chen Akay, B.R. Fernández and J. Ghosh, (editors), *Intelligent Engineering Systems Through Artificial Neural Networks (ANNIE'95)*, pp. 411–416, Vol. 5, ASME Press, St. Louis, Missouri, USA, November 12–15, 1995, ISBN 978-0791800485.
7. Carlos A. Coello Coello, Alan D. Christiansen and Arturo 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 (TAI'95)*, pp. 20–23, IEEE Computer Society Press, Herndon, Virginia, USA, November 5–8, 1995, ISBN 0-8186-7312-5.
8. Carlos A. Coello Coello and Francisco Alonso Farrera, "Use of Genetic Algorithms for the Optimal Design of Reinforced Concrete Beams", in S. Hernández, M. El-Sayed and C. A. Brebbia (editors), *Computer Aided Optimum Design of Structures IV. Structural Optimization*, pp. 209–216, Computational Mechanics Publications, Southampton, UK, 1995, ISBN 1-85312-325-0.
9. Carlos A. Coello Coello and José Alonso Figueroa Gallegos, "Use of Genetic Algorithms to Solve Optimal Regional Water Quality Management Problems", in *Adaptive Computing in Engineering Design and Control'96*, pp. 159–166, Plymouth, UK, March 1996, ISBN 978-0905227610.
10. Alan D. Christiansen, Andrea Dunham Edwards and Carlos A. Coello Coello, "Automated Design of Part Feeders using a Genetic Algorithm", in *Proceedings of the 1996 IEEE International Conference on Robotics and Automation*, Vol. 1, pp. 846–851, IEEE Press, Minneapolis, Minnesota, USA, April 1996, ISBN 0-7803-2989-9.
11. Carlos A. Coello Coello, Alan D. Christiansen and Arturo Hernández Aguirre, "Using Genetic Algorithms to Design Combinational Logic Circuits", in Cihan H. Dagli, Metin Akay, C. L. Philip Chen, Benito R. Fernandez and Joydeep Ghosh (editors), *Intelligent Engineering through Artificial Neural Networks, ANNIE 96*, Volume 6, pp. 391–396, ASME Press, St. Louis, Missouri, USA, November, 1996, ISBN 978-0791800515.
12. Carlos A. Coello Coello, Alan D. Christiansen and Arturo Hernández Aguirre, "Automated Design of Combinational Logic Circuits Using Genetic Algorithms", in D.G. Smith, N.C. Steele and R.F. Albrecht (editors), *Proceedings of the International Conference on Artificial Neural Nets and Genetic Algorithms (ICANNGA'97)*, pp. 333–336, Springer-Verlag, University of East Anglia, Norwich, UK, April 2–4, 1997, ISBN 978-3-211-83087-1.
13. Carlos A. Coello Coello, "Two New Approaches to Multiobjective Optimisation Using Genetic Algorithms", in I.C. Parmee (editor), *Adaptive Computing in Design and Manufacture*, pp. 151–160, Springer-Verlag, UK, 1998, ISBN 978-3-540-76254-6.
14. Carlos A. Coello Coello, "Using the Min-Max Method to solve Multiobjective Optimization Problems with Genetic Algorithms", in Helder Coelho (editor), *Progress in Artificial Intelligence-IBERAMIA'98, 6th Ibero-American Conference on AI*, pp. 303–314, Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 1484, Lisbon, Portugal, October 1998, ISBN 978-3-540-64992-2. **(I.F. = 0.302; Q4)**.
15. Arturo Hernández Aguirre, Carlos A. Coello Coello and Bill P. Buckles, "A Genetic Programming Approach to Logic Function Synthesis by means of Multiplexers", in Adrian Stoica, Didier Keymeulen and Jason Lohn (editors), *Proceedings of the First NASA/DoD Workshop on Evolvable Hardware*, pp. 46–53, IEEE Computer Society Press, Los Alamitos, California, July, 1999, ISBN 0-7695-0256-3.
16. Carlos A. Coello Coello, "An Updated Survey of Evolutionary Multiobjective Optimization Techniques: State of the Art and Future Trends", in *1999 IEEE Congress on Evolutionary Computation (CEC'99)*, pp. 3–13, Vol. 1, IEEE Service Center, Washington, DC, USA, July 1999, ISBN 0-7803-5536-9.
17. Carlos A. Coello Coello, "Self-Adaptive Penalties for GA-based optimization", in *1999 IEEE Congress on Evolutionary Computation (CEC'99)*, pp. 573–580, Vol. 1, IEEE Service Center, Washington, DC, USA, July 1999, ISBN 0-7803-5536-9.

18. Carlos A. Coello Coello, "Constraint Handling Through a Multi-Objective Optimization Technique", 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)*, pp. 1021–1026, ASME Press, New York, USA, Vol. 9, November 1999, ISBN 978-0791800980.
19. Carlos A. Coello Coello, Rosa Laura Zavala G., Benito Mendoza G. and Arturo Hernández Aguirre, "Ant Colony System for the Design of Combinational Logic Circuits", in Julian Miller, Adrian Thompson, Peter Thomson and Terence C. Fogarty (editors), *Evolvable Systems: From Biology to Hardware*, pp. 21–30, Springer-Verlag, Lecture Notes in Computer Science Vol. 1801, Edinburgh, Scotland, April 2000, ISBN 3-540-67338-5. **(I.F. = 0.402; Q4)**.
20. Carlos A. Coello Coello, "Handling Preferences in Evolutionary Multiobjective Optimization: A Survey", in *2000 IEEE Congress on Evolutionary Computation (CEC'2000)*, pp. 30–37, Volume 1, IEEE Service Center, Piscataway, New Jersey, USA, July 2000, ISBN 0-7803-6375-2.
21. Arturo Hernández Aguirre, Bill P. Buckles and Carlos A. Coello Coello, "Gate-level Synthesis of Boolean Functions using Binary Multiplexers and Genetic Programming", *2000 IEEE Congress on Evolutionary Computation (CEC'2000)*, pp. 675–682, Volume 1, IEEE Service Center, Piscataway, New Jersey, USA, July 2000, ISBN 0-7803-6375-2.
22. 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*, pp. 161–170, IEEE Computer Society Press, Los Alamitos, California, USA, July 2000, ISBN 0-7695-0762-X.
23. Arturo Hernández Aguirre, Bill P. Buckles and Carlos A. Coello Coello, "Evolutionary Synthesis of Logic Functions using Multiplexers", in Cihan H. Dagli, Anna L. Buczak, Joydeep Ghosh, Mark Embrechts Okan Ersoy and Stephen Kerchel (Editors), *Smart Engineering System Design: Neural Networks, Fuzzy Logic, Evolutionary Programming, Data Mining, and Complex Systems (ANNIE'2000)*, pp. 311–316, ASME Press, New York, USA, November 2000, ISBN 978-0791801611.
24. 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 & David Corne (editors), *First International Conference on Evolutionary Multi-Criterion Optimization*, pp. 126–140, Springer-Verlag, Lecture Notes in Computer Science No. 1993, Zürich, Switzerland, March 2001, ISBN 3-540-41745-1. **(I.F. = 0.402; Q4)**.
25. Carlos A. Coello Coello, "A Short Tutorial on Evolutionary Multiobjective Optimization", in Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello & David Corne (editors), *First International Conference on Evolutionary Multi-Criterion Optimization*, pp. 21–40, Springer-Verlag, Lecture Notes in Computer Science No. 1993, Zürich, Switzerland, March 2001 **(invited paper)**, ISBN 3-540-41745-1. **(I.F. = 0.402; Q4)**.
26. Carlos A. Coello Coello and Gregorio Toscano Pulido, "Multiobjective Optimization using a Micro-Genetic Algorithm", in Lee Spector et al. (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO 2001)*, pp. 274–282, Morgan Kaufmann Publishers, San Francisco, California, USA, July 2001, ISBN 978-1-55860-774-3.
27. Arturo Hernández Aguirre, Bill P. Buckles and Carlos A. Coello Coello, "On Learning $kDNF_n^s$ Boolean Formulas", in Didier Keymeulen, Adrian Stoica, Jason Lohn and Ricardo Salem Zebulum (editors), *Proceedings of the Third NASA/DoD Workshop on Evolvable Hardware*, pp. 240–246, IEEE Computer Society Press, Long Beach, California, USA, July 2001, ISBN 978-0769511801.
28. Eduardo Islas Pérez, Carlos A. Coello Coello and Arturo Hernández Aguirre, "Extraction of Design Patterns from Evolutionary Algorithms using Case-Based Reasoning", in Yong Liu, Kiyoshi Tanaka, Masaya Iwata, Tetsuya Higuchi and Moritoshi Yasunaga (editors), *Evolvable Systems: From Biology to Hardware (ICES'2001)*, pp. 244–255, Springer-Verlag, Lecture Notes in Computer Science Vol. 2210, Tokyo, Japan, October 2001, ISBN 978-3-540-42671-4.
29. Arturo Hernández Aguirre, Bill P. Buckles and Carlos A. Coello Coello, "GA-based Learning of $kDNF_n^s$ Boolean Formulas", in Yong Liu, Kiyoshi Tanaka, Masaya Iwata, Tetsuya Higuchi and Moritoshi Yasunaga (editors), *Evolvable Systems: From Biology to Hardware (ICES'2001)*, pp. 279–290, Springer-Verlag, Lecture Notes in Computer Science Vol. 2210, Tokyo, Japan, October 2001, ISBN 978-3-540-42671-4.
30. Carlos A. Coello Coello and Nareli Cruz Cortés, "Use of Emulations of the Immune System to Handle Constraints in Evolutionary Algorithms", in Cihan H. Dagli, Anna L. Buczak, Joydeep Ghosh, Mark J. Embrechts, Okan Ersoy and Stephen Kerchel (editors), *Intelligent Engineering Systems through Artificial Neural Networks (ANNIE'2001)*, pp. 141–146, ASME Press, Vol. 11, St. Louis Missouri, USA, November 2001, ISBN 978-0791801765 **(best paper award)**.
31. Carlos A. Coello Coello and Efrén Mezura Montes, "Use of Dominance-Based Tournament Selection to Handle Constraints in Genetic Algorithms", in Cihan H. Dagli, Anna L. Buczak, Joydeep Ghosh, Mark J. Embrechts, Okan Ersoy and Stephen Kerchel (editors), *Intelligent Engineering Systems through Artificial Neural Networks (ANNIE'2001)*, pp. 177–182, ASME Press, Vol. 11, St. Louis Missouri, USA, November 2001, ISBN 978-0791801765.

32. Carlos A. Coello Coello and Ricardo Landa Becerra, "A Cultural Algorithm for Constrained Optimization", in Carlos A. Coello Coello, Alvaro de Albornoz, Enrique Sucar and Osvaldo Cairó Battistutti (editors), *MICAI'2002: Advances in Artificial Intelligence*, pp. 98–107, Springer-Verlag, Lecture Notes in Artificial Intelligence, Vol. 2313, April 2002, ISBN 978-3-540-43475-7.
33. Eduardo Islas Pérez, Carlos A. Coello Coello, Arturo Hernández Aguirre and A. Villavicencio Ramírez, "Genetic Algorithms and Case-Based Reasoning as a Discovery and Learning Machine in the Optimization of Combinational Logic Circuits", in Carlos A. Coello Coello, Alvaro de Albornoz, Enrique Sucar and Osvaldo Cairó Battistutti (editors), *MICAI'2002: Advances in Artificial Intelligence*, pp. 128–137, Springer-Verlag, Lecture Notes in Artificial Intelligence, Vol. 2313, April 2002, ISBN 978-3-540-43475-7.
34. Carlos A. Coello Coello and Ricardo Landa Becerra, "Constrained Optimization using an Evolutionary Programming-Based Cultural Algorithm", in Ian C. Parmee (editor), *Adaptive Computing in Design and Manufacture V*, pp. 317–328, Springer, London, April 2002, ISBN 1-85233-605-6.
35. Carlos A. Coello Coello and Efrén Mezura Montes, "Handling Constraints in Genetic Algorithms using Dominance-Based Tournaments", in Ian C. Parmee (editor), *Adaptive Computing in Design and Manufacture V*, pp. 273–284, Springer, London, April 2002, ISBN 1-85233-605-6.
36. Carlos A. Coello Coello and Nareli Cruz Cortés, "A Parallel Implementation of an Artificial Immune System to Handle Constraints in Genetic Algorithms: Preliminary Results", in *2002 IEEE Congress on Evolutionary Computation (CEC'2002)*, pp. 819–824, Vol. 1, IEEE Service Center, Piscataway, New Jersey, USA, May 2002, ISBN 0-7803-7282-4.
37. Carlos A. Coello Coello and Maximino Salazar Lechuga, "MOPSO: A Proposal for Multiple Objective Particle Swarm Optimization", in *2002 IEEE Congress on Evolutionary Computation (CEC'2002)*, pp. 1051–1056, Vol. 2, IEEE Service Center, Piscataway, New Jersey, USA, May 2002, ISBN 0-7803-7282-4.
38. Carlos A. Coello Coello and Ricardo Landa Becerra, "Adding Knowledge and Efficient Data Structures to Evolutionary Programming: A Cultural Algorithm for Constrained Optimization", in W.B. Langdon et al. (editors), *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2002*, pp. 201–209, Morgan Kaufmann Publishers, San Francisco, California, USA, July 2002, ISBN 978-1-55860-878-8.
39. Héctor Fernando Gómez García, Arturo González Vega, Arturo Hernández Aguirre, Arturo, José Luis Marroquín Zaleta and Carlos A. Coello Coello, "Robust Multiscale Affine 2D-Image Registration through Evolutionary Strategies" in Juan Julián Merele Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacañas and Hans-Paul Schwefel (editors), *Parallel Problem Solving from Nature VII*, pp. 740–748, Lecture Notes in Computer Science Vol. 2439, Springer-Verlag, Granada, Spain, September 2002, ISBN 978-3-540-44139-7.
40. 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)*, pp. 212–221, University of Kent at Canterbury, UK, September 2002, ISBN 1-902671-32-5.
41. Carlos A. Coello Coello, Erika Hernández Luna and Arturo Hernández Aguirre, "Use of Particle Swarm Optimization to Design Combinational Logic Circuits", in Andy M. Tyrell, Pauline C. Haddow and Jim Torresen (editors), *Evolvable Systems: From Biology to Hardware. 5th International Conference, ICES 2003*, pp. 398–409, Springer, Lecture Notes in Computer Science, Vol. 2606, Trondheim, Norway, March 2003, ISBN 3-540-00730-X. **(I.F. = 0.402; Q4)**.
42. Arturo Hernández Aguirre, Edgar C. González Equihua and Carlos A. Coello Coello, "Synthesis of Boolean Functions using Information Theory", in Andy M. Tyrell, Pauline C. Haddow and Jim Torresen (editors), *Evolvable Systems: From Biology to Hardware. 5th International Conference, ICES 2003*, pp. 218–227, Springer, Lecture Notes in Computer Science, Vol. 2606, Trondheim, Norway, March 2003, ISBN 3-540-00730-X. **(I.F. = 0.402; Q4)**.
43. 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*, pp. 252–266, Springer, Lecture Notes in Computer Science, Vol. 2632, Faro, Portugal, April 2003, ISBN 3-540-01869-7. **(I.F. = 0.402; Q4)**.
44. 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*, pp. 73–87, Springer, Lecture Notes in Computer Science, Vol. 2632, Faro, Portugal, April 2003, ISBN 3-540-01869-7. **(I.F. = 0.402; Q4)**.
45. Carlos A. Coello Coello and Ricardo Landa Becerra, "Evolutionary Multiobjective Optimization using a Cultural Algorithm", in *2003 IEEE Swarm Intelligence Symposium*, pp. 6–13, IEEE Service Center, Indianapolis, Indiana, USA, April 2003, ISBN 0-7803-7914-4.

46. 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*, pp. 2244–2248, Vol. 2, Elsevier, The Netherlands, June 2003, ISBN 0-08-044046-0.
47. Nareli Cruz Cortés and Carlos A. Coello Coello, “Multiobjective Optimization using ideas from the Clonal Selection Principle”, in Erick Cantú-Paz et al. (editors), *2003 Genetic and Evolutionary Computation Conference (GECCO’2003)*, pp. 158–170, Part I, Springer, Lecture Notes in Computer Science Vol. 2723, Chicago, USA, July 2003, ISBN 3-540-40602-6. (I.F. = 0.402; Q4).
48. Efrén Mezura-Montes and Carlos A. Coello Coello, “A Simple Evolution Strategy to Solve Constrained Optimization Problems”, in Erick Cantú-Paz et al. (editors), *Genetic and Evolutionary Computation Conference—GECCO’2003. Proceedings*, Part I, Lecture Notes in Computer Science Vol. 2723, pp. 640–641, Springer, Chicago, USA, July 2003, ISBN 3-540-40602-6. (I.F. = 0.402; Q4).
49. 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. (editors), *2003 Genetic and Evolutionary Computation Conference (GECCO’2003)*, pp. 573–584, Part I, Springer, Lecture Notes in Computer Science Vol. 2723, Chicago, USA, July 2003, ISBN 3-540-40602-6. (I.F. = 0.402; Q4).
50. Arturo Hernández Aguirre and Carlos Coello Coello, “Fitness Landscape and Evolutionary Boolean Synthesis using Information Theory Concepts”, in Jason Lohn, Ricardo Zebulum, James Steincamp, Didier Keymeulen, Adrian Stoica, and Michael I. Ferguson (editors), *Proceedings of the 2003 NASA/DoD Workshop on Evolvable Hardware*, pp. 13–16, IEEE Computer Society Press, Los Alamitos, California, USA, July 2003, ISBN 0-7695-1977-6.
51. Carlos A. Coello Coello, Enrique Alba, Gabriel Luque and Arturo Hernández Aguirre, “Comparing Different Serial and Parallel Heuristics to Design Combinational Logic Circuits”, in Jason Lohn, Ricardo Zebulum, James Steincamp, Didier Keymeulen, Adrian Stoica, and Michael I. Ferguson (editors), *Proceedings of the 2003 NASA/DoD Workshop on Evolvable Hardware*, pp. 3–12, IEEE Computer Society Press, Los Alamitos, California, USA, July 2003, ISBN 0-7695-1977-6.
52. Efrén Mezura-Montes and Carlos A. Coello Coello, “Multiobjective-Based Concepts to Handle Constraints in Evolutionary Algorithms”, in Edgar Chávez, Jesús Favela, Marcelo Mejía and Alberto Oliart (editors), *Fourth Mexican International Conference on Computer Science*, pp. 192–199, IEEE Computer Society, Los Alamitos, California, September 2003, ISBN 0-7695-1915-6.
53. Arturo Hernández Aguirre and Carlos Coello Coello, “Gate-level Synthesis of Boolean Functions using Information Theory Concepts”, in Edgar Chávez, Jesús Favela, Marcelo Mejía and Alberto Oliart (editors), *Fourth Mexican International Conference on Computer Science*, pp. 268–275, IEEE Computer Society, Los Alamitos, California, September 2003, ISBN 0-7695-1915-6.
54. Arturo Hernández Aguirre, Salvador Botello Rionda, Giovanni Lizárraga, and Carlos Coello Coello, “ISPAES: Evolutionary Multi-Objective Optimization with Constraint-Handling”, in Edgar Chávez, Jesús Favela, Marcelo Mejía and Alberto Oliart (editors), *Fourth Mexican International Conference on Computer Science*, pp. 338–345, IEEE Computer Society, Los Alamitos, California, USA, September 2003, ISBN 0-7695-1915-6.
55. Carlos A. Coello Coello, Daniel Cortés Rivera and Nareli Cruz Cortés, “Use of an Artificial Immune System for Job Shop Scheduling”, in Jon Timmis, Peter Bentley and Emma Hart (editors), *Second International Conference on Artificial Immune Systems (ICARIS’2003)*, pp. 1–10, Edinburgh, Scotland, Lecture Notes in Computer Science, Vol. 2787, Springer-Verlag, September 2003, ISBN 3-540-40766-9. (I.F. = 0.402; Q4).
56. Efrén Mezura Montes, Carlos A. Coello Coello and Ricardo Landa Becerra, “Engineering Optimization using a Simple Evolutionary Algorithm”, in *Proceedings of the Fifteenth International Conference on Tools with Artificial Intelligence (ICTAI 03)*, pp. 149–156, IEEE Computer Society Press, Sacramento, California, USA, November 2003, ISBN 0-7695-2038-3.
57. Carlos A. Coello Coello and Margarita Reyes Sierra, “A Coevolutionary Multi-Objective Evolutionary Algorithm”, in *Proceedings of 2003 IEEE Congress on Evolutionary Computation (CEC’2003)*, Vol. 1, pp. 482–489, IEEE Press, Canberra, Australia, December, 2003, ISBN 0-7803-7804-0.
58. Efrén Mezura Montes and Carlos A. Coello Coello, “Adding a Diversity Mechanism to a Simple Evolution Strategy to Solve Constrained Optimization Problems”, in *Proceedings of 2003 IEEE Congress on Evolutionary Computation (CEC’2003)*, Vol. 1, pp. 6–13, IEEE Press, Canberra, Australia, December, 2003, ISBN 0-7803-7804-0.
59. Susana C. Esquivel and Carlos A. Coello Coello, “On the Use of Particle Swarm Optimization with Multimodal Functions”, in *Proceedings of 2003 IEEE Congress on Evolutionary Computation (CEC’2003)*, Vol. 2, pp. 1130–1136, IEEE Press, Canberra, Australia, December, 2003, ISBN 0-7803-7804-0.
60. Arturo Hernández Aguirre, Salvador Botello Rionda, Giovanni Lizárraga Lizárraga and Carlos Coello Coello, “IS-PAES: switching constraints on and off for multiobjective optimization”, in *Proceedings of 2003 IEEE Congress on Evolutionary Computation (CEC’2003)*, Vol. 2, pp. 1162–1169, IEEE Press, Canberra, Australia, December, 2003, ISBN 0-7803-7804-0.

61. Carlos A. Coello Coello, Daniel Cortés Rivera and Nareli Cruz Cortés, “Job Shop Scheduling using the Clonal Selection Principle”, in I.C. Parmee (editor), *Adaptive Computing in Design and Manufacture VI*, pp. 113–124, Springer, London, April 2004, ISBN 1-85233-829-6.
62. Efrén Mezura Montes, Carlos A. Coello Coello and Edy I. Tun-Morales, “Simple Feasibility Rules and Differential Evolution for Constrained Optimization”, in Raúl Monroy, Gustavo Arroyo-Figueroa, Luis Enrique Sucar and Humberto Sossa (eds), *Proceedings of the Third Mexican International Conference on Artificial Intelligence (MICAI'2004)*, pp. 707–716, Springer Verlag, Lecture Notes in Artificial Intelligence Vol. 2972, April 2004, ISBN 3-540-21459-3. (I.F. = 0.402; Q4).
63. 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 (eds), *Proceedings of the Third Mexican International Conference on Artificial Intelligence (MICAI'2004)*, pp. 688–697, Springer Verlag, Lecture Notes in Artificial Intelligence Vol. 2972, April 2004, ISBN 3-540-21459-3. (I.F. = 0.402; Q4).
64. Edgar Galván López, Riccardo Poli and Carlos A. Coello Coello, “Reusing Code in Genetic Programming”, in Maarten Keijzer, Una-May O’Reilly, Simon M. Lucas, Ernesto Costa and Terence Soule (Eds.), *Genetic Programming, 7th European Conference, EuroGP'2004*, pp. 359–368, Springer, Lecture Notes in Computer Science Vol. 3003, Coimbra, Portugal, April 5-7, 2004, ISBN 3-540-21346-5. (I.F. = 0.402; Q4).
65. Efrén Mezura-Montes and Carlos A. Coello Coello, “An Improved Diversity Mechanism for Solving Constrained Optimization Problems using a Multimembered Evolution Strategy”, in Kalyanmoy Deb et al. (editors), *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference*, Springer-Verlag, Lecture Notes in Computer Science Vol. 3102, pp. 700–712, Seattle, Washington, USA, June 2004, ISBN 3-540-22344-4. (I.F. = 0.402; Q4).
66. Gregorio Toscano-Pulido and Carlos A. Coello Coello, “Using Clustering Techniques to Improve the Performance of a Multi-Objective Particle Swarm Optimizer”, in Kalyanmoy Deb et al. (editors), *Genetic and Evolutionary Computation—GECCO 2004. Proceedings of the Genetic and Evolutionary Computation Conference*, Springer-Verlag, Lecture Notes in Computer Science Vol. 3102, pp. 225–237, Seattle, Washington, USA, June 2004, ISBN 3-540-22344-4. (I.F. = 0.402; Q4). (Nominated for Best Paper Award).
67. Gregorio Toscano Pulido and Carlos A. Coello Coello, “A Constraint-Handling Mechanism for Particle Swarm Optimization”, in *2004 Congress on Evolutionary Computation (CEC'2004)*, pp. 1396–1403, Vol. 2, IEEE, Portland, Oregon, June 2004, ISBN 0-7803-8515-2.
68. 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)*, pp. 403–410, Vol. 1, IEEE, Portland, Oregon, June 2004, ISBN 0-7803-8515-2.
69. Arturo Hernández Aguirre and Carlos A. Coello Coello, “Mutual Information-based Fitness Functions for Evolutionary Circuit Synthesis”, in *2004 Congress on Evolutionary Computation (CEC'2004)*, pp. 1309–1316, Vol. 2, IEEE, Portland, Oregon, June 2004, ISBN 0-7803-8515-2.
70. Carlos A. Coello Coello, Erika Hernández Luna and Arturo Hernández Aguirre, “A Comparative Study of Encodings to Design Combinational Logic Circuits Using Particle Swarm Optimization”, 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*, pp. 71–78, IEEE Computer Society, Los Alamitos, California, USA, June 2004, ISBN 0-7695-2145-2.
71. 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*, pp. 199–205, IEEE Computer Society, Los Alamitos, California, June 2004, ISBN 0-7695-2145-2
72. 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*, pp. 183–190, IEEE Computer Society, Los Alamitos, California, June 2004, ISBN 0-7695-2145-2 (invited paper).
73. 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)*, pp. 226–235, Springer-Verlag, Lecture Notes in Computer Science Vol. 3239, Catania, Sicily, Italy, September 2004, ISBN 3-540-23097-1. (I.F. = 0.402; Q4).
74. Ricardo Landa Becerra and Carlos A. Coello Coello, “Culturizing Differential Evolution for Constrained Optimization”, in Ricardo Baeza-Yates, J. Luis Marroquin and Edgar Chávez (editors), *Proceedings of the Fifth International Conference on Computer Science (ENC 2004)*, pp. 304–311, IEEE Computer Society, Los Alamitos, California, USA, September 2004, ISBN 0-7695-2160-6.

75. Arturo Hernández Aguirre, Salvador Botello Rionda, Giovanni Lizárraga Lizárraga and Carlos Coello Coello, “IS-PAES: Multi-objective Optimization with Efficient Constraint Handling”, in Tadeusz Burczynski and Andrzej Osyczka (editors), *Proceedings of the IUTAM Symposium on Evolutionary Methods in Mechanics*, pp. 111–120, Kluwer Academic Publishers, Dordrecht, 2004, ISBN 1-4020-2266-2.
76. Susana C. Esquivel and Carlos A. Coello Coello, “Particle Swarm Optimization in Non-Stationary Environments”, in Christian Lemaître, Carlos A. Reyes and Jesús A. González (editors), *Advances in Artificial Intelligence - IBERAMIA 2004*, pp. 757–766, Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 3315, Puebla, México, November 2004, ISBN 3-540-23806-9. (I.F. = 0.302; Q4).
77. Ricardo Landa Becerra and Carlos A. Coello Coello, “A Cultural Algorithm with Differential Evolution to Solve Constrained Optimization Problems”, in Christian Lemaître, Carlos A. Reyes and Jesús A. González (editors), *Advances in Artificial Intelligence - IBERAMIA 2004*, pp. 881–890, Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 3315, Puebla, México, November 2004, ISBN 3-540-23806-9. (I.F. = 0.302; Q4).
78. Nareli Cruz-Cortés, Francisco Rodríguez-Henríquez and Carlos A. Coello Coello, “On the Optimal Computation of Finite Field Exponentiation”, in Christian Lemaître, Carlos A. Reyes and Jesús A. González (editors), *Advances in Artificial Intelligence - IBERAMIA 2004*, pp. 747–756, Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 3315, Puebla, México, November 2004, ISBN 3-540-23806-9. (I.F. = 0.302; Q4).
79. 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 (Eds.), *Evolutionary Multi-Criterion Optimization. Third International Conference, EMO 2005*, pp. 505–519, Springer-Verlag, Lecture Notes in Computer Science Vol. 3410, March 2005, ISBN 3-540-24983-4. (I.F. = 0.402; Q4).
80. Carlos A. Coello Coello, “An Introduction to Evolutionary Algorithms and Their Applications”, in F.F. Ramos et al. (editors), *International Symposium and School on Advanced Distributed Systems (ISSADS 2005)*, pp. 425–442, Springer-Verlag, Lecture Notes in Computer Science Vol. 3563, Guadalajara, México, 2005, ISBN 3-540-28063-4. (I.F. = 0.402; Q4) (invited paper).
81. 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. (editors), *Foundations of Genetic Algorithms (FOGA 2005)*, pp. 95–111, Springer-Verlag, Lecture Notes in Computer Science Vol. 3469, Aizu, Japan, 2005, ISBN 3-540-27237-2. (I.F. = 0.402; Q4).
82. 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)*, pp. 22–29, IEEE Press, Pasadena, California, USA, June 2005, ISBN 0-7803-8916-6 (Nominated for best paper award).
83. Margarita Reyes-Sierra and Carlos A. Coello Coello, “Fitness Inheritance in Multi-Objective Particle Swarm Optimization”, in *2005 IEEE Swarm Intelligence Symposium (SIS'05)*, pp. 116–123, IEEE Press, Pasadena, California, USA, June 2005, ISBN 0-7803-8916-6.
84. Ricardo Landa Becerra and Carlos A. Coello Coello, “Optimization with Constraints using a Cultured Differential Evolution Approach”, in Hans-Georg Beyer et al. (editors), *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, pp. 27–34, Vol. 1, ACM Press, Washington, DC, USA, June 2005, ISBN 1-59593-010-8 (Nominated to Best Paper Award).
85. Efrén Mezura-Montes, Jesús Velázquez-Reyes and Carlos A. Coello Coello, “Promising Infeasibility and Multiple Offspring Incorporated to Differential Evolution for Constrained Optimization”, in Hans-Georg Beyer et al. (editors), *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, pp. 225–232, Vol. 1, ACM Press, Washington, DC, USA, June 2005, ISBN 1-59593-010-8.
86. Nareli Cruz Cortés, Daniel Trejo-Pérez and Carlos A. Coello Coello, “Handling Constraints in Global Optimization using an Artificial Immune System”, in Christian Jacob, Marcin L. Pilat, Peter J. Bentley and Jonathan Timmis (editors), *Artificial Immune Systems. 4th International Conference, ICARIS 2005*, pp. 234–247, Springer. Lecture Notes in Computer Science Vol. 3627, Banff, Canada, August 2005, ISBN 3-540-28175-4. (I.F. = 0.402; Q4).
87. Antonio López Jaimes and Carlos A. Coello Coello, “MRMOGA: Parallel Evolutionary Multiobjective Optimization using Multiple Resolutions”, in *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, pp. 2294–2301, IEEE Press, Vol. 3, Edinburgh, Scotland, September 2005, ISBN 0-7803-9363-5.
88. 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)*, pp. 65–72, IEEE Press, Vol. 1, Edinburgh, Scotland, September 2005, ISBN 0-7803-9363-5.
89. Efrén Mezura Montes and Carlos A. Coello Coello, “Identifying On-line Behavior and Some Sources of Difficulty in Two Competitive Approaches for Constrained Optimization”, in *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, pp. 1477–1484, IEEE Press, Vol. 2, Edinburgh, Scotland, September 2005, ISBN 0-7803-9363-5.

90. Efrén Mezura Montes and Carlos A. Coello Coello, “Saving Evaluations in Differential Evolution for Constrained Optimization”, in Vladimir Estivill-Castro and J. Alfredo Sánchez (editors), *Sixth Mexican International Conference on Computer Science (ENC’05)*, pp. 274–281, IEEE Computer Society Press, Los Alamitos, California, USA, September 2005, ISBN 0-7695-2454-0.
91. 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*, Vol. 15, pp. 211–220, ASME Press, St. Louis, Missouri, USA, November 2005, ISBN 0-79180240X.
92. 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*, Springer, pp. 603–612, Lecture Notes in Artificial Intelligence Vol. 3789, Monterrey, México, November 2005, ISBN 3-540-29896-7. **(I.F. = 0.302; Q4)**.
93. Efrén Mezura Montes and Carlos A. Coello Coello, “Useful Infeasible Solutions in Engineering Optimization with Evolutionary Algorithms”, in Alexander Gelbukh, Álvaro de Albornoz and Hugo Terashima-Marín (editors), *MICAI 2005: Advances in Artificial Intelligence*, Springer, pp. 652–662, Lecture Notes in Artificial Intelligence Vol. 3789, Monterrey, México, November 2005, ISBN 3-540-29896-7. **(I.F. = 0.302; Q4)**.
94. Nareli Cruz-Cortés, Francisco Rodríguez Henríquez, Raúl Juárez-Morales and Carlos A. Coello Coello, “Finding Optimal Addition Chains Using a Genetic Algorithm Approach”, in Yue Hao et al. (editors), *Computational Intelligence and Security. International Conference, CIS 2005*, pp. 208–215, Part I, Springer-Verlag, Lecture Notes in Artificial Intelligence Vol. 3801, Xi’an, China, December 2005, ISBN 3-540-30818-0. **(I.F. = 0.302; Q4)**.
95. Efrén Mezura-Montes, Carlos A. Coello Coello and Jesús Velázquez-Reyes, “Increasing Successful Offspring and Diversity in Differential Evolution for Engineering Design”, in I.C. Parmee (editor), *Proceedings of the Seventh International Conference on Adaptive Computing in Design and Manufacture*, pp. 131–139, The Institute for People-centred Computation (IP-CC), Bristol, UK, April 2006, ISBN 978-0955288500.
96. 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. (editors), *2006 Genetic and Evolutionary Computation Conference (GECCO’2006)*, pp. 675–682, Vol. 1, ACM Press, Seattle, Washington, USA, July 2006, ISBN 1-59593-186-4.
97. Efrén Mezura-Montes, Jesús Velázquez-Reyes and Carlos A. Coello Coello, “A Comparative Study of Differential Evolution Variants for Global Optimization”, in Maarten Keijzer et al. (editors), *2006 Genetic and Evolutionary Computation Conference (GECCO’2006)*, pp. 485–492, Vol. 1, ACM Press, Seattle, Washington, USA, July 2006, ISBN 1-59593-186-4.
98. Efrén Mezura-Montes, Jesús Velázquez-Reyes and Carlos A. Coello Coello, “Modified Differential Evolution for Constrained Optimization”, in *2006 IEEE Congress on Evolutionary Computation (CEC’2006)*, pp. 332–339, IEEE Press, Sheraton Vancouver Wall Centre Hotel, Vancouver, BC, Canada, July 2006, ISBN 978-0-7803-9487-2.
99. 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*, Springer, pp. 483–492, Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006, ISBN 3-540-38990-3. **(I.F. = 0.402; Q4)**.
100. Leticia C. Cagnina, Susana C. Esquivel and Carlos A. Coello Coello, “A Particle Swarm Optimizer for Constrained Numerical 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*, Springer, pp. 910–919, Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006, ISBN 3-540-38990-3. **(I.F. = 0.402; Q4)**.
101. 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*, Springer, pp. 543–552, Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006, ISBN 3-540-38990-3. **(I.F. = 0.402; Q4)**.
102. Guillermo Leguizamón and Carlos A. Coello Coello, “Boundary Search for Constrained Numerical Optimization Problems in ACO Algorithms”, in Marco Dorigo, Lucia Maria Gambardella, Mauro Birattari, Alcherio Martinoli, Riccardo Poli and Thomas Stützle (editors) *Ant Colony Optimization and Swarm Intelligence. 5th International Workshop, ANTS’2006*, Springer, pp. 108–119, Lecture Notes in Computer Science Vol. 4150, Brussels, Belgium, September 2006, ISBN 3-540-38482-0. **(I.F. = 0.402; Q4)**.

103. 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-García (Editors), *MICAI 2006: Advances in Artificial Intelligence, 5th International Conference in Artificial Intelligence*, Springer, pp. 294–304, Lecture Notes in Artificial Intelligence Vol. 4293, Apizaco, México, November 2006, ISBN 978-3-540-49026-5. **(I.F. = 0.302; Q4)**.
104. 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*, pp. 272–285, Springer. Lecture Notes in Computer Science Vol. 4403, Matshushima, Japan, March 2007, ISBN 978-3-540-70927-5. **(I.F. = 0.402; Q4)**.
105. Oliver Schütze, El-Ghazali Talbi, Carlos Coello Coello, Luis Vicente Santana-Quintero and Gregorio Toscano Pulido, “A Memetic PSO Algorithm for Scalar Optimization Problems”, in *Proceedings of the 2007 IEEE Swarm Intelligence Symposium (SIS 2007)*, pp. 128–134, IEEE Press, Honolulu, Hawaii, USA, April 2007, ISBN 978-1-4244-0708-8.
106. Luis V. Santana-Quintero, Víctor A. Serrano-Hernández, 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)*, pp. 107–114, IEEE Press, Honolulu, Hawaii, USA, April 2007, ISBN 978-1-4244-0702-6.
107. Carlos Soza, Ricardo Landa, María Cristina Riff and Carlos Coello, “A Cultural Algorithm with Operator Parameters Control for Solving Timetabling Problems”, in Patricia Melin, Oscar Castillo, Luis T. Aguilar, Janusz Kacprzyk and Witold Pedrycz (editors), *Foundations of Fuzzy Logic and Soft Computing, 12th International Fuzzy Systems Association World Congress, IFSA 2007*, pp. 810–819, Springer, Lecture Notes in Artificial Intelligence Vol. 4529, Cancún, México, June 2007, ISBN 978-3-540-72917-4. **(I.F. = 0.402; Q4)**.
108. 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*, pp. 476–485, Springer, 2007, ISBN 978-3-540-72433-9.
109. 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 et al. (editors), *2007 Genetic and Evolutionary Computation Conference (GECCO 2007)*, pp. 757–764, Vol. 1, ACM Press, London, UK, July 2007, ISBN 978-1-59593-697-4.
110. 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 et al. (editors), *2007 Genetic and Evolutionary Computation Conference (GECCO 2007)*, pp. 892–899, Vol. 1, ACM Press, London, UK, July 2007, ISBN 978-1-59593-697-4 **(Best Paper Award)**.
111. Guillermo Leguizamón and Carlos Coello Coello, “A Boundary Search based ACO Algorithm Coupled with Stochastic Ranking”, in *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pp. 165–172, IEEE Press, Singapore, September 2007, ISBN 978-1-4244-1339-3.
112. Emanuel Téllez-Enríquez, Efrén Mezura-Montes and Carlos Coello Coello, “An Ant System with steps counter for the Job Shop Scheduling Problem”, in *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pp. 477–484, IEEE Press, Singapore, September 2007, ISBN 978-1-4244-1339-3.
113. 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)*, pp. 532–539, IEEE Press, Singapore, September 2007, ISBN 978-1-4244-1339-3.
114. Arturo Hernández-Aguirre, Enrique Villa-Diharce and Carlos Coello-Coello, “Constraint Handling Techniques for a Non-Parametric Real-valued Estimation of Distribution Algorithm”, in *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pp. 654–661, IEEE Press, Singapore, September 2007, ISBN 978-1-4244-1339-3.
115. Leticia Cagnina, Susana Esquivel and Carlos Coello Coello, “A Bi-population PSO with a Shake-Mechanism for Solving Constrained Numerical Optimization”, in *2007 IEEE Congress on Evolutionary Computation (CEC’2007)*, pp. 670–676, IEEE Press, Singapore, September 2007, ISBN 978-1-4244-1339-3.
116. Victoria S. Aragón, Susana C. Esquivel and Carlos A. Coello Coello, “A Novel Model of Artificial Immune System for Solving Constrained Optimization Problems with Dynamic Tolerance Factor”, in Alexander Gelbukh and Ángel Fernando Kuri Morales (editors), *MICAI 2007: Advances in Artificial Intelligence, 6th International Conference on Artificial Intelligence*, pp. 19–29, Springer, Lecture Notes in Artificial Intelligence Vol. 4827, Aguascalientes, México, November 2007, ISBN 978-3-540-76630-8. **(I.F. = 0.302; Q4)**.

117. Ramiro Serrato, Juan J. Flores and Carlos Coello Coello, “A Genetic Representation for Dynamic System Qualitative Models on Genetic Programming. A Gene Expression Programming Approach”, in Alexander Gelbukh and Ángel Fernando Kuri Morales (editors), *MICAI 2007: Advances in Artificial Intelligence, 6th International Conference on Artificial Intelligence*, pp. 30–40, Springer, Lecture Notes in Artificial Intelligence Vol. 4827, Aguascalientes, México, November 2007, ISBN 978-3-540-76630-8. **(I.F. = 0.302; Q4)**.
118. Juan C. Fuentes Cabrera and Carlos A. Coello Coello, “Handling Constraints in Particle Swarm Optimization using a Small Population Size”, in Alexander Gelbukh and Ángel Fernando Kuri Morales (editors), *MICAI 2007: Advances in Artificial Intelligence, 6th International Conference on Artificial Intelligence*, pp. 41–51, Springer, Lecture Notes in Artificial Intelligence Vol. 4827, Aguascalientes, México, November 2007, ISBN 978-3-540-76630-8. **(I.F. = 0.302; Q4)**.
119. 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*, pp. 128–138, Springer, Lecture Notes in Artificial Intelligence Vol. 4827, Aguascalientes, México, November 2007, ISBN 978-3-540-76630-8. **(I.F. = 0.302; Q4)**.
120. 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)*, pp. 1617–1624, IEEE Service Center, Hong Kong, June 2008, ISBN 978-1-4244-1822-0.
121. 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)*, pp. 1893–1900, IEEE Service Center, Hong Kong, June 2008, ISBN 978-1-4244-1822-0.
122. M. Davarynejad, M.-R. Akbarzadeh-T and Carlos A. Coello Coello, “Auto-Tuning Fuzzy Granulation for Evolutionary Optimization”, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 3573–3580, IEEE Service Center, Hong Kong, June 2008, ISBN 978-1-4244-1822-0.
123. 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)*, pp. 673–680, ACM Press, Atlanta, USA, July 2008, ISBN 978-1-60558-131-6.
124. 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)*, pp. 705–712, ACM Press, Atlanta, USA, July 2008, ISBN 978-1-60558-131-6 **(Best Paper Award)**.
125. 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)*, pp. 713–720, ACM Press, Atlanta, USA, July 2008, ISBN 978-1-60558-131-6.
126. 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*, pp. 712–721, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008, ISBN 978-3-540-87699-1. **(I.F. = 0.402; Q4)**.
127. 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*, pp. 763–772, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008, ISBN 978-3-540-87699-1. **(I.F. = 0.402; Q4)**.
128. 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*, pp. 795–804, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008, ISBN 978-3-540-87699-1. **(I.F. = 0.402; Q4)**.
129. 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*, pp. 805–814, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008, ISBN 978-3-540-87699-1. **(I.F. = 0.402; Q4)**.
130. 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*, pp. 837–846, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008, ISBN 978-3-540-87699-1. **(I.F. = 0.402; Q4)**.

131. Luis Vicente Santana Quintero, Carlos Coello Coello, Alfredo G. Hernández-Díaz and Jesús Moisés Osorio Velázquez, “Surrogate-based Multi-Objective Particle Swarm Optimization”, *2008 IEEE Swarm Intelligence Symposium*, IEEE Press, St. Louis, Missouri, USA, 21-23 September 2008, ISBN 978-1-4244-2704-8.
132. Efrén Mezura-Montes, Lucía Muñoz-Dávila and Carlos A. Coello Coello, “A Preliminary Study of Fitness Inheritance in Evolutionary Constrained Optimization”, in Natalio Krasnogor, Giuseppe Nicosia, Mario Pavone and David Pelta (editors), *Nature Inspired Cooperative Strategies for Optimization*, pp. 1–14, Springer, Berlin, Germany, 2008, ISBN 978-3-540-78986-4.
133. Antonio J. Nebro, Juan J. Durillo, Jose Garcia-Nieto, Carlos A. Coello Coello, Francisco Luna and Enrique Alba, “SMPSO: A New PSO-based Metaheuristic for Multi-objective Optimization”, in *2009 IEEE Symposium on Computational Intelligence in Multicriteria Decision-Making*, pp. 66–73, IEEE Press, Nashville, Tennessee, USA, March 30 - April 2, 2009, ISBN 978-1-4244-2764-2.
134. Leticia C. Cagnina, Susana C. Esquivel and Carlos A. Coello Coello, “Solving Engineering Optimization Problems with the Simple Constrained Particle Swarm Optimizer”, in Bogan Filipic and Jurij Silc (editors), *Third International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2008)*, pp. 107–120, Ljubljana, Slovenia, Jozef Stefan Institute, October 2008, ISBN 978-961-264-002-6.
135. Antonio López Jaimes, Carlos Coello Coello and Jesús 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*, pp. 423–437, Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009, ISBN 978-3-642-01019-4. (I.F. = **0.402**; **Q4**).
136. 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*, pp. 495–509, Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France, April 2009, ISBN 978-3-642-01019-4. (I.F. = **0.402**; **Q4**).
137. 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)*, pp. 16–23, IEEE Press, Trodheim, Norway, May 2009, ISBN 978-1-4244-2958-5.
138. 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)*, pp. 2598–2605, IEEE Press, Trodheim, Norway, May 2009, ISBN 978-1-4244-2958-5.
139. 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)*, pp. 611–618, ACM Press, Montreal, Canada, July 8–12, 2009, ISBN 978-1-60558-325-9.
140. Oliver Schuetze, Adriana Lara and Carlos A. Coello Coello, “Evolutionary Continuation Methods for Optimization Problems”, in *2009 Genetic and Evolutionary Computation Conference (GECCO’2009)*, pp. 651–658, ACM Press, Montreal, Canada, July 8–12, 2009, ISBN 978-1-60558-325-9.
141. 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*, pp. 622–632, Springer, Lecture Notes in Artificial Intelligence Vol. 5845, Guanajuato, México, November 2009, ISBN 978-3-642-05257-6. (I.F. = **0.302**; **Q4**).
142. Mario Garza Fabre, Gregorio Toscano Pulido and Carlos A. Coello Coello, “Ranking Methods for Many-Objective Optimization”, 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*, pp. 633–645, Springer, Lecture Notes in Artificial Intelligence Vol. 5845, Guanajuato, México, November 2009, ISBN 978-3-642-05257-6. (I.F. = **0.302**; **Q4**).
143. Antonin Ponsich, Ma. Guadalupe Castillo Tapia and Carlos A. Coello Coello, “Solving permutation problems with Differential Evolution: An Application to the Jobshop Scheduling Problem”, in *2009 Ninth International Conference on Intelligent Systems Design and Applications (ISDA’2009)*, pp. 25–30, IEEE Computer Society Press, Pisa, Italy, 30 November–2 December, 2009, ISBN 978-0-7695-3872-3.
144. 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*, pp. 327–337, Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010, ISBN 978-3-642-04045-0.

145. 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*, pp. 379–389, Springer, Lecture Notes in Economics and Mathematical Systems Vol. 634, Heidelberg, Germany, 2010, 978-3-642-04045-0.
146. 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)*, pp. 1654–1661, IEEE Press, Barcelona, Spain, July 18–23, 2010, ISBN 978-1-4244-8126-2.
147. 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)*, pp. 3284–3291, IEEE Press, Barcelona, Spain, July 18–23, 2010, ISBN 978-1-4244-8126-2.
148. 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)*, pp. 4480–4487, IEEE Press, Barcelona, Spain, July 18–23, 2010, ISBN 978-1-4244-8126-2.
149. 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)*, pp. 912–919, IEEE Press, Barcelona, Spain, July 18–23, 2010, ISBN 978-1-4244-8126-2.
150. Guillermo Leguizamón, Franco Arito and Carlos Coello Coello, “A Hybrid Memory-based ACO algorithm for the QAP”, in *2010 IEEE Congress on Evolutionary Computation (CEC’2010)*, pp. 284–291, IEEE Press, Barcelona, Spain, July 18–23, 2010, ISBN 978-1-4244-8126-2.
151. 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)*, pp. 577–584, IEEE Press, Barcelona, Spain, July 18–23, 2010, ISBN 978-1-4244-8126-2.
152. Guillermo Leguizamón and Carlos A. Coello Coello, “An alternative ACO_R algorithm for continuous optimization problems”, in Marco Dorigo et al. (editors), *Swarm Intelligence, 7th International Conference, ANTS 2010*, pp. 48–59, Springer, Lecture Notes in Computer Science Vol. 6234, Brussels, Belgium, September 2010, ISBN 0302-9743. **(I.F. = 0.402; Q4)**.
153. Mario Garza Fabre, Gregorio Toscano Pulido and Carlos A. Coello Coello, “Alternative Fitness Assignment Methods for Many-Objective Optimization Problems”, in Pierre Collet, Nicolas Monmarché, Pierrick Legrand, Marc Schoenauer and Evelyne Lutton (editors), *Artificial Evolution, 9th International Conference, Evolution Artificielle, EA 2009*, pp. 146–157, Springer, Lecture Notes in Computer Science Vol. 5975, Strasbourg, France, 2010, ISBN 978-3-642-14155-3. **(I.F. = 0.402; Q4)**.
154. 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 Kolodziej and Günter Rudolph (editors), *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Part I*, pp. 576–585, Springer, Lecture Notes in Computer Science Vol. 6238, Krakow, Poland, September 2010, ISBN 978-3-642-15843-8. **(I.F. = 0.402; Q4)**.
155. 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 Kolodziej and Günter Rudolph (editors), *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Part I*, pp. 657–666, Springer, Lecture Notes in Computer Science Vol. 6238, Krakow, Poland, September 2010, ISBN 978-3-642-15843-8. **(I.F. = 0.402; Q4)**.
156. Alfredo Arias Montaño, Carlos A. Coello Coello and Efrén Mezura-Montes, “pMODE-LD+SS: An Effective and Efficient Parallel Differential Evolution Algorithm for Multi-Objective Optimization”, in Robert Schaefer, Carlos Cotta, Joanna Kolodziej and Günter Rudolph (editors), *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Part II*, pp. 21–30, Springer, Lecture Notes in Computer Science Vol. 6239, Krakow, Poland, September 2010, ISBN 978-3-642-15870-4. **(I.F. = 0.402; Q4)**.
157. Antonin Ponsich and Carlos A. Coello Coello, “Testing the permutation space based Geometrical Differential Evolution on the Job-Shop Scheduling Problem”, in Robert Schaefer, Carlos Cotta, Joanna Kolodziej and Günter Rudolph (editors), *Parallel Problem Solving from Nature–PPSN XI, 11th International Conference, Part II*, pp. 250–259, Springer, Lecture Notes in Computer Science Vol. 6239, Krakow, Poland, September 2010, ISBN 978-3-642-15870-4. **(I.F. = 0.402; Q4)**.
158. 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. Parioissin (editors), *The Pyrenees International Workshop and Summer School on Statistics, Probability and Operations Research SPO 2009*, pp. 19–38, Monografías Matemáticas “García de Galdeano” No. 36, Universidad de Zaragoza, Spain, December 2010, ISBN 978-84-15031-92-5 **(invited paper)**.

159. 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*, pp. 151–165, Springer. Lecture Notes in Computer Science Vol. 6576, Ouro Preto, Brazil, April 2011, ISBN 978-3-642-19892-2. (L.F. = 0.402; Q4).
160. 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*, pp. 3–12, Springer, Advances in Intelligent and Soft Computing Series, Vol. 96, Berlin, Germany, 2011, ISBN 978-3-642-20504-0.
161. 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*, pp. 22–33, Springer, Lecture Notes in Computer Science Vol. 6718, Cancún, México, June/July 2011 (invited paper).
162. 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)*, pp. 2107–2114, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011, ISBN 978-1-4244-7835-4.
163. 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)*, pp. 1605–1612, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011, ISBN 978-1-4244-7835-4.
164. Mario Garza-Fabre, Gregorio Toscano-Pulido, Carlos A. Coello Coello and Eduardo Rodríguez-Tello, “Effective Ranking + Speciation = Many-Objective Optimization”, in *2011 IEEE Congress on Evolutionary Computation (CEC’2011)*, pp. 2115–2122, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011, ISBN 978-1-4244-7835-4.
165. Eduardo Vázquez-Fernández, Carlos A. Coello Coello and Feliú Sagols Troncoso, “An Evolutionary Algorithm for Tuning a Chess Evaluation Function”, in *2011 IEEE Congress on Evolutionary Computation (CEC’2011)*, pp. 842–848, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011, ISBN 978-1-4244-7835-4.
166. Saúl Zapotecas Martínez, Alfredo Arias Montaño and Carlos A. Coello Coello, “A Nonlinear Simplex Search Approach for Multi-Objective Optimization”, in *2011 IEEE Congress on Evolutionary Computation (CEC’2011)*, pp. 2367–2374, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011, ISBN 978-1-4244-7835-4.
167. Guillermo Leguizamón and Carlos A. Coello Coello, “A Multi-Region Differential Evolution Algorithm for Continuous Optimization Problems”, in *2011 IEEE Congress on Evolutionary Computation (CEC’2011)*, pp. 1934–1940, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011, ISBN 978-1-4244-7835-4.
168. 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)*, pp. 69–76, ACM Press, Dublin, Ireland, July 12-16, 2011, ISBN 978-1-4503-0557-0.
169. 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*, pp. 567–581, Springer, Lecture Notes in Computer Science Vol. 6683, Rome, Italy, January 17-21, 2011, ISBN 978-3-642-25565-6.
170. Alfredo Arias-Montaño, Carlos A. Coello Coello and Efrén Mezura-Montes, “Multi-Objective Airfoil Shape Optimization Using a Multiple-Surrogate Approach”, in *2012 IEEE Congress on Evolutionary Computation (CEC’2012)*, pp. 1188–1195, IEEE Press, Brisbane, Australia, June 10-15, 2012, ISBN 978-1-4673-1509-8.
171. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “Solving Multi-Objective Optimization Problems using Differential Evolution and a Maximin Selection Criterion”, in *2012 IEEE Congress on Evolutionary Computation (CEC’2012)*, pp. 3143–3150, IEEE Press, Brisbane, Australia, June 10-15, 2012, ISBN 978-1-4673-1509-8.
172. Eduardo Vázquez-Fernández, Carlos A. Coello Coello and Feliú D. Sagols Troncoso, “An Evolutionary Algorithm coupled with the Hooke-Jeeves Algorithm for Tuning a Chess Evaluation Function”, in *2012 IEEE Congress on Evolutionary Computation (CEC’2012)*, pp. 3332–3339, IEEE Press, Brisbane, Australia, June 10-15, 2012, ISBN 978-1-4673-1509-8.
173. Subhrajit Roy, Saúl Zapotecas Martínez, Carlos A. Coello Coello and Soumyadip Sengupta, “A Multi-Objective Evolutionary Approach for Linear Antenna Array Design and Synthesis”, in *2012 IEEE Congress on Evolutionary Computation (CEC’2012)*, pp. 3423–3430, IEEE Press, Brisbane, Australia, June 10-15, 2012, ISBN 978-1-4673-1509-8.
174. Saúl Zapotecas Martínez and Carlos A. Coello Coello, “A Direct Local Search Mechanism for Decomposition-based Multi-Objective Evolutionary Algorithms”, in *2012 IEEE Congress on Evolutionary Computation (CEC’2012)*, pp. 3431–3438, IEEE Press, Brisbane, Australia, June 10-15, 2012, ISBN 978-1-4673-1509-8.

175. Subhrajit Roy, Saúl Zapotecas Martínez and Carlos A. Coello Coello, “Adaptive IIR System Identification using JADE”, in *Proceedings of 2012 World Automation Congress (WAC 2012)*, Puerto Vallarta, México, IEEE Press, June 24-27, 2012, ISBN 978-1-4673-4497-5.
176. Eduardo Vázquez-Fernández, Carlos A. Coello Coello and Feliú D. Sagols Troncoso, “Assessing the Positional Values of Chess Pieces by Tuning Neural Networks Weights with an Evolutionary Algorithm”, in *Proceedings of 2012 World Automation Congress (WAC 2012)*, Puerto Vallarta, México, IEEE Press, June 24-27, 2012, ISBN 978-1-4673-4497-5.
177. Miriam Pescador Rojas and Carlos A. Coello Coello, “A Memetic Algorithm with Simplex Crossover for Solving Constrained Optimization Problems”, in *Proceedings of 2012 World Automation Congress (WAC 2012)*, Puerto Vallarta, México, IEEE Press, June 24-27, 2012, ISBN 978-1-4673-4497-5.
178. Cynthia A. Rodríguez Villalobos and Carlos A. Coello Coello, “A New Multi-Objective Evolutionary Algorithm Based on a Performance Assessment Indicator”, in *2012 Genetic and Evolutionary Computation Conference (GECCO’2012)*, pp. 505–515, ACM Press, Philadelphia, USA, July 7-11, 2012, ISBN 978-1-4503-1177-9.
179. Adriana Lara, Sergio Alvarado, Shaul Salomon, Gideon Avigad, Carlos A. Coello Coello and Oliver Schütze, “The Gradient Free Directed Search Method as Local Search within Multi-Objective Evolutionary Algorithms”, in Oliver Schütze, Carlos A. Coello Coello, Alexandru-Adrian Tantar, Emilia Tantar, Pascal Bouvry, Pierre Del Moral and Pierrick Legrand (editors), *EVOLVE - A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computation II*, pp. 153–168, Springer, Advances in Intelligent Systems and Computing Vol. 175, Berlin, Germany, 2012, ISBN 978-3-642-31519-0.
180. José Carlos Villela Tinoco and Carlos A. Coello Coello, “hypDE: A Hyper-Heuristic Based on Differential Evolution for Solving Constrained Optimization Problems”, in Oliver Schütze, Carlos A. Coello Coello, Alexandru-Adrian Tantar, Emilia Tantar, Pascal Bouvry, Pierre Del Moral and Pierrick Legrand (editors), *EVOLVE - A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computation II*, pp. 267–282, Springer, Advances in Intelligent Systems and Computing Vol. 175, Berlin, Germany, 2012, ISBN 978-3-642-31519-0.
181. Thomas Pierrard and Carlos A. Coello Coello, “A Multi-Objective Artificial Immune System Based on Hypervolume”, in Carlos A. Coello Coello, Julie Greensmith, Natalio Krasnogor, Pietro Liò, Giuseppe Nicosia and Mario Pavone (Eds.), *Artificial Immune Systems, 11th International Conference, ICARIS 2012*, pp. 14–27, Springer, Lecture Notes in Computer Science Vol. 7597, Taormina, Italy, August 28-31, 2012, ISBN 978-3-642-33756-7.
182. Elizabeth Montero, María-Cristina Riff, Leslie Pérez-Caceres and Carlos A. Coello Coello, “Are State-of-the-Art Fine-Tuning Algorithms Able to Detect a Dummy Parameter?”, in Carlos A. Coello Coello, Vincenzo Cutello, Kalyanmoy Deb, Stephanie Forrest, Giuseppe Nicosia and Mario Pavone (Eds.), *Parallel Problem Solving from Nature - PPSN XII, 12th International Conference*, pp. 306–315, Springer, Lecture Notes in Computer Science Vol. 7491, Taormina, Italy, September 1-5, 2012, ISBN 978-3-642-32936-4.
183. Hiroyuki Sato, Carlos A. Coello Coello, Hernán E. Aguirre and Kiyoshi Tanaka, “Adaptive Control of the Number of Crossed Genes in Many-Objective Evolutionary Optimization”, in Youssef Hamadi and Marc Schoenauer (editors), *Learning and Intelligent Optimization, 6th International Conference, LION 6*, pp. 478–484, Springer, Lecture Notes in Computer Science Vol. 7219, Paris, France, January 2012, ISBN 978-3-642-34413-8.
184. Hiroyuki Sato, Carlos A. Coello Coello, Hernán E. Aguirre and Kiyoshi Tanaka, “Dynamic control of the number of crossed genes in evolutionary many-objective optimization”, in *2012 Joint 6th International Conference on Soft Computing and Intelligent Systems (SCIS 2012) and 13th International Symposium on Advanced Intelligent Systems (ISIS 2012)*, pp. 1435–1440, IEEE Press, Kobe, Japan, 20-24 November 2012, ISBN 978-1-4673-2743-5.
185. Jorge S. Hernández Domínguez, Gregorio Toscano Pulido and Carlos A. Coello Coello, “A Multi-Objective Particle Swarm Optimizer Enhanced with a Differential Evolution Scheme”, in Jin-Kao Hao, Pierrick Legrand, Pierre Collet, Nicolas Monmarché, Evelyne Lutton and Marc Schoenauer (editors), *Artificial Evolution, 10th International Conference, Evolution Artificielle, EA 2011*, pp. 169–180, Springer, Lecture Notes in Computer Science Vol. 7401, Angers, France, October 24-26, 2012, ISBN 978-3-642-35532-5.
186. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “Selection Operators Based on Maximin Fitness Function for Multi-Objective Evolutionary Algorithms”, in Robin C. Purshouse, Peter J. Fleming, Carlos M. Fonseca, Salvatore Greco and Jane Shaw (editors), *Evolutionary Multi-Criterion Optimization, 7th International Conference, EMO 2013*, pp. 215–229, Springer, Lecture Notes in Computer Science Vol. 7811, Sheffield, UK, March 19-22, 2013, ISBN 978-3-642-37140-0. (**I.F. = 0.402; Q4**).
187. Antonio López, Carlos A. Coello Coello, Akira Oyama and Kozo Fujii, “An Alternative Preference Relation to Deal with Many-Objective Optimization Problems”, in Robin C. Purshouse, Peter J. Fleming, Carlos M. Fonseca, Salvatore Greco and Jane Shaw (editors), *Evolutionary Multi-Criterion Optimization, 7th International Conference, EMO 2013*, pp. 291–306, Springer, Lecture Notes in Computer Science Vol. 7811, Sheffield, UK, March 19-22, 2013, ISBN 978-3-642-37140-0. (**I.F. = 0.402; Q4**).

188. Saúl Zapotecas Martínez and Carlos A. Coello Coello, “A Hybridization of MOEA/D with the Nonlinear Simplex Search Algorithm”, in *Proceedings of the 2013 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2013)*, pp. 48–55, IEEE Press, Singapore, April 16–19, 2013, ISBN 978-1-4673-5889-7.
189. Miguel A. Medina, Swagatam Das, Carlos A. Coello Coello and Juan M. Ramirez, “Two Decomposition-based Modern Metaheuristic Algorithms for Multi-objective Optimization - A Comparative Study”, in *Proceedings of the 2013 IEEE Symposium on Computational Intelligence in Multicriteria Decision Making (MCDM'2013)*, pp. 9–16, IEEE Press, Singapore, April 16–19, 2013, ISBN 978-1-4673-5889-7.
190. Alejandro Rosales-Pérez, Hugo Jair Escalante, Jesus A. Gonzalez, Carlos A. Reyes-García and Carlos A. Coello Coello, “Bias and Variance Multi-Objective Optimization for Support Vector Machines Model Selection”, in João M. Sanches, Luisa Micó and Jaime S. Cardoso (editors), *Pattern Recognition and Image Analysis, 6th Iberian Conference, IbPRIA 2013*, pp. 108–116, Springer, Lecture Notes in Computer Science Vol. 7887, Funchal, Madeira, Portugal, June 5-7, 2013, ISBN 978-3-642-38628-2. (I.F. = 0.402; Q4).
191. Eduardo Vázquez-Fernández and Carlos A. Coello Coello, “An Adaptive Evolutionary Algorithm Based on Tactical and Positional Chess Problems to Adjust the Weights of a Chess Engine”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1395–1402, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
192. Alejandro Rosales-Pérez, Carlos A. Coello Coello, Jesus A. Gonzalez, Carlos A. Reyes-García and Hugo Jair Escalante, “A Hybrid Surrogate-Based Approach for Evolutionary Multi-Objective Optimization”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2548–2555, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
193. Alan Díaz-Manríquez, Gregorio Toscano-Pulido, Carlos A. Coello Coello and Ricardo Landa-Becerra, “A Ranking Method Based on the $R2$ indicator for Many-Objective Optimization”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1523–1530, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
194. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “A New Selection Mechanism Based on Hypervolume and its Locality Property”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 924–931, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
195. Ricardo Landa, Carlos A. Coello Coello and Gregorio Toscano-Pulido, “Goal-constraint: Incorporating Preferences Through an Evolutionary ϵ -constraint Based Method”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 741–747, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
196. Kunal Pal, Chiranjib Saha, Swagatam Das and Carlos A. Coello Coello, “Dynamic Constrained Optimization with Offspring Repair based Gravitational Search Algorithm”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2414–2421, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
197. Saúl Zapotecas Martínez and Carlos A. Coello Coello, “Combining Surrogate Models and Local Search for Dealing with Expensive Multi-objective Optimization Problems”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2572–2579, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
198. Raquel Hernández Gómez and Carlos A. Coello Coello, “MOMBI: A New Metaheuristic for Many-Objective Optimization Based on the $R2$ Indicator”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2488–2495, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
199. Luis Miguel Antonio and Carlos A. Coello Coello, “Use of Cooperative Coevolution for Solving Large Scale Multiobjective Optimization Problems”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2758–2765, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
200. Antonio J. Nebro, Juan J. Durillo and Carlos A. Coello Coello, “Analysis of Leader Selection Strategies in a Multi-Objective Particle Swarm Optimizer”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 3153–3160, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
201. Carlos Segura, Carlos A. Coello Coello, Eduardo Segredo, Gara Miranda and Coromoto León, “Improving the Diversity Preservation of Multi-objective Approaches used for Single-objective Optimization”, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 3198–3205, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
202. Saúl Zapotecas Martínez and Carlos A. Coello Coello, “MOEA/D assisted by RBF Networks for Expensive Multi-Objective Optimization Problems”, in *2013 Genetic and Evolutionary Computation Conference (GECCO'2013)*, pp. 1405–1412, ACM Press, New York, USA, July 6-10, 2013, ISBN 978-1-4503-1963-8.
203. Antonio J. Nebro, Juan J. Durillo, Mirialys Machín, Carlos A. Coello Coello and Bernabé Dorronsoro, “A Study of the Combination of Variation Operators in the NSGA-II Algorithm”, in Concha Bielza, Antonio Salmerón, Amparo Alonso-Betanzos, J. Ignacio Hidalgo, Luis Martínez, Alicia Troncoso, Emilio Corchado and Juan M. Corchado (Editors), *15th Conference of the Spanish Association for Artificial Intelligence, CAEPIA 2013*, pp. 269–278, Springer, Lecture Notes in Computer Science Vol. 8109, Madrid, Spain, September 17-20, 2013, ISBN 978-3-642-40642-3. (I.F. = 0.402; Q4).

204. Juan Carlos Gómez, Fernando Hernández, Carlos A. Coello Coello, Guillermo Ronquillo and Antonio Trejo, “Flame Classification through the use of an Artificial Neural Network trained with a Genetic Algorithm”, in Félix Castro, Alexander Gelbukh and Miguel González (editors), *Advances in Soft Computing and Its Applications, 12th Mexican International Conference on Artificial Intelligence, MICAI 2013*, pp. 172–184, Springer, Lecture Notes in Artificial Intelligence Vol. 8266, Mexico City, Mexico, November 24-30, 2013, ISBN 978-3-642-45110-2.
205. Francisco Luna, Gustavo R. Zavala, Antonio J. Nebro, Juan J. Durillo and Carlos A. Coello Coello, “Solving a Real-World Structural Optimization Problem with a Distributed SMS-EMOA Algorithm”, in *2013 Eighth International Conference on P2P, Parallel, Grid, Cloud and Internet Computing*, pp. 600–605, IEEE Computer Society Press, Compiègne, France, October 28-30, 2013, ISBN 978-0-7695-5094-7.
206. Miguel A. Medina, Juan M. Ramírez and Carlos A. Coello Coello, “A novel multi-objective optimizer for handling reactive power”, in *POWERTECH 2013*, IEEE Press, Grenoble, France, 16-20 June 2013, ISBN 978-1-4673-5667-1.
207. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “MD-MOEA : A New MOEA based on the Maximin Fitness Function and Euclidean Distances between Solutions”, in *2014 IEEE Congress on Evolutionary Computation (CEC’2014)*, pp. 2148–2155, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
208. Alejandro Rosales-Pérez, Hugo Jair Escalante, Carlos A. Coello Coello, Jesus A. Gonzalez and Carlos A. Reyes-Garcia, “An Evolutionary Multi-Objective Approach for Prototype Generation”, in *2014 IEEE Congress on Evolutionary Computation (CEC’2014)*, pp. 1100–1107, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
209. Subhodip Biswas, Swagatam Das, Ponnuthurai N. Suganthan and Carlos A. Coello Coello, “Evolutionary Multiobjective Optimization in Dynamic Environments: A Set of Novel Benchmark Functions”, in *2014 IEEE Congress on Evolutionary Computation (CEC’2014)*, pp. 3192–3199, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
210. Ivan Chaman García, Carlos A. Coello Coello and Alfredo Arias-Montaño, “MOPSOhv: A New Hypervolume-based Multi-Objective Particle Swarm Optimizer”, in *2014 IEEE Congress on Evolutionary Computation (CEC’2014)*, pp. 266–273, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
211. Carlos Segura, Carlos A. Coello Coello, Eduardo Segredo and Coromoto Leon, “An Analysis of the Automatic Adaptation of the Crossover Rate in Differential Evolution”, in *2014 IEEE Congress on Evolutionary Computation (CEC’2014)*, pp. 459–466, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
212. Saúl Zapotecas Martínez and Carlos A. Coello Coello, “A Multi-objective Evolutionary Algorithm based on Decomposition for Constrained Multi-objective Optimization”, in *2014 IEEE Congress on Evolutionary Computation (CEC’2014)*, pp. 429–436, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
213. Saúl Zapotecas Martínez, Alfredo Arias Montaño and Carlos A. Coello Coello, “Constrained Multi-Objective Aerodynamic Shape Optimization via Swarm Intelligence”, in *2014 Genetic and Evolutionary Computation Conference (GECCO 2014)*, pp. 81–88, ACM Press, Vancouver, Canada, July 12-16, 2014, ISBN 978-1-4503-2662-9.
214. Saúl Zapotecas-Martínez, Víctor A. Sosa-Hernández, Hernán Aguirre, Kiyoshi Tanaka and Carlos A. Coello Coello, “Using a Family of Curves to Approximate the Pareto Front of a Multi-Objective Optimization Problem”, in Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič and Jim Smith (Editors), *Parallel Problem Solving from Nature – PPSN XIII, 13th International Conference*, pp. 682–691, Springer, Lecture Notes in Computer Science Vol. 8672, Ljubljana, Slovenia, September 13-17, 2014, ISBN 978-3-319-10761-5 (nominated to **best paper award**).
215. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “MH-MOEA: A New Multi-Objective Evolutionary Algorithm based on the Maximin Fitness Function and the Hypervolume Indicator”, in Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič and Jim Smith (Editors), *Parallel Problem Solving from Nature – PPSN XIII, 13th International Conference*, pp. 652–661, Springer, Lecture Notes in Computer Science Vol. 8672, Ljubljana, Slovenia, September 13-17, 2014, ISBN 978-3-319-10761-5. (**I.F. = 0.402; Q4**).
216. Carlos A. Coello Coello, “An Introduction to Evolutionary Multi-Objective Optimization with Some Applications in Pattern Recognition”, in Eduardo Bayro-Corrochano and Edwin Hancock (Editors), *Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications, 19th Iberoamerican Congress, CIARP 2014*, pp. 1–13, Springer, Lecture Notes in Computer Science Vol. 8827, Puerto Vallarta, México, November 2-5, 2014, ISBN 978-3-319-12568-8 (**invited paper**). (**I.F. = 0.402; Q4**).
217. Alejandro Rosales, Jesus A. Gonzalez, Carlos A. Coello Coello, Carlos A. Reyes-García and Hugo Jair Escalante, “Evolutionary Multi-Objective Approach for Prototype Generation and Feature Selection”, in Eduardo Bayro-Corrochano and Edwin Hancock (Editors), *Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications, 19th Iberoamerican Congress, CIARP 2014*, pp. 424–431, Springer, Lecture Notes in Computer Science Vol. 8827, Puerto Vallarta, México, November 2-5, 2014, ISBN 978-3-319-12568-8. (**I.F. = 0.402; Q4**).

218. Adriana Menchaca, Elizabeth Montero, María Cristina Riff and Carlos Coello Coello, “A More Efficient Selection Scheme in iSMS-EMOA”, in Ana L.C. Bazzan and Karim Pichara (Editors), *Advances in Artificial Intelligence – IBERAMIA 2014, 14th Iberoamerican Conference on AI*, pp. 371–380, Springer, Lecture Notes in Artificial Intelligence Vol. 8864, Santiago de Chile, Chile, November 24-27, 2014, ISBN 978-3-319-12027-0. (I.F. = 0.302; Q4).
219. Jesus Moises Osorio Velazquez, Carlos A. Coello Coello and Alfredo Arias-Montañó, “Multi-Objective Compact Differential Evolution”, in *2014 IEEE Symposium Series on Computational Intelligence (SSCI'2014)*, pp. 49–56, IEEE Press, Orlando, Florida, USA, December 9-12, 2014, ISBN 978-1-4799-4461-3.
220. Adriana Cervantes-Castillo, Efrén Mezura-Montes and Carlos A. Coello Coello, “An Empirical Comparison of Two Crossover Operators in Real-Coded Genetic Algorithms for Constrained Numerical Optimization Problems”, in *Proceedings of the International Autumn Meeting on Power, Electronics and Computing (ROPEC 2014)*, IEEE Press, Ixtapa, México, 5-7 November, 2014, ISBN 978-1-4799-5683-8.
221. Adán-Enrique Aguilar-Justo, Efrén Mezura-Montes, and Carlos A. Coello Coello, “Memetic Modified Artificial Bee Colony for Constrained Optimization”, in *Proceedings of the International Autumn Meeting on Power, Electronics and Computing (ROPEC 2014)*, IEEE Press, Ixtapa, México, 5-7 November, 2014, ISBN 978-1-4799-5683-8.
222. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “GD-MOEA: A New Multi-Objective Evolutionary Algorithm based on the Generational Distance Indicator”, in António Gaspar-Cunha, Carlos Henggeler Antunes and Carlos Coello Coello (Editors), *Evolutionary Multi-Criterion Optimization, 8th International Conference, EMO 2015*, pp. 156–170, Springer, Lecture Notes in Computer Science Vol. 9018, Guimarães, Portugal, March 29 - April 1, 2015, ISBN 978-3-319-15934-8. (I.F. = 0.402; Q4).
223. Edgar Manoatl Lopez, Luis Miguel Antonio and Carlos A. Coello Coello, “A GPU-Based Algorithm for a Faster Hypervolume Contribution Computation”, in António Gaspar-Cunha, Carlos Henggeler Antunes and Carlos Coello Coello (editors), *Evolutionary Multi-Criterion Optimization, 8th International Conference, EMO 2015*, pp. 80–94, Springer, Lecture Notes in Computer Science Vol. 9019, Guimarães, Portugal, March 29 - April 1, 2015, ISBN 978-3-319-15934-8. (I.F. = 0.402; Q4).
224. José A. Molinet Berenguer and Carlos A. Coello Coello, “Evolutionary Many-Objective Optimization Based on Kuhn-Munkres’ Algorithm”, in António Gaspar-Cunha, Carlos Henggeler Antunes and Carlos Coello Coello (editors), *Evolutionary Multi-Criterion Optimization, 8th International Conference, EMO 2015*, pp. 3–17, Springer, Lecture Notes in Computer Science Vol. 9019, Guimarães, Portugal, March 29 - April 1, 2015, ISBN 978-3-319-15934-8. (I.F. = 0.402; Q4).
225. Adriana Menchaca-Mendez and Carlos A. Coello Coello, “GDE-MOEA : A New MOEA based on the Generational Distance indicator and ϵ -dominance”, in *2015 IEEE Congress on Evolutionary Computation*, pp. 947–955, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4792-4.
226. Luis Miguel Antonio and Carlos A. Coello Coello, “A Non-cooperative Game for Faster Convergence in Cooperative Coevolution for Multi-objective Optimization”, in *2015 IEEE Congress on Evolutionary Computation*, pp. 109–116, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4792-4.
227. Saúl Zapotecas-Martínez, Hernán E. Aguirre, Kiyoshi Tanaka and Carlos A. Coello Coello, “On the Low-Discrepancy Sequences and their Use in MOEA/D for High-Dimensional Objective Spaces”, in *2015 IEEE Congress on Evolutionary Computation*, pp. 2835–2842, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4792-4.
228. Raquel Hernández Gómez and Carlos A. Coello Coello, “Improved Metaheuristic Based on the $R2$ Indicator for Many-Objective Optimization”, in *2015 Genetic and Evolutionary Computation Conference (GECCO 2015)*, pp. 679–686, ACM Press, Madrid, Spain, July 11-15, 2015, ISBN 978-1-4503-3472-3.
229. Luis Miguel Antonio and Carlos A. Coello Coello, “Particle Swarm Optimization Based on Linear Assignment Problem Transformations”, in *2015 Genetic and Evolutionary Computation Conference (GECCO 2015)*, pp. 57–64, ACM Press, Madrid, Spain, July 11-15, 2015, ISBN 978-1-4503-3472-3.
230. Stjepan Picek, Carlos A. Coello Coello, Domagoj Jakobovic and Nele Mentens, “Evolutionary Algorithms for Finding Short Addition Chains: Going the Distance”, in Francisco Chicano, Bin Hu and Pablo García-Sánchez (Editors), *Evolutionary Computation in Combinatorial Optimization, 16th European Conference, EvoCOP 2016*, pp. 121–137, Springer, Lecture Notes in Computer Science Vol. 9595, Porto, Portugal, March 30 - April 1, 2016, ISBN 978-3-319-30697-1.
231. Raquel Hernández Gómez, Carlos A. Coello Coello and Enrique Alba Torres, “A Multi-Objective Evolutionary Algorithm based on Parallel Coordinates”, *2016 Genetic and Evolutionary Computation Conference (GECCO 2016)*, pp. 565–572, ACM Press, Denver, Colorado, USA, July 2016, ISBN 978-1-4503-4206-3 (best paper award).
232. Adriana Menchaca-Mendez, Carlos Hernandez and Carlos Coello Coello, “ Δ_p -MOEA: A New Multi-Objective Evolutionary Algorithm Based on the Δ_p Indicator”, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 3753–3760, IEEE Press, Vancouver, Canada, 24-29 July, 2016, ISBN 978-1-5090-0623-9.

233. Luis Miguel Antonio and Carlos Coello Coello, “Indicator-Based Cooperative Coevolution for Multi-objective Optimization”, in *2016 IEEE Congress on Evolutionary Computation (CEC’2016)*, pp. 991–998, IEEE Press, Vancouver, Canada, 24–29 July, 2016, ISBN 978-1-5090-0623-9.
234. Edgar Manóatl Lopez and Carlos Coello Coello, “IGD+–EMOA: A Multi-Objective Evolutionary Algorithm based on IGD+”, in *2016 IEEE Congress on Evolutionary Computation (CEC’2016)*, pp. 999–1006, IEEE Press, Vancouver, Canada, 24–29 July, 2016, ISBN 978-1-5090-0623-9.
235. Saku Kukkonen and Carlos Coello Coello, “Applying Exponential Weighting Moving Average Control Parameter Adaptation Technique with Generalized Differential Evolution”, in *2016 IEEE Congress on Evolutionary Computation (CEC’2016)*, pp. 4755–4762, IEEE Press, Vancouver, Canada, 24–29 July, 2016, ISBN 978-1-5090-0623-9.
236. Saber Elsayed, Ruhul Sarker and Carlos Coello Coello, “Enhanced Multi-operator Differential Evolution for Constrained Optimization”, in *2016 IEEE Congress on Evolutionary Computation (CEC’2016)*, pp. 4191–4198, IEEE Press, Vancouver, Canada, 24–29 July, 2016, ISBN 978-1-5090-0623-9.
237. Jesús Guillermo Falcón-Cardona and Carlos A. Coello Coello, “iMOACO_R: A New Indicator-Based Multi-Objective Ant Colony Optimization Algorithm for Continuous Search Spaces”, in Julia Handl, Emma Hart, Peter R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa and Ben Paechter (Editors), *Parallel Problem Solving from Nature – PPSN XIV, 14th International Conference*, pp. 389–398, Springer. Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17–21, 2016, ISBN 978-3-319-45822-9, **(I.F. = 0.402; Q4)**.
238. Edgar Manóatl Lopez and Carlos A. Coello Coello, “A Parallel Multi-objective Memetic Algorithm Based on the IGD+ Indicator”, in Julia Handl, Emma Hart, Peter R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa and Ben Paechter (Editors), *Parallel Problem Solving from Nature – PPSN XIV, 14th International Conference*, pp. 473–482, Springer. Springer. Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17–21, 2016, ISBN 978-3-319-45822-9, **(I.F. = 0.402; Q4)**.
239. Luis Miguel Antonio and Carlos A. Coello Coello, “Decomposition-Based Approach for Solving Large Scale Multi-objective Problems”, in Julia Handl, Emma Hart, Peter R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa and Ben Paechter (Editors), *Parallel Problem Solving from Nature – PPSN XIV, 14th International Conference*, pp. 525–534, Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17–21, 2016, ISBN 978-3-319-45822-9. **(I.F. = 0.402; Q4)**.
240. Raquel Hernández-Gómez, Carlos A. Coello Coello and Enrique Alba, “A Parallel Version of SMS-EMOA for Many-Objective Optimization Problems”, in Julia Handl, Emma Hart, Peter R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa and Ben Paechter (Editors), *Parallel Problem Solving from Nature – PPSN XIV, 14th International Conference*, pp. 568–577, Springer. Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17–21, 2016, ISBN 978-3-319-45822-9. **(I.F. = 0.402; Q4)**.
241. Miriam Pescador-Rojas, Raquel Hernández Gómez, Elizabeth Montero, Nicolás Rojas-Morales, María-Cristina Riff and Carlos A. Coello Coello, “An Overview of Weighted and Unconstrained Scalarizing Functions”, in Heike Trautmann, Günter Rudolph, Kathrin Klamroth, Oliver Schütze, Margaret Wiecek, Yaochu Jin and Christian Grimme (Editors), *Evolutionary Multi-Criterion Optimization, 9th International Conference, EMO 2017*, pp. 499–513, Springer, Lecture Notes in Computer Science Vol. 10173, Münster, Germany, March 19–22, 2017, ISBN 978-3-319-54156-3.
242. Alejandro Rosales-Pérez, Andrés E. Gutiérrez-Rodríguez, José C. Ortiz-Bayliss, Hugo Terashima-Marín and Carlos A. Coello Coello, “Evolutionary Multilabel Hyper-Heuristic Design”, in *2017 IEEE Congress on Evolutionary Computation (CEC’2017)*, pp. 2622–2629, IEEE Press, San Sebastián, Spain, June 5–8, 2017, ISBN 978-1-5090-4601-0.
243. Edgar Manóatl Lopez and Carlos A. Coello Coello, “Improving the Integration of the IGD⁺ Indicator into the Selection Mechanism of a Multi-objective Evolutionary Algorithm”, in *2017 IEEE Congress on Evolutionary Computation (CEC’2017)*, pp. 2683–2690, IEEE Press, San Sebastián, Spain, June 5–8, 2017, ISBN 978-1-5090-4601-0.
244. Iván Amaya, José Carlos Ortiz-Bayliss, Andrés Eduardo Gutiérrez-Rodríguez, Hugo Terashima-Marín and Carlos A. Coello Coello, “Improving Hyper-heuristic Performance Through Feature Transformation”, in *2017 IEEE Congress on Evolutionary Computation (CEC’2017)*, pp. 2614–2621, IEEE Press, San Sebastián, Spain, June 5–8, 2017, ISBN 978-1-5090-4601-0.
245. Andres Eduardo Gutiérrez Rodríguez, José Carlos Ortiz Bayliss, Alejandro Rosales Pérez, Ivan Mauricio Amaya Contreras, Santiago Enrique Conant Pablos, Hugo Terashima Marín and Carlos Artemio Coello Coello, “Applying Automatic Heuristic-Filtering to Improve Hyper-heuristic Performance”, in *2017 IEEE Congress on Evolutionary Computation (CEC’2017)*, pp. 2638–2644, IEEE Press, San Sebastián, Spain, June 5–8, 2017, ISBN 978-1-5090-4601-0.
246. Raquel Hernández Gómez and Carlos A. Coello Coello, “A Hyper-Heuristic of Scalarizing Functions”, in *2017 Genetic and Evolutionary Computation Conference (GECCO’2017)*, pp. 577–584, ACM Press, Berlin, Germany, 15–19 July 2017, ISBN 978-1-4503-4920-8.
247. Carlos A. Coello Coello, “Recent Results and Open Problems in Evolutionary Multiobjective Optimization”, in Carlos Martín-Vide, Roman Neruda and Miguel A. Vega-Rodríguez (Editors), *Theory and Practice of Natural Computing, 6th International Conference, TPNC 2017*, pp. 3–21, Springer. Lecture Notes in Computer Science Vol. 10687, Prague, Czech Republic, December 18–20, 2017, ISBN 978-3-319-71068-6. **(invited paper)**

248. Sumit Mishra and Carlos A. Coello Coello, “P-ENS: Parallelism in Efficient Non-dominated Sorting”, in *2018 IEEE Congress on Evolutionary Computation (CEC’2018)*, pp. 508–515, IEEE Press, Rio de Janeiro, Brazil, 8-13 July, 2018, ISBN 978-1-5090-6017-7.
249. Miriam Pescador-Rojas and Carlos A. Coello Coello, “Collaborative and Adaptive Strategies of Different Scalarizing Functions in MOEA/D”, in *2018 IEEE Congress on Evolutionary Computation (CEC’2018)*, pp. 709–716, IEEE Press, Rio de Janeiro, Brazil, 8-13 July, 2018, ISBN 978-1-5090-6017-7.
250. Alejandro Rosales-Pérez, Andres E. Gutierrez-Rodríguez, Salvador García, Hugo Terashima-Marín, Carlos A. Coello Coello and Francisco Herrera, “Cooperative Multi-Objective Evolutionary Support Vector Machines for Multiclass Problems”, in *2018 Genetic and Evolutionary Computation Conference (GECCO’2018)*, pp. 513–520, ACM Press, Kyoto, Japan, 15-19 July, 2018, ISBN 978-1-4503-5618-3.
251. Jesús Guillermo Falcón-Cardona and Carlos A. Coello Coello, “Multi-Objective Evolutionary Hyper-heuristic based on Multiple Indicator-based Density Estimators”, in *2018 Genetic and Evolutionary Computation Conference (GECCO’2018)*, pp. 633–640, ACM Press, Kyoto, Japan, 15-19 July, 2018, ISBN 978-1-4503-5618-3.
252. Edgar Manóatl Lopez and Carlos A. Coello Coello, “An Improved Version of a Reference-Based Multi-Objective Evolutionary Algorithm based on IGD+”, in *2018 Genetic and Evolutionary Computation Conference (GECCO’2018)*, pp. 713–720, ACM Press, Kyoto, Japan, 15-19 July, 2018, ISBN 978-1-4503-5618-3.
253. Miriam Pescador-Rojas and Carlos A. Coello Coello, “Studying the Effect of Techniques to Generate Reference Vectors in Many-objective Optimization”, in *GECCO’18: Proceedings of the Genetic and Evolutionary Computation Conference Companion*, pp. 193–194, ACM Press, Kyoto, Japan, 15-19 July, 2018, ISBN 978-1-4503-5764-7.
254. Ivan Amaya, José Carlos Ortiz-Bayliss, Santiago Enrique Conant-Pablos, Hugo Terashima-Marín and Carlos A. Coello Coello, “Tailoring Instances of the 1D Bin Packing Problem for Assessing Strengths and Weaknesses of Its Solvers”, in Ann Auger, Carlos M. Fonseca, Nuno Lourenço, Penousal Machado, Luís Paquete and Darrell Whitley (Editors), *Parallel Problem Solving from Nature – PPSN XV, 15th International Conference, Proceedings, Part II*, pp. 373–384, Springer. Lecture Notes in Computer Science Vol. 11102, Coimbra, Portugal, September 8-12, 2018, ISBN 978-3-319-99258-7. (I.F. = 0.402; Q4).
255. Edgar Manóatl Lopez and Carlos A. Coello Coello, “Use of Reference Point Sets in a Decomposition-based Multi-Objective Evolutionary Algorithm”, in Ann Auger, Carlos M. Fonseca, Nuno Lourenço, Penousal Machado, Luís Paquete and Darrell Whitley (Editors), *Parallel Problem Solving from Nature – PPSN XV, 15th International Conference, Proceedings, Part I*, pp. 372–383, Springer. Lecture Notes in Computer Science Vol. 11101, Coimbra, Portugal, September 8-12, 2018, ISBN 978-3-319-99258-7. (I.F. = 0.402; Q4).
256. Antonio J. Nebro, Juan J. Durillo, José García-Nieto, Cristóbal Barba-González, Javier Del Ser, Carlos A. Coello Coello, Antonio Benítez-Hidalgo and José F. Aldana-Montes, “Extending the Speed-constrained Multi-Objective PSO (SMPSO) With Reference Point Based Preference Articulation”, in Ann Auger, Carlos M. Fonseca, Nuno Lourenço, Penousal Machado, Luís Paquete and Darrell Whitley (Editors), *Parallel Problem Solving from Nature – PPSN XV, 15th International Conference, Proceedings, Part I*, pp. 298–310, Springer. Lecture Notes in Computer Science Vol. 11101, Coimbra, Portugal, September 8-12, 2018, ISBN 978-3-319-99258-7. (I.F. = 0.402; Q4).
257. Jesús Guillermo Falcón-Cardona and Carlos A. Coello Coello, “Towards a More General Many-Objective Evolutionary Optimizer”, in Ann Auger, Carlos M. Fonseca, Nuno Lourenço, Penousal Machado, Luís Paquete and Darrell Whitley (Editors), *Parallel Problem Solving from Nature – PPSN XV, 15th International Conference, Proceedings, Part I*, pp. 335–346, Springer. Lecture Notes in Computer Science Vol. 11101, Coimbra, Portugal, September 8-12, 2018, ISBN 978-3-319-99258-7. (I.F. = 0.402; Q4).
258. Nicolás Rojas-Morales, María-Cristina Riff and Carlos A. Coello Coello, “A Cooperative Opposite-Inspired Learning Strategy for Ant-based Algorithms”, in Marco Dorigo, Mauro Birattari, Christian Blum, Ander K. Christensen, Andreagiovanni Reina and Vito Trianni (Editors), *Swarm Intelligence, 11th International Conference, ANTS 2018*, pp. 317–324, Springer, Lecture Notes in Computer Science Vol. 11172, Rome, Italy, October 29-31, 2018, ISBN 978-3-030-00532-0.
259. Ashraf M. Abdelbar, Khalid M. Salama, Jesús Guillermo Falcón-Cardona and Carlos A. Coello Coello, “An Adaptive Recombination-Based Extension of the iMOACO_R Algorithm”, in *2018 Symposium Series on Computational Intelligence (SSCI’2018)*, pp. 735–742, IEEE Press, Bengaluru, India, 18-21 November, 2018, ISBN 978-1-5386-9276-9.
260. Miriam Pescador-Rojas, Denis Pallez, Carlos Hernández Castellanos and Carlos A. Coello Coello, “Studying the effect of robust measures in offline parameters tuning for estimating the MOEA/D performance”, in *2018 Symposium Series on Computational Intelligence (SSCI’2018)*, pp. 204–211, IEEE Press, Bengaluru, India, 18-21 November, 2018, ISBN 978-1-5386-9276-9.
261. Jesús Guillermo Falcón-Cardona, Carlos A. Coello Coello and Michael Emmerich, “CRI-EMOA: A Pareto-Front Shape Invariant Evolutionary Multi-Objective Algorithm”, in Kalyanmoy Deb, Erik Goodman, Carlos A. Coello Coello, Kathrin Klamroth, Kaisa

- Miettinen, Sanaz Mostaghim and Patrick Reed (Editors), *Evolutionary Multi-Criterion Optimization, 10th International Conference, EMO 2019*, pp. 307–318, Springer. Lecture Notes in Computer Science Vol. 11411, East Lansing, Michigan, USA, March 10-13, 2019, ISBN 978-3-030-12597-4.
262. Forhad Zaman, Saber Elsayed, Ruhul Sarker, Daryl Essam and Carlos A. Coello Coello, “Evolutionary Algorithm for Project Scheduling under Irregular Resource Changes”, in *2019 IEEE Congress on Evolutionary Computation (CEC’2019)*, pp. 395–402, IEEE Press, Wellington, New Zealand, 10-13 June 2019, ISBN 978-1-7281-2152-6.
 263. Sumit Mishra and Carlos A. Coello Coello, “An Approach for Non-domination Level Update Problem in Steady-State Evolutionary Algorithms With Parallelism”, in *2019 IEEE Congress on Evolutionary Computation (CEC’2019)*, pp. 983–990, IEEE Press, Wellington, New Zealand, 10-13 June 2019, ISBN 978-1-7281-2152-6.
 264. Sumit Mishra and Carlos A. Coello Coello, “Parallel Best Order Sort for Non-dominated Sorting: A Theoretical Study Considering the PRAM-CREW Model”, in *2019 IEEE Congress on Evolutionary Computation (CEC’2019)*, pp. 999–1006, IEEE Press, Wellington, New Zealand, 10-13 June 2019, ISBN 978-1-7281-2152-6.
 265. Jesús Guillermo Falcón-Cardona, Michael T.M. Emmerich and Carlos A. Coello Coello, “On the Cooperation of Multiple Indicator-based Multi-Objective Evolutionary Algorithms”, in *2019 IEEE Congress on Evolutionary Computation (CEC’2019)*, pp. 2051–2058, IEEE Press, Wellington, New Zealand, 10-13 June 2019, ISBN 978-1-7281-2152-6.
 266. Wenjian Luo, Luming Shi, Xin Lin and Carlos A. Coello Coello, “The \hat{g} -dominance Relation for Preference-Based Evolutionary Multi-Objective Optimization”, in *2019 IEEE Congress on Evolutionary Computation (CEC’2019)*, pp. 2419–2426, IEEE Press, Wellington, New Zealand, 10-13 June 2019, ISBN 978-1-7281-2152-6.
 267. Saku Kukkonen and Carlos Coello Coello, “A Simple and Effective Termination Condition for Both Single- and Multi-Objective Evolutionary Algorithms”, in *2019 IEEE Congress on Evolutionary Computation (CEC’2019)*, pp. 3054–3060, IEEE Press, Wellington, New Zealand, 10-13 June 2019, ISBN 978-1-7281-2152-6.
 268. Jesús Guillermo Falcón-Cardona and Carlos A. Coello Coello, “Convergence and Diversity Analysis of Indicator-based Multi-Objective Evolutionary Algorithms”, in *2019 Genetic and Evolutionary Computation Conference (GECCO’2019)*, pp. 524–531, ACM Press, Prague, Czech Republic, 13-17 July, 2019, ISBN 978-1-4503-6111-8.
 269. Luis Miguel Antonio, Carlos A. Coello Coello, Silvia González Brambila, Josué Figueroa González and Ma Guadalupe Castillo Tapia, “Operational Decomposition for Large Scale Multi-objective Optimization Problems”, in *Proceedings of the 2019 Genetic and Evolutionary Computation Conference (GECCO’2019) Companion*, pp. 225–226, ACM Press, Prague, Czech Republic, 13-17 July, 2019, ISBN 978-1-4503-6748-6.
 270. Jorge Jiménez Montiel, Carlos A. Coello Coello and Ma. Guadalupe Castillo Tapia, “A Proposal of a Multi-Objective Compact Particle Swarm Optimizer”, in *2019 IEEE Symposium Series on Computational Intelligence (SSCI’2019)*, pp. 2279-2288, IEEE Press, Xiamen, China, December 4-9, 2019, ISBN 978-1-7281-2484-1.
 271. Luis Miguel Antonio, Carlos A. Coello Coello, Mario A. Ramírez Morales, Silvia Gonzalez Brambila, Josué Figueroa Gonzalez and Guadalupe Castillo Tapia, “Coevolutionary Operations for Large Scale Multi-objective Optimization”, in *2020 IEEE Congress on Evolutionary Computation (CEC’2020)*, Glasgow, Scotland, 19-24 July, 2020, ISBN 978-1-7281-6929-3.
 272. Jesús Guillermo Falcón-Cardona, Hisao Ishibuchi and Carlos A. Coello Coello, “Riesz s -energy-based Reference Sets for Multi-Objective Optimization”, in *2020 IEEE Congress on Evolutionary Computation (CEC’2020)*, Glasgow, Scotland, 19-24 July, 2020, ISBN 978-1-7281-6929-3.
 273. Saber Elsayed, Ruhul Sarker, Noha Hamza, Carlos Coello Coello and Efrén Mezura-Montes, “Enhancing Evolutionary Algorithms by Efficient Population Initialization for Constrained Problems”, in *2020 IEEE Congress on Evolutionary Computation (CEC’2020)*, Glasgow, Scotland, 19-24 July, 2020, ISBN 978-1-7281-6929-3.
 274. Jesús Guillermo Falcón-Cardona, Arnaud Liefooghe and Carlos A. Coello Coello, “An Ensemble Indicator-based Density Estimator for Evolutionary Multi-objective Optimization”, in Thomas Bäck, Mike Preuss, André Deutz, Hao Wang, Carola Doerr, Michael Emmerich and Heike Trautmann (Editors), *Parallel Problem Solving from Nature – PPSN XVI, 16th International Conference, PPSN 2020. Proceedings, Part II*, pp. 201–214, Springer. Lecture Notes in Computer Science Vol. 12270, Leiden, The Netherlands, September 5-9, 2020, ISBN 978-3-030-58115-2.
 275. Amín V. Bernabé Rodríguez and Carlos A. Coello Coello, “Generation of New Scalarizing Functions Using Genetic Programming”, in Thomas Bäck, Mike Preuss, André Deutz, Hao Wang, Carola Doerr, Michael Emmerich and Heike Trautmann (Editors), *Parallel Problem Solving from Nature – PPSN XVI, 16th International Conference, PPSN 2020. Proceedings, Part II*, pp. 3–17, Springer. Lecture Notes in Computer Science Vol. 12270, Leiden, The Netherlands, September 5-9, 2020, ISBN 978-3-030-58115-2.
 276. Diana Cristina Valencia-Rodríguez and Carlos A. Coello Coello, “A Study of Swarm Topologies and Their Influence in the Performance of Multi-Objective Particle Swarm Optimizers”, in Thomas Bäck, Mike Preuss, André Deutz, Hao Wang, Carola Doerr,

Michael Emmerich and Heike Trautmann (Editors), *Parallel Problem Solving from Nature – PPSN XVI, 16th International Conference, PPSN 2020. Proceedings, Part II*, pp. 285–298, Springer. Lecture Notes in Computer Science Vol. 12270, Leiden, The Netherlands, September 5-9, 2020, ISBN 978-3-030-58115-2.

277. Lino Rodriguez-Coayahuitl, Alicia Morales-Reyes, Hugo Jair Escalante and Carlos A. Coello Coello, “Cooperative Co-Evolutionary GP for High Dimensional Problems”, in Thomas Bäck, Mike Preuss, André Deutz, Hao Wang, Carola Doerr, Michael Emmerich and Heike Trautmann (Editors), *Parallel Problem Solving from Nature – PPSN XVI, 16th International Conference, PPSN 2020. Proceedings, Part II*, pp. 48–62, Springer. Lecture Notes in Computer Science Vol. 12270, Leiden, The Netherlands, September 5-9, 2020, ISBN 978-3-030-58115-2.
278. Oscar Pacheco-Del-Moral and Carlos A. Coello Coello, “A SHADE-Based Algorithm for Large Scale Global Optimization”, in Thomas Bäck, Mike Preuss, André Deutz, Hao Wang, Carola Doerr, Michael Emmerich and Heike Trautmann (Editors), *Parallel Problem Solving from Nature – PPSN XVI, 16th International Conference, PPSN 2020. Proceedings, Part I*, pp. 650–663, Springer. Lecture Notes in Computer Science Vol. 12270, Leiden, The Netherlands, September 5-9, 2020, ISBN 978-3-030-58111-2.
279. Jesús Guillermo Falcón-Cardona, Hisao Ishibuchi and Carlos Artemio Coello Coello, “Exploiting the Trade-off between Convergence and Diversity Indicators”, in *2020 IEEE Symposium Series on Computational Intelligence (SSCI’2020)*, pp. 141–148, IEEE Press, Canberra, Australia, December 1-4, 2020, ISBN 978-1-7281-2548-0.
280. Ali Ahrari, Saber Elsayed, Ruhul Sarker, Daryl Essam and Carlos Coello, “Towards a More Practically Sound Formulation of Dynamic Problems and Performance Evaluation of Dynamic Search Methods”, in *2020 IEEE Symposium Series on Computational Intelligence (SSCI’2020)*, pp. 1387–1394, IEEE Press, Canberra, Australia, December 1-4, 2020, ISBN 978-1-7281-2548-0.

Courses Taught

- **An Introduction to Evolutionary Computation** (MSc level). 48 hours. It has been taught 18 times at CINVESTAV-IPN since 2001.
- **An Introduction to Evolutionary Multiobjective Optimization** (PhD level). 48 hours. It has been taught 8 times at CINVESTAV-IPN since 2001.
- **Programming Languages** (MSc level). 48 hours. It has been taught 4 times at CINVESTAV-IPN since 2001.
- **Engineering Optimization** (MSc level). 48 hours. It has been taught 4 times at CINVESTAV-IPN since 2001.
- Has taught short courses in Spain, England, Argentina, Chile, India, Bolivia, Colombia, Slovenia and USA.
- Has taught tutorials at the major conferences in evolutionary computation: the *IEEE Congress on Evolutionary Computation*, the *Genetic and Evolutionary Computation Conference* and *Parallel Problem Solving from Nature*. Has also been tutorial speaker at the *First International Conference on Evolutionary Multi-Criterion Optimization* held in Zurich, Switzerland, in 2001, and at the *IEEE Swarm Intelligence Symposium*, held in Indianapolis, USA, in 2003.

Theses Supervised

- Has supervised 21 PhD theses (17 at CINVESTAV-IPN, 1 at the Instituto Nacional de Astrofísica, Óptica y Electrónica and 3 at the Universidad Nacional de San Luis, in Argentina). Six of the PhD theses that he has supervised at CINVESTAV-IPN have received awards.
- Has supervised 47 Masters theses (one of them from the University of Nantes, in France). Four of the Masters theses that he has supervised have received awards.
- Has supervised 8 BSc theses.
- Currently supervises 3 PhD theses at CINVESTAV-IPN.

Editorial Activities

1. **Editor-in-Chief** of the *IEEE Transactions on Evolutionary Computation*, 2021-2022.
2. **Associate Editor** of the international journal *IEEE Transactions on Emerging Topics in Computational Intelligence* (IEEE Press), 2020–date.
3. **Associate Editor** of the international journal *IEEE Transactions on Evolutionary Computation* (IEEE Press), 2003–2020.
4. **Associate Editor** of the international journal *Evolutionary Computation* (MIT Press), ISSN 1063-6560/05, 2005–date.

5. **Associate Editor** of the international journal *Soft Computing* (Springer), ISSN 1432-7643, 2008–2012.
6. **Associate Editor** of the international journal *Pattern Analysis & Applications* (Springer), ISSN 1433-7541, 2007–date.
7. **Associate Editor** of the international journal *Journal of Heuristics* (Springer), ISSN 1381-1231, 2006–2012.
8. **Associate Editor** of the international journal *Computational Optimization and Applications*, (Springer), ISSN 0926-6003, 2006–date.
9. **Associate Editor** of the international journal *Evolutionary Intelligence*, (Springer), ISSN: 1864-5909, 2018–date.
10. Member of the Editorial Board of the international journal *Engineering Optimization* (Taylor & Francis), ISSN 0305-215X, 2004–date.
11. Member of the Editorial Board of the international journal *Memetic Computing* (Springer), ISSN 1865-9284, 2008–date.
12. Member of the Advisory Board of the *International Journal of Computational Intelligence Research*, published by *The International Computational Intelligence Society*, ISSN 0974-1259, 2018–date.
13. Member of the Advisory Board of the *Natural Computing Book Series* from Springer, 2018–date.
14. Member of the Advisory Board of the *Springer Book Series on “Genetic and Evolutionary Computation”*, 2018-date.
15. Guest Editor of the *IEEE Transactions on Evolutionary Computation* for a special issue on *Evolutionary Multi-Objective Optimization*. The special issue was published as number 2 of the volume 7 (April 2003).
16. Guest Editor of the *European Journal of Operational Research*, for a special issue in *Evolutionary Multi-Objective Optimization*. The special issue was published as number 3 of the volume 181 (16 September 2007).
17. Guest Editor of the journal *IEEE Transactions on Evolutionary Computation* for a special issue on *Differential Evolution*. The special issue was published as number 1 of the volume 15 (February 2011).
18. Guest Editor of the journal *Soft Computing. A Fusion of Foundations, Methodologies and Applications* for a special issue in *Evolutionary Computation on General Purpose Graphics*. The special issue was published as number 2 of the volume 16 (February 2012).
19. Guest Editor of the journal *Soft Computing* for a special issue in *Evolutionary Computing and Complex Systems*. The special issue was published as number 6 of the volume 17 (June 2013).
20. Guest Editor of the journal *Annals of Mathematics and Artificial Intelligence* for a special issue containing extended versions of the best papers presented at the LION 5 conference. The special issue was published as number 4 of the volume 68 (August 2013).
21. Guest Editor of the journal *IEEE Transactions on Evolutionary Computation* for a special issue in *Advances in Multiobjective Evolutionary Algorithms for Data Mining*. The special issue was published as number 1 of the volume 18 (February 2014).
22. Technical reviewer for over 50 international journals and member of the scientific program of over 100 international conferences, including all the major evolutionary computation conferences.

Conferences and Special Sessions Organization

- General Chair of the *Third International Conference on Evolutionary Multi-Criterion Optimization* (EMO’2005), which took place in Guanajuato, México, from 9 to 11 March, 2005.
- *Track Chair* in the area *Evolutionary Multi-Objective Optimization* at the *2006 Genetic and Evolutionary Computation Conference (GECCO’2006)*, Seattle, Washington, USA, 8-12 July, 2006.
- Organizer of a special session on “evolutionary multiobjective optimization”, at the *Congress on Evolutionary Computation* in the years 2000 (San Diego, California, USA), 2004 (Portland, Oregon, USA), 2005 (Edinburgh, Scotland, UK) and 2010 (Barcelona, Spain).
- *Special Sessions Chair* at the *2006 IEEE Congress on Evolutionary Computation (CEC’2006)*, Vancouver, Canada, 16-21 July, 2006.
- Member of the *EMO Steering Committee*, since 2008. This committee decides the location of the *International Conference on Evolutionary Multi-Criterion Optimization*, which takes place every two years.
- General Chair of the *IEEE Symposium on Computational Intelligence in Multicriteria Decision-Making* in the years 2007 (Honolulu, Hawaii, USA), 2009 (Nashville, Tennessee, USA) and 2011 (Paris, France).
- Technical Co-Chair of the *2009 IEEE Congress on Evolutionary Computation*, Trondheim, Norway, 2009.
- Program Co-Chair of the *2010 IEEE Congress on Evolutionary Computation*, Barcelona, Spain, 2010.

- *Track Chair* in the area *Evolutionary Multi-Objective Optimization* at the *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, Dublin, Ireland, 12-16 July, 2011.
- *Technical Program Committee Chair* of the international conference *Learning and Intelligent OptimizatioN (LION 5)*, Rome, Italy, 17-21 January, 2011.
- *Technical Co-Chair* of the *2012 IEEE Congress on Evolutionary Computation*, Brisbane, Australia, 2012.
- *General Chair* of the *2013 IEEE Congress on Evolutionary Computation*, Cancún, México, 2013.
- *Program Chair* of the *2014 IEEE Congress on Evolutionary Computation*, Beijing, China, 2014.
- *Technical Co-Chair* of the *2016 IEEE Congress on Evolutionary Computation*, Vancouver, Canada, 2016.
- *Program Chair* of the *2017 IEEE Congress on Evolutionary Computation*, San Sebastián, Spain, 2017.
- *Program Chair* of the *2017 Symposium Series on Computational Intelligence (SSCI'2017)*, Honolulu, Hawaii, USA, 2017.
- *Technical Co-Chair* of the *2018 IEEE Congress on Evolutionary Computation*, Rio de Janeiro, Brazil, 2018.
- *Program Chair* of the *2019 IEEE Congress on Evolutionary Computation*, Wellington, New Zealand, 2019.
- *General Chair* of the *2020 Genetic and Evolutionary Computation Conference (GECCO'2020)*, Cancún, México, 8-12 July, 2020.
- *Program Chair* of the *2020 IEEE Symposium Series on Computational Intelligence (SSCI'2020)*, Canberra, Australia, 1-4 December, 2020.

IEEE Committees

1. Member-at-Large for *IEEE CIS VP Membership Committee*, 2005.
2. Member of the *IEEE CIS Outstanding Dissertation Award Subcommittee* of the *IEEE Computational Intelligence Society*, 2007.
3. Member of the *IEEE Computational Intelligence Society Nominations Committee*, 2008 and 2012.
4. Member of the *IEEE Computational Intelligence Society Awards Committee*, 2009, 2010, 2011 and 2012.
5. Vice-Chair of the *Evolutionary Computation Technical Committee (ECTC)* of the *IEEE Computational Intelligence Society*, 2009.
6. Member of the *IEEE CIS Continuing Education Sub-Committee*, 2009, 2010.
7. Chair of the *Evolutionary Computation Technical Committee (ECTC)* of the *IEEE Computational Intelligence Society*, 2010 and 2011.
8. Member of the *Nominations Committee* of the *IEEE Computational Intelligence Society*, 2012 and 2013.
9. Chair of the *Distinguished Lecturers Program* of the *IEEE Computational Intelligence Society*, 2014 and 2015.
10. IEEE Press Liason for the *IEEE Computational Intelligence Society* in a book series co-edited by Wiley, 2016, 2017, 2018 and 2019.
11. Member of the *Administrative Committee* of the *IEEE Computational Intelligence Society*, 2016-2018.
12. Vice-President for Member Activities of the *IEEE Computational Intelligence Society*, 2019-2020.

Funding

1. **Principal Investigator** of the project entitled “**Técnicas Alternativas para el Manejo de Restricciones usando Algoritmos Evolutivos**” (*Alternative Techniques for Handling Constraints using Evolutionary Algorithms*). Funding Agency: CONACyT (Ref. I-29870 A). Amount: \$100,000 Mexican Pesos (\approx \$10,000 US dollars). Period: January–December 1999.
2. **Principal Investigator** of the project entitled “**Optimización Evolutiva Multiobjetivo Aplicada al Diseño de Circuitos Combinatorios**” (*Evolutionary Multiobjective Optimization Applied to the Design of Combinational Circuits*). Funding Agency: CINVESTAV-IPN (Ref. JIRA'2001/08). Amount \$200,000 Mexican Pesos (\approx \$20,000 US dollars). Period: April–December 2001.
3. **Principal Investigator** of the project entitled “**Estudio y Desarrollo de Técnicas Avanzadas de Manejo de Restricciones para Algoritmos Evolutivos en el Contexto de Optimización Numérica**” (*Study and Development of Advanced Constraint-Handling Techniques for Evolutionary Algorithms in the Context of Numerical Optimization*), Funding Agency: NSF-CONACyT (Ref. 32999-A). Amount: \$465,212 Mexican Pesos (\approx \$47,000 US dollars). Period: October 16, 2000 – October 15, 2002.
4. **Principal Investigator** of the project entitled “**Nuevos Paradigmas en Optimización Evolutiva Multiobjetivo**” (*New Paradigms in Evolutionary Multiobjective Optimization*). Funding Agency: CONACyT (Ref. 34201-A). Amount: \$429,456 Mexican Pesos (\approx \$43,000 US dollars). Period: October 16, 2000 – December 31, 2003.

5. **Principal Investigator** of the bilateral project (Mexico-Chile) entitled “**Diseño de Algoritmos Culturales para Problemas de Optimización Restringidos**” (*Design of Cultural Algorithms for Constrained Optimization Problems*). Funding Agency: CONACyT (Refs. J200.686/2004 and J110.331/2005). Amount: \$26,400 Mexican Pesos (\approx \$2,400 US dollars). Period: November 2004 – November 2006.
6. **Principal Investigator** of the project entitled “**Artificial Immune Systems for Multiobjective Optimization**”. Funding Agency: NSF-CONACyT (Ref. 42435-Y). Amount: \$696,894 Mexican Pesos (\approx \$60,500 US dollars). Period: April 2004 – March 2007.
7. **Principal Investigator** of the project entitled “**Técnicas Avanzadas de Optimización Evolutiva Multiobjetivo**” (*Advanced Evolutionary Multiobjective Optimization Techniques*). Funding Agency: CONACyT (Ref. 45683). Amount: \$656,327 Mexican Pesos (\approx \$60,000 US dollars). Period: July 2005 – June 2008.
8. **Principal Investigator** of the project entitled “**Escalabilidad y Nuevos Esquemas Híbridos en Optimización Evolutiva Multiobjetivo**” (*Scalability and New Hybrid Schemes in Evolutionary Multiobjective Optimization*). Funding Agency: CONACyT (Ref. 103570). \$593,170 Mexican Pesos (\approx \$44,600 US dollars). Period: March 2010 – February 2013.
9. **Principal Investigator** of the bilateral project (Mexico-India) entitled “**Development of efficient many-objective optimization techniques with parallel computing and objective reduction**”. Funding Agency: CONACyT (Ref. J000.0378). Amount: \$492,400 Mexican Pesos (\approx \$37,200 US dollars). Period: August 6, 2009 – September 30, 2012.
10. **Principal Investigator** of the bilateral project (Mexico-Chile) entitled “Estrategias para la selección de componentes de algoritmos bio-inspirados” (*Strategies for selecting components of bio-inspired algorithms*). Funding Agency: CONACyT (Ref. B330.261). Amount: \$108,000 Mexican Pesos (\approx \$8,175 US dollars). Period: 2011 – 2014.
11. **Principal Investigator** of the project entitled “Nuevos Paradigmas Algorítmicos en Optimización Evolutiva Multi-Objetivo” (*New Algorithmic Paradigms in Evolutionary Multi-Objective Optimization*) Funding Agency: CONACyT (Ref. 221551). Amount: \$899,900 Mexican Pesos (\approx \$63,000 US dollars). Period: 2014 – 2017 (extended to 2019).
12. **Principal Investigator** of the bilateral project (Mexico-Chile) entitled “Mejorando automáticamente el Proceso de Búsqueda de Algoritmos Evolutivos con Multiobjetivo” (*Automatic Improvement of the Search Process of Multi-Objective Evolutionary Algorithms*). Funding Agency: CONACyT (Ref. 248722). Amount: \$173,200 Mexican Pesos (\approx \$11,900 US dollars). Period: 2015 – 2017.
13. **Principal Investigator** of the project entitled “Esquemas de Selección Alternativos para Algoritmos Evolutivos Multi-Objetivo” (*Alternative selection schemes for multi-objective evolutionary algorithms*). Funding Agency: CONACyT (Fronteras de la Ciencia. Ref. 1920). Amount: \$1,210,148.00 Mexican Pesos (\approx \$63,700 US dollars). Period: 2018 – 2020.
14. **Principal Investigator** of the project entitled “Nuevos Esquemas de Selección para Algoritmos Evolutivos Multi-Objetivo Basados en Indicadores de Desempeño” (*New Selection Schemes for Indicator-Based Multi-Objective Evolutionary Algorithms*). Funding Agency: SEP-Cinvestav (Application No. 4). Amount \$305,000 Mexican Pesos (\approx \$14,500 US dollars). Period: 2019–2021.

External Reviewer of PhD Theses

1. External reviewer of a PhD thesis from the University of Valladolid, Spain, October 2000.
2. External reviewer of a PhD thesis from the Polytechnical University of Cataluña, Barcelona, Spain, 2005.
3. External reviewer of a PhD thesis from the University of Las Palmas de Gran Canaria, Spain, 2005.
4. External reviewer of a PhD thesis from the National University of the South, Bahía Blanca, Argentina, 2005.
5. External reviewer of a PhD thesis from *Luleå University of Technology*, Luleå, Sweden, 2006.
6. External reviewer of a PhD thesis from *Tel Aviv University*, Israel, 2006.
7. External reviewer of two PhD theses from the *University of New South Wales at the Australian Defence Force Academy*, Canberra, Australia, 2007 and 2009.
8. External reviewer of four PhD theses from *Nanyang Technological University*, Singapore, 2006, 2009, 2010 and 2011.
9. External reviewer of one PhD thesis from the *National University of Singapore*, Singapore, 2009.
10. External reviewer of one PhD thesis from *Swinburne University of Technology*, Victoria, Australia, 2008.
11. External reviewer of one PhD thesis from *The University of Western Australia*, Australia, 2010.
12. External reviewer of one Masters thesis from the *University of Pretoria*, South Africa, 2010.
13. External reviewer of one PhD thesis from the University of Málaga, Spain, March 2011.
14. External reviewer of one PhD thesis from the *University of Jyväskylä*, Finland, 2011.
15. External reviewer of three PhD theses from *The University of Adelaide*, Australia, 2013, 2015 and 2020.
16. External reviewer of one PhD thesis from *The University of Pretoria*, South Africa, 2017.

External Reviewer of Awards and Promotion Applications

1. External referee of the *Shanti Swarup Bhatnagar Prize*, in 2010. This is the most important award granted by the government of India to researchers under the age of 45.
2. External referee of the *Young Scientist Award* granted by the *Technological Research Council (TUBITAK)* from Turkey, 2010.
3. External reviewer of a request for promotion to **Professor** from the *Department of Mathematics and Computer Science* of the *University of Missouri–St. Louis*, St. Louis, Missouri, USA, 2010.
4. External evaluator of a tenure-track application from *Shinshu University*, Nagano, Japan, 2010.
5. External evaluator of a tenure-track application from the *Ort Braude College of Engineering*, Israel, 2010.
6. External evaluator of a tenure-track application from the *University of Texas at El Paso*, USA, 2011.
7. External evaluator of a habilitation request for a promotion to **Professor** from the *University of Münster*, Germany, 2012.
8. External evaluator of a request for promotion to **Professor** from the *Department of Electrical & Computer Engineering* from *Portland State University*, Portland, Oregon, USA, 2012.
9. External evaluator of a request for promotion to **Associate Professor** from the *School of Engineering and Information Technology*, of the *University of New South Wales*, Sydney, Australia, 2013.
10. External evaluator of a tenure-track application from the *Department of Computer Science* of the *University of Ioannina*, Greece, 2013.
11. External evaluator of two requests for promotion to **Professor** from the *Department of Computer Science* of the *University of Georgia*, Georgia, Atlanta, USA, 2013 and 2016.
12. External evaluator of an application for a position of *Professor* at the *Department of Computer Science* of the *City University of Hong Kong*, Hong Kong, 2013.
13. External evaluator of two requests for promotion to **Professor** from the *School of Engineering and Information Technology*, of the *University of New South Wales*, Sydney, Australia, 2015 and 2016.
14. External evaluator of the performance of Italian universities and research institutes during the period 2004–2010, invited by *The National Agency for the Evaluation of Universities and Research Institutes*, 2012 and 2016.
15. External evaluator of a request for promotion to **Associate Professor** from the *University College Dublin*, Ireland, 2013.
16. Evaluation of performance of two researchers requested by the *South Africa's National Research Foundation*, 2015.
17. Has been invited to propose candidates for the prestigious *Kyoto Prize* in the category *Advanced Technology*, 2017.
18. External evaluator of an application for entering the *Indian National Science Academy*, India, 2016.
19. External evaluator of a request for promotion to **Associate Professor** from the *University of Exeter*, UK, 2016.
20. External evaluator of a request for promotion to **Associate Professor** from the *University of Pretoria*, South Africa, 2016.
21. External evaluator of a request for promotion to **Professor**, Nanyang Technological University, Singapore, 2017.
22. External evaluator of a request for promotion to **Research Director** from the *Fonds de la Recherche Scientifique*, Belgium, 2017.
23. External evaluator of a request for promotion to **Associate Professor** from the *Victoria University of Wellington*, New Zealand, 2018.
24. External evaluator of a request for promotion to **Professor** from the *Victoria University of Wellington*, New Zealand, 2020.
25. External evaluator of a request for promotion to **Associate Professor** from the *University of Otago*, New Zealand, 2020.
26. External evaluator of a request for promotion to **Professor** from the *University of Melbourne*, Australia, 2020.
27. External evaluator of a request for promotion to **Professor** from the *Jordan University of Science and Technology*, Jordan, 2020.

Reviewer of Books and Journal Proposals

1. Reviewer of one proposal for publishing a book with *Springer-Verlag*, London, 2002.
2. Reviewer of two proposals for publishing books with *Springer-Verlag*, Germany, 2006.
3. Reviewer of one proposal for publishing a book with *Cambridge University Press*, UK, 2007.
4. Reviewer of one proposal for publishing a book with *Wiley*, USA, 2008.
5. Reviewer of a proposal for publishing a new journal on swarm and evolutionary computation with *Elsevier*, The Netherlands, 2010.

Professional Experience

- Teacher Assistant, Computer Science Department, Tulane University, New Orleans Louisiana, USA, 1994–1995.
- Lecturer of the course “Symbolic Computing” (CPSC 319), Computer Science Department, Tulane University, New Orleans, Louisiana, USA, Fall 1995.
- Postdoctoral Fellow, Computer Science Department, Tulane University, New Orleans, Louisiana, USA, June–August 1996. Project: *Use of Genetic Algorithms in Combinational Circuit Design*.
- Assistant Professor, Computer Science Department, DePauw University, Greencastle, Indiana, USA, August 1996–June 1997.
- Adjunct Professor, Computer Science Department, ITESM Campus Edo. de México, August–November 1997.
- Visiting Professor, Masters Program in Computer Science, Universidad Autónoma Metropolitana, Unidad Azcapotzalco, México, D. F., México, October 1997–February 1998.
- *Senior Research Fellow*, Engineering Design Centre, University of Plymouth, Plymouth, Devon, UK, February–September 1998.
- Researcher, LANIA, Xalapa, Veracruz, México, November 1998–December 2000.
- Investigador CINVESTAV 3B (Assistant Professor), CINVESTAV-IPN, Departamento de Ingeniería Eléctrica, Sección de Computación, January 2001–March 2004.
- Investigador CINVESTAV 3D (Associate Professor), CINVESTAV-IPN, Departamento de Ingeniería Eléctrica, Sección de Computación, April 2005–March 2009.
- Investigador CINVESTAV 3E (Professor), CINVESTAV-IPN, Departamento de Computación, April 2009–March 2010.
- Investigador CINVESTAV 3F (Professor with distinction),² CINVESTAV-IPN, April 2010–date.
- Chair of the Computer Science Department at CINVESTAV-IPN, August 2006–August 2014.
- Adjunct Director for the Computer Science Area of the Unité Mixte Internationale (UMI) LAFMIA 3175 CNRS, located at CINVESTAV-IPN, 2008–2018.

Consultancy

1. Technical consultant for the Mexican Consulate in New Orleans, Louisiana, USA, from November 1992 to April 1995.
2. Member of the *Scientific Advisory Board* of the company *SolveIT Software*, Australia, since 2005.
3. External consultant of the project “Industrial Innovation by Multiobjective Design Exploration”, developed by the *Japan Aerospace Exploration Agency* (JAXA), 2012–2016.
4. *International Advisor* of the *Memetic Computing Lab* (McLab) at the *School of Computer Science* of the *China University of Geosciences*, Wuhan, China, 2014–date.
5. *Scientific Advisor* of the company *Complexica*, Adelaide, Australia, 2015–date.
6. *Senior Advisor* of the *Hunan Zixing AI Research Institute* from China, from June 27, 2017 to June 27, 2020.

Invited Talks

1. **Keynote speaker** at the *3rd IEEE Colombian Conference on Applications in Computational Intelligence*, Bogota, Colombia, 7 August 2020. This talk was delivered virtually because of the COVID-19 crisis.
2. **Plenary speaker** at the *2020 IEEE World Congress on Computational Intelligence*, Glasgow, Scotland, 22 July 2020. This talk was delivered virtually because of the COVID-19 crisis.
3. **Invited speaker** at the *XXII International Symposium on Mathematical Methods Applied to the Sciences*, San José, Costa Rica, 25–28 February, 2020.
4. **Invited speaker** at the *25th International Conference on Soft Computing (MENDEL 2019)*, Brno, Czech Republic, 10–12 July, 2019.
5. **Keynote speaker** at the *2019 International Seminar on Theoretical Computer Science*, Kunming, China, 25–28 July, 2019.

²*Investigador CINVESTAV 3F* is the highest possible category at CINVESTAV-IPN and is an honorary category for which evidence of high international impact is required. There are no more than 30 researchers (out of 656) at CINVESTAV-IPN who are 3F. Dr. Coello is one of the only two 3F Researchers within the “Technology” division of CINVESTAV-IPN which currently has over 200 researchers.

6. **Plenary speaker** at the *2018 IEEE Latin-American Conference on Computational Intelligence (2018 IEEE LA-CCI)*, Guadalajara, México, 7-9 November, 2018.
7. **Plenary speaker** at the *Conferencia de la Asociación Española para la Inteligencia Artificial 2018 (CAEPIA 2018)*, Granada, Spain, 23-26 October, 2018.
8. **Invited speaker** at the *Workshop on Multi-Objective Optimisation*, Shenzhen, China, 20-22 August, 2018.
9. **Invited speaker** at the *6th International Conference on the Theory and Practice of Natural Computing (TPNC'2017)*, Prague, Czech Republic, December 18-20, 2017.
10. **Keynote speaker** at the *30th Australasian Joint Conference on Artificial Intelligence (AI'17)*, Melbourne, Australia, 19-20 August, 2017.
11. **Keynote speaker** at the *2017 AI Hunan Summit Forum*, Changhsa, China, 29-30 June, 2017.
12. **Keynote speaker** at the *2016 Symposium on Search-Based Software Engineering (SSBSE'2016)*, Raleigh, North Carolina, USA, 8-10 October, 2016.
13. **Keynote speaker** at the *International IOSO Users Conference*, Moscow, Russia, 10-13 de July, 2016.
14. **Plenary speaker** at the *10th International Workshop on Hybrid Metaheuristics (HM 2016)*, Plymouth, UK, 8-10 June, 2016.
15. **Invited speaker** at the *Ezra's Round Table Seminar* of the Systems Engineering Program, at the College of Engineering of Cornell University, Ithaca, New York, October 30, 2015.
16. **Keynote speaker** at the *2nd Latin American Congress on Computational Intelligence & 12o Congresso Brasileiro de Inteligência Computacional (LA-CCI & CBIC 2015)*, Curitiba, Brazil, 14-16 October, 2015.
17. **Invited speaker** at the *IEEE CIS 2015 Summer School on Multi-Objective Optimization and Decision Making* Hefei, China, 6-8 July, 2015.
18. **Keynote speaker** at the international conference *Evolve 2015*, Iași, Romania, 18-24 June, 2015.
19. **Plenary speaker** at the *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, Sendai, Japan, 25-28 May, 2015.
20. **Keynote speaker** at the *11th IEEE International Conference on Networking, Sensing and Control (ICNSC14)*, Miami, Florida, USA, 7-9 April, 2014.
21. **Invited speaker** at the *Third International Symposium on Computing in Science and Engineering (ISCSE 2013)*, Izmir, Turkey, 24-25 October, 2013.
22. **Invited speaker** at the *Tenth International Conference on Evolutionary and Deterministic Methods for Design, Optimization and Control with Applications to Industrial and Societal Problems (EUROGEN 2013)*, La Palma de Gran Canaria, Spain, 7-9 October, 2013.
23. **Plenary speaker** during the *Third International Conference on Swarm Intelligence (ICSI'2012)*, Shenzhen, China, 17–20 June, 2012.
24. **Keynote speaker** at the *International Conference on Swarm Evolutionary and Memetic Computing (SEMCCO 2011)*, Visakhapatnam, India, 19-21 December, 2011.
25. **Invited speaker** (under the *Distinguished Visitor Program* of the *IEEE Computer Society*) at the Universidad del Valle, La Paz, Bolivia, 6 September 2011.
26. **Keynote speaker** at the *XVIII International Congress of Electronic, Electrical and Systems Engineering (INTERCON 2011)*, Lima, Peru, 9-12 August 2011.
27. **Plenary speaker** at the *2010 Online Conference on Soft Computing in Industrial Applications*, 15-27 November, 2010.
28. **Keynote speaker** at the *Inverse Problems, Design and Optimization Symposium, IPDO-2010*, João Pessoa, Brasil, 25-27 August, 2010.
29. **Keynote speaker** at the *International Conference on Computer Science, Communication & Information Technology*, Nanded, India, 9–11 January, 2010.
30. **Invited speaker** at the *Multiobjective Optimisation Workshop*, organized by *CSIRO Energy Technology*, Newcastle, Australia, September 2009.
31. **Plenary speaker** at the *9th International Conference on Intelligent Systems Design and Applications (ISDA'09)*, Pisa, Italy, November–December, 2009.
32. **Invited speaker** at the *2nd International Seminar on New Issues in Artificial Intelligence*, University Carlos III of Madrid, Colmenarejo, Spain, February, 2009.

33. **Plenary speaker** at the *VI IEEE Latin-American Summer School on Computational Intelligence*, Santiago, Chile, December, 2008.
34. **Plenary speaker** at the *International Conference on Neural Network and Genetic Algorithm in Materials Science and Engineering*, Kolkata, India, 9–11 January, 2008.
35. **Invited speaker** at the *2006 Congress on Evolutionary Computation (CEC'2006)*, Vancouver, Canada, 16–21 July, 2006.
36. **Keynote speaker** at the *XIII Latinamerican Conference on Operations Research (CLAIO)*, Montevideo, Uruguay, 27–30 November 2006.
37. **Invited speaker** at the *2006 IEEE Congress on Evolutionary Computation*, Vancouver, Canada, 21–26 July, 2006.
38. **Keynote speaker** at the *Seventh International Conference on Adaptive Computing in Design and Manufacture*, 25–27 April, 2006.
39. **Invited speaker** at the *International Seminar on Computational Intelligence 2005*, Mexico City, Mexico, 17–18 October, 2005.
40. **Keynote speaker** at the *XI ELAVIO (XI Latin American Summer Workshop on Operations Research)*, Villa de Leyva, Colombia, 25–29 July, 2005.
41. **Keynote speaker** at the *Fifth International Conference on Hybrid Intelligent Systems (HIS'2005)*, Rio de Janeiro, Brazil, 6–9 November 2005.
42. **Keynote speaker** at the *8th Joint Conference on Information Sciences (JCIS'2005)*, Salt Lake, Utah, USA, 21–26 July, 2005.
43. **Keynote speaker** at the *International Workshop on Biometric Technologies (BT'2004)*, Calgary, Canada, 22–23 June, 2004.
44. **Keynote speaker** at the *First Spanish Conference on Evolutionary and Bio-inspired Algorithms*, Mérida, Spain, February 2002.

External Reviewer of Grant Proposals

1. External evaluator of grant proposals for the *Fonds zur förderung der Wissenschaftlichen Forschung*, Austria, 2001.
2. External evaluator of grant proposals for the *Basic Research Grant Programme*, Ireland, 2002.
3. External evaluator of grant proposals for the *Council of Physical Sciences of the Netherlands Organization for Scientific Research (NWO)*, Netherlands, 2005.
4. External evaluator of grant proposals for the *Swiss National Science Foundation*, Switzerland, 2005.
5. External evaluator of grant proposals for the *Comisión Nacional de Investigación Científica y Tecnológica*, Chile, 2006.
6. External evaluator of grant proposals for the *European Research Council*, which is located in Brussels, Belgium, for the period 2009-2013.
7. In-Site external evaluator of a research project funded with \$699,189 euros. This project was sponsored by *Science Foundation Ireland*, and was located at the *University of Limerick*, Ireland, 2009.
8. External evaluator of grant proposals for the *Natural Sciences and Engineering Research Council of Canada (NSERC)*, Canada, 2011 and 2019.
9. External evaluator of grant proposals for the *Engineering and Physical Sciences Research Council (EPSRC)*, England, 2012.
10. External evaluator of grant proposals for the *Portuguese Foundation for Science and Technology*, Portugal, 2012.
11. External evaluator of grant proposals for the *Marsden Fund Council / Royal Society of New Zealand*, New Zealand, 2012 and 2016.
12. External evaluator of grant proposals for *COST - European Cooperation in Science and Technology*, Brussels, Belgium, 2013.
13. External evaluator of grant proposals for the *Fonds de la Recherche Scientifique - FNRS*, Belgium, 2013.
14. External evaluator of grant proposals for the *Israel Science Foundation*, Israel, 2013.
15. External evaluator of grant proposals for the *Austrian Science Fund (FWF)*, Austria, 2014, 2015 and 2016.
16. External evaluator of a bilateral project for the *Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO)*, Belgium, 2018.
17. External evaluator of grant proposals for the *National Research Foundation (NRF)*, South Africa, 2016 and 2020.
18. External evaluator of grant proposals for the *National Science Centre Poland*, Poland, 2016 and 2020.
19. External evaluator of grant proposals for the *Czech Science Foundation*, Czech Republic, 2020.

Awards

1. **2020 IEEE Computational Intelligence Society Evolutionary Computation Pioneer Award.** This award will be delivered in 2021. The award consists of a plaque plus a honorarium of \$2,500 US dollars.
2. **2019 Luis Elizondo Award** in the category **Science and Technology.** This award was delivered in November 14, 2019 at the Pabellón La Carreta of the Instituto Tecnológico y de Estudios Superiores de Monterrey Campus Monterrey. The award consists of a diploma, a sculpture and a check for \$13,000 US dollars.
3. **2016 The World Academy of Sciences (TWAS) Award** in *Engineering Sciences* for “pioneering contributions to the development of new algorithms based on bio-inspired metaheuristics for solving single- and multi-objective optimization problems.” The award was delivered in November, 2018 at the *28th General Meeting of the Third World Academy of Sciences*, in Trieste, Italy. The award consists of a plaque and a check for \$15,000 US dollars.
4. **Best Paper Award** from the *Evolutionary Multiobjective Optimization track* at the *2016 Genetic and Evolutionary Computation Conference (GECCO’2016)*, held in Denver, Colorado, USA, in July, 2016.
5. **IEEE Transactions on Evolutionary Computation Outstanding Paper Award for 2012 (bestowed in 2015).** This award was granted to the paper entitled “Using the Averaged Hausdorff Distance as a Performance Measure in Evolutionary Multi-Objective Optimization”, which was co-authored by Xavier Esquivel, Adriana Lara López and Oliver Schütze. The award was delivered by the President of the IEEE Computational Intelligence Society at the *2015 IEEE Congress on Evolutionary Computation*, in May, 2015. The award consists of a diploma and a check for \$1,000 US dollars.
6. **2013 IEEE Kiyo Tomiyasu Award** “for pioneering contributions to single- and multiobjective optimization techniques using bioinspired metaheuristics.” The award was delivered by the President-elect 2014 of the IEEE, and consisted of a bronze medal, a diploma and a check for \$10,000 US dollars. This is one of the prestigious *IEEE Technical Field Awards* (the most important awards granted by the Institute of Electrical and Electronics Engineers (IEEE)). Dr. Coello is the first Latinamerican researcher to receive this award, since its inception in 2001.
7. **IEEE Transactions on Evolutionary Computation Outstanding Paper Award for 2010 (bestowed in 2013).** This award was granted to the paper entitled “HCS: A New Local Search Strategy for Multiobjective Evolutionary Algorithms”, which was co-authored by Adriana Lara López, Oliver Schütze and Gustavo Sánchez. This is the first time that Latin American authors receive this important award, granted to the best paper published in the *IEEE Transactions on Evolutionary Computation* during the year 2010. The award was delivered by the Editor-in-Chief of the *IEEE Transactions on Evolutionary Computation* during the *2013 IEEE Congress on Evolutionary Computation*, at the awards banquet which took place on June 22nd, 2013 in Cancún, México. The award consisted of a diploma and a check for \$1,000 US dollars.
8. **National Award to the Socio-Humanistic, Scientific and Technological Research UASLP 2012**, granted by the Universidad Autónoma de San Luis Potosí, México. This award was delivered on December 11th, 2012 by the Dean of the Universidad Autónoma de San Luis Potosí in a ceremony held at Centro Cultural Universitario Bicentenario of the Universidad Autónoma de San Luis Potosí. The award consisted of a diploma, a silver medal and a check for \$120,000 Mexican pesos.
9. **2012 National Medal of Science and Arts** in the area of *Physical, Mathematical and Natural Sciences*. This is the most important award that a mexican scientist can obtain in his/her country, and is granted by the Presidency of Mexico. The award consisted of a diploma, a gold medal and a check for \$650,000 Mexican pesos and was delivered by the President of Mexico, Felipe Calderón Hinojosa in November, 2012. This was only the second time in which a computer scientist received this award, since its inception, in 1945, and Dr. Coello is the first to obtain it in “exact sciences”.
10. **Scopus Award Mexico 2012 in Engineering.** This award was granted by *Elsevier* and the *Mexican Council for Science and Technology* for having the highest number of publications and citationtions in the area, in the last 5 years. Dr. Coello is the first mexican computer scientist to receive this award, since its inception, in 2007. The award consisted of a diploma and a sculpture.
11. **Ciudad Capital: Heberto Castillo 2011 Award in Basic Science** in the category of scientists who are 45 years old or less. This award is granted by the government of Mexico City upon the recommendation of the Institute of Science and Tecnology of Mexico City. The award consisted of a silver medal and a check for \$200,000 Mexican pesos. The award was delivered by the Major of Mexico City, Marcelo Ebrard Casaubón in November, 2011.
12. **Outstanding chapter award**, granted by the editorial board of the book entitled *Handbook of Swarm Intelligence-Concepts, Principles and Application*, published by *Springer* in January 2011. The award consisted of a check for \$100 US dollars.
13. **IEEE Fellow** (since January 2011) for “contributions to multi-objective optimization and constraint-handling techniques”. Dr. Coello is one of the few (less than 10) experts in evolutionary computation in the world who are IEEE Fellows.
14. **Medal to the Scientific Merit**, granted by the *Asamblea Legislativa del Distrito Federal* (Mexico City’s congressmen). The award consists of a diploma and a gold medal and it was delivered in October, 2010.

15. **2007 National Research Award** in the area of *exact sciences*. This award is granted by the Mexican Academy of Science to researchers under the age of 40 who have shown an outstanding performance, and is the most prestigious scientific award granted in Mexico to young scientists. The award consisted of a diploma and a check for \$50,000 Mexican pesos and was delivered by the President of Mexico, Felipe Calderón Hinojosa in October, 2007. Dr. Coello is the only computer scientist who has received this award, since its inception, in 1961.
16. **Best Paper Award** at the international conference *Artificial Evolution 2009 (EA' 2009)*, held in Strasbourg, France in October, 2009.
17. **Best Paper Award** from the *Evolutionary Multiobjective Optimization track* at the *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, held in Atlanta, Georgia, USA, in July, 2008.
18. **Best Paper Award** from the *Evolutionary Multiobjective Optimization track* at the *2007 Genetic and Evolutionary Computation Conference (GECCO'2007)*, held in London, UK, in July, 2007.
19. **Best Paper Award** in the category “Novel Smart Engineering System Design Award” at the international conference *Artificial Neural Networks in Engineering (ANNIE'2001)*, held in St. Louis, Missouri, USA, in November 2001.
20. Full scholarship (tuition and board) from the Secretaría de Educación Pública (Mexican’s Ministry of Education) to pursue MSc and PhD studies in Computer Science at *Tulane University*, New Orleans, Louisiana, USA, 1991–1996.
21. Presidential Award Medal *Diario de México* for being one of the best undergraduate students of Mexico, 1990. The award consisted of a medal.

Impact

- Dr. Coello has had 6 of his papers in the *Hot Papers List* of the *ISI Web of Science* for being the most highly cited in the last 10 years. Some of the algorithms developed by Dr. Coello have been discussed in detail by other authors in monographs, PhD theses and conference papers.
- According to his record in *Google Scholar*³, the total number of citations to the publications of Dr. Coello is **51,753**, although this figure includes self-citations and citations to unpublished manuscripts and to proceedings and books that he has edited.
- According to *Scopus*, he has **21,726** citations, excluding self-citations and citations from his co-authors. According to *Clarivate Analytics* (formerly known as the *ISI Web of Science*), he has **16,625** citations, excluding self-citations.
- His **h-index** is of **94**, according to *Google Scholar*, **65** according to *Scopus* and **60** according to *Clarivate Analytics* (as of February 27th, 2021).
- Listed as one of the **300 most highly cited scientists in the world** (in *Computer Science*) by *Elsevier* for the *ShanghaiRanking’s Global Ranking of Academic Subjects 2016* (as of March 2017).
- Ranked **314** in the world and **1** in Mexico in the *6th Edition of the Guide2Research 2020 Ranking of Top 1000 Scientists in the field of Computer Science and Electronics*. This ranking is based on the h-index metric provided by *Google Scholar* and includes only scientists with an h-index of at least 40 and a considerable number of research papers indexed on DBLP. The full world ranking is available at: <http://www.guide2research.com/scientists>

Professional Societies

- Member of the *Council of Authors* of SIGEVO (formerly known as the *International Society for Genetic and Evolutionary Computation*), since 2003.
- Member of *Sigma Xi, The Scientific Research Society*, 2004–date.
- Member of the Advisory Board of the *Hispanic-American Fuzzy Systems Association (HAFSA)*, 2004–date.
- Member of the Mexican Academy of Science (since 2002).
- Member of the Advisory Board of Science and Technology of CONACyT (the mexican equivalent of the *National Science Foundation*), 2000-2002.
- National Researcher Level **3** (National System of Researchers), since 2005. Level 3 is the highest possible. There are only 15 computer scientists in Mexico with this level. From them, Dr. Coello is the only one who has received this distinction under the age of 40.
- Member of “Upsilon Pi Epsilon” (UPE).
- Member of the “Association for Computing Machinery” (ACM).

³See: <http://scholar.google.com/citations?user=oJMnjNYAAAAJ&hl=en>