

List of references on constraint-handling techniques used with evolutionary algorithms.

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List of References on Constraint-Handling Techniques used with Evolutionary Algorithms

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A

1. Abdel-Rahman Hedar A. Ahmed. [Studies on Metaheuristics for Continuous Global Optimization Problems](#), PhD thesis, Kyoto University, Kyoto, Japan, June 2004.
2. Salwani Abdullah and Hamza Turabieh. **On the use of multi neighbourhood structures within a Tabu-based memetic approach to university timetabling problems**, *Information Sciences*, Vol. 191, pp. 146--168, May 15, 2012.
3. A. Abedian, M. H. Ghiasi and B. Dehghan-Manshadi. **Effect of a Linear-Exponential Penalty Function on the GA's Efficiency in Optimization of a**

4. Ahmed Abbas and Sajjad Haider. **Comparison of AIS and PSO for Constrained Portfolio Optimization**, in *2009 International Conference on Information and Financial Engineering (ICIFE 2009)*, pp. 50--54, IEEE Computer Society Press, Singapore, 17-20 April 2009.
5. A.A. Abou El Ela, M.A. Abido and S.R. Spea. **Differential evolution algorithm for emission constrained economic power dispatch problem**, *Electric Power Systems Research*, Vol. 80, No. 10, pp. 1286--1292, October 2010.
6. Adnan Acan and Ahmet Unveren. **An Evolutionary Constraint Satisfaction Solution for Over the Cell Channel Routing**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pp. 838--849, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3103.
7. Adnan Acan, Ahmet Ünveren and Yüce Tekol. **Evolutionary Estimation of Assignment-ordering function for CSP-modeled Combinatorial Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, Vol. 1, pp. 560--565, Piscataway, New Jersey, USA, December 2003. Canberra, Australia, IEEE Service Center.
8. D.P. Acharya, G. Panda and Y.V.S. Lakshmi. **Constrained Genetic Algorithm Based Independent Component Analysis**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 2443--2449, IEEE Press, Singapore, September 2007.
9. Hojjat Adeli and Nai-Tsang Cheng. **Augmented Lagrangian Genetic Algorithm for Structural Optimization**, *Journal of Aerospace Engineering*, Vol. 7, No. 1, pp. 104--118, January 1994.
10. M. H. Afshar and M. A. Mariño. **A parameter-free self-adapting boundary genetic search for pipe network optimization**, *Computational Optimization and Applications*, Vol. 37, No. 1, pp. 83--102, May 2007.
11. M.H. Afshar. **Penalty adapting ant algorithm: application to pipe network optimization**, *Engineering Optimization*, Vol. 40, No. 10, pp. 969--987, October 2008.
12. Hime Aguiar e Oliveira Junior. **[Evolutionary Global Optimization, Manifolds and Applications](#)**, Springer, Switzerland, 2016, ISBN 978-3-319-26466-0.

13. Adan E. Aguilar-Justo and Efrén Mezura-Montes. **Towards an Improvement of Variable Interaction Identification for Large-Scale Constrained Problems**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 4167--4174, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
14. Bahriye Akay and Dervis Karaboga. **Artificial bee colony algorithm for large-scale problems and engineering design optimization**, *Journal of Intelligent Manufacturing*, Vol. 23, No. 4, pp. 1001--1014, August 2012.
15. Shamim Akhtar, Kang Tai and Tapabrata Ray. **A Socio-Behavioural Simulation Model for Engineering Design Optimization**, *Engineering Optimization*, Vol. 34, No. 4, pp. 341--354, 2002.
16. Youhei Akimoto, Yuichi Nagata, Isao Ono and Shigenobu Kobayashi. **Theoretical Analysis of Evolutionary Computation on Continuously Differentiable Functions**, in *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pp. 1401-1408, ACM Press, Portland, Oregon, USA, July 7--11, 2010. ISBN 978-1-4503-0072-8.
17. Youhei Akimoto and Shinichi Shirakawa. **Natural Gradient Approach for Linearly Constrained Continuous Optimization**, in Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipic and Jim Smith (editors), *Parallel Problem Solving from Nature â “ PPSN XIII, 13th International Conference*, pp. 252--261, Springer. Lecture Notes in Computer Science Vol. 8672, Ljubljana, Slovenia, September 13-17, 2014.
18. Jarmo T. Alander and Jouni Lampinen. **Cam Shape Optimization by Genetic Algorithm**, in D. Quagliarella, J. Périaux, C. Poloni and G. Winter (editors), *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science*, pp. 153-174. John Wiley & Sons, England, 1998.
19. M. M. Ali and Z. Kajee-Bagdadi. **A local exploration-based differential evolution algorithm for constrained global optimization**, *Applied Mathematics and Computation*, Vol. 208, No. 1, pp. 31-48, February 1, 2009.
20. Mostafa Ali, Robert Reynolds, Rose Ali and Ayad Salhieh. **Knowledge-Based Constrained Function Optimization Using Cultural Algorithms with an Enhanced Social Influence Metaphor**, in Kurosh Madani, Antonio Dourado Correia, Agostinho Rosa and Joaquin Filipe (editors), *Computational Intelligence, Studies in Computational Intelligence*, pp. 103--119, Berlin, ISBN 978-3-642-20206-3, 2011.
21. Mostafa Z. Ali, Ayad Salhieh and Randa T. Abu Snaieh. **Boosting Cultural Algorithms with an Incongruous Layered Social Fabric Influence Function**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1225--1232, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.

22. Musrrat Alim, Millie Pant, Ajith Abraham and Chang Wook Ahn. **Swarm Directions Embedded Differential Evolution for Faster Convergence of Global Optimization Problems**, *International Journal on Artificial Intelligence Tools*, Vol. 21, No. 3, Article Number: 1240013, June 2012.
23. Layak Ali, Samrat L. Sabat and Siba K. Udgata. **Particle swarm optimisation with stochastic ranking for constrained numerical and engineering benchmark problems**, *International Journal of Bio-Inspired Computation*, Vol. 4, No. 3, pp. 155--166, 2012.
24. M.M. Ali and W.X. Zhu. **A penalty function-based differential evolution algorithm for constrained global optimization**, *Computational Optimization and Applications*, Vol. 54, No. 3, pp. 707--739, April 2013.
25. Mostafa Z. Ali and Noor H. Awad. **A novel class of niche hybrid Cultural Algorithms for continuous engineering optimization**, *Information Sciences*, Vol. 267, pp. 158--190, May 20, 2014.
26. Alpay Alkan and Ender Özcan. **Memetic Algorithms for Timetabling**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1796-1802, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
27. M.R. AlRashidi and M.E. El-Hawary. **Emission-economic dispatch using a novel constraint handling particle swarm optimization strategy**, in *2006 Canadian Conference on Electrical and Computer Engineering*, pp. 486--491, IEEE Press, Ottawa, Canada, May 7-10, 2006, ISBN 978-1-4244-0037-9.
28. Jaime Alvarez-Gallegos, Carlos Alberto Cruz Villar and Edgar Alfredo Portilla Flores. **Evolutionary Dynamic Optimization of a Continuously Variable Transmission for Mechanical Efficiency Maximization**. In Alexander Gelbukh, Álvaro de Albornoz and Hugo Terashima-Marín (editors), *MICAI 2005: Advances in Artificial Intelligence*, pages 1093-1102, Monterrey, México, November 2005. Springer.
29. María-Yaneli Ameca-Alducin, Efrén Mezura-Montes and Nicandro Cruz-Ramírez. **Differential Evolution with Combined Variants for Dynamic Constrained Optimization**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 975--982, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
30. María-Yaneli Ameca-Alducin, Efrén Mezura-Montes and Nicandro Cruz-Ramírez. **A Repair Method for Differential Evolution with Combined Variants to Solve Dynamic Constrained Optimization Problems**, in *Proceedings of the 2015 Annual Conference on Genetic and Evolutionary Computation GECCO'2015*, pp. 241--248, ACM Press, Madrid, Spain, July 11-15, 2015, ISBN: 978-1-4503-3472-3.

31. Nima Amjady and Hossein Sharifzadeh. **Security constrained optimal power flow considering detailed generator model by a new robust differential evolution algorithm**, *Electric Power Systems Research*, Vol. 81, No. 2, pp. 740--749, February, 2011.
32. Nima Amjady, Hamzeh Fatemi and Hamidreza Zareipour. **Solution of Optimal Power Flow Subject to Security Constraints by a New Improved Bacterial Foraging Method**, *IEEE Transactions on Power Systems*, Vol. 27, No. 3, pp. 1311--1323, August 2012.
33. Adil Amirjanov. **Investigation of a changing range genetic algorithm in noisy environments**, *International Journal for Numerical Methods in Engineering*, Vol. 73, No. 1, pp. 26--46, January 1, 2008.
34. A. Andrade-Campos, S. Thuillier, P. Pilvin and F. Teixeira-Dias. **On the determination of material parameters for internal variable thermoelastic-viscoplastic constitutive models**, *International Journal of Plasticity*, Vol. 23, No. 8, pp. 1349-1379, 2007
35. Anders Angantyr, Johan Andersson and Jan-Olov Aidanpaa. **Constrained Optimization based on a Multiobjective Evolutionary Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1560-1567, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
36. Anders Angantyr and Jan Olov Aidanpää. **A Pareto-Based Genetic Algorithm Search Approach to Handle Damped Natural Frequency Constraints in Turbo Generator Rotor System Design**. *Journal of Engineering for Gas Turbines and Power*, 126(3):619-625, July 2004.
37. P. Antonin, A.P. Catherine, D. Serge and P. Luc. **About the relevance of mathematical programming and stochastic optimisation methods : Application to optimal batch plant design problems**, in *15th European Symposium on Computer-Aided Process Engineering (ESCAPE-15)*, pp. 49--54, Elsevier, Computer-Aided Chemical Engineering Series, Barcelona, Spain, May 29-June 1, 2005, ISBN 0-444-51987-4.
38. Jaroslaw Arabas, Adam Szczepankiewicz and Tomasz Wroniak. **Experimental Comparison of Methods to Handle Boundary Constraints in Differential Evolution**. in Robert Schaefer, Carlos Cotta, Joanna Kolodziej and Günter Rudolph (editors), *Parallel Problem Solving from Nature--PPSN XI, 11th International Conference, Proceedings, Part II*, pp. 411--420, Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September, 2010.
39. 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.
40. Victoria S. Aragón, Susana C. Esquivel and Carlos A. Coello Coello. [Artificial Immune System for Solving Constrained Optimization Problems](#), *Revista Iberoamericana de Inteligencia Artificial*, Vol. 11, No. 35, pp. 55--66, 2007.
 41. Victoria S. Aragón, Susana C. Esquivel and Carlos A. Coello Coello. [Optimizing Constrained Problems through a T-Cell Artificial Immune System](#), *Journal of Computer Science & Technology*, Vol. 8, No. 3, pp. 158-165, 2008.
 42. Marcella C. Araujo, Elizabeth F. Wanner, Frederico G. Guimarães and Ricardo H. C. Takahashi. **Constrained Optimization Based on Quadratic Approximations in Genetic Algorithms**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 9, pp. 193-217, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
 43. Dirk V. Arnold and Daniel Brauer. **On the Behaviour of the (1+1)-ES for a Simple Constrained Problem**, in Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni and Nicola Beume (editors), *Parallel Problem Solving from Nature--PPSN X*, pp. 1--10, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008
 44. Dirk V. Arnold. **On the behaviour of the (1,)-ES for a simple constrained problem**, in Hans-Georg Beyer and William B. Langdon (editors), *Proceedings of the 2011 ACM SIGEVO Foundations of Genetic Algorithms XI (FOGA'2011)*, pp. 15--24, ACM Press, Schwarzenberg, Austria, January 5--9, 2011.
 45. Dirk V. Arnold. **Analysis of a Repair Mechanism for the (1,)-ES Applied to a Simple Constrained Problem**, in *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pp. 853--860, ACM Press, Dublin, Ireland, July 12-16, 2011.
 46. Dirk V. Arnold and Nikolaus Hausen. **A (1+1)-CMA-ES for Constrained Optimisation**, in *2012 Genetic and Evolutionary Computation Conference (GECCO'2012)*, pp. 297--304, ACM Press, Philadelphia, USA, July 2012, ISBN: 978-1-4503-1177-9.
 47. Dirk V. Arnold. **On the Behaviour of the (1,)- SA-ES for a Constrained Linear Problem**, in Carlos A. Coello Coello, Vincenzo Cutello, Kalyanmoy Deb, Stephanie Forrest, Giuseppe Nicosia and Mario Pavone (editors), *Parallel*

Problem Solving from Nature - PPSN XII, 12th International Conference, pp. 82--91, Springer. Lecture Notes in Computer Science Vol. 7491, Taormina, Italy, September 1-5, 2012.

48. Dirk V. Arnold. **On the Behaviour of the (1,)-ES for a Conically Constrained Problem**, in *2013 Genetic and Evolutionary Computation Conference (GECCO'2013)*, pp. 423--430, ACM Press, New York, USA, July 6-10, 2013, ISBN 978-1-4503-1963-8.
49. Dirk V. Arnold and Jeremy Porter. **Towards an Augmented Lagrangian Constraint-Handling Approach for the (1+1)-ES**, in *2015 Genetic and Evolutionary Computation Conference (GECCO 2015)*, pp. 249--256, ACM Press, Madrid, Spain, July 11-15, 2015, ISBN 978-1-4503-3472-3.
50. Dirk V. Arnold. **An Active-Set Evolution Strategy for Optimization with Known Constraints**, 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. 192--202, Springer. Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17-21, 2016, ISBN 978-3-319-45822-9.
51. Md. Asafuddoula, Tapabrata Ray and Ruhul Sarker. **An Adaptive Differential Evolution Algorithm and its Performance on Real World Optimization Problems**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1057--1062, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
52. Md Asafuddoula, Tapabrata Ray, Ruhul Sarker and Khairu Alam. **An Adaptive Constraint Handling Approach Embedded MOEA/D**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 2516--2523, IEEE Press, Brisbane, Australia, June 10-15, 2012.
53. Asma Atamna, Anne Auger and Nikolaus Hansen. **Augmented Lagrangian Constraint Handling for CMA-ES --- Case of a Single Linear Constraint**, 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. 181--191, Springer. Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17-21, 2016, ISBN 978-3-319-45822-9.
54. Asma Atamna, Anne Auger and Nikolaus Hansen. **Analysis of Linear Convergence of a (1 + 1)-ES with Augmented Lagrangian Constraint Handling**, in *2016 Genetic and Evolutionary Computation Conference (GECCO'2016)*, pp. 213--220, ACM Press, Denver, Colorado, USA, 20-24 July, 2016, ISBN 978-1-4503-4206-3.
55. M.M. Atiqullah and S.S. Rao. **Simulated annealing and parallel processing:**

An implementation for constrained global design optimization, *Engineering Optimization*, Vol. 32, No. 5, pp. 659--685, 2000.

56. Gideon Avigad and Kalyanmoy Deb. **The Sequential Optimization-Constraint Multi-objective Problem and its Applications for robust Planning of robot paths**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 2101-2108, IEEE Press, Singapore, September 2007.
57. M. Tamer Ayvaz, Ali Haydar Kayhan, Huseyin Ceylan and Gurhan Gurarslan. **Hybridizing the harmony search algorithm with a spreadsheet 'Solver' for solving continuous engineering optimization problems**, *Engineering Optimization*, Vol. 41, No. 12, pp. 1119--1144, 2009.

B

58. Nebojsa Bacanin and Milan Tuba. **Artificial Bee Colony (ABC) Algorithm for Constrained Optimization Improved with Genetic Operators**, *Studies in Informatics and Control*, Vol. 21, No. 2, pp. 137--146, June, 2012.
59. Thomas Bäck, Agoston E. Eiben and Marco E. Vink. **A Superior Evolutionary Algorithm for 3-SAT**, in V.W. Porto, N. Saravanan, D. Waagen and A.E. Eiben (editors), *Proceedings of the 7th International Conference on Evolutionary Programming (EP98)*, pages 125-136, Heidelberg, Germany, March 1998. San Diego, California, USA, Springer-Verlag. Lecture Notes in Computer Science Vol. 1447.
60. Thomas Bäck and Sami Khuri. [**An Evolutionary Heuristic for the Maximum Independent Set Problem**](#), in Z. Michalewicz, J.D. Schaffer, H.-P. Schwefel, D.B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation*, pp. 531--535, IEEE Press, Piscataway, New Jersey, USA, 1994.
61. Thomas Bäck, Martin Schültz and Sami Khuri. **A Comparative Study of Penalty Function, a Repair Heuristic and Stochastic Operators with the Set-Covering Problem**, in J.-M. Alliot, E. Lutton, E. Ronald, M. Schoenauer and D. Snyers (editors), *Proceedings of the 2nd European Conference on Artificial Evolution (AE 1995)*, pages 320-332, Heidelberg, Germany, September 1995. Brest, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1063.
62. Samineh Bagheri, Wolfgang Konen and Thomas Bäck. **Equality Constraint Handling for Surrogate-Assisted Constrained Optimization**, in *2016 IEEE*

63. Ruibin Bai, Edmund K. Burke, Graham Kendall, Jingpeng Li and Barry McCollum. **A Hybrid Evolutionary Approach to the Nurse Rostering Problem**, *IEEE Transactions On Evolutionary Computation*, Vol. 14, No. 4, pp. 580-590, August 2010.
64. Liang Bai, Yongheng Jiang and Dexian Huang. **A Novel Two-Level Optimization Framework Based on Constrained Ordinal Optimization and Evolutionary Algorithms for Scheduling of Multipipeline Crude Oil Blending**, *Industrial & Engineering Chemistry Research*, Vol. 51, No. 26, pp. 9078--9093, July 4, 2012.
65. Liang Bai, Junyan Wang, Yongheng Jiang and Dexian Huang. **Improved Hybrid Differential Evolution-Estimation of Distribution Algorithm with Feasibility Rules for NLP/MINLP Engineering Optimization Problems**, *Chinese Journal of Chemical Engineering*, Vol. 20, No. 6, pp. 1074--1080, December 2012.
66. Stuart Bain, John Thornton and Abdul Sattar. **Evolving Algorithms for Constraint Satisfaction**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 265-272, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
67. Jerzy Balicki. **Multi-criterion Evolutionary Algorithm with Model of the Immune System to Handle Constraints for Task Assignments**. In Leszek Rutkowski, Jörg H. Siekmann, Ryszard Tadeusiewicz and Lotfi A. Zadeh (editors), *Artificial Intelligence and Soft Computing - ICAISC 2004, 7th International Conference. Proceedings*, pages 394-399, Zakopane, Poland, June 2004. Springer. Lecture Notes in Computer Science. Volume 3070.
68. Jerzy Balicki and Zygmunt Kitowski. **Model of the Immune System to Handle Constraints in Evolutionary Algorithm for Pareto Task Assignments**, in Mieczyslaw A. Kłopotek, Sławomir T. Wierzchon and Krzysztof Trojanowski (editors), *Intelligent Information Processing and Web Mining, Proceedings of the International IIS: IIPWM'03*, pages 3-12. Springer, 2003.
69. Sunith Bandaru, Rupesh Tulshyan and Kalyanmoy Deb. **Modified SBX and Adaptive Mutation for Real World Single Objective Optimization**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1335--1342, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
70. Oliver Bandte and Sergey Malinchik. **A Broad and Narrow Approach to Interactive Evolutionary Design - An Aircraft Design Example**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark

Harman, Owen Holland, Pier Luca Lanzi, Lee Spector and Andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 883-895, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3103.

71. J.R. Banga, C.G. Moles and A.A. Alonso. **Global optimization of bioprocesses using stochastic and hybrid methods**, in C.A. Floudas and P. Pardalos (editors), *Frontiers in Global Optimization*, pp. 45--70, Kluwer Academic Publishers, 2004, ISBN 1-4020-7699-1.
72. Helio J. C. Barbosa. **A Coevolutionary Genetic Algorithm for Constrained Optimization**, in *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 3, pages 1605-1611, Piscataway, New Jersey, July 1999. IEEE Service Center.
73. Helio J.C. Barbosa and Afonso C.C. Lemonge. **An adaptive penalty scheme in genetic algorithms for constrained optimization problems**, in W.B. Langdon, E. Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M. A. Potter, A.C. Schultz, J. F. Miller, E. Burke and N. Jonoska (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 287-294, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
74. Helio J.C. Barbosa and Afonso C.C. Lemonge. **An Adaptive Penalty Scheme for Steady-State Genetic Algorithms**, in Erick Cantú-Paz, James A. Foster, Kalyanmoy Deb, Lawrence David Davis, Rajkumar Roy, Una-May O' Reilly, Hans-Georg Beyer, Russell Standish, Graham Kendall, Stewart Wilson, Mark Harman, Joachim Wegener, Dipankar Dasgupta, Mitch A. Potter, Alan C. Schultz, Kathryn A. Dowsland, Natasha Jonoska and Julian Miller (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2003)*, pages 718-729, Heidelberg, Germany, July 2003. Chicago, Illinois, Springer Verlag. Lecture Notes in Computer Science Vol. 2723.
75. H.J.C. Barbosa and A.C.C. Lemonge. **A new adaptive penalty scheme for genetic algorithms**, *Information Sciences*, Vol. 156, Nos. 3-4, pp. 215--251, November 2003.
76. Helio J.C. Barbosa and Afonso C.C. Lemonge. **A Genetic Algorithm Encoding for a Class of Cardinality Constraints**. In H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cant Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Mancoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 1193-1200, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.

77. Helio J. C. Barbosa, Heder S. Bernardino and André M. S. Barreto. **Using performance profiles to analyze the results of the 2006 CEC constrained optimization competition**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 4586--4593, IEEE Press, Barcelona, Spain, July 18--23, 2010.
78. Helio J.C. Barbosa, Alfonso C.C. Lemonge, Leonardo G. Fonseca and Heder S. Bernardino. **Comparing Two Constraint Handling Techniques in a Binary-Coded Genetic Algorithm for Optimization Problems**, in Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis and Kay Chen Tan (editors), *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pp. 125--134, Springer. Lecture Notes in Computer Science Vol. 6457, Kanpur, India, December 1-4, 2010.
79. Vincent Barichard and Jin-Kao Hao. **A Population and Interval Constraint Propagation Algorithm**, in Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb and Lothar Thiele (editors), *Evolutionary Multi-Criterion Optimization. Second International Conference, EMO 2003*, pages 88-101, Faro, Portugal, April 2003. Springer. Lecture Notes in Computer Science. Volume 2632.
80. D.J. Barrett, M.J. Hill, L.B. Hutley, J. Beringer, J.H. Xu, G.D. Cook, J.O. Carter and R.J. Williams. **Prospects for improving savanna biophysical models by using multiple-constraints model-data assimilation methods**. *Australian Journal of Botany*, 53(7):689-714, 2005.
81. S.K. Basu and A.K. Bhatia. **A naive genetic approach for non-stationary constrained problems**, *Soft Computing*, Vol. 10, No. 2, pp. 152--162, January 2006.
82. Joaquín Bautista and Jordi Pereira. **Ant Algorithms for Assembly Line Balancing**, in Marco Dorigo, Gianna Di Caro and Michael Sampels (editors), *Proceedings of the Third International Workshop, (ANTS'2002)*, pages 65-75. Brussels, Belgium, Springer Verlag, September 2002. Lecture Notes in Computer Science Vol. 2463.
83. Adil Baykasoglu. **Design optimization with chaos embedded great deluge algorithm**, *Applied Soft Computing*, Vol. 12, No. 3, pp. 1055--1067, March 2012.
84. James C. Bean. **Genetics and random keys for sequencing and optimization**. Technical Report TR 92-43, Department of Industrial and Operations Engineering, The University of Michigan, 1992.
85. James C. Bean. **Genetics and random keys for sequencing and optimization**.

86. Eric Beaser, Jennifer K. Schwartz, Caleb B. Bell and Edward I. Solomon. **Hybrid Genetic Algorithm with an Adaptive Penalty Function for Fitting Multimodal Experimental Data: Application to Exchange-Coupled Non-Kramers Binuclear Iron Active Sites**, *Journal of Chemical Information and Modeling*, Vol. 51, No. 9, pp. 2164--2173, September, 2011.
87. James C. Bean and Atidel Ben Hadj-Alouane. **A Dual Genetic Algorithm for Bounded Integer Programs**. Technical Report TR 92-53, Department of Industrial and Operations Engineering, The University of Michigan, 1992. To appear in R.A.I.R.O.-R.O. (invited submission to special issue on GAs and OR).
88. Meriema Belaidouni and Jin-Kao Hao. **An Analysis of the Configuration Space of the Maximal Constraint Satisfaction Problem**. In M. Schoenauer, K. Deb, G. Rudolph, X. Yao, E. Lutton, J.J. Merelo and H.-P. Schwefel (editors), *Proceedings of 6th Parallel Problem Solving From Nature (PPSN VI)*, pages 49-58, Heidelberg, Germany, September 2000. Paris, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1917.
89. A. D. Belegundu and J. S. Arora. **A computational study of transformation methods for optimal design**. *AIAA Journal*, 22(4):535-542, 1984.
90. Sheela V. Belur. **CORE: Constrained Optimization by Random Evolution**, in John R. Koza (editor), *Late Breaking Papers at the Genetic Programming 1997 Conference*, pages 280-286, Stanford University, California, July 1997. Stanford Bookstore.
91. H.S. Bernardino, H.J.C. Barbosa and A.C.C Lemong. **A Hybrid Genetic Algorithm for Constrained Optimization Problems in Mechanical Engineering**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 646--653, Singapore, September 2007. IEEE Press
92. H. S. Bernardino, H. J. C. Barbosa, A. C. C. Lemonge and L. G. Fonseca. **A New Hybrid AIS-GA for Constrained Optimization Problems in Mechanical Engineering**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 1455--1462, IEEE Service Center, Hong Kong, June 2008.
93. Heder S. Bernardino, Helio J. C. Barbosa, Afonso C. C. Lemonge and Leonardo G. Fonseca. **On GA-AIS Hybrids for Constrained Optimization Problems in Engineering**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 8, pp. 167-192, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
94. Heder S. Bernardino and Helio J. C. Barbosa. **Artificial Immune Systems for**

Optimization, in Raymond Chiong (Editor), *Nature-Inspired Algorithms for Optimisation*, pp. 389--411, Springer, Berlin, ISBN 978-3-642-00266-3, 2009.

95. J. L. Bernier, C. Ilia Herráiz, J. J. Merelo, S. Olmeda and A. Prieto. **Solving Mastermind Using GAs and Simulated Annealing: A Case of Dynamic Constraint Optimization**. In H.-M. Voigt, W. Ebeling, I. Rechenberg and H.-P. Schwefel (editors), *Proceedings of the Fourth Conference on Parallel Problem Solving from Nature (PPSN IV)*, pages 554-563, Heidelberg, Germany, September 1996. Berlin, Germany, Springer-Verlag.
96. Hans-Georg Beyer and Steffen Finck. **On the Design of Constraint Covariance Matrix Self-Adaptation Evolution Strategies Including a Cardinality Constraint**, *IEEE Transactions on Evolutionary Computation*, Vol. 16, No. 4, pp. 578--596, August 2012.
97. Hans-Geogr Beyer, Steffen Finck and Thomas Breuer. **Evolution on trees: On the design of an evolution strategy for scenario-based multi-period portfolio optimization under transaction costs**, *Swarm and Evolutionary Computation*, Vol. 17, pp. 74--87, August 2014.
98. M. A. Bhatti, E. Polak and K. S. Pister. **OPTDYN--A General Purpose Optimization Program for Problems With or Without Dynamic Constraints**. Technical Report UCB/EERC-79/16, University of California, Berkeley, 1979.
99. V. Bhuvaneshwaran and R. Langari. **Design optimization using genetic algorithms and fuzzy constraints and fitness functions**, in O. Nasaoui, H. Frigui and J. M. Keller (editors), *Proceedings of the 12th IEEE International Conference on Fuzzy Systems*, pp. 354--359, IEEE Press, St Louis, Missouri, USA, May 25-28, 2003, ISBN 0-7803-7810-5.
100. Xiaojun Bi and Jue Wang. **Constrained Optimization Based on Epsilon Constrained Biogeography-Based Optimization**, in *2012 4th International Conference on Intelligent Human-Machine Systems and Cybernetics (IHMSC)*, pp. 369--372, IEEE Computer Society Press, Nanchang, China, August 26-27, 2014, ISBN 978-1-4673-1902-7.
101. Davide Bianchi, Simone Genovesi and Agostino Monorchio. **Constrained Pareto Optimization of Wide Band and Steerable Concentric Ring Arrays**, *IEEE Transactions on Antennas and Propagation*, Vol. 60, No. 7, pp. 3195--3204, July 2012.
102. Piotr Bigaj and Janusz Kacprzyk. **A memetic algorithm based procedure for a global path planning of a movement constrained mobile robot**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 135--141, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
103. George Bilchev and Ian C. Parmee. **The Ant Colony Metaphor for Searching**

Continuous Design Spaces, in Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 25-39, Sheffield, U.K., April 1995. Springer-Verlag. Lecture Notes in Computer Science No. 993.

104. George Bilchev and Ian C. Parmee. **Constrained and Multi-Modal Optimisation with an Ant Colony Search Model**, in Ian C. Parmee and M. J. Denham (editors), *Proceedings of 2nd International Conference on Adaptive Computing in Engineering Design and Control*. University of Plymouth, Plymouth, UK, March 1996.
105. George Bilchev and Ian Parmee. **Constraint Handling for the Fault Coverage Code Generation Problem: An Inductive Evolutionary Approach**, in H.-M. Voigt, W. Ebeling, I. Rechenberg and H.-P. Schwefel (editors), *Proceedings of the Fourth Conference on Parallel Problem Solving from Nature (PPSN IV)*, pages 880-889, Heidelberg, Germany, September 1996. Berlin, Germany, Springer-Verlag.
106. George Bilchev and Ian Parmee. **Constraint handling for the fault coverage code generation problem: An inductive evolutionary approach**, in Hans-Michael Voigt, Werner Ebeling, Ingo Rechenberger and Hans-Paul Schwefel (editors), *Parallel Problem Solving from Nature â " PPSN IV*, pp. 880-889, Springer. Lecture Notes in Computer Science, Vol. 1141, Berlin, Germany, 1996.
107. Michael S. Bittermann and Ózer Ciftcioglu. **Precision constrained optimization by exponential ranking**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 2296--2305, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
108. D.A. Bloch and C.A. Coello Coello. **Smiling at evolution**, *Applied Soft Computing*, Vol. 11, No. 8, pp. 5724--5734, December 2011.
109. B. Bochenek and P. Forys. **Structural optimization for post-buckling behavior using particle swarms**. *Structural and Multidisciplinary Optimization*, 32(6):521-531, December 2006.
110. Mohammad Reza Bonyadi, Xiang Li and Zbigniew Michalewicz. **A Hybrid Particle Swarm with Velocity Mutation for Constraint Optimization Problems**, in *2013 Genetic and Evolutionary Computation Conference (GECCO'2013)*, pp. 1--8, ACM Press, New York, USA, July 6-10, 2013, ISBN 978-1-4503-1963-8.
111. Mohammad Reza Bonyadi and Zbigniew Michalewicz. **On the edge of feasibility: a case study of the particle swarm optimizer**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 3059--3066, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.

112. Mohammad Reza Bonyadi, Zbigniew Michalewicz and Markus Wagner. **Beyond the Edge of Feasibility: Analysis of Bottlenecks**, in Grant Dick, Will N. Browne, Peter Whigham, Mengjie Zhang, Lam Thu Bui, Hisao Ishibuchi, Yaochu Jin, Xiaodong Li, Yuhui Shi, Pramod Singh, Kay Chen Tan and Ke Tang (editors), *Simulated Evolution and Learning, 10th International Conference, SEAL 2014*, pp. 431--442, Springer. Lecture Notes in Computer Science Vol. 8886, Dunedin, New Zealand, December 15-18, 2014.
113. Ilhem Boussaid, Amitava Chatterjee, Patrick Siarry and Mohamed Ahmed-Nacer. **Hybridizing Biogeography-Based Optimization With Differential Evolution for Optimal Power Allocation in Wireless Sensor Networks**, *IEEE Transactions on Vehicular Technology*, Vol. 60, No. 5, pp. 2347--2353, June, 2011.
114. Ilhem Boussaid, Amitava Chatterjee, Patrick Siarry and Mohamed Ahmed-Nacer. **Biogeography-based optimization for constrained optimization problems**, *Computers & Operations Research*, Vol. 39, No. 12, pp. 3293--3304, December, 2012.
115. James Bowen and Gerry Dozier. **Solving Constraint Satisfaction Problems Using A Genetic/Systematic Search Hybrid That Realizes When to Quit**, in Larry J. Eshelman (editor), *Proceedings of the Sixth International Conference on Genetic Algorithms (ICGA-95)*, pages 122-129, San Francisco, California, July 1995. University of Pittsburgh, Morgan Kaufmann Publishers.
116. P.V.G. Bradbeer, C. Findlay and T.C. Fogarty. **An Ambulance Crew Rostering System**, in Stefano Cagnoni et al. (editor), *Proceedings of Real World Applications of Evolutionary Computing. EvoWorkshops 2000: EvoIASP, EvoSCONDI, EvoTel, EvoSTIM, EvoRob and EvoFlight*, pages 267-276, Edinburgh, Scotland, April 2000. Springer Verlag. Lecture Notes in Computer Science Vol. 1803.
117. Ivona Brajevic and Milan Tuba. **An upgraded artificial bee colony (ABC) algorithm for constrained optimization problems**, *Journal of Intelligent Manufacturing*, Vol. 24, No. 4, pp. 729--740, August 2013.
118. Janez Brest, Viljem Zumer and Mirjam Sepesy Maucecc. **Control Parameters in Self-Adaptive Differential Evolution**. In Bogdan Filipic and Jurij Silc (editors), *Bioinspired Optimization Methods and Their Applications*, pages 35-44, Ljubljana, Slovenia, October 2006. Jozef Stefan Institute.
119. Janez Brest and Viljem Zumer and Mirjam Sepesy Maucec. **Self-Adaptive Differential Evolution Algorithm in Constrained Real-Parameter Optimization**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 919--926, IEEE, Vancouver, BC, Canada, July 2006
120. Janez Brest. **Constrained Real-Parameter Optimization with -Self-Adaptive**

Differential Evolution, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 4, pp. 73-93, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.

121. Janez Brest, Borko Boskovic and Viljem Zumer. **An improved self-adaptive differential evolution algorithm in single objective constrained real-parameter optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1073--1080, IEEE Press, Barcelona, Spain, July 18--23, 2010.
122. J. Brest, A. Zamuda, I. Fister, B. Boskovic and M. Sepesy Maucec. **Constrained Real-Parameter Optimization using a Differential Evolution Algorithm**, in *2011 IEEE Symposium on Differential Evolution (SDE'2011)*, pp. 9--16, IEEE Service Center, Paris, France, April 11-15, 2011.
123. Mihaela Breaban, Madalina Ionita and Cornelius Croitoru. **A new PSO approach to constraint satisfaction**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 1948-1954, IEEE Press, Singapore, September 2007.
124. Radovan R. Bulatovic and Stevan R. Dordevic. **Control of the optimum synthesis process of a four-bar linkage whose point on the working member generates the given path**, *Applied Mathematics and Computation*, Vol. 217, No. 23, pp. 9765--9778, August 1, 2011.
125. Onder Bulut and M. Fatih Tasgetiren. **An artificial bee colony algorithm for the economic lot scheduling problem**, *International Journal of Production Research*, Vol. 52, No. 4, pp. 1150--1170, February 16, 2014.
126. Chenyang Bu, Wenjian Luo and Tao Zh. **Differential Evolution with a Species-based Repair Strategy for Constrained Optimization**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 967--974, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
127. D. Bunnag and M. Sun. **Genetic algorithm for constrained global optimization in continuous variables**, *Applied Mathematics and Computation*, Vol. 171, No. 1, pp. 604--636, December 1, 2005.
128. Edmund Burke, Patrick De Causmaecker and Greet Vanden Berghe. **Hybrid Tabu Search Algorithm for the Nurse Rostering Problem**. In Bob McKay, Xin Yao, Charles S. Newton, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 2nd Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1998)*, pages 187-194, Heidelberg, Germany, November 1998. Canberra, Australia, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1585.

129. Edmund Burke, David Elliman and Rupert Weare. **Specialised Recombinative Operators for Timetabling Problems**, in Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 75-85, Sheffield, U.K., April 1995. Springer-Verlag. Lecture Notes in Computer Science No. 993.
130. E.K. Burke and D.B. Varley. **Automating Space Allocation in Higher Education**, in Bob McKay, Xin Yao, Charles S. Newton, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 2nd Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1998)*, pages 66-73, Heidelberg, Germany, November 1998. Canberra, Australia, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1585.

C

131. 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.
132. 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*, pages 910-919, Reykjavik, Iceland, September 2006. Reykjavik, Iceland, Springer. Lecture Notes in Computer Science Vol. 4193.
133. 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)*, pages 670-676. IEEE Press, Singapore, September 2007.
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. Leticia C. Cagnina, Susana C. Esquivel and Carlos A. Coello Coello. [Solving Engineering Optimization Problems with the Simple Constrained Particle Swarm Optimizer](#), *Informatica*, Vol. 32, pp. 319-326, 2008.
136. 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, 2011.
137. Xinye Cai, Zhenzhou Hu and Zhun Fan. **A novel memetic algorithm based on invasive weed optimization and differential evolution for constrained optimization**, *Soft Computing*, Vol. 17, No. 10, pp. 1893--1910, October 2013.
138. Félix Calderón, Claudio R. Fuerte-Esquivel, Juan J. Flores and Juan C. Silva. **A Constraint-Handling Genetic Algorithm to Power Economic Dispatch**, in Alexander F. Gelbukh and Eduardo F. Morales (editors) *MICAI 2008: Advances in Artificial Intelligence, 7th Mexican International Conference on Artificial Intelligence*, pp. 371--381, Springer. Lecture Notes in Computer Science Vol. 5317, Atizapán de Zaragoza, Mexico, October 27-31, 2008. ISBN 978-3-540-88635-8
139. Yves Caniou, Philippe Codognet, Daniel Diaz and Salvador Abreu. **Experiments in Parallel Constraint-Based Local Search**, in Peter Merz and Jin-Kao Hao (editors), *Evolutionary Computation in Combinatorial Optimization, 11th European Conference, EvoCOP 2011*, pp. 96--107, Springer. Lecture Notes in Computer Science Vol. 6622, Torino, Italy, April 27-29, 2011.
140. Mauro Campos and Renato A. Krohling. **Hierarchical Bare Bones Particle Swarm for Solving Constrained Optimization Problems**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 805--812, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
141. Mauro Campos and Renato A. Krohling. **Bare Bones Particle Swarm with Scale Mixtures of Gaussians for Dynamic Constrained Optimization**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 202--209, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
142. Eduardo Camponogara and Sarosh N. Talukdar. **A Genetic Algorithm for Constrained and Multiobjective Optimization**, In Jarmo T. Alander (editor), *3rd Nordic Workshop on Genetic Algorithms and Their Applications (3NWGA)*, pages 49-62, Vaasa, Finland, August 1997. University of Vaasa.
143. Y. J. Cao and Q. H. Wu. **Mechanical Design Optimization by Mixed-Variable Evolutionary Programming**, in Thomas Bäck, Zbigniew Michalewicz and Xin Yao (editors), *Proceedings of the 1997 International Conference on Evolutionary Computation*, pages 443-446, Indianapolis, Indiana, 1997. IEEE.

144. Cuiwen Cao, Jinwei Gu, Bin Jiao, Zhong Xin and Xingsheng Gu. **Optimizing Constrained Non-convex NLP Problems in Chemical Engineering Field by a Novel Modified Goal Programming Genetic Algorithm**, *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pp. 17-24, ACM Press, Shanghai, China, June 12-14 2009. ISBN 978-1-60558-326-6.
145. Susan E. Carlson. **A General Method for Handling Constraints in Genetic Algorithms**, in *Proceedings of the Second Annual Joint Conference on Information Science*, pages 663-667, 1995.
146. Susan Carlson Skalak, Ron Shonkwiler, Sani Babar and M. Aral. **Annealing a Genetic Algorithm over Constraints**.
147. C. W. Carroll. **The created response surface technique for optimizing nonlinear restrained systems**. *Operations Research*, 9:169-184, 1961.
148. Grégoire Carpentier. [Approche computationnelle de l'orchestration musicale. Optimisation multicritère sous contraintes de combinaisons instrumentales dans de grandes banques de sons](#), PhD thesis, University UPMC Paris-6, France, December 2008 (in French) ([abstract in English](#))
149. R. Caruana and J. D. Schaffer. **Representation and Hidden Bias: Gray vs. Binary Coding for Genetic Algorithms**, in *Proceedings of the Fifth International Conference on Machine Learning*, pages 132-161, San Mateo, California, 1988. Morgan Kauffman Publishers.
150. P.M.S. Carvalho, L.A.F.M. Ferreira and L.M. Barruncho. **Solving Radial Topology Constrained Problems with Evolutionary Algorithms**, in Bob McKay, Xin Yao, Charles S. Newton, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 2nd Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1998)*, pages 58-65, Heidelberg, Germany, November 1998. Canberra, Australia, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1585.
151. Adriana Cervantes-Castillo and Efrén Mezura-Montes. **A Study of Constraint-Handling Techniques in Brain Storm Optimization**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 3740--3746, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
152. Chee-Keong Chan, Hoay Beng Gooi and Meng Hiot Lim. **Duration-Dependent Multi-Schedule Evolutionary Curriculum Timetabling**. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 2, pages 677-681, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
153. K. Chandrasekaran, Sishaj P. Simon and Narayana Prasad Padhy. **Binary real**

coded firefly algorithm for solving unit commitment problem, *Information Sciences*, No. 249, pp. 67--84, November 10, 2013.

154. Weng Tat Chan, T.F. Fwa and Kh. Zahidul Hoque. **Constraint Handling Methods in Pavement Maintenance Programming**. *Transportation Research Part C - Emerging Technologies*, 9(3):175-190, June 2001.
155. Amy B. Chan-Hilton and Teresa B. Culver. **Constraint-Handling Methods for Optimal Groundwater Remediation Design by Genetic Algorithms**. In *IEEE International Conference on Systems, Man and Cybernetics*, volume 4, pages 3937-3942. IEEE, 1998.
156. Amy B. Chan Hilton and Teresa B. Culver. **Constraint Handling for Genetic Algorithms in Optimal Remediation Design**. *Journal of Water Resources Planning and Management*, 126(3):128-137, May-June 2000.
157. Ming Chang, Kazuhiro Ohkura, Kanji Ueda and Masaharu Sugiyama. **Group Selection and Its Application to Constrained Evolutionary Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 1, pages 684-691, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
158. Li-Chiu Chang, Fi-John Chang, Kuo-Wei Wang and Shin-Yi Dai. **Constrained genetic algorithms for optimizing multi-use reservoir operation**, *Journal of Hydrology*, Vol. 390, No. 1-2, pp. 66--74, August 20, 2010.
159. Ping-Teng Chang and Jung-Hua Lee. **A fuzzy DEA and knapsack formulation integrated model for project selection**, *Computers & Operations Research*, Vol. 39, No. 1, pp. 112-125, January 2012.
160. Wei-Wen Chang, Chan-Jin Chung and Bernard Sendhoff. **Target Shape Design Optimization with Evolutionary Computation**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1864-1870, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
161. N. H. Chao, S. J. Fenves and A. W. Westerberg. **Application of Reduced Quadratic Programming Technique to Optimal Structural Design**. In E. Atrek, R. H. Gallagher, K. M. Radgsdell and O. C. Zienkiewicz (editors), *New Directions in Optimum Structural Design*. John Wiley, New York, 1984.
162. Tao XieHuowang Chen. **Problem Decomposition-Based Scalable Macro-Evolutionary Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 223-231, Piscataway, New Jersey, May 2001. IEEE Service Center.
163. Y.X. Chen. **Optimal Anytime Search for Constrained Nonlinear**

Programming, Master's thesis, Department of Computer Science, University of Illinois, Illinois, USA, May 2001.

164. Min-Rong Chen, Yong-Zai Lu and Genke Yang. **Population-Based Extremal Optimization with Adaptive Lévy Mutation for Constrained Optimization**, in Yuping Wang, Yiu-ming Cheung and Hailin Liu (editors) *Computational Intelligence and Security, International Conference, CIS 2006*, pp. 144-155, Springer. Lecture Notes in Computer Science 4456, Guangzhou, China, November 2007.
165. Shuting Chen and Yunhao Li. **A Novel Two-Level Evolutionary Algorithm for Solving Constrained Function Optimization**, in *2009 International Conference on Signal Processing Systems*, pp. 702-706, IEEE Computer Society Press, Singapore, May 15-17, 2009.
166. Jianyong Chen, Qiuzhen Lin and Linlin Shen. **An Immune-Inspired Evolution Strategy for Constrained Optimization Problems**, *International Journal on Artificial Intelligence Tools*, Vol. 20, No. 3, pp. 549--561, June 2011.
167. Peng Cheng. **A Tunable Constrained Test Problems Generator for Multi-objective Optimization**, in *Proceedings of the 2008 Second International Conference on Genetic and Evolutionary Computing (WGEC'2008)*, pp. 96--100, IEEE Computer Society, Washington, DC, USA, September 2008, ISBN 978-0-7695-3334-6.
168. Cui Chenggang, Yang Xiaofei and Gao Tingyu. **A Self-adaptive Interior Penalty Based Differential Evolution Algorithm for Constrained Optimization**, in Ying Tan, Yuhui Shi and Carlos A. Coello Coello (editors), *Advances in Swarm Intelligence, 5th International Conference, ICSI 2014*, pp. 309--318, Springer. Lecture Notes in Computer Science Vol. 8795, Hefei, China, October 17-20, 2014, ISBN 978-3-319-11896-3.
169. Francisco Chicano, Darrell Whitley and Renato Tinós. **Efficient Hill Climber for Constrained Pseudo-Boolean Optimization Problems**, in *2016 Genetic and Evolutionary Computation Conference (GECCO'2016)*, pp. 309--316, ACM Press, Denver, Colorado, USA, 20-24 July, 2016, ISBN 978-1-4503-4206-3.
170. P. Chootinan and A. Chen. **Constraint Handling In Genetic Algorithms Using A Gradient-Based Repair Method**. *Computers and Operations Research*. 33(8):2263-2281, August 2006.
171. Alexandre Chotard, Anne Auger and Nikolaus Hansen. **Markov Chain Analysis of Evolution Strategies on a Linear Constraint Optimization Problem**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 159--166, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.

172. Alexandre Chotard and Martin Holena. **A Generalized Markov-Chain Modelling Approach to (1,)-ES Linear Optimization**, in Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipic and Jim Smith (editors), *Parallel Problem Solving from Nature â “ PPSN XIII, 13th International Conference*, pp. 902--911, Springer. Lecture Notes in Computer Science Vol. 8672, Ljubljana, Slovenia, September 13-17, 2014, ISBN 978-3-319-10761-5.
173. Souma Chowdhury, George S. Dulikravich and Ramon J. Moral. **Modified predator-prey algorithm for constrained and unconstrained multi-objective optimisation**, *International Journal of Mathematical Modelling and Numerical Optimisation*, Vol. 1, No. 1-2, pp. 1-38, 2009.
174. Souma Chowdhury and George S. Dulikravich. **Improvements to single-objective constrained predator-prey evolutionary optimization algorithm**, *Structural and Multidisciplinary Optimization*, Vol. 41, No. 4, pp. 541-554, April, 2010.
175. P.C. Chu and J.E. Beasley. **Constraint Handling in Genetic Algorithms: The Set Partitioning Problem**. *Journal of Heuristics*, 4(4):323-357, December 1998.
176. Chao-Hsien Chu, G. Premkumar, Carey Chou and Jianzhong Sun. **Dynamic Degree Constrained Network Design: A Genetic Algorithm Approach**. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, pages 141-148, San Francisco, California, July 1999. Morgan Kaufmann.
177. Wei Chu, Xiaogang Gao and Soroosh Sorooshian. **Handling boundary constraints for particle swarm optimization in high-dimensional search space**, *Information Sciences*, Vol. 181, No. 20, pp. 4569--4581, October 15, 2011.
178. Yao-Chen Chuang and Chyi-Tsong Chen. **A Study of Real-Coded Genetic Algorithm for Process Optimization Using Ranking Selection, Direction-Based Crossover and Dynamic Mutation**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 2488--2495, IEEE Service Center, New Orleans, Louisiana, USA, 5--8 June, 2011.
179. Tinkle Chugh, Karthik Sindhya, Kaisa Miettinen, Jussi Hakanen and Yaochu Jin. **On Constraint Handling in Surrogate-Assisted Evolutionary Many-Objective Optimization**, 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. 214--224, Springer. Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17-21, 2016, ISBN 978-3-319-45822-9.
180. Chan-Jin Chung and Robert G. Reynolds. **A Testbed for Solving**

Optimization Problems Using Cultural Algorithms, in Lawrence J. Fogel, Peter J. Angeline and Thomas Bäck (editors), *Evolutionary Programming V: Proceedings of the Fifth Annual Conference on Evolutionary Programming*, pages 225-236, Cambridge, Massachusetts, March 1996. MIT Press.

181. Tien-Tung Chung and Chia-Sheng Shih. **Structural optimization using genetic algorithms with fuzzy rule-based systems**, *Journal of the Chinese Society of Mechanical Engineering*, Vol. 28, No. 5, pp. 523--532, October 2007.
182. Özer Ciftcioglu, Michael S. Bittermann and Rituparna Datta. **Further note on the probabilistic constraint handling**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 3901--3908, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
183. Lauren Clevenger, Lauren Ferguson and William E. Hart. **Filter-based Evolutionary Algorithm for Constrained Optimization**. *Evolutionary Computation*, 13(3):329 - 352, 2005.
184. Lauren M. Clevenger and William E. Hart. **Convergence Examples of a Filter-Based Evolutionary Algorithm**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 666-677, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
185. Genevieve Coath and Saman K. Halgamuge. **A Comparison of Constraint-Handling Methods for the Application of Particle Swarm Optimization to Constrained Nonlinear Optimization Problems**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 4, pages 2419-2425, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
186. R. Filomeno Coelho, PH. Bouillard and H. Bersini. **PAMUC: A New Method to Handle Constraints and Multiobjectivity in Evolutionary Algorithms**, in Tadeusz Burczynski and Andrzej Osyczka (editors), *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 91-100. Kluwer Academic Publishers, Dordrecht/Boston/London, 2004. ISBN 1-4020-2266-2.
187. R.F. Coelho, H. Bersini and P. Bouillard. **Parametrical mechanical design with constraints and preferences: application to a purge valve**. *Computer Methods in Applied Mechanics and Engineering*, 192(39-40):4355-4378, 2003.
188. Leandro dos Santos Coelho. **Gaussian quantum-behaved particle swarm optimization approaches for constrained engineering design problems**, *Expert Systems with Applications*, Vol. 37, No. 2, pp. 1676-1683, March, 2010.

189. Carlos A. Coello Coello. **Self-Adaptive Penalties for GA-based Optimization**, in *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 1, pages 573-580, Piscataway, New Jersey, July 1999. IEEE Service Center.
190. Carlos A. Coello Coello. **A Survey of Constraint Handling Techniques used with Evolutionary Algorithms**. Technical Report Lania-RI-99-04, Laboratorio Nacional de Informática Avanzada, Xalapa, Veracruz, México, 1999. (Disponible en: <http://www.lania.mx/~ccoello/constraint.html>).
191. Carlos A. Coello Coello. **The use of a multiobjective optimization technique to handle constraints**, in Alberto A. Ochoa Rodríguez, Marta R. Soto Ortiz and Roberto Santana Hermida (editors), *Proceedings of the Second International Symposium on Artificial Intelligence (Adaptive Systems)*, pages 251-256, La Habana, Cuba, July 1999. Institute of Cybernetics, Mathematics and Physics, Ministry of Science, Technology and Environment.
192. Carlos A. Coello Coello. **Constraint-handling using an evolutionary multiobjective optimization technique**. *Civil Engineering and Environmental Systems*, 17:319-346, 2000.
193. Carlos A. Coello Coello. **Treating Constraints as Objectives for Single-Objective Evolutionary Optimization**. *Engineering Optimization*, 32(3):275-308, 2000.
194. Carlos A. Coello Coello. **Use of a Self-Adaptive Penalty Approach for Engineering Optimization Problems**. *Computers in Industry*, 41(2):113-127, January 2000.
195. 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 Erson and Stephen Kerchel (editors), *Intelligent Engineering Systems through Artificial Neural Networks (ANNIE'2001)*, volume 11, pages 141-146, St. Louis Missouri, USA, November 2001. ASME Press.
196. 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.
197. Carlos A. Coello Coello and Efrén Mezura-Montes. **Handling Constraints in Genetic Algorithms Using Dominance-Based Tournaments**. In I.C. Parmee, editor, *Proceedings of the Fifth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2002)*, volume 5, pages 273-284, University of Exeter, Devon, UK, April 2002. Springer-Verlag.

198. Carlos A. Coello Coello and Ricardo Landa Becerra. **Constrained Optimization Using an Evolutionary Programming-Based Cultural Algorithm.**In I.C. Parmee (editor), *Proceedings of the Fifth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2002)*, volume 5, pages 317-328, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
199. 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 *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 819-824, Piscataway, New Jersey, May 2002. IEEE Service Center.
200. 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, E.Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M. A. Potter, A.C. Schultz, J. F. Miller, E. Burke and N.Jonoska (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 201-209, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
201. Carlos A. Coello Coello and Efrén Mezura Montes. **Constraint-handling in genetic algorithms through the use of dominance-based tournament selection.** *Advanced Engineering Informatics*, 16(3):193-203, July 2002.
202. David W. Coit and Alice E. Smith. **Penalty guided genetic search for reliability design optimization.** *Computers and Industrial Engineering*, 30(4):895-904, September 1996. Special Issue on Genetic Algorithms.
203. David W. Coit and Alice E. Smith. **Genetic algorithm to maximize a lower-bound for system time-to-failure with uncertain component weibull parameters.** *Computers & Industrial Engineering*, 41(4):423-440, February 2002.
204. David W. Coit, Alice E. Smith and David M. Tate. **Adaptive Penalty Methods for Genetic Optimization of Constrained Combinatorial Problems.** *INFORMS Journal on Computing*, 8(2):173-182, Spring 1996.
205. Alberto Coloni, Marco Dorigo and Vittorio Maniezzo. **Genetic Algorithms and Highly Constrained Problems: The Time Table Case**, in Hans-Paul Schwefel and Reinhard Männer (editors), *Proceedings of the 1st Parallel Problem Solving from Nature (PPSN I)*, pages 55-59, Heidelberg, Germany, October 1990. Dortmund, Germany, Springer-Verlag. Lecture Notes in Computer Science Vol. 496.
206. Mark Collins. [An Algorithm for Evolving Protocol Constraints](#). PhD thesis,

207. Susan Coombs and Lawrence Davis. **Genetic Algorithms and Communication Link Speed Design: Constraints and Operators**, in John J. Grefenstette (editor), *Proceedings of the Second International Conference on Genetic Algorithms*, pages 257-260, Hillsdale, New Jersey, July 1987. Massachusetts Institute of Technology, Lawrence Erlbaum Associates.
208. Lino Costa and Pedro Oliveira. **GAs in Global Optimization of Mixed Integer Non-Linear Problems**, in Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 2, page 1773, San Francisco, California, July 1999. Morgan Kaufmann.
209. Antonio Costa, Giovanni Celano and Sergio Fichera. **Optimization of Multi-Pass Turning Economies Through a Hybrid Particle Swarm Optimization Technique**, *International Journal of Advanced Manufacturing Technology*, Vol. 53, No. 5-8, pp. 421--433, March, 2011.
210. Lino Costa, Isabel A.C.P. Espirito Santo and Edite M.G.P. Fernandes. **A hybrid genetic pattern search augmented Lagrangian method for constrained global optimization**, *Applied Mathematics and Computation*, Vol. 218, No. 18, pp. 9415--9426, May 15, 2012.
211. Lino Costa, Isabel Espirito Santo and Pedro Oliveira. **An adaptive constraint handling technique for evolutionary algorithms**, *Optimization*, Vol. 62, No. 2, pp. 241--253, February 1, 2013.
212. C. Cotta and A. J. Fernández. **Solving Constrained Optimization Problems With Hybrid Evolutionary Algorithms**, in Enrique Alba, Christian Blum, Pedro Isasi, Coromoto León and Juan Antonio Gómez (editors), *Optimization Techniques for Solving Complex Problems*, Chapter 7, pp. 101--121, Wiley, New Jersey, USA, 2009, ISBN 978-0-470--29332-4.
213. Carlos Cotta, Juan J. Merelo Guervós, Antonio M. Mora García and Thomas Philip Runarsson. **Entropy-Driven Evolutionary Approaches to the Mastermind Problem**. in Robert Schaefer, Carlos Cotta, Joanna Kolodziej and Günter Rudolph (editors), *Parallel Problem Solving from Nature--PPSN XI, 11th International Conference, Proceedings, Part II*, pp. 421--431, Springer, Lecture Notes in Computer Science Vol. 6239, Kraków, Poland, September, 2010.
214. B.G.W. Craenen, A. E. Eiben and E. Marchiori. **Solving Constraint Satisfaction Problems with Heuristic-Based Evolutionary Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 2000 (CEC'2000)*,

volume 2, pages 1571-1577, Piscataway, New Jersey, July 2000. IEEE Service Center.

215. B.G.W. Craenen, A. E. Eiben, E. Marchiori and A.G. Steenbeek. **Combining Local Search and Fitness Function Adaptation in a GA for Solving Binary Constraint Satisfaction Problems**, in Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee and Hans-Georg Beyer (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, page 381, San Francisco, California, July 2000. Morgan Kaufmann.
216. B.G.W. Craenen and A.E. Eiben. **Stepwise Adaptation of Weights with Refinement and Decay on Constraint Satisfaction Problems**, in Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 291--298, San Francisco, California, July 2001. Morgan Kaufmann Publishers.
217. B.G.W. Craenen and A.E. Eiben. **An Experimental Comparison of SAWing EAs for a new Class of Random Binary CSPs**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 878-883, Piscataway, New Jersey, May 2002. IEEE Service Center.
218. B.G.W. Craenen, A.E. Eiben and J.I. van Hemert. **Comparing Evolutionary Algorithms on Binary Constraint Satisfaction Problems**. *IEEE Transactions on Evolutionary Computation*, 7(5):424-444, October 2003.
219. B.G.W. Craenen and B. Paechter. **A tabu search evolutionary algorithm for solving constraint satisfaction problems**, in Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley and Xin Yao (editors), *Parallel Problem Solving from Nature - PPSN IX, 9th International Conference*, pages 152-161. Springer. Lecture Notes in Computer Science Vol. 4193, Reykjavik, Iceland, September 2006.
220. Bart G. W. Craenen and Ben Paechter. **A Conflict Tabu Search Evolutionary Algorithm for Solving Constraint Satisfaction Problems**, in Jano van Hemert and Carlos Cotta (editors), *Evolutionary Computation in Combinatorial Optimization, 8th European Conference, EvoCOP 2008*, pp. 13-24, Springer, Lecture Notes in Computer Science Vol. 4972, Naples, Italy, March 2008.
221. Matej Crepinsek, Shih-Hsi Liu and Luka Mernik. **A note on teaching-learning-based optimization algorithm**, *Information Sciences*, Vol. 212, pp. 79--93, December 1, 2012.
222. William A. Crossley and Edwin A. Williams. **A Study of Adaptive Penalty Functions for Constrained Genetic Algorithm Based Optimization**, in *AIAA*

223. 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*, pages 234-247, Banff, Canada, August 2005. Springer. Lecture Notes in Computer Science Vol. 3627.
224. André V. Abs da Cruz, Marley B. R. Vellasco and Marco Aurélio Cavalcanti Pacheco. **Evolutionary System with Precedence Constraints for Ore Harbor Schedule Optimization**, in Mario Giacobini et al. (editors), *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC and EvoTransLog*, pp. 689-698, Springer, Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
225. Nareli Cruz-Cortés. **Handling Constraints in Global Optimization Using Artificial Immune Systems: A Survey**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 11, pp. 237-262, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
226. Erik Cuevas and Miguel Cienfuegos. **A new algorithm inspired in the behavior of the social-spider for constrained optimization**, *Expert Systems with Applications*, Vol. 41, No. 2, pp. 412--425, February 1, 2014.
227. Erik Cuevas, Margarita Arimatea Díaz Cortés and Diego Alberto Oliva Navarro. **Advances of Evolutionary Computation: Methods and Operators**, Springer, Switzerland, 2016, ISBN 978-3-319-28502-3.
228. Cheng-gang Cui, Yan-jun Li, and Tie-jun Wu. **A relative feasibility degree based approach for constrained optimization problems**, *Journal of Zhejiang University-Science C-Computers & Electronics*, Vol. 11, No. 4, pp. 249-260, April, 2010.
229. Lijie Cui, George Kuczera and Mohammad Mortazavi. **Multi-Objective Optimization for Water Supply System with Constraints Handling**, in *35th World Congress of the International-Association-for-Hydro-Environment-Engineering-and-Research (IAHR)*, Tsinghua University Press, Chengdu, China, September 8-13, 2013, ISBN 978-7-302-33544-3.
230. Tianxiang Cui, Shi Cheng and Ruibin Bai. **A Combinatorial Algorithm for The Cardinality Constrained Portfolio Optimization Problem**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 491--498, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.

D

231. Keshav P. Dahal, Stuart J. Galloway and Chris J. Aldridge. **Developing GA-based Hybrid approaches for a Real-world Mixed-integer Scheduling Problem**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1887-1894, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
232. Moayed Daneshyari and Gary G. Yen. **Talent Based Social Algorithm for Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 786-791, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
233. Moayed Daneshyari and Gary G. Yen. **Solving constrained optimization using multiple swarm cultural PSO with inter-swarm communication**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 4126--4133, IEEE Press, Barcelona, Spain, July 18--23, 2010.
234. Moayed Daneshyari and Gary G. Yen. **Constrained Multiple-Swarm Particle Swarm Optimization Within a Cultural Framework**, *IEEE Transactions on Systems Man and Cybernetics Part A-Systema and Humans*, Vol. 42, No. 2, pp. 475--490, March 2012.
235. Angan Das and Ranga Vemuri. **A Self-learning Optimization Technique for Topology Design of Computer Networks**, in Mario Giacobini et al. (editors), *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC and EvoTransLog*, pp. 38-51, Springer, Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
236. Swagatam Das and Ponnuthurai Nagaratnam Suganthan. **Differential Evolution: A Survey of the State-of-the-Art**, *IEEE Transactions on Evolutionary Computation*, Vol. 15, No. 1, pp. 27--54, February, 2011.
237. Eduardo K. da Silva, Helio J. C. Barbosa and Afonso C. C. Lemonge. **An Adaptive Constraint Handling Technique for Differential Evolution With Dynamic Use of Variants in Engineering Optimization**, *Optimization and Engineering*, Vol. 12, No. 1-2, pp. 31--54, March, 2011.
238. Dipankar Dasgupta and Zbigniew Michalewicz, editors. **Evolutionary Algorithms in Engineering Applications**. Springer-Verlag, Berlin, 1997.

239. Rituparna Datta and Kalyanmoy Deb. **A Bi-objective Based Hybrid Evolutionary-Classical Algorithm for Handling Equality Constraints**, in Ricardo H.C. Takahashi, Kalyanmoy Deb, Elizabeth F. Wanner and Salvatore Grecco (editors), *Evolutionary Multi-Criterion Optimization, 6th International Conference, EMO 2011*, pp. 313--327, Springer. Lecture Notes in Computer Science Vol. 6576, Ouro Preto, Brazil, April 2011.
240. Rituparna Datta and Kalyanmoy Deb. **An adaptive normalization based constrained handling methodology with hybrid bi-objective and penalty function approach**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 3159--3166, IEEE Press, Brisbane, Australia, June 10-15, 2012.
241. Rituparna Datta, Michael S. Bittermann, Kalyanmoy Deb and Özer Ciftcioglu. **Probabilistic Constraint Handling in the Framework of Joint Evolutionary-Classical Optimization with Engineering Applications**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 2038--2045, IEEE Press, Brisbane, Australia, June 10-15, 2012.
242. Rituparna Datta and Kalyanmoy Deb. **Individual Penalty Based Constraint handling Using a Hybrid Bi-Objective and Penalty Function Approach**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2720--2727, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
243. Rituparna Datta, Kalyanmoy Deb, M. Fernanda P. Costa and A. Gaspar-Cunha. **An Evolutionary Algorithm based Pattern Search Approach for Constrained Optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1355--1362, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
244. Rituparna Datta, Kalyanmoy Deb and Aviv Segev. **A Bi-objective Hybrid Constrained Optimization (HyCon) Method Using a Multi-Objective and Penalty Function Approach**, in *2017 IEEE Congress on Evolutionary Computation (CEC'2017)*, pp. 317--324, IEEE Press, San Sebastián, Spain, June 5-8, 2017, ISBN 978-1-5090-4601-0.
245. David A. Daum, Kalyanmoy Deb and Jürgen Branke. **Reliability-Based Optimization for Multiple Constraints with Evolutionary Algorithms**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 911-918, IEEE Press, Singapore, September 2007.
246. Yuval Davidor. **Analogous Crossover**, in J. David Schaffer, editor, *Proceedings of the Third International Conference on Genetic Algorithms (ICGA-89)*, pages 98-103, San Mateo, California, June 1989. George Mason University, Morgan Kaufmann Publishers.
247. Yuval Davidor. **Genetic Algorithms and Robotics : A Heuristic Strategy for Optimization**. World Scientific Publishing Co., Singapore, 1990.

248. Yuval Davidor. **A Genetic Algorithm Applied To Robot Trajectory Generation**, in Lawrence Davis (editor), *Handbook of Genetic Algorithms*, chapter 12, pages 144-165. Van Nostrand Reinhold, New York, New York, 1991.
249. Lawrence Davis. **Genetic Algorithms and Simulated Annealing**. Pitman, London, 1987.
250. Lawrence Davis. **Applying Adaptive Algorithms to Epistatic Domains**, in *Proceedings of the 9th IJCAI*, pages 162-164, Los Angeles, CA, 1985.
251. Lawrence Davis, editor. **Handbook of Genetic Algorithms**. Van Nostrand Reinhold, New York, New York, 1991.
252. J.M. de la Cruz, B. de Andres-Toro, A. Herran, E.B. Porta and P.F. Blanco. **Multiobjective optimization of the transport in oil pipelines networks**, in *ETFA 2003: IEEE Conference on Emerging Technologies and Factory Automation*, pp. 566--573, IEEE Press, Lisbon, Portugal, September 16-19, 2003, ISBN 0-7803-7937-3.
253. J.M. de la Cruz-García, J.L. Risco-Martín, A. Herrán González and P. Fernánadez-Blanco. **Hybrid Heuristic and Mathematical Programming in Oil Pipelines Networks**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 1479-1486, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
254. Rodrigo Ribeiro de Lucena, Juliana Souza Baioco, Beatriz Souza Leite Pires de Lima, Carl Horst Albrecht and Breno Pinheiro Jacob. **Optimal design of submarine pipeline routes by genetic algorithm with different constraint handling techniques**, *Advances in Engineering Software*, Vol. 76, pp. 110--124, October 2014.
255. Kalyanmoy Deb. **Optimal Design of a Welded Beam via Genetic Algorithms**. *AIAA Journal*, 29(11):2013-2015, November 1991.
256. Kalyanmoy Deb and Mayank Goyal. **A Combined Genetic Adaptive Search GeneAS for Engineering Design**. *Computer Science and Informatics*, 26(4):30-45, 1996.
257. Kalyanmoy Deb. **GeneAS: A Robust Optimal Design Technique for Mechanical Component Design**, in Dipankar Dasgupta and Zbigniew Michalewicz (editors), *Evolutionary Algorithms in Engineering Applications*, pages 497-514. Springer-Verlag, Berlin, 1997.
258. Kalyanmoy Deb and Mayank Goyal. **Optimizing Engineering Designs Using a Combined Genetic Search**. In Thomas Bäck (editor), *Proceedings of the Seventh International Conference on Genetic Algorithms (ICGA-97)*, pages 521-528, San Francisco, California, July 1997. Morgan Kaufmann.

259. Kalyanmoy Deb. **An Efficient Constraint Handling Method for Genetic Algorithms.** *Computer Methods in Applied Mechanics and Engineering*, Vol. 186, No. 2/4, pp. 311--338, 2000.
260. Kalyanmoy Deb and Koushik Pal. **Efficiently Solving: A Large-Scale Integer Linear Program Using a Customized Genetic Algorithm.** In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwin, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector and Andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 1054-1065, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
261. Kalyanmoy Deb, Swanand Lele and Rituparna Datta. **A Hybrid Evolutionary Multi-objective and SQP Based Procedure for Constrained Optimization**, in Lishan Kang, Yong Liu and Sanyou Zeng (editors), *Advances in Computation and Intelligence, Second International Symposium, ISICA 2007*, pp. 36--45, Springer. Lecture Notes in Computer Science Vol. 4683, Wuhan, China, September 21-23, 2007.
262. Kalyanmoy Deb and Rituparna Datta. **A Fast and Accurate Solution of Constrained Optimization Problems Using a Hybrid Bi-Objective and Penalty Function Approach**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 165-172, IEEE Press, Barcelona, Spain, July 18--23, 2010.
263. Kalyanmoy Deb and Soumil Srivastava. **A genetic algorithm based augmented Lagrangian method for constrained optimization**, *Computational Optimization and Applications*, Vol. 53, No. 3, pp. 869--902, December 2012.
264. Kalyanmoy Deb and Rituparna Datta. **A bi-objective constrained optimization algorithm using a hybrid evolutionary and penalty function approach**, *Engineering Optimization*, Vol. 45, No. 5, pp. 503--527, May 1, 2013.
265. Kusum Deep and Dipti. **A self-organizing migrating genetic algorithm for constrained optimization**, *Applied Mathematics and Computation*, Vol. 198, No. 1, pp. 237--250, April 15, 2008.
266. Shantanab Debchoudhury, Subhodip Biswas, Souvik Kundu, Swagatam Das, Athanasios V. Vasilakos and Ankur Mondal. **Modified Estimation of Distribution Algorithm with Differential Mutation for Constrained Optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1724--1731, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.

267. Pieterjan Demarcke, Hendrik Rogier, Roald Goossens and Peter De Jaeger. **Beaforming in the Presence of Mutual Coupling Based on Constrained Particle Swarm Optimization**, *IEEE Transactions on Antennas and Propagation*, Vol. 57, No. 6, pp. 1655-1666, June 2009.
268. Luis de-Marcos, Antonio García, Eva García, José J. Martínez, José A. Gutiérrez, Roberto Barchino, José M. Gutiérrez, José R. Hilera and Salvador Otón. **An adaptation of the parliamentary metaheuristic for permutation constraint satisfaction**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 834--841, IEEE Press, Barcelona, Spain, July 18--23, 2010.
269. Vinicius Veloso de Melo and Grazieli Luiza Costa Carosio. **Evaluating differential evolution with penalty function to solve constrained engineering problems**, *Expert Systems with Applications*, Vol. 39, No. 9, pp. 7860--7863, July 2012.
270. Vinicius Veloso de Melo and Giovanni Iacca. **A Modified Covariance Matrix Adaptation Evolution Strategy with Adaptive Penalty Function and Restart for Constrained Optimization**, *Expert Systems with Applications*, Vol. 41, No. 16, pp. 7077--7094, November 2014.
271. Michael de Paly and Andreas Zell. **Optimal Irrigation Scheduling with Evolutionary Algorithms**. in Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alcázar, Muddassar Farooq, Andreas Fink and Penousal Machado, (editors), *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pp. 142-151, Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.
272. Türkey Dereli and Í. Hüseyin Filiz. **Optimisation of process planning functions by genetic algorithms**. *Computers & Industrial Engineering*, 36(2):281-308, April 1999.
273. Manoj Kumar Dhadwal, Sung Nam Jung and Chang Joo Kim. **Advanced particle swarm assisted genetic algorithm for constrained optimization problems**, *Computational Optimization and Applications*, Vol. 58, No. 3, pp. 781--806, July 2014.
274. Jarnail S. Dhillon, J. S. Dhillon and D. P. Kothari. **Real Coded Genetic Algorithm for Stochastic Hydrothermal Generation Scheduling**, *Journal of Systems Science and Systems Engineering*, Vol. 20, No. 1, pp. 87--109, March, 2011.
275. Daniel Diaz, Florian Richoux, Philippe Codognet, Yves Caniou and Salvador Abreu. **Constraint-Based Local Search for the Costas Array Problem**, in Youssef Hamadi and Marc Schoenauer (editors), *Learning and Intelligent Optimization, 6th International Conference, LION 6*, pp. 378--383, Springer.

276. Elizabeth Dicke andrew Byde, Paul Layzell and David Cliff. **Using a Genetic Algorithm to Design and Improve Storage Area Network Architectures**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 1066-1077, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
277. Rui Ding, Hongbin Dong, Jun He and Yuxin Dong. **An Improved Partheno-Genetic Algorithm for the Multi-constrained Problem of Curling Match Arrangement**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 957--964, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
278. Y. Diouane, S. Gratton and L.N. Vicente. **Globally convergent evolution strategies for constrained optimization**, *Computational Optimization and Applications*, Vol. 62, No. 2, pp. 323--346, November 2015.
279. Saúl Domínguez-Isidro, Efrén Mezura-Montes and Guillermo Leguizamón. **Memetic Differential Evolution for Constrained Numerical Optimization Problems**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2996--3003, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
280. Wei Dong, Sanyou Zeng, Yong Wu, Dayue Guo, Lunan Qiao and Zhiqun Liu. **Linear Sparse Arrays Designed by Dynamic Constrained Multi-Objective Evolutionary Algorithm**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 3067--3072, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
281. Ning Dong and Yuping Wang. **An Unbiased Bi-Objective Optimization Model and Algorithm for Constrained Optimization**, *International Journal of Pattern Recognition and Artificial Intelligence*, Vol. 28, No. 8, Article Number: 1459008, December 2014.
282. Minggang Dong, Ning Wang, Xiaohui Cheng and Chuanxian Jiang. **Composite Differential Evolution with Modified Oracle Penalty Method for Constrained Optimization Problems**, *Mathematical Problems in Engineering*, Article Number: 617905, 2014.
283. Raphaël Dorne and Jin-Kao Hao. **Constraint Handling in Evolutionary Search: A Case Study of the Frequency Assignment**, in H.-M. Voigt, W.

Ebeling, I. Rechenberg and H.-P. Schwefel (editors), *Proceedings of the Fourth Conference on Parallel Problem Solving from Nature (PPSN IV)*, pages 801-810, Heidelberg, Germany, September 1996. Berlin, Germany, Springer-Verlag.

284. Gerry Dozier. **Evolutionary Hill-Climbing, Virtual Constraints and Recurrent Dynamic CSPs**, in Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon and Edmund Burke (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, page 758, San Francisco, California, July 2001. Morgan Kaufmann Publishers.
285. Gerry Dozier. **A Comparison of Adaptive Virtual Constraint Identification Strategies for Recurrent Dynamic Constraint Satisfaction**. In *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 552-557, Piscataway, New Jersey, May 2002. IEEE Service Center.
286. Gerry Dozier. **Recurrent Distributed Constraint Satisfaction via Genetic and Evolutionary Societies of Hill Climbers**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 273-279, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
287. Gerry Dozier, James Bowen and Dennis Bahler. **Solving Small and Large Scale Constraint Satisfaction Problems Using a Heuristic-Based Microgenetic Algorithm**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 306-311, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
288. Gerry Dozier, Hurley Cunningham, Winard Britt and Funing Zhang. **Distributed Constraints Satisfaction, Restricted Recombination and Hybrid Genetic Search**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 1078-1087, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
289. Stephen Drake and Phil Husbands. **Survival of the Sickest: A Site-Specific Recombination Operator for Accelerated Function Optimization**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 1374-1381, Piscataway, New Jersey, May 2001. IEEE Service Center.

290. Lin Du and John Bigham. **Constrained Coverage Optimisation for Mobile Cellular Networks**, in Günther Raidl et al. (editor), *Applications of Evolutionary Computing. Evoworkshops 2003: EvoBIO, EvoCOP, EvoIASP, EvoMUSART, EvoROB and EvoSTIM*, pp. 199--210, Springer Verlag. Lecture Notes in Computer Science Vol. 2611, Essex, UK, April 2003.
291. L. Du, J. Bigham and L. Cuthbert. **Towards Intelligent Geographic Load Balancing for Mobile Cellular Networks**. *IEEE Transactions on Systems, Man and Cybernetics Part C*, Vol. 33, No. 4, pp. 480--491, November 2003.
292. Xuan Du, Zongbin Li and Guohui Zhang, **Optimization of Printed Circuit Board Assignment and Component Allocation in Assembly Line**, *Advanced Materials Research*, Vols. 97-101, pp. 2455--2458, 2010.
293. Gang Duan, Yixin Yu and ZhaoYang Dong. **Power Distribution System Planning with Global Optimization**, in Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 1, pages 419-423, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
294. Susana Duarte-Flores and Jim Smith. **Study of Fitness Landscapes for the HP model of Protein Structure Prediction**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 1, pages 2338-2345, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
295. G.S. Dulikravich, T.J. Martin, B.H. Dennis and N.F. Foster. **Multidisciplinary Hybrid Constrained GA Optimization**, in *EUROGEN'99 - Evolutionary Algorithms in Engineering and Computer Science: Recent Advances and Industrial Applications*, pp. 1-25, John Wiley & Sons, Jyvaskyla, Finland, May 30 - June 3, 1999.

E

296. Marc Ebner. **Estimating the Spectral Sensitivity of a Digital Sensor using Calibration Targets**, in Dirk Thierens et al. (editors), *2007 Genetic and Evolutionary Computation Conference (GECCO 2007)*, pp. 642--649, Vol. 1, ACM Press, London, UK, July 2007
297. William Edelson and Michael L. Gargano. **Feasible Encodings for GA Solutions of Constrained Minimal Spanning Tree Problems**, in Darrell

Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee and Hans-Georg Beyer (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, page 754, San Francisco, California, July 2000. Morgan Kaufmann.

298. Mauricio Granada Echeverri, Jesus Maria Lopez Lezama and Ruben Romero. **An efficient constraint handling methodology for multi-objective evolutionary algorithms**, *Revista Facultad de Ingenieria-Universidad de Antioquia*, Vol. 49, pp. 141-150, September, 2009.
299. José Alberto Egea Larrosa. **[New Heuristics for Global Optimization of Complex Bioprocesses](#)**. PhD thesis, Departamento de Ingeniería Química, Universidad de Vigo, España, 2008. [[abstract](#)]
300. José A. Egea, Eva Balsa-Canto, Maria-Sonia G. Garcia and Julio R. Banga. **Dynamic Optimization of Nonlinear Processes with an Enhanced Scatter Search Method**, *Industrial & Engineering Chemistry Research*, Vol. 48, No. 9, pp. 4388-4401, May 6 2009 .
301. A. E. Eiben, B. Jansen, Z. Michalewicz and Ben Paechter. **Solving CSPs using Self-Adaptive Constraint Weights: how to prevent EAs from cheating**, in Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee and Hans-Georg Beyer (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 128-134, San Francisco, California, July 2000. Morgan Kaufmann.
302. A. E. Eiben, P.-E. Raué and Zs. Ruttkay. **GA-easy and GA-hard constraint satisfaction problems**, in M. Meyer (editor), *Proceedings of the ECAI'94 Workshop on Constraint Processing*, pages 267-284. Springer-Verlag, 1995.
303. A. E. Eiben and Zs. Ruttkay. **Self-adaptivity for Constraint Satisfaction: Learning Penalty Functions**, in *Proceedings of the 3rd IEEE Conference on Evolutionary Computation*, pages 258-261, Piscataway, New Jersey, 1996. IEEE Service Center.
304. A. E. Eiben and J. K. van der Hauw. **Adaptive penalties for evolutionary graph coloring**, in J.-K Hao, E. Lutton, E. Ronald, M. Schoenauer and D. Snyers (editors), *Artificial Evolution'97*, pages 95-106, Berlin, 1998. Springer-Verlag. Lecture Notes in Computer Science Vol. 1363.
305. A. E. Eiben, J. K. van der Hauw and J. I. van Hemert. **Graph Coloring with Adaptive Evolutionary Algorithms**. *Journal of Heuristics*, 4(1):25-46, 1998.
306. A. E. Eiben, J. I. van Hemert, E. Marchiori and A. G. Steenbeek. **Solving Binary Constraint Satisfaction Problems Using Evolutionary Algorithms with an Adaptive Fitness Function**, in A. E. Eiben, T. Bäck, M. Schoenauer and H.-P. Schwefel (editors), *Proceedings of the 5th Parallel Problem Solving from*

Nature (PPSN V), pages 201-210, Heidelberg, Germany, September 1998. Amsterdam, The Netherlands, Springer-Verlag. Lecture Notes in Computer Science Vol. 1498.

307. A.E. Eiben. **Evolutionary Algorithms and Constraint Satisfaction: Definitions, Survey, Methodology and Research Directions.** In L. Kallel, B. Naudts and A. Rogers (editors), *Theoretical Aspects of Evolutionary Computing*, pages 13-58. Springer, 2001.
308. Ehab Z. Elfeky, Ruhul A. Sarker and Daryl L. Essam, **A simple ranking and selection for constrained evolutionary optimization.** Simulated Evolution and Learning, Proceedings, *Springer, Lecture Notes in Computer Science*, Vol. 4247, pp. 537--544, 2006.
309. Ehab Z. Elfeky, Ruhul A. Sarker and Daryl L. Essam. **Analyzing the simple ranking and selection process for constrained evolutionary optimization,** *Journal of Computer Science and Technology*, Vol. 23, No. 1, pp. 19--34, January 2008
310. Ehab Z. Elfeky, Ruhul A. Sarker and Daryl L. Essam. **Task Decomposition for Optimization Problem Solving,** in Xiaodong Li, Michael Kirley, Mengjie Zhang, David G. Green, Victor Ciesielski, Hussein A. Abbass, Zbigniew Michalewicz, Tim Hendtlass, Kalyanmoy Deb, Kay Chen Tan, Jürgen Branke and Yuhui Shi (editors), *Simulated Evolution and Learning, 7th International Conference, SEAL 2008*, pp. 329--338, Springer. Lecture Notes in Computer Science, Vol. 5361, Melbourne, Australia, December 2008.
311. A.I. El-Gallad, M.E. El-Hawary and A.A. Sallam. **Swarming of Intelligent Particles for Solving the Nonlinear Constrained Optimization Problem.** *Engineering Intelligent Systems for Electrical Engineering and Communications*, 9(3):155-163, September 2001.
312. Chris Ellis and R. Paul Wiegand. **Actuation Constraints and Artificial Physics Control,** in Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni and Nicola Beume (editors), *Parallel Problem Solving from Nature--PPSN X*, pp. 389--398, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008
313. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **A Comparative Study of Different Variants of Genetic Algorithms for Constrained Optimization,** in Kalyanmoy Deb, Arnab Bhattacharya, Nirupam Chakraborti, Partha Chakraborty, Swagatam Das, Joydeep Dutta, Santosh K. Gupta, Ashu Jain, Varun Aggarwal, Jürgen Branke, Sushil J. Louis and Kay Chen Tan (editors), *Simulated Evolution and Learning, 8th International Conference, SEAL 2010*, pp. 177--186, Springer. Lecture Notes in Computer Science Vol. 6457, Kanpur, India, December 1-4, 2010.

314. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **Multi-operator based evolutionary algorithms for solving constrained optimization problems**, *Computers & Operations Research*, Vol. 38, No. 12, pp. 1877--1896, December 2011.
315. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **Integrated Strategies Differential Evolution Algorithm with a Local Search for Constrained Optimization**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 2618--2625, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
316. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **GA with a New Multi-Parent Crossover for Constrained Optimization**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 857--864, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
317. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **GA with a New Multi-Parent Crossover for Solving IEEE-CEC2011 Competition Problems**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1034--1040, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
318. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **Differential Evolution with Multiple Strategies for Solving CEC2011 Real-world Numerical Optimization Problems**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1041--1048, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
319. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **On an evolutionary approach for constrained optimization problem solving**, *Applied Soft Computing*, Vol. 12, No. 10, pp. 3208--3227, October 2012.
320. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **Memetic Multi-Topology Particle Swarm Optimizer for Constrained Optimization**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 54--61, IEEE Press, Brisbane, Australia, June 10-15, 2012.
321. Saber M. Elsayed, Ruhul A. Sarker and Tapabrata Ray. **Parameters Adaptation in Differential Evolution**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 2989--2996, IEEE Press, Brisbane, Australia, June 10-15, 2012.
322. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **The Influence of the Number of Initial Feasible Solutions on the Performance of an Evolutionary Optimization Algorithm**, in Lam Thu Bui and Yew Soon Ong and Nguyen Xuan Hoai and Hisao Ishibuchi and Ponnuthurai Nagaratnam Suganthan (editors), *Simulated Evolution and Learning, 9th International Conference, SEAL 2012*, pp. 1--11, Springer. Lecture Notes in Computer Science Vol. 7673,

323. Saber M. Elsayed, Ruhul A. Sarker and Efrén Mezura-Montes. **Particle Swarm Optimizer for Constrained Optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2703--2711, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
324. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **An Improved Self-Adaptive Differential Evolution Algorithm for Optimization Problems**, *IEEE Transactions on Industrial Informatics*, Vol. 9, No. 1, pp. 89--99, February 2013.
325. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **Adaptive Configuration of evolutionary algorithms for constrained optimization**, *Applied Mathematics and Computation*, Vol. 222, pp. 680--711, October 1, 2013.
326. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **United Multi-Operator Evolutionary Algorithms**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 1006--1013, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
327. Saber M. Elsayed, Ruhul A. Sarker and Efrén Mezura-Montes. **Self-adaptive mix of particle swarm methodologies for constrained optimization**, *Information Sciences*, Vol. 277, pp. 216--233, September 1, 2014.
328. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **A Self-Adaptive Combined Strategies Algorithm for Constrained Optimization Using Differential Evolution**, *Applied Mathematics and Computation*, Vol. 241, pp. 267--282, August 15, 2014.
329. Saber M. Elsayed, Ruhul A. Sarker and Daryl L. Essam. **A New Genetic Algorithm for Solving Optimization Problems**, *Engineering Applications of Artificial Intelligence*, Vol. 27, pp. 57--59, January, 2014.
330. 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, July 24-29, 2016, ISBN 978-1-5090-0623-9.
331. Fuat Erbatur, Oguzhan Hasańebi, Ilker Tütüncü and Hakan Kiliç. **Optimal design of planar and space structures with genetic algorithms**. *Computers and Structures*, 75(2):209-224, March 2000.
332. Fatma Corut Ergin and Aysegül Yayimli and Sima Uyar. **An Evolutionary Algorithm for Survivable Virtual Topology Mapping in Optical WDM Networks**. in Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni

A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alcázar, Muddassar Farooq, Andreas Fink and Penousal Machado, (editors), *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pp. 31-40, Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.

333. Andreas T. Ernst and Gaurav Singh. **Lagrangian Particle Swarm Optimization for a Resource Constrained Machine Scheduling Problem**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 536--543, IEEE Press, Brisbane, Australia, June 10-15, 2012.
334. Larry J. Eshelman and J. Davis Schaffer. **Real-coded Genetic Algorithms and Interval-Schemata**, in L. Darrell Whitley (editor), *Foundations of Genetic Algorithms 2*, pages 187-202. Morgan Kaufmann Publishers, San Mateo, California, 1993.
335. Hadi Eskandar, Ali Sadollah, Ardeshir Bahreininejad and Mohd Hamdi. **Water cycle algorithm - A novel metaheuristic optimization method for solving constrained engineering optimization problems**, *Computers & Structures*, Vol. 110, pp. 151--166, November 2012.
336. Majid Esmaelian, Francisco J. Santos-Arteaga, Madjid Tavana and Masoumeh Vali. **Subdividing Labeling Genetic Algorithm: A new method for solving continuous nonlinear optimization problems**, in *2017 IEEE Congress on Evolutionary Computation (CEC'2017)*, pp. 773--780, IEEE Press, San Sebastián, Spain, June 5-8, 2017, ISBN 978-1-5090-4601-0.

F

337. E. Falkenauer. **A new representation and operators for genetic algorithms applied to grouping problems**. *Evolutionary Computation*, 2(2):123-144, 1994.
338. Zhun Fan, Jinchao Liu, Torben Sorensen and Pan Wang. **Improved Differential Evolution Based on Stochastic Ranking for Robust Layout Synthesis of MEMS Components**, *IEEE Transactions on Industrial Electronics*, Vol. 56, No. 4, pp. 937-948, April 2009.
339. Jianchao Fan and Min Han. **Nonlinear Model Predictive Control of Ball-Plate System Based on Gaussian Particle Swarm Optimization**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 3122--3127, IEEE Press, Brisbane, Australia, June 10-15, 2012.

340. Qin Qin Fana and Xuefeng Yan. **Differential evolution algorithm with co-evolution of control parameters and penalty factors for constrained optimization problems**, *Asia-Pacific Journal of Chemical Engineering*, Vol. 7, No. 2, pp. 227--235, March-April, 2012.
341. Zhun Fan, Yi Fang, Wenji Li, Jiewei Lu, Xinye Cai and Caimin Wei. **A Comparative Study of Constrained Multi-Objective Evolutionary Algorithms on Constrained Multi-Objective Optimization Problems**, in *2017 IEEE Congress on Evolutionary Computation (CEC'2017)*, pp. 209--216, IEEE Press, San Sebastián, Spain, June 5-8, 2017, ISBN 978-1-5090-4601-0.
342. Hsiao-Lan Fang, David Corne and Peter Ross. **A Genetic Algorithm for Job-Shop Problems with Various Schedule Quality Criteria**. In Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 39-49, Brighton, U.K., April 1996. Springer-Verlag. Lecture Notes in Computer Science No. 1143.
343. Xianwen Fang, Changjun Jiang and Xiaoqin Fan. **Independent Global Constraints for Web Service Composition Based on GA and APN**, *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pp. 119-126, ACM Press, Shanghai, China, June 12-14 2009. ISBN 978-1-60558-326-6.
344. Raziye Farmani and Jonathan A. Wright. **Self-Adaptive Fitness Formulation for Constrained Optimization**. *IEEE Transactions on Evolutionary Computation*, 7(5):445-455, October 2003.
345. S. Favuzza, M.G. Ippolito and E.R. Sanseverino. **Crowded comparison operators for constraints handling in NSGA-II for optimal design of the compensation system in electrical distribution networks**. *Advances Engineering Informatics*, 20(2):201-211, April 2006.
346. M. Fesanghary, M. Mahdavi, M. Minary-Jolandan and Y. Alizadeh. **Hybridizing harmony search algorithm with sequential quadratic programming for engineering optimization problems**, *Computer Methods in Applied Mechanics and Engineering*, Vol. 197, Nos. 33--40, pp. 3080--3091, 2008
347. M. Fesanghary and M. M. Ardehali. **A novel meta-heuristic optimization methodology for solving various types of economic dispatch problem**, *Energy*, Vol. 34, No. 6, pp. 757-766, June 2009 .
348. L. Ferguson and W. E. Hart. **A filter-based evolutionary algorithm for constrained optimization**, in S.H. Chen, H.D. Cheng, D.K.Y. Chiu, S. Das, R. Duro, E.E. Kerre, H.V. Leong, Q. Li, M. Lu, M.G. Romay, D. Ventura and J. Wu (editors), *Proceedings of The 7th Joint Conference on Information Sciences*, pp. 287--290, Association for Intelligent Machinery, Research Triangle Park,

349. Patryk Filipiak and Piotr Lipinski. **Infeasibility Driven Evolutionary Algorithm with Feed-forward Prediction Strategy for Dynamic Constrained Optimization Problems**, in Anna I. Esparcia-Alcázar et al. (Editors), *Applications of Evolutionary Computation, 17th European Conference, EvoApplications 2014*, pp. 817--828, Springer. Lecture Notes in Computer Science Vol. 8602, Granada, Spain, April 23-25, 2014.
350. R. Filomeno-Coelho, PH. Bouillard and H. Bersini. **PAMUC: A new method to handle with constraints and multiobjectivity in evolutionary algorithms**, in *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 21-22. Cracow, Poland, September 2002.
351. Rajan Filomeno-Coelho, Hugues Bersini and Philippe Bouillard. **Parametrical Mechanical Design with Constraints and Preferences: Application to a Purge Valve**. *Computer Methods in Applied Mechanics and Engineering*, 192(39-40):4355-4378, September 2003.
352. Rajan Filomeno-Coelho. [Multicriteria Optimization with Expert Rules for Mechanical Design](#) PhD thesis, Faculté des Sciences Appliquées, Université Libre de Bruxelles, Belgium, 2004.
353. Amy FitzGerald and Diarmuid P. O'Donoghue. **Genetic Repair for Optimization under Constraints Inspired by Arabidopsis Thaliana**, in Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni and Nicola Beume (editors), *Parallel Problem Solving from Nature--PPSN X*, pp. 399--408, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008
354. Amy FitzGerald and Diarmuid P. O'Donoghue. **Biologically Inspired Non-Mendelian Repair for Constraint Handling in Evolutionary Algorithms**, in *GECCO-2010 Companion Publication: Proceedings of the 12th Annual Genetic and Evolutionary Computation Conference*, pp. 1817--1823, ACM Press, Portland, Oregon, USA, July 7-11, 2010, ISBN 978-1-4503-0073-5.
355. Amy FitzGerald, Diarmuid P. O'Donoghue and Xinyu Liu. **Genetic Repair Strategies Inspired by Arabidopsis thaliana**, in Lorcan Coyle and Jill Freyne (editors), *Artificial Intelligence and Cognitive Science, 20th Irish Conference, AICS 2009*, pp. 61--71, Springer. Lecture Notes in Artificial Intelligence Vol. 6206, Dublin, Ireland, August 19-21, 2010.
356. Jorge Isacc Flores-Mendoza and Efrén Mezura-Montes. **Looking Inside Particle Swarm Optimization in Constrained Search Spaces**, in Alexander F. Gelbukh and Eduardo F. Morales (editors) *MICAI 2008: Advances in Artificial Intelligence, 7th Mexican International Conference on Artificial Intelligence*, pp. 451--461, Springer. Lecture Notes in Computer Science Vol. 5317,

357. Jorge Isacc Flores-Mendoza and Efrén Mezura-Montes. **Dynamic Adaptation and Multiobjective Concepts in a Particle Swarm Optimizer for Constrained Optimization**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 3426-3433, IEEE Service Center, Hong Kong, June 2008.
358. C. A. Floudas and P. M. Pardalos. **A Collection of Test Problems for Constrained Global Optimization Algorithms**. Number 455 in Lecture Notes in Computer Science. Springer-Verlag, 1990.
359. David. B. Fogel. **A Comparison of Evolutionary Programming and Genetic Algorithms on Selected Constrained Optimization Problems**. *Simulation*, 64(6):397-404, June 1995.
360. L.G. Fonseca, P.V.S.Z. Capriles, H.J.C. Barbosa and A.C.C. Lemonge. **A Stochastic Rank-Based Ant System for Discrete Structural Optimization**, in *Proceedings of the 2007 IEEE Swarm Intelligence Symposium (SIS 2007)*, pages 68--75, Honolulu, Hawaii, USA, April 2007. IEEE Press.
361. Carlos H. Fonseca and Elizabeth Fialho Wanner. **A Quadratic Approximation-Based Local Search Operator for Handling Two Equality Constraints in Continuous Optimization Problems**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 4911--4917, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
362. Wai Kuan Foong. **[Ant Colony Optimisation for Power Plant Maintenance Scheduling](#)**, PhD thesis, School of Civil and Environmental Engineering, The University of Adelaide, Australia, April 2007 ([abstract](#)).
363. Wai Kuan Foong, Angus R. Simpson, Holger R. Maier and Stephen Stolp. **Ant colony optimization for power plant maintenance scheduling optimization - a five-station hydropower system**, *Annals of Operations Research*, Vol. 159, No. 1, pp. 433--450, March 2008.
364. R.Y.K. Fung, J.F. Tang and D.W. Wang. **Extension of a hybrid Genetic Algorithm for nonlinear programming problems with equality and inequality constraints**, *Computers & Operations Research*, Vol. 29, No. 3, pp. 261--274, March 2002.

G

365. Z. L. Gaing. **Particle swarm optimization to solving the economic dispatch**

considering the generator constraints, *IEEE Transactions on Power Systems*, Vol. 18, No. 3, pp. 1187--1195, August 2003.

366. Severino F. Galgani and Ole J. Mengshoel. **Constraint Handling Using Tournament Selection: Abductive Inference in Partly Deterministic Bayesian Networks**, *Evolutionary Computation*, Vol. 17, No. 1, pp. 55-88, Spring 2009.
367. Min Gan, Hui Peng, Xiaoyan Peng, Xiaohong Chen and Garba Inoussa. **An adaptive decision maker for constrained evolutionary optimization**, *Applied Mathematics and Computation*, Vol. 215, No. 12, pp. 4172-4184, February 15, 2010.
368. Amir Hossein Gandomi and Xin-She Yang. **Benchmark Problems in Structural Optimization**, in Slawomir Koziel and Xin-She Yang (editors), *Computational Optimization, Methods and Algorithms*, Chapter 12, pp. 259--281, Springer, Berlin, Germany, 2011, ISBN 978-3-642-20858-4.
369. Amir Hossein Gandomi, Xin-She Yang, Siamak Talatahari and Suash Deb. **Coupled eagle strategy and differential evolution for unconstrained and constrained global optimization**, *Computers & Mathematics With Applications*, Vol. 63, No. 1, pp. 191--200, January 2012.
370. Amir Hossein Gandomi, Xin-She Yang, Amir Hossein Alavi and Siamak Talatahari. **Bat algorithm for constrained optimization tasks**, *Neural Computing & Applications*, Vol. 22, No. 6, pp. 1239--1255, May 2013.
371. Amir H. Gandomi. **Interior search algorithm (ISA): A novel approach for global optimization**, *ISA Transactions*, Vol. 53, No. 4, pp. 1168--1183, July 2014.
372. Vladimir B. Gantovnik. [An Improved Genetic Algorithm for the Optimization of Composite Structures](#). PhD thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA, August 2005.
373. H.B. Gao, C. Zhou and L. Gao. **Particle swarm optimization based algorithm for economic load dispatch**, in K. Lishan, C. Zhihua and Y. Xuesong (editors), *Progress in Intelligence Computation & Applications*, pp. 594--599, China University of Geosciences Press, Wuhan, China, April 4-6, 2005, ISBN 7-5625-1983-8.
374. Fang Gao, Hongwei Liu, Qiang Zhao and Gang Cui. **Hybrid model of genetic algorithm and cultural algorithms for optimization problem**. *Simulated Evolution and Learning, Proceedings*, pages 441-448, 2006. Springer. Lecture Notes in Computer Science Vol. 4247.
375. Fang Gao, Gang Cui and Hongwei Liu. **Integration of Genetic Algorithm and**

Cultural Algorithms for Constrained Optimization, in Irwin King, Jun Wang, Laiwan Chan, and DeLiang L. Wang (editors), *Neural Information Processing. 13th International Conference, (ICONIP'2006)*, pp. 817-825, Springer. Lecture Notes in Computer Science, Vol. 4234, October 3-6, 2006.

376. X. Z. Gao, X. Wang and S. J. Ovaska. **Harmony Search Methods for Multimodal and Constrained Optimization**. in Zong Woo Geem, (editor), *Music-Inspired Harmony Search Algorithm*, pp. 39-51, Springer. Studies in Computational Intelligence. Vol. 191, Berlin, Germany, 2009.
377. Xiao-Zhi Gao, Xiaolei Wang, Seppo Jari Ovaska and He Xu. **A Modified Harmony Search Method In Constrained Optimization**, *International Journal of Innovative Computing Information and Control*, Vol. 6, No. 9, pp. 4235-4247, September, 2010.
378. Lei Gao and Atakelty Hailu. **Comprehensive Learning Particle Swarm Optimizer for Constrained Mixed-Variable Optimization Problems**, *International Journal of Computational Intelligence Systems*, Vol. 3, No. 6, pp. 832--842, December, 2010.
379. Wei-Feng Gao, Gary G. Yen and San-Yang Liu. **A Dual-Population Differential Evolution with Coevolution for Constrained Optimization**, *IEEE Transactions on Cybernetics*, Vol. 45, No. 5, pp. 1094--1107, May 2015.
380. Harish Garg. **Solving Structural Engineering Design Optimization Problems Using an Artificial Bee Colony Algorithm**, *Journal of Industrial and Management Optimization*, Vol. 10, No. 3, pp. 777--794, July 2014.
381. Sixto E. García, Maarouf Saad and Ouassima Akhrif. **Constrained Stochastic Tournament Selection in Flight Control Problems**, in *2006 IEEE International Symposium on Industrial Electronics*, pp. 295--300, IEEE Press, Montréal, Canada, July 9-13, 2006, ISBN 978-1-4244-0496-4.
382. Brady J. Garvin, Myra B. Cohen and Matthew B. Dwyer. **An Improved Meta-Heuristic Search for Constrained Interaction Testing**, in M. DiPenta and S. Poulding (editors), *1st International Symposium on Search Based Software Engineering*, pp. 13--22, IEEE Computer Society Press, Windsor, England, May 13-15, 2009, ISBN 978-0-7695-3675-0.
383. Mario Garza-Fabre, Gregorio Toscano-Pulido and Eduardo Rodriguez-Tello. **Handling Constraints in the HP Model for Protein Structure Prediction by Multiobjective Optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2728--2735, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
384. Mario Garza-Fabre, Eduardo Rodriguez-Tello and Gregorio Toscano-Pulido. **Constraint-handling through multi-objective optimization: The**

hydrophobic-polar model for protein structure prediction, *Computers & Operations Research*, Vol. 53, pp. 128--153, January 2015.

385. Mitsuo Gen and Runwei Cheng. **Interval Programming using Genetic Algorithms**, in *Proceedings of the Sixth International Symposium on Robotics and Manufacturing*, Montpellier, France, 1996.
386. Mitsuo Gen and Runwei Cheng. **A Survey of Penalty Techniques in Genetic Algorithms**, in Toshio Fukuda and Takeshi Furuhashi (editors), *Proceedings of the 1996 International Conference on Evolutionary Computation*, pages 804-809, Nagoya, Japan, 1996. IEEE.
387. Mitsuo Gen and Runwei Cheng. **Genetic Algorithms & Engineering Design**. John Wiley & Sons, Inc, New York, 1997.
388. Mitsuo Gen, Kenichi Ida and Chang-Yun Lee. **Hybridized Neural Networks and Genetic Algorithms for Solving Nonlinear Integer Programming Problem**, in Bob McKay, Xin Yao, Charles S. Newton, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 2nd Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1998)*, pages 421-429, Heidelberg, Germany, November 1998. Canberra, Australia, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1585.
389. Behrooz Ghasemishabankareh, Xiaodong Li and Melih Ozlen. **Cooperative Coevolutionary Differential Evolution with Improved Augmented Lagrangian to Solve Constrained Optimisation Problems**, *Information Sciences*, Vol. 369, pp. 441--456, November 10, 2016.
390. Madhumita Ghosh, Basant K. Tiwary and Dilip Datta. **Maintaining optimal state probabilities in biological systems**, *Systems & Synthetic Biology*, Vol. 4, pp. 117--124, December, 2010.
391. Fabian Gieseke and Oliver Kramer. **Towards Non-linear Constraint Estimation for Expensive Optimization**, in Anna I. Esparcia-Alcázar et al. (editors), *Applications of Evolutionary Computation, 16th European Conference, EvoApplications 2013*, pp. 459--468, Springer. Lecture Notes in Computer Science Vol. 7835, Vienna, Austria, April 3-5, 2013.
392. Laurence Giraud-Moreau and Pascal Lafon. **A Comparison of Evolutionary Algorithms for Mechanical Design Components**. *Engineering Optimization*, 34(3):307-322, 2002.
393. Blaze Gjorgiev and Marko Cepin. **A multi-objective optimization based solution for the combined economic-environmental power dispatch problem**, *Engineering Applications of Artificial Intelligence*, Vol. 26, No. 1, pp. 417--429, January 2013.

394. Maciej Glowacki and Janusz Orkisz. **On Increasing Computational Efficiency of Evolutionary Algorithms Applied to Large Optimization Problems**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 2639--2646, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4799-7492-4.
395. C.K. Goh, D. Lim, L. Ma, Y.S. Ong and P.S. Dutta. **A Surrogate-Assisted Memetic Co-evolutionary Algorithm for Expensive Constrained Optimization Problems**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 744--749, IEEE Service Center, New Orleans, Louisiana, USA, 5--8 June, 2011.
396. David E. Goldberg and Manohar P. Samtani. **Engineering optimization via genetic algorithm**, in *Ninth Conference on Electronic Computation*, pages 471-82, New York, N.Y., 1986. ASCE.
397. David E. Goldberg. **Genetic Algorithms in Search, Optimization and Machine Learning**. Addison-Wesley Publishing Co., Reading, Massachusetts, 1989.
398. Hamid Reza Golmakani and Mehrshad Fazel. **Constrained Portfolio Selection using Particle Swarm Optimization**, *Expert Systems With Applications*, Vol. 38, No. 7, pp. 8327--8335, July 2011.
399. Herbert Martins Gomes. **Truss optimization with dynamic constraints using a particle swarm algorithm**, *Expert Systems with Applications*, Vol. 38, No. 1, pp. 957--968, January 2011.
400. Pedro Gómez-Meneses and Marcus Randall. **Extremal Optimisation with a Penalty Approach for the Multidimensional Knapsack Problem**, in Xiaodong Li, Michael Kirley, Mengjie Zhang, David G. Green, Victor Ciesielski, Hussein A. Abbass, Zbigniew Michalewicz, Tim Hendtlass, Kalyanmoy Deb, Kay Chen Tan, Jürgen Branke and Yuhui Shi (editors), *Simulated Evolution and Learning, 7th International Conference, SEAL 2008*, pp. 229--238, Springer. Lecture Notes in Computer Science, Vol. 5361, Melbourne, Australia, December 2008.
401. Richard A. Gonçalves, Carolina P. de Almeida, Myriam R. Delgado, Elizabeth F. Goldberg and Marco C. Goldberg. **A Cultural Immune System for Economic Load Dispatch with Non-smooth Cost Functions**, in Leandro Nunes de Castro, Fernando José Von Zuben and Helder Knidel (editors), *Artificial Immune Systems, 6th International Conference, ICARIS 2007*, pp. 382--394, Springer. Lecture Notes in Computer Science Vol. 4628, Santos, Brazil, August 2007.
402. Wenyin Gong, Changmin Chen and Zhihua Cai. **Simple diversity rules and improved differential evolution for constrained global optimization**, in *Dynamics of Continuous Discrete and Impulsive Systems-Series B-*

403. Wenyin Gong and Zhihua Cai. **A Multiobjective Differential Evolution Algorithm for Constrained Optimization**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 181-188, IEEE Service Center, Hong Kong, June 2008.
404. Wenyin Gong, Zhihua Cai and Dingwen Liang. **Engineering optimization by means of an improved constrained differential evolution**, *Computer Methods in Applied Mechanics and Engineering*, Vol. 268, pp. 884--904, January 1, 2014.
405. Wenyin Gong, Zhihua Cai and Dingwen Liang. **Adaptive Ranking Mutation Operator Based Differential Evolution for Constrained Optimization**, *IEEE Transactions on Cybernetics*, Vol. 45, No. 4, pp. 716--727, April 2015.
406. Luis F. González-Hernández and David W. Corne. **Evolutionary Divide and Conquer for the Set-Covering Problem**. In Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 198-208, Brighton, U.K., April 1996. Springer-Verlag. Lecture Notes in Computer Science No. 1143.
407. Vittorio Gorrini and Marco Dorigo. **An Application of Evolutionary Algorithms to the Scheduling of Robotic Operations**, in J.-M. Alliot, E. Lutton, E. Ronald, M. Schoenauer and D. Snyers (editors), *Proceedings of the 2nd European Conference on Artificial Evolution (AE 1995)*, pages 345-354, Heidelberg, Germany, September 1995. Brest, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1063.
408. J. Gottlieb and N. Voss. **Improving the Performance of Evolutionary Algorithms for the Satisfiability Problem by Refining Functions**. In A. E. Eiben, T. Bäck, M. Schoenauer and H.-P. Schwefel (editors), *Proceedings of 5th Parallel Problem Solving From Nature (PPSN V)*, pages 755-764, Heidelberg, Germany, September 1998. Amsterdam, The Netherlands, Springer-Verlag. Lecture Notes in Computer Science Vol. 1498.
409. J. Gottlieb and L. Paulmann. **Genetic Algorithms for the Fixed Charge Transportation Problem**, in *Proceedings of the 5th IEEE International Conference on Evolutionary Computation*, pages 330-335, 1998.
410. J. Gottlieb and N. Voss. **Representations, Fitness Functions and Genetic Operators for the Satisfiability Problem**. In J.-K. Hao, E. Lutton, E. Ronald, M. Schoenauer and D. Snyers (editors), *Artificial Evolution Lecture Notes in Computer Science*, volume 1363, pages 55-68, 1998.
411. Jens Gottlieb. **Evolutionary Algorithms for Multidimensional Knapsack**

- Problems: the Relevance of the Boundary of the Feasible Region.** In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, page 787, San Francisco, California, July 1999. Morgan Kaufmann.
412. Jens Gottlieb. **On the Effectivity of Evolutionary Algorithms for the Multidimensional Knapsack Problem**, in Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton, Edmund Ronald and Marc Schoenauer (editors), *Proceedings of the 4th European Conference on Artificial Evolution (AE 1999)*, pages 23-37, Heidelberg, Germany, November 1999. Dunkerque, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1829.
413. Jens Gottlieb and Günther R. Raidl. **Characterizing Locality in Decoder-Based EAs for the Multidimensional Knapsack Problem.** In Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton, Edmund Ronald and Marc Schoenauer (editors), *Proceedings of the 4th European Conference on Artificial Evolution (AE 1999)*, pages 38-52, Heidelberg, Germany, November 1999. Dunkerque, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1829.
414. J. Gottlieb and N. Voss. **Adaptive Fitness Functions for the Satisfiability Problem.** In M. Schoenauer, K. Deb, G. Rudolph, X. Yao, E. Lutton, J.J. Merelo and H.-P. Schwefel (editors), *Proceedings of 6th Parallel Problem Solving From Nature (PPSN VI)*, pages 621-630, Heidelberg, Germany, September 2000. Paris, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1917.
415. J. Gottlieb and C. Eckert. **A Comparison of Two Representations for the Fixed Charge Transportation Problem**, in M. Schoenauer, K. Deb, G. Rudolph, X. Yao, E. Lutton, J.J. Merelo and H.-P. Schwefel (editors), *Proceedings of 6th Parallel Problem Solving From Nature (PPSN VI)*, pages 345-354, Heidelberg, Germany, September 2000. Paris, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1917.
416. J. Gottlieb and G.R. Raidl. **The Effects of Locality on the Dynamics of Decoder-Based Evolutionary Search.** In *Proceedings of the Genetic and Evolutionary Computation Conference*, pages 283-290, 2000.
417. J. Gottlieb. **Evolutionary Algorithms for Constrained Optimization Problems Dissertation.** Technical University of Clausthal, Department of Computer Science, (ISBN 3-8265-7783-3), 2000.
418. J. Gottlieb, B.A. Julstrom, G.R. Raidl and F. Rothlauf. **Prüfer Numbers: A Poor Representation of Spanning Trees for Evolutionary Search**, in *Proceedings of Genetic and Evolutionary Computation Conference*, pages 343-350, 2001.
419. J. Gottlieb. **On the Feasibility Problem of Penalty-Based Evolutionary**

Algorithms for Knapsack Problems, in E.J.W. Boers, S. Cagnoni, J. Gottlieb, E. Hart, P.L. Lanzi, G. Raidl, R.E. Smith and H. Tijink (editors), *Proceedings of EvoWorkshops Lecture Notes in Computer Science*, volume 2037, pages 50-59. Springer, 2001.

420. J. Gottlieb, E. Marchiori and C. Rossi. **Evolutionary Algorithms for the Satisfiability Problem.** *Evolutionary Computation*, 10(1):35-50, 2002.
421. Jörn Grahl and Franz Rothlauf. **PolyEDA: Combining Estimation of Distribution Algorithms and Linear Inequality Constraints.** In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector and Andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 1174-1185, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
422. Matthias Gröbner and Peter Wilke. **Rostering with a Hybrid Genetic Algorithm**, in Vera Kurková, Nigel C. Steele, Roman Neruda and Miroslav Kárný (editors), *Proceedings of 5th the International Conference on Artificial Neural Nets and Genetic Algorithms (ICANNGA 2001)*, pages 316-319, Wien, Austria, November 2001. Prague, Czech Republic, Springer-Verlag/Wien.
423. Yuanping Gu, Xianbin Cao and Jun Zhang. **Constraint Handling Based Multiobjective Evolutionary Algorithm for Aircraft Landing Scheduling**, *International Journal of Innovative Computing Information and Control*, Vol. 5, No. 8, pp. 2229-2238, August, 2009.
424. Yuanping Guo, Xianbin Cao, Hongzhang Yin and Zeying Tang. **Coevolutionary optimization algorithm with dynamic sub-population size.** *International Journal of Innovative Computing Information and Control*, Vol. 2, No. 2, pp. 435--448, April 2007.
425. R.K. Gupta, Itsuya Muta, G. Gouthaman and B. Bhattacharjee. **Design Optimization of Permanent Magnet Synchronous Machine Using Genetic Algorithms**, in Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 1, pages 409-413, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
426. Yuanping Guo, Xiabin Cao and Jun Zhang. **Constraint Handling Based Multiobjective Evolutionary Algorithm for Aircraft Landing Scheduling**, *International Journal of Innovative Computing Information Control*, Vol. 5, No. 8, pp. 2229-2238, August 2009.

427. R. K. Gupta, Itsuya Muta, G. Gouthaman and B. Bhattacharjee. **Design Optimization of Permanent Magnet Synchronous Machine Using Genetic Algorithms**, in Kay Chen Tan, Meng Hiot Lim, Xin Yao and Lipo Wang, (editors), *Recent Advances in Simulated Evolution and Learning*, pp. 526-541, World Scientific, Singapore, 2004.
428. Roberto Gutiérrez-Guerra, Rodolfo Murrieta-Dueñas, Jazmín Cortéz-González, Arturo Hernández-Aguirre and J.G Segovia-Hernández. **Constrained evolutionary optimization of a distillation train in Chemical Engineering**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2267--2274, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.

H

429. Omid Bozorg Haddad and Miguel A. Marino. **Dynamic penalty function as a strategy in solving water resources combinatorial optimization problems with honey-bee mating optimization (HBMO) algorithm**. *Journal of Hydroinformatics*, Vol. 9, No. 3, pp. 233-250, July 2007
430. Omid Bozorg Haddad, Mahsa Mirmomeni, Mahboubeh Zarezadeh Mehrizi and Miguel A. Marino. **Finding the shortest path with honey-bee mating optimization algorithm in project management problems with constrained/unconstrained resources**, *Computational Optimization and Applications*, Vol. 47, No. 1, pp. 97-128, September, 2010.
431. Atidel Ben Hadj-Alouane and James C. Bean. **A Genetic Algorithm for the Multiple-Choice Integer Program**. Technical Report TR 92-50, Department of Industrial and Operations Engineering, The University of Michigan, 1992.
432. Atidel Ben Hadj-Alouane and James C. Bean. **A Genetic Algorithm for the Multiple-Choice Integer Program**. *Operations Research*, 45:92-101, 1997.
433. Abolfazl T. Haghghat and Karim Faez abnd Mehdi Dehghan. **An Efficient Evolutionary Algorithm for Multicast Routing with Multiple QoS Constraints**, in Kay Chen Tan, Meng Hiot Lim, Xin Yao and Lipo Wang, (editors), *Recent Advances in Simulated Evolution and Learning*, pp. 581-602, World Scientific, Singapore, 2004.
434. P. Hajela and J. Lee. **Constrained Genetic Search via Schema Adaptation. An Immune Network Solution**, in Niels Olhoff and George I. N. Rozvany (editors), *Proceedings of the First World Congress of Stuctural and*

Multidisciplinary Optimization, pages 915-920, Goslar, Germany, 1995. Pergamon.

435. P. Hajela and J. Lee. **Constrained Genetic Search via Schema Adaptation.** An Immune Network Solution. *Structural Optimization*, 12:11-15, 1996.
436. P. Hajela and J. Yoo. **Constraint Handling in Genetic Search Using Expression Strategies.** *AIAA Journal*, 34(12):2414-2420, 1996.
437. Hatem Hamda, François Jouve, Evelyne Lutton, Marc Schoenauer and Michèle Sebag. **Compact Unstructured Representations for Evolutionary Topological Optimum Design.** *Applied Intelligence*, 16(2):139-155, 2002.
438. Hatem Hamda and Marc Schoenauer. **Adaptive techniques for Evolutionary Topological Optimum Design**, in I.C. Parmee (editor), *Proceedings of the Fourth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2000)*, pages 123-136, University of Plymouth, Devon, UK, April 2000. Springer-Verlag.
439. S. Ben Hamida and A. Petrowski. **The Need for Improving the Exploration Operators for Constrained Optimization Problems**, in *Proceedings of the Congress on Evolutionary Computation 2000 (CEC'2000)*, volume 2, pages 1176-1183, Piscataway, New Jersey, July 2000. IEEE Service Center.
440. S. Ben Hamida and Marc Schoenauer. **An Adaptive Algorithm for Constrained Optimization Problems** In M. Schoenauer, K. Deb, G. Rudolph, X. Yao, E. Lutton, J.J. Merelo and H.-P. Schwefel (editors), *Proceedings of 6th Parallel Problem Solving From Nature (PPSN VI)*, pages 529-538, Heidelberg, Germany, September 2000. Paris, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1917.
441. Sana Ben Hamida. [Algorithmes Evolutionnaires: Prise en Compte des Contraintes et Application Réelle](#) PhD thesis, Centre de Mathématiques Appliquées, École Polytechnique, Paris, France, February 2001. (In French). [Abstract in English](#)
442. Sana Ben Hamida and Marc Schoenauer. **ASCHEA: New Results Using Adaptive Segregational Constraint Handling**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 884-889, Piscataway, New Jersey, May 2002. IEEE Service Center.
443. Abdelaziz Hammache, Marzouk Benali and François Aube. **Multi-objective self-adaptive algorithm for highly constrained problems: Novel method and applications**, *Applied Energy*, Vol. 87, No. 8, pp. 2467-2478, August, 2010.
444. Noha M. Hamza, Saber M. Elsayed, Daryl L. Essam and Ruhul A. Sarker. **Differential Evolution Combined with Constraint Consensus for**

Constrained Optimization, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 865--872, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.

445. Noha M. Hamza, Ruhul A. Sarker and Daryl L. Essam. **Differential Evolution with a mix of Constraint Consensus Methods for Solving a Real-World Optimization Problem**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 2791--2797, IEEE Press, Brisbane, Australia, June 10-15, 2012.
446. Noha M. Hamza, Daryl L. Essam and Ruhul A. Sarker. **Differential Evolution with a Constraint Consensus Mutation for Solving Optimization Problems**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 991--997, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
447. Noha M. Hamza, Ruhul A. Sarker, Daryl L. Essam, Kalyanmoy Deb and Saber M. Elsayed. **A Constraint Consensus Memetic Algorithm for Solving Constrained Optimization Problems**, *Engineering Optimization*, Vol. 46, No. 11, pp. 1447--1464, November 2014.
448. Hisashi Handa, Osamu Katai, Tadataka Konishi and Mitsuru Baba. **Coevolutionary Genetic Algorithms for Solving Dynamic Constraint Satisfaction Problems**, in Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, pages 252-257, San Francisco, California, July 1999. Morgan Kaufmann.
449. Hisashi Handa, Osamu Katai, Tadataka Konishi and Mitsuru Baba. **A New Fitness Function for Discovering a lot of Satisfiable Solutions in Constraint Satisfaction Problems**, in *Proceedings of the Congress on Evolutionary Computation 2000 (CEC'2000)*, volume 2, pages 1184-1189, Piscataway, New Jersey, July 2000. IEEE Service Center.
450. S. D. Handoko, C. K. Kwoh, Y. S. Ong and M. H. Lim. **A Study on Constrained MA Using GA and SQP: Analytical vs. Finite-Difference Gradients**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 4032--4039, IEEE Service Center, Hong Kong, June 2008.
451. Stephanus Daniel Handoko, Kwoh Chee Keong and Ong Yew Soon. **Using Classification for Constrained Memetic Algorithm: A New Paradigm**, in *2008 IEEE International Conference on Systems, Man and Cybernetics (SMC 2008)*, pp. 547--552, IEEE Press, Singapore, October 12-15, 2008, ISBN 978-1-4244-2383-5.
452. Stephanus Daniel Handoko, Chee Keong Kwoh and Yew Soon Ong, **Classification-Assisted Memetic Algorithms for Equality Constrained Optimization Problems**, in Ann Nicholson and Xiaodong Li (editors), *AI*

2009: *Advances in Artificial Intelligence, 22nd Australasian Joint Conference*, pp. 391--400, Springer, Lecture Notes in Artificial Intelligence Vol. 5866, Melbourne, Australia, December 1-4, 2009.

453. Stephanus Daniel Handoko, Chee Keong Kwoh and Yew-Soon Ong. **Feasibility Structure Modeling: An Effective Chaperone for Constrained Memetic Algorithms**, *IEEE Transactions on Evolutionary Computation*, Vol. 14, No. 5, pp. 740--758, October 2010.
454. Stephanus Daniel Handoko, Kwoh Chee Keong, Ong Yew Soon and Jonathan Chan. **Classification-assisted Memetic Algorithms for Solving Optimization Problems with Restricted Equality Constraint Function Mapping**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1209--1216, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
455. Jin-Kao Hao and Raphaël Dorne. **An Empirical Comparison of Two Evolutionary Methods for Satisfiability Problems**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 450-455, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
456. Jin-Kao Hao and Raphaël Dorne. **Study of Genetic Search for the Frequency Assignment Problem**, in J.-M. Alliot, E. Lutton, E. Ronald, M. Schoenauer and D. Snyers (editors), *Proceedings of the 2nd European Conference on Artificial Evolution (AE 1995)*, pages 333-344, Heidelberg, Germany, September 1995. Brest, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1063.
457. Ken Harada, Jun Sakuma, Isao Ono and Shigenobu Kobayashi. **Constraint-Handling Method for Multi-objective Function Optimization: Pareto Descent Repair Operator**, in Shigeru Obayashi, Kalyanmoy Deb, Carlo Poloni, Tomoyuki Hiroyasu and Tadahiko Murata (editors), *Evolutionary Multi-Criterion Optimization, 4th International Conference, EMO 2007*, pp. 156-170, Springer. Lecture Notes in Computer Science Vol. 4403, Matshushima, Japan, March 2007.
458. Simon Harding and Julian Francis-Miller. **Evolution in materio: A Tone Discriminator in Liquid Crystal**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 1800-1807, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
459. Steven A. Harp and Tariq Samad. **Genetic Synthesis of Neural Network Architecture**, in Lawrence Davis (editor), *Handbook of Genetic Algorithms*, chapter 15, pages 202-221. Van Nostrand Reinhold, New York, New York, 1991.
460. Laura J. Harrell and S. Ranji Ranjithan. **Evaluation of Alternative Penalty**

Function Implementations in a Watershed Management Design Problem, in Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 2, pages 1551-1558, San Francisco, California, July 1999. Morgan Kaufmann.

461. William E. Hart. **A convergence analysis of unconstrained and bound constrained evolutionary pattern search.** *Evolutionary Computation*, 9(1):1-23, 2001.
462. William E. Hart. **Evolutionary pattern search algorithms for unconstrained and linearly constrained optimization.** *IEEE Trans Evolutionary Computation*, 5(4):388-397, 2001.
463. Oguzhan Hasançebi and Fuat Erbatur. **Constraint handling in genetic algorithm integrated structural optimization.** *Acta Mechanica*, 139(1-4):15-31, 2000.
464. O. Hasançebi. **Adaptive evolution strategies in structural optimization: Enhancing their computational performance with applications to large-scale structures**, in *Computers & Structures*, volume 86, number 1-2, pages 119-132, January 2008.
465. Donagh Hatton and Diarmuid P. O'Donoghue. **Explorations on Template-Directed Genetic Repair using Ancient Ancestors and other Templates**, in *Proceedings of the 13th annual conference companion on Genetic and evolutionary computation (GECCO '11)*, pp. 325--332, ACM Press, Dublin, Ireland, July 12-16, 2011, ISBN 978-1-4503-0690-4.
466. Donagh Hatton and Diarmuid P. O'Donoghue. **[Arabidopsis thaliana Inspired Genetic Restoration Strategies](#)**, *International Journal of Biometrics and Bioinformatics (IJBB)*, Vol. 7, No. 1, pp. 35--48, 2013.
467. S. He, E. Prempan and Q.H.Wu. **An Improved Particle Swarm Optimizer for Mechanical Design Optimization Problems.** *Engineering Optimization*, 36(5):585-605, October 2004.
468. Qie He and Ling Wang. **An effective co-evolutionary particle swarm optimization for constrained engineering design problems.** *Engineering Applications of Artificial Intelligence*, 20(1):89-99, February 2007.
469. Qie He and Ling Wang. **A hybrid particle swarm optimization with a feasibility-based rule for constrained optimization.** *Applied Mathematics and Computation*, 186(2):1407-1422, March 15th 2007.
470. Jun He and Yuren Zhou. **A Comparison of GAs using Penalizing Infeasible Solutions and Repairing Infeasible Solutions on Restrictive Capacity**

Knapsack Problem. in Dirk Thierens et al. (editors), 2007 *Genetic and Evolutionary Computation Conference (GECCO'2007)*, pp. 1518, Vol. 2, ACM Press, London, UK, July 2007.

471. Jun He and Yuren Zhou. **A Comparison of GAs Using Penalizing Infeasible Solutions and Repairing Infeasible Solutions on Average Capacity Knapsack**, in Lishan Kang, Yong Liu and Sanyou Zeng (editors), *Advances in Computation and Intelligence, Second International Symposium, ISICA 2007*, pp. 100--109, Springer. Lecture Notes in Computer Science Vol. 4683, Wuhan, China, September 21-23, 2007.
472. Qie He, Ling Wang and Fu-Zhuo Huang. **Nonlinear Constrained Optimization by Enhanced Co-evolutionary PSO**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 83-89, IEEE Service Center, Hong Kong, June 2008.
473. Jun He, Boris Mitavskiy and Yuren Zhou. **A Theoretical Assessment of Solution Quality in Evolutionary Algorithms for the Knapsack Problem**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 141--148, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
474. Abdel-Rahman Hedar and Masao Fukushima. **Derivative-Free Filter Simulated Annealing Method for Constrained Continuous Global Optimization.** Technical Report 2004-007, Department of Applied Mathematics & Physics, Kyoto University, Kyoto. Japan, 2004. Available at <http://www.amp.i.kyoto-u.ac.jp/tecrep/abst/2004/2004-007.html>.
475. A.R. Hedar and M. Fukushima. **Derivative-free filter simulated annealing method for constrained continuous global optimization.** *Journal of Global Optimization*, 35(4):521-549, August 2006.
476. Ali Asghar Heidari, Rahim Ali Abbaspour and Ahmad Rezaee Jordehi. **An Efficient Chaotic Water Cycle Algorithm for Optimization Tasks**, *Neural Computing & Applications*, Vol. 28, No. 1, pp. 57--85, January 2017. □
477. Sabine Helwig and Rolf Wanka. **Particle Swarm Optimization in High-Dimensional Bounded Search Spaces.**, In *Proceedings of the 2007 IEEE Swarm Intelligence Symposium (SIS 2007)*, pages 198--205, Honolulu, Hawaii, USA, April 2007, IEEE Press.
478. Sabine Helwig, Juergen Branke and Sanaz Mostaghim. **Experimental Analysis of Bound Handling Techniques in Particle Swarm Optimization**, *IEEE Transactions on Evolutionary Computation*, Vol. 17, No. 2, pp. 259--271, April 2013.
479. Arturo Hernández-Aguirre, Salvador Botello-Rionda and Carlos A. Coello Coello. **PASSSS: An Implementation of a Novel Diversity Strategy for**

Handling Constraints, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 403-410, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.

480. Arturo Hernández-Aguirre, Salvador Botello-Rionda, Carlos A. Coello Coello, Giovanni Lizárraga-Lizárraga and Efrén Mezura-Montes. **Handling Constraints using Multiobjective Optimization Concepts**. *International Journal for Numerical Methods in Engineering*, 59(15):1989-2017, April 2004.
481. Arturo Hernández-Aguirre, Giovanni Lizárraga-Lizárraga and Salvador Botello-Rionda. **IS-PAES: A multiobjective optimization method with efficient constraint-handling in high dimensional space**, in *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 29-30. Cracow, Poland, September 2002.
482. Arturo Hernández-Aguirre, Enrique Villa-Diharce and Carlos Coello-Coello. **Constraint Handling Techniques for a Non-Parametric Real-valued Estimation Distribution Algorithm**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 654-661. IEEE Press, Singapore, September 2007.
483. Betania Hernández-Ocaña, Efrén Mezura-Montes and Pilar Pozos-Parra. **A review of the bacterial foraging algorithm in constrained numerical optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2695--2702, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
484. Betania Hernández-Ocaña, Ma. Del Pilar Pozos-Parra and Efrén Mezura-Montes. **Stepsize Control on the Modified Bacterial Foraging Algorithm for Constrained Numerical Optimization**, in *2014 Genetic and Evolutionary Computation Conference (GECCO 2014)*, pp. 25--32, ACM Press, Vancouver, Canada, July 12-16, 2014, ISBN 978-1-4503-2662-9.
485. Karsten Hentsch and Peter Kochel. **Job scheduling with forbidden setups and two objectives using genetic algorithms and penalties**, *Central European Journal of Operations Research*, Vol. 19, No. 3, pp. 285--298, September 2011.
486. Ricardo Paramount Hernández-García and Ángel Fernando Kuri Morales. **Using the EGA, a Non-traditional GA and Deterministic Ranking for Optimization of Constrained Functions**, in Salvador Botello, Arturo Hernández and Carlos A. Coello Coello (editors), *Proceedings of the 1st Mexican Conference on Evolutionary Computation (COMCEV 2003)*, pages 13-25, Guanajuato, México, May 2003. Guanajuato, México, CIMAT, A.C.
487. A. B. C. Hilton and T. B. Culver. **Constraint handling for genetic algorithms in optimal remediation design**, *Journal of Water Resources Planning and*

488. Philip Hingston, Luigi Barone, Simon Huband and Lyndon While. **Multi-level Ranking for Constrained Multi-objective Evolutionary Optimisation.** In Thomas Philip Runarsson, Hans-Georg Beyer, Edmund Burke, Juan J. Merelo-Guervós, L. Darrell Whitley and Xin Yao (editors), *Parallel Problem Solving from Nature (PPSN IX). 9th International Conference*, pages 563-572, Reykjavik, Iceland, September 2006. Reykjavik, Iceland, Springer. Lecture Notes in Computer Science Vol. 4193.
489. Robert Hinterding. **Representation, Constraint Satisfaction and the knapsack Problem**, in *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 2, pages 1286-1292, Piscataway, New Jersey, July 1999. IEEE Service Center.
490. Robert Hinterding. **Constrained Parameter Optimisation: Equality Constraints**, in *Proceedings of the Congress on Evolutionary Computation 2001(CEC'2001)*, volume 1, pages 687-692, Piscataway, New Jersey, May 2001. IEEE Service Center.
491. Robert Hinterding and Zbigniew Michalewicz. **Your Brains and My Beauty: Parent Matching for Constrained Optimisation**, in *Proceedings of the 5th International Conference on Evolutionary Computation*, pages 810-815, Anchorage, Alaska, May 1998.
492. Joel E. Hirsh and Darrell K. Young. **Evolutionary Programming Strategies with Self-Adaptation Applied to the Design of Rotorcraft Using Parallel Processing**, in V.W. Porto, N. Saravanan, D. Waagen and A.E. Eiben (editors), *Proceedings of the 7th International Conference on Evolutionary Programming (EP98)*, pages 147-156, Heidelberg, Germany, March 1998. San Diego, California, USA, Springer-Verlag. Lecture Notes in Computer Science Vol. 1447.
493. Pei Yee Ho and Kazuyuki Shimizu. **Simple Addition of Ranking Method for Constrained Optimization in Evolutionary Algorithms**, in H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cant Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Mancoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 889-896, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.
494. Pei Yee Ho and Kazuyuki Shimizu. **Evolutionary constrained optimization using an addition of ranking method and a percentage-based tolerance value adjustment scheme.** *Information Sciences*, 177(14):2985-3004, July 15, 2007.

495. Martin Holena, Tajana Cukic, Uwe Rodemerck and David Linke. **Optimization of catalysts using specific, description-based genetic algorithms** *Journal of Chemical Information and Modeling*, Vol. 48, No. 2, pp. 274--282, February 2008
496. Frank Hoffmeister and Joachim Sprave. **Problem-independent handling of constraints by use of metric penalty functions**, in Lawrence J. Fogel, Peter J. Angeline and Thomas Bäck (editors), *Proceedings of the Fifth Annual Conference on Evolutionary Programming (EP'96)*, pages 289-294, San Diego, California, February 1996. The MIT Press.
497. A. Homaifar, S. H. Y. Lai and X. Qi. **Constrained Optimization via Genetic Algorithms**. *Simulation*, 62(4):242-254, 1994.
498. Y. Hong, Q.S. Ren, J. Zeng and Y. Zhang. **Search space filling and shrinking based to solve constraint optimization problems**, in *Advances in Intelligent Computing, Part 1*, pages 986-994. Springer, 2005. Lecture Notes in Computer Science Vol. 3644.
499. Yi Hong, Qingsheng Ren, Jin Zeng and Ying Zhang. **Search Space Filling and Shrinking Based to Solve Constraint Optimization Problems**, in *International Conference on Intelligent Computing 2005 (ICIC 2005)*, pp. 986-994, Springer. Lecture Notes in Computer Science, Vol. 3644, Hefei, China, August 23-26 2005.
500. Jung Man Hong and Jong Hyup Lee. **Optimal Mobile Switching Center Positioning and Cells Assignment Using Lagrangian Heuristic**, *IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences*, Vol. E94A, No. 11, pp. 2425--2433, November 2011.
501. Geir Horn and B. John Oommen. **Solving Multiconstraint Assignment Problems Using Learning Automata**, *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, Vol. 40, No. 1, pp. 6--18, February, 2010.
502. Jorng-Tzong Horng, Cheng-Yan Kao and Baw-Jhiune Liu. **A Genetic Algorithm for Database Query Optimization**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 350-355, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
503. Wei Hou, Hongbin Dong, Guisheng Yin and Yuxin Dong. **A Co-evolutionary Algorithm Based on Mixed Mutation Strategy for WDP in Combinatorial Auction**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 3057--3064, IEEE Press, Sendai, Japan, 25-28 May, 2015, ISBN: 978-1-4799-7492-4.
504. Min-Nan Hsieh, Tsung-Che Chiang and Li-Chen Fu. **A Hybrid Constraint**

Handling Mechanism with Differential Evolution for Constrained Multiobjective Optimization, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1785--1792, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.

505. Yeh-Liang Hsu and Tzu-Chi Liu. **Developing a fuzzy proportional-derivative controller optimization engine for engineering design optimization problems**. *Engineering Optimization*, Vol. 39, No. 6, pp. 679-700, September 2007
506. Xiaohui Hu and Russell Eberhart. **Solving Constrained Nonlinear Optimization Problems with Particle Swarm Optimization**, in *Proceedings of the 6th World Multiconference on Systemics, Cybernetics and Informatics (SCI 2002)*, volume 5. Orlando, USA, IIS, July 2002.
507. Xiaohui Hu, Russell C. Eberhart and Yuhui Shi. **Engineering Optimization with Particle Swarm**, in *Proceedings of the 2003 IEEE Swarm Intelligence Symposium*, pages 53-57. Indianapolis, Indiana, USA, IEEE Service Center, April 2003.
508. Y.B. Hu, Y.P. Wang and F.Y. Guo. **A new penalty based genetic algorithm for constrained optimization problems**, in *Proceedings of 2005 International Conference on Machine Learning and Cybernetics*, pp. 3025--3029, IEEE Press, Canton, China, August 18-2, 2005, ISBN 0-7803-9091-1.
509. Fu Yuan Hu, Hau-San Wong, Zhi Qiang Liu and Hui-yang Qu. **Labeling of Human Motion by Constraint-Based Genetic Algorithm**, in Yuping Wang, Yiu-ming Cheung and Hailin Liu (editors) *Computational Intelligence and Security, International Conference, CIS 2006*, pp. 105-114, Springer. Lecture Notes in Computer Science 4456, Guangzhou, China, November 2007.
510. Yibo Hu. **Hybrid-Fitness Function Evolutionary Algorithm Based on Simplex Crossover and PSO Mutation for Constrained Optimization Problems**, *International Journal of Pattern Recognition and Artificial Intelligence*, Vol. 23, No. 1, pp. 115-127, February 2009 .
511. Zhenzhou Hu, Xinye Cai and Zhun Fan. **An improved memetic algorithm using ring neighborhood topology for constrained optimization**, *Soft Computing*, Vol. 18, No. 10, pp. 2023--2041, October 2014.
512. Haiyan Hua, Shuwen Lin and Zhenhui Shen. **A New Method of the Constraints Expression and Handling for Excavator Boom Structural Optimization**, in W.Z. Chen, P. Dai, Y.L. Chen, Q. T. Wang and Z. Jiang (editors), *Advanced Mechanical Desing*, pp. 1851--1856, Trans Tech Publications LTD, Xiamen, China, March 27-29, 2012, ISBN 978-3-03785-372-6.

513. W.-C. Huang, C.-Y. Kao and J.-T. Horng. **A Genetic Algorithm Approach for Set Covering Problem**, in *Proceedings of the First IEEE Conference on Evolutionary Computation*, pages 569-573. IEEE Press, 1994.
514. V. L. Huang and A. K. Qin and P. N. Suganthan. **Self-adaptative Differential Evolution Algorithm for Constrained Real-Parameter Optimization**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 324--331, IEEE, Vancouver, BC, Canada, July 2006
515. Fu-zhuo Huang, Ling Wang and Qie He. **An effective co-evolutionary differential evolution for constrained optimization**. *Applied Mathematics and Computation*, 186(1):340-356, March 1st 2007.
516. Fu-Zhuo Huang, Ling Wang and Qie He. **A Hybrid Differential Evolution with Double Populations for Constrained Optimization**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 18-25, IEEE Service Center, Hong Kong, June 2008.
517. Zhangjun Huang, Mingxu Ma and Chengen Wang. **An Archived Differential Evolution Algorithm for Constrained Global Optimization**, in *2008 International Conference on Smart Manufacturing Application (ICSMA 2008)*, Kintex, Gyeonggi-do, Korea, April 9--11, 2008.
518. Zhangjun Huang, Chengen Wang and Mingxu Ma. **A Robust Archived Differential Evolution Algorithm for Global Optimization Problems**, *Journal of Computers*, Vol. 4, No. 2, pp. 160-167, February 2009 .
519. Zhangjun Huang, Chengen Wang and Hong Tian. **A Genetic Algorithm with Constrained Sorting Method for Constrained Optimization Problems**, in W. Chen, S.Z. Li and Y.L. Wang (editors), *2009 IEEE International Conference on Intelligent Computing and Intelligent Systems*, pp. 806--811, Vol. 1, IEEE Press, Shanghai, China, November 20-22, 2009, ISBN 978-1-4244-4754-1.
520. Daizheng Huang, Renxi Gong and Shu Gong. **Constrained Multiobjective Optimization for Microgrid Based on Nondominated Immune Algorithm**, *IEEE Transactions on Electrical and Electronic Engineering*, Vol. 10, No. 4, pp. 376--382, July, 2015.
521. Evan J. Hughes. **Constraint Handling With Uncertain and Noisy Multi-Objective Evolution**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 963-970, Piscataway, New Jersey, May 2001. IEEE Service Center.
522. Phil Husbands, Giles Jermy, Malcolm McIlhagga and Robert Ives. **Two Applications of Genetic Algorithms to Component Design**, in Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 50-61, Brighton, U.K., April 1996. Springer-Verlag. Lecture Notes in

523. Ali Husseinzadeh Kashan and Behrooz Karimi. **A New Algorithm for Constrained Optimization Inspired by the Sport League Championships**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 487-494, IEEE Press, Barcelona, Spain, July 18--23, 2010.
524. E. Hyvoenen. **Constraint reasoning based on interval arithmetic--The tolerance propagation approach**. *Artificial Intelligence*, 58:71-112, 1992.

I

525. Kokolo Ikeda, Kei Aoki, Akihiro Nagaiwa and Sigenobu Kobayashi. **Independent Constraint Satisfaction and its Application to Sewerage System Control**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 1, pages 566-573, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
526. J. C. Inostroza and V. H. Hinojosa. **Short-term scheduling solved with a particle swarm optimiser**, *IET Generation Transmission & Distribution*, Vol. 5, No. 11, pp. 1091--1104, November, 2011.
527. Amitay Isaacs and Tapabrata Ray and Warren Smith. **Blessings of Maintaining Infeasible Solutions for Constrained Multi-Objective Optimization Problems**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 2785-2792, IEEE Service Center, Hong Kong, June 2008.
528. Amitay Isaacs. [Development of optimization methods to solve computationally expensive problems](#), PhD thesis, School of Engineering and Information Technology, University College, University of New South Wales, Australian Defence Force Academy, Canberra, Australia, August 2009 ([abstract](#)).
529. Kousuke Izumiya and Masaharu Munetomo. **Multi-objective Evolutionary optimization based on Decomposition with Linkage Identification considering monotonicity**, in *2017 IEEE Congress on Evolutionary Computation (CEC'2017)*, pp. 905--912, IEEE Press, San Sebastián, Spain, June 5-8, 2017, ISBN 978-1-5090-4601-0.

J

530. Syeda Darakhshan Jabeen. **Split and Discard Strategy: A New Approach for Constrained Global Optimization**, *International Journal on Artificial Intelligence Tools*, Vol. 22, No. 4, Article Number: 1350023, August 2013.
531. Omar Al Jadaan, Lakshmi Rajamani and C. R. Rao. **Parameterless Penalty Function for Solving Constrained Evolutionary Optimization**, in *IEEE Workshop on Hybrid Intelligent Models and Applications, 2009. (HIMA'2009)*, pp. 56-63, IEEE Computational Intelligence Society, Nashville, TN, USA, March 30 - April 2, 2009.
532. Omar Al Jadaan, Lakshmi Rajamani and C. R. Rao. **Adaptive Penalty Function For Solving Constrained Evolutionary Optimization**, *Journal of Theoretical and Applied Information Technology*, Vol. 5, No. 3, pp. 339-351, 2009.
533. Mohammad Sadegh Jahan and Nima Amjady. **Solution of large-scale security constrained optimal power flow by a new bi-level optimisation approach based on enhanced gravitational search algorithm**, *IET Generation Transmission & Distribution*, Vol. 7, No. 12, pp. 1481--1491, December 2013.
534. Muhammad Asif Jan and Rashida Adeeb Khanum. **A study of two penalty-parameterless constraint handling techniques in the framework of MOEA/D**, *Applied Soft Computing*, Vol. 13, No. 1, pp. 128--148, January 2013.
535. Woo Seok Jang, Hwan Il Kang and Byung Hee Lee. **Hybrid Simplex-Harmony Search Method for Optimization Problems**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 4158-4165, IEEE Service Center, Hong Kong, June 2008.
536. P. W. Jansen and R. E. Perez. **Constrained structural design optimization via a parallel augmented Lagrangian particle swarm optimization approach**, *Computers & Structures*, Vol. 89, No. 13 - 14, pp. 1352--1366, July, 2011.
537. Lina Jia, Sanyou Zeng, Dong Zhou, Aimin Zhou, Zhengjun Li and Hongyong Jing. **Dynamic multi-objective differential evolution for solving constrained optimization problem**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 2649--2654, IEEE Service Center, New Orleans, Louisiana, USA, 5--8 June, 2011.
538. Guanbo Jia, Yong Wang, Zixing Cai and Yaochu Jin. **An improved ($\mu+\lambda$)-constrained differential evolution for constrained optimization**, *Information Sciences*, Vol. 222, pp. 302--322, February 10, 2013.
539. Li Jian. **Differential Genetic Particle Swarm Optimization for Continuous**

Function Optimization, in *2009 Third International Symposium on Intelligent Information Technology Application (IITA 2009)*, pp. 524--527, Vol. 3, IEEE Computer Society Press, Nanchang, China, 21-22 November 2009, ISBN 978-0-7695-3859-4.

540. Minghai Jiao and Jiafu Tang. **A Novel Particle Swarm Optimization for Constrained Engineering Optimization Problems**, in Lishan Kang, Zhihua Cai, Xuesong Yan and Yong Liu (editors), *2008 Advances in Computation and Intelligence, Third International Symposium (ISICA 2008)*, pp. 79--88, Springer. Lecture Notes in Computer Science, Vol. 5370, Wuhan, China, December 2008.
541. LiCheng Jiao, Lin Li, RongHua Shang, Fang Liu and Rustam Stolkin. **A novel selection evolutionary strategy for constrained optimization**, *Information Sciences*, Vol. 239, pp. 122--141, August 1, 2013.
542. Fernando Jiménez and José L. Verdegay. **Evolutionary techniques for constrained optimization problems**, in Hans-Jürgen Zimmermann (editor), *7th European Congress on Intelligent Techniques and Soft Computing (EUFIT'99)*, Aachen, Germany, 1999. Verlag Mainz. ISBN 3-89653-808-X.
543. Fernando Jiménez and José Luis Verdegay. **Evolutionary Computation and Mathematical Programming**, in Bernd Reusch and Karl-Heinz Temme (editors), *Computational Intelligence in Theory and Practice*, pp. 167-182, Physica Verlag, Heidelberg, 2001.
544. Fernando Jiménez, Antonio F. Gómez-Skarmeta, Gracia Sánchez and Kalyanmoy Deb. **An Evolutionary Algorithm for Constrained Multi-objective Optimization**. In *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 2, pages 1133-1138, Piscataway, New Jersey, May 2002. IEEE Service Center.
545. F. Jiménez, A.F. Gómez-Skarmeta and G. Sánchez. **How Evolutionary Multi-objective Optimization can be used for Goals and Priorities based Optimization**. In *Primer Congreso Español de Algoritmos Evolutivos y Bioinspirados (AEB'02)*, pages 460-465. Mérida España, 2002.
546. F. Jiménez, G. Sánchez, J. M. Cadenas, A. F. Gómez-Skarmeta and J. L. Verdegay. **Nonlinear Optimization with Fuzzy Constraints by Multi-Objective Evolutionary Algorithms**, in Bernd Reusch (editor), *Computational Intelligence, Theory and Applications*, pp. 713-722, Springer. Advances in Soft Computing. Vol. 33, Dortmund, Germany, 2005.
547. J.R. Jimenez-Octavio, O. Lopez-Garcia, E. Pilot and A. Carnicero. **Coupled electromechanical optimization of power transmission**, *CMES-Computer Modeling in Engineering & Sciences*, Vol. 25, No. 2, pp. 81--97, February 2008.

548. Xidong Jin and Robert G. Reynolds. **Using Knowledge-Based Evolutionary Computation to Solve Nonlinear Constraint Optimization Problems: a Cultural Algorithm Approach**, in *1999 Congress on Evolutionary Computation*, pages 1672-1678, Washington, D.C., July 1999. IEEE Service Center.
549. Xidong Jin and Robert G. Reynolds. **Mining Knowledge in Large-Scale Databases Using Cultural Algorithms with Constraint Handling Mechanisms**, in *Proceedings of the Congress on Evolutionary Computation 2000 (CEC'2000)*, volume 2, pages 1498-1506, Piscataway, New Jersey, July 2000. IEEE Service Center.
550. Yaochu Jin, Sanghoun Oh and Moongu Jeon. **Incremental approximation of nonlinear constraint functions for evolutionary constrained optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 2966--2973, IEEE Press, Barcelona, Spain, July 18--23, 2010.
551. R. Joan-Arinyo, M.V. Luzón and A. Soto. **Constructive Geometric Constraint Solving: A New Application of Genetic Algorithms**, in Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacañas and Hans-Paul Schwefel (editors), *Proceedings of the 7th Parallel Problem Solving from Nature (PPSN VII)*, pages 759-768, Heidelberg, Germany, September 2002. Granada, Spain, Springer-Verlag. Lecture Notes in Computer Science Vol. 2439.
552. Yen-Yen Joe, Huan Xu, Zhao-Yang Dong, Huck-Hui Ng and Arthur Tay. **Searching Oligo Sets of Human Chromosome 12 using Evolutionary Strategies**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 1288-1293, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
553. J. Joines and C. Houck. **On the use of non-stationary penalty functions to solve nonlinear constrained optimization problems with GAs**, in David Fogel (editor), *Proceedings of the first IEEE Conference on Evolutionary Computation*, pages 579-584, Orlando, Florida, 1994. IEEE Press.
554. A. Rezaee Jordehi. **A review on constraint handling strategies in particle swarm optimisation**, *Neural Computing & Applications*, Vol. 26, No. 6, pp. 1265--1275, August 2015.
555. Efrén Juárez-Castillo, Nancy Pérez-Castro and Efrén Mezura-Montes. **A novel boundary constraint-handling technique for constrained numerical optimization problems**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 2034--2041, IEEE Press, Sendai, Japan, 25-28 May, 2015, ISBN: 978-1-4799-7492-4.
556. Efrén Juárez-Castillo and Héctor-Gabriel Acosta-Mesa and Efrén Mezura-

Montes. **A novel boundary constraint-handling technique for constrained numerical optimization problems**, in *2017 IEEE Congress on Evolutionary Computation (CEC'2017)*, pp. 604--611, IEEE Press, San Sebastián, Spain, June 5-8, 2017, ISBN 978-1-5090-4601-0.

557. D.S. Junag, Y.T. Wu and W.T. Chang. **Discrete Lagrangian method for optimal design of truss structures**, in F. Bontempi (editor), *System-Based Vision for Strategic and Creative Design*, pp. 507--513, A.A. Balkema Publishers, Rome, Italy, September 23-26, 2003, ISBN 90-5809-599-1.

K

558. Ozgur Kabadurmus, M. Serdar Erdogan and M. Fatih Tasgetiren. **Design of multi-product multi-period two-echelon supply chain network to minimize bullwhip effect through differential evolution**, in *2017 IEEE Congress on Evolutionary Computation (CEC'2017)*, pp. 789--796, IEEE Press, San Sebastián, Spain, June 5-8, 2017, ISBN 978-1-5090-4601-0.
559. Hirotaka Kaji, Kokolo Ikeda and Hajime Kita. **Uncertainty of Constraint Function in Evolutionary Multi-objective Optimization**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 1621-1628, IEEE Service Center, Trondheim, Norway, May, 2009.
560. Hirotaka Kaji, Kokolo Ikeda and Hajime Kita. **Avoidance of Constraint Violation for Experiment-Based Evolutionary Multi-objective Optimization**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 2756-2763, IEEE Service Center, Trondheim, Norway, May, 2009.
561. Jerome Henri Kämpf and Darren Robinson. **Optimisation of building form for solar energy utilisation using constrained evolutionary algorithms**, *Energy and Buildings*, Vol. 42, No. 6, pp. 807--814, June, 2010.
562. G. Kanagaraj, S.G. Ponnambalam, N. Jawahar and J. Mukund Nilakantan. **An Effective Hybrid Cuckoo Search and Genetic Algorithm for Constrained Engineering Design Optimization**, *Engineering Optimization*, Vol. 46, No. 10, pp. 1331--1351, October 2014.
563. Min Wook Kang, Paul Schonfeld and Ning Yang. **Prescreening and Repairing in a Genetic Algorithm for Highway Alignment Optimization**, *Computer-Aided Civil and Infrastructure Engineering*, Vol. 24, No. 2, pp. 109-119, 2009.
564. Muzaffer Kapanoglu and Ilker Ozan Koc. **A Multi-population Parallel**

Genetic Algorithm for Highly Constrained Continuous Galvanizing Line Scheduling, in Francisco Almeida, María J. Blesa Aguilera, Christian Blum, José Marcos Moreno Vega, Melquíades Pérez Pérez andrea Roli and Michael Sampels (editors), *Hybrid Metaheuristics. Third International Workshop, HM 2006*, pages 28-41, Gran Canaria, Spain, October 2006. Springer-Verlag, Lecture Notes in Computer Science Vol. 4030.

565. A. Kapsalis, P. Chardaire, V.J. Rayward-Smith and G.D. Smith. **The Radio Link Frequency Assignment Problem: A Case Study Using Genetic Algorithms**, in Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 117-131, Sheffield, U.K., April 1995. Springer-Verlag. Lecture Notes in Computer Science No. 993.
566. Dervis Karaboga and Bahriye Basturk. **Artificial Bee Colony (ABC) Optimization Algorithm for Solving Constrained Optimization 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*, pages 789-798, Springer, Lecture Notes in Artificial Intelligence Vol. 4529, Cancun, Mexico, June 2007.
567. Dervis Karaboga and Bahriye Akay. **A modified Artificial Bee Colony (ABC) algorithm for constrained optimization problems**, *Applied Soft Computing*, Vol. 11, No. 3, pp. 3021--3031, April 2011.
568. Ali Husseinzadeh Kashan. **An efficient algorithm for constrained global optimization and application to mechanical engineering design: League championship algorithm (LCA)**, *Computer-Aided Design*, Vol. 43, No. 12, pp. 1769--1792, December 2011.
569. Ali Husseinzadeh Kashan. **An effective algorithm for constrained optimization based on optics inspired optimization (OIO)**, *Computer-Aided Design*, Vol. 63, pp. 52--71, June 2015.
570. Taiga Kato and Koji Shimoyama. **Evolutionary Algorithm with Parallel Evaluation Strategy Using Constrained Penalty-based Boundary Intersection**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 3702--3709, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
571. A. Kaveh and S. Talatahari. **A particle swarm ant colony optimization for truss structures with discrete variables**, *Journal of Constructional Steel Research*, Vol. 65, No. 8-9, pp. 1558-1568, August-September 2009.
572. A. Kaveh, B. Farahmand Azar, A. Hadidi, F. Rezazadeh Sorochi and S. Talatahari. **Performance-based seismic design of steel frames using ant colony optimization**, *Journal of Constructional Steel Research*, Vol. 66, No. 4,

pp. 566-574, April, 2010.

573. A. Kaveh and S. Talatahari. **An improved ant colony optimization for constrained engineering design problems**, *Engineering Computations*, Vol. 27, Nos. 1-2, pp. 155--182, 2010.
574. A. Kaveh and S. Talatahari. **Hybrid charged system search and particle swarm optimization for engineering design problems**, *Engineering Computations*, Vol. 28, Nos. 3-4, pp. 423--440, 2011.
575. Hiroharu Kawanata, Kosuke Yamamoto, Tomohiro Yoshikawa, Tsuyoshi Shinogi and Shinki Tsuruoka. **Genetic Algorithm with the Constraints for Nurse Scheduling Problem**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 1123-1130, Piscataway, New Jersey, May 2001. IEEE Service Center.
576. S. Kazarlis and V. Petridis. **Varying Fitness Functions in Genetic Algorithms: Studying the Rate of Increase of the Dynamic Penalty Terms**, in A. E. Eiben, T. Bäck, M. Schoenauer and H.-P. Schwefel (editors), *Proceedings of the 5th Parallel Problem Solving from Nature (PPSN V)*, pages 211-220, Heidelberg, Germany, September 1998. Amsterdam, The Netherlands, Springer-Verlag. Lecture Notes in Computer Science Vol. 1498.
577. S. A. Kazarlis, S. E. Papadakis, J. B. Theocharis and V. Petridis. **Microgenetic Algorithms as Generalized Hill Climbing Operators for GA Optimization**. *IEEE Transactions on Evolutionary Computation*, 5(3):204-217, June 2001.
578. Moslem Kazemi, G. Gary Wang, Shahryar Rahnamayan and Kamal Gupta. **Metamodel-Based Optimization for Problems With Expensive Objective and Constraint Functions**, *Journal of Mechanical Design*, Vol. 133, No. 1, Article No. 014505, January 2011.
579. Soorathep Kheawhom. **Efficient constraint handling scheme for differential evolutionary algorithm in solving chemical engineering optimization problem**, *Journal of Industrial and Engineering Chemistry*, Vol. 16, No. 4, pp. 620-628, July 25, 2010.
580. Y. Kilani and A. MohdZin. **Treating Some Constraints as Hard Speeds up the ESG Local Search Algorithm**, in Bernardete Ribeiro, Rudolf F. Albrecht andrej Dobnikar, David W. Pearson and Nigel C. Steele (editors), *Adaptive and Natural Computing Algorithms*, pp. 257-250, Springer, Coimbra, Portugal, March 2005.
581. J.-H. Kim and H. Myung. **Evolutionary programming techniques for constrained optimization problems**. *IEEE Transactions on Evolutionary Computation*, 1:129-140, July 1997.

582. Dae Gyu Kim and Phil Husbands. **Riemann Mapping Constraint Handling Method for Genetic Algorithms**. Technical Report CSRP 469, COGS, University of Sussex, UK, 1997.
583. Dae Gyu Kim and Phil Husbands. **Mapping Based Constraint for Evolutionary Search; Thurston's Circle Packing and Grid Generation**. In Ian Parmee (editor), *The Integration of Evolutionary and Adaptive Computing Technologies with Product/System Design and Realisation*, pages 161-173. Springer-Verlag, Plymouth, United Kingdom, April 1998.
584. Dae Gyu Kim and Phil Husbands. **Landscape Changes and the Performance of Mapping Based Constraint Handling Methods**, in A. E. Eiben, T. Bäck, M. Schoenauer and H.-P. Schwefel (editors), *Proceedings of the 5th Parallel Problem Solving from Nature (PPSN V)*, pages 221-230, Heidelberg, Germany, September 1998. Amsterdam, The Netherlands, Springer-Verlag. Lecture Notes in Computer Science Vol. 1498.
585. J.H. Kim and H. Myung. **Hybrid Evolutionary Optimization Algorithm for Constrained Problems**, in Xin Yao (editor), *Evolutionary Computation, Theory and Applications*, pages 256-295. World Scientific, Singapore, 1999.
586. Jegyom Kim and Min-Jea Tahk. **Co-Evolutionary Computation for Constrained Min-Max Problems and Its Application for Pursuit-Evasion Games**, in *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 1205-1212, Piscataway, New Jersey, May 2001. IEEE Service Center.
587. Yong-Hyuk Kim and Byung-Ro Moon. **Lagrange Multiplier Method for Multi-campaign Assignment Problem**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 1065-1077, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3103.
588. T-H Kim, I. Maruta and T. Sugie. **A simple and efficient constrained particle swarm optimization and its application to engineering design problems**, *Proceedings of the Institution of Mechanical Engineers Part C-Journal of Mechanical Engineering Science*, Vol. 224, No. C2, pp. 389-400, 2010.
589. Moo-Sun Kim, Woo Il Lee, Woo-Suck Han and Alain Vautrin. **Optimisation of location and dimension of SMC precharge in compression moulding process**, *Computers & Structures*, Vol. 89, No. 15 - 16, pp. 1523--1534, August, 2011.

590. Steven O. Kimbrough, Ming Lu, David Harlan Wood and D. J. Wu. **Exploring a Two-Market Genetic Algorithm**, in W.B. Langdon, E.Cantú-Paz, K. Mathias, R. Roy, D. Davis, R. Poli, K. Balakrishnan, V. Honavar, G. Rudolph, J. Wegener, L. Bull, M. A. Potter, A.C. Schultz, J. F. Miller, E. Burke and N.Jonoska (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2002)*, pages 415-421, San Francisco, California, July 2002. Morgan Kaufmann Publishers.
591. Steven O. Kimbrough, Ming Lu and Soofi M. Safavi. **Exploring a Financial Product Model with a Two-Population Genetic Algorithm**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 855-862, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
592. Steven Orla Kimbrough, Ming Lu and David Harlan Wood. **Exploring the Evolutionary Details of a Feasible-Infeasible Two-Population GA**, in Xin Yao, Edmund Burke, José A. Lozano, Jim Smith, , Juan J. Merelo-Guervós, John A. Bullinaria, Jonathan Rowe, Peter Tino, Ata Kabán and H.-P. Schwefel (editors), *Proceedings of 8th Parallel Problem Solving From Nature (PPSN VIII)*, pages 292-301, Heidelberg, Germany, September 2004. Birmingham, UK, Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
593. Steven Orla Kimbrough and David Harlan Wood. **On Gray-Coded Binary Representation for Supporting a (Repair-by-Interpolation) Genetic Operator for Constrained Optimization Problems**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 1141-1148, IEEE Press, Singapore, September 2007.
594. Steven Orla Kimbrough, Gary J. Koehler, Ming Lu and David Harlan Wood. **On a Feasible-Infeasible Two-Population (FI-2Pop) genetic algorithm for constrained optimization: Distance tracing and no free lunch**, *European Journal of Operational Research*, Vol. 190, No.2, pp. 310--327, October 16, 2008.
595. Steven O. Kimbrough, Ann Kuo and Hoong Chuin Lau. **Effective Heuristic Methods for Finding Non-Optimal Solutions of Interest in Constrained Optimization Models**, in *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pp. 295-296, ACM Press, Portland, Oregon, USA, July 7-11, 2010, ISBN 978-1-4503-0072-8.
596. Shuhei Kimura and Koki Matsumura. **Constrained Multimodal Function Optimization using a Simple Evolutionary Algorithm**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 447--454, IEEE Service Center, New Orleans, Louisiana, USA, 5--8 June, 2011.
597. Patrick Koch, Samineh Bagheri, Wolfgang Konen, Christophe Foussette,

Peter Krause and Thomas Bäck. **A New Repair Method for Constrained Optimization**, in *2015 Genetic and Evolutionary Computation Conference (GECCO 2015)*, pp. 273--280, ACM Press, Madrid, Spain, July 11-15, 2015, ISBN 978-1-4503-3472-3.

598. Andrew Koh. **A Metaheuristic Framework for Bi-level Programming Problems with Multi-discipline Applications**, in El-Ghazali Talbi (editor), *Metaheuristics for Bi-level Optimization*, Chapter 6, pp. 153--187, Springer, Studies in Computational Intelligence Vol. 482, Berlin, Germany, 2013, ISBN 978-3-642-37837-9.
599. Manoela Kohler, Leonardo Forero, Marley Vellasco, Ricardo Tanscheit and Marco Aurélio Pacheco. **PSO+: A Nonlinear Constraints-Handling Particle Swarm Optimization**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 2518--2523, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
600. Abdullah Konak, Sadan Kulturel-Konak and Gregory Levitin. **Multi-objective optimization of linear multi-state multiple sliding window system**, *Reliability Engineering & System Safety*, Vol. 98, No. 1, pp. 24--34, February 2012.
601. Xiangyong Kong, Haibin Ouyang and Xiaoxue Piao. **A prediction-based adaptive grouping differential evolution algorithm for constrained numerical optimization**, *Soft Computing*, Vol. 17, No. 12, pp. 2293--2309, December 2013.
602. Haipeng Kong, Ni Li and Yuzhong Shen. **Adaptive double chain quantum genetic algorithm for constrained optimization problems**, *Chinese Journal of Aeronautics*, Vol. 28, No. 1, pp. 214--228, February 2015.
603. Andreas Konstantinidis and Kun Yang. **Multi-objective K-connected Deployment and Power Assignment in WSNs using a problem-specific constrained evolutionary algorithm based on decomposition**, *Computer Communications*, Vol. 34, No. 1, pp. 83-98, January 15, 2011.
604. Xiaoli Kou, Sanyang Liu, Jianke Zhang and Wei Zheng. **Co-evolutionary particle swarm optimization to solve constrained optimization problems**, *Computers & Mathematics With Applications*, Vol. 57, No. 11-12, pp. 1776-1784, June 2009.
605. Peter Korosec and Juric Silc. **The Continuous Differential Ant-Stigmergy Algorithm Applied on Real-Parameter Single Objective Optimization Problems**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1327--1334, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.

606. Ryszard Kowalczyk. **Constraint Consistent Genetic Algorithms**, in *Proceedings of the 1997 IEEE Conference on Evolutionary Computation*, pages 343-348, Indianapolis, USA, April 1997. IEEE.
607. Slawomir Koziel and Zbigniew Michalewicz. **A Decoder-based Evolutionary Algorithm for Constrained Parameter Optimization Problems**, in T. Bäck, A. E. Eiben, M. Schoenauer and H.-P. Schwefel (editors), *Proceedings of the 5th Parallel Problem Solving from Nature (PPSN V)*, pages 231-240, Heidelberg, Germany, September 1998. Amsterdam, The Netherlands, Springer-Verlag. Lecture Notes in Computer Science Vol. 1498.
608. Slawomir Koziel and Zbigniew Michalewicz. **Evolutionary Algorithms, Homomorphous Mappings and Constrained Parameter Optimization**. *Evolutionary Computation*, 7(1):19-44, 1999.
609. Oliver Kramer, Chaun-Kang Ting and Hans Kleine Büning. **A Mutation Operator for Evolution Strategies to Handle Constrained Problems**, in H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cant Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Mancoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)* volume 1, pages 917-918, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.
610. Oliver Kramer, Chuan-Kan Ting and Hans Kleine Büning. **A New Mutation Operator for Evolution Strategies for Constrained Problems**. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2600-2606, Edinburgh, Scotland, September 2005. IEEE Service Center.
611. O. Kramer and H.-P. Schwefel. **On three new approaches to handle constraints within evolution strategies**, *Natural Computing*, Vol. 5, No. 4, pp. 363-385, November 2006.
612. Oliver Kramer and Stephan Brügger and Dejan Lazovic. **Sex and Death: Towards Biologically Inspired Heuristics for Constraint Handling**, in Dirk Thierens et al. (editors), *2007 Genetic and Evolutionary Computation Conference (GECCO 2007)*, pp. 666--673, Vol. 1, ACM Press, London, UK, July 2007
613. Oliver Kramer. **Premature Convergence in Constrained Continuous Search Spaces**, in Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni and Nicola Beume (editors), *Parallel Problem Solving from Nature--PPSN X*, pp. 62--71, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008
614. Oliver Kramer, Andre Barthelmes and Günter Rudolph. **Surrogate Constraint Functions for CMA Evolution Strategies**, in Bärbel Mertsching

and Marcus Hund and Muhammad Zaheer Aziz (editors), *KI 2009: Advances in Artificial Intelligence, 32nd Annual German Conference on AI*, pp. 169--176, Springer. Lecture Notes in Computer Science Vol. 5803, Paderborn, Germany, September 15--18, 2009.

615. Oliver Kramer. **A Review of Constraint-Handling Techniques for Evolution Strategies**, *Applied Computational Intelligence and Soft Computing*, Vol. 2010, Article ID 185063, No. 1, pp. 1--11, January, 2010.
616. Oliver Kramer, David Echeverría Ciaurri and Slawomir Koziel. **Derivative-Free Optimization**, in Slawomir Koziel and Xin-She Yang (editors), *Computational Optimization, Methods and Algorithms*, Chapter 4, pp. 63--83, Springer, Berlin, Germany, 2011, ISBN 978-3-642-20858-4.
617. Oliver Kramer, Uli Schlachter and Valentin Spreckels. **An Adaptive Penalty Function with Meta-Modeling for Constrained Problems**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1350--1354, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
618. Oliver Kramer. [**A Brief Introduction to Continuous Evolutionary Optimization**](#), Springer, 2014, ISBN 978-3-319-03422-5.
619. Stanislaw Krenich. **Multicriteria design optimization of robot gripper mechanisms**, in *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 47-48. Cracow, Poland, September 2002.
620. Stanislaw Krenich and Andrzej Osyczka. **Optimal design of multiple clutch brakes using a multistage evolutionary method**, in *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 49-50. Cracow, Poland, September 2002.
621. Renato A. Krohling, Frank Hoffmann and Leandro dos Santos Coelho. **Coevolutionary Particle Swarm Optimization for Min-Max Problems using Gaussian Distribution**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 959-964, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
622. Renato A. Krohling and Leandro dos Santos Coelho. **Coevolutionary particle swarm optimization using Gaussian distribution for solving constrained optimization problems**, *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, Vol. 36, No. 6, pp. 1407--1416, December, 2006.
623. Saku Kukkonen and Jouni Lampinen. **Constrained Real-Parameter Optimization with Generalized Differential Evolution**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 911--918, IEEE, Vancouver, BC, Canada, July 2006

624. Anand Jayant Kulkarni and Kang Tai. **Probability Collectives: A distributed optimization approach for constrained problems**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 3844--3851, IEEE Press, Barcelona, Spain, July 18--23, 2010.
625. V. Kumar. **Algorithms for Constraint-Satisfaction Problems: A Survey**. *AI Magazine*, pages 32-44, Spring 1992.
626. G. Saravana Kumar, P.K. Kalra and Sanjay G. Dhande. **Parameter Optimization for B-spline Curve Fitting using Genetic Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1871-1878, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
627. D. Nagesh Kumar and M. Janga Reddy. **Ant Colony Optimization for Multi-purpose Reservoir Operation**, *Water Resources Management*, Vol. 20, No. 6, pp. 879--898, December 2006.
628. Angel Kuri Morales and Carlos Villegas Quezada. **A Universal Genetic Algorithm for Constrained Optimization**, in *Proceedings 6th European Congress on Intelligent Techniques & Soft Computing, EUFIT'98*, pages 518-522, Aachen, Germany, September 1998. Verlag Mainz.
629. Angel Fernando Kuri-Morales and Jesús Gutiérrez-García. **Penalty Functions Methods for Constrained Optimization with Genetic Algorithms: A Statistical Analysis**, in Carlos A. Coello Coello, Alvaro de Albornoz, Luis Enrique Sucar and Osvaldo Cairó Battistutti (editors), *Proceedings of the 2nd Mexican International Conference on Artificial Intelligence (MICAI 2002)*, pages 108-117, Heidelberg, Germany, April 2001. Mérida, Yucatán, México, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 2313.
630. A. Kurpati, S. Azarm and J. Wu. **Constraint handling improvements for multiobjective genetic algorithms**. *Struct Multidisc Optim*, 23:204-213, 2002.
631. Raymond S. K. Kwan and Paavan Mistry. **A co-evolutionary algorithm for train timetabling**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 2142-2148, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.

L

632. Jérémie Labroquère, Aurélie Héritier, Annalisa Riccardi and Dario Izzo.

Evolutionary Constrained Optimization for a Jupiter Capture, in Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipic and Jim Smith (editors), *Parallel Problem Solving from Nature â “ PPSN XIII, 13th International Conference*, pp. 261--271, Springer. Lecture Notes in Computer Science Vol. 8672, Ljubljana, Slovenia, September 13-17, 2014.

633. Dan Ladley and Seth Bullock. **Logistic Constraints on 3D Termite Construction**, in Marco Dorigo, Mauro Birattari, Christian Blum, Luca M. Gambardella, Francesco Mondada and Thomas Stützle (editors), *Proceedings of 4th International Workshop on Ant Colony Optimization and Swarm Intelligence (ANTS'2004)*, pages 178-189, Heidelberg, Germany, September 2004. Brussels, Belgium, Springer-Verlag. Lecture Notes in Computer Science Vol. 3172.
634. Karla A.P. Lagares, Jaqueline S. Angelo, Heder S. Bernardino and Helio J.C. Barbosa. **A Differential Evolution Algorithm for Bilevel Problems Including Linear Equality Constraints**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 1885--1992, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
635. Nikolaos D. Lagaros, Manolis Papadrakakis and George Kokosslakis. **Structural Optimization using Evolutionary Algorithms**. *Computers and Structures*, 80(7-8):571-589, March 2002.
636. Nikos D. Lagaros, Vagelis Plevris and Manolis Papadrakakis. **Neurocomputing Strategies for Solving Reliability-Robust Design Optimization Problems** *Engineering Computations*, Vol. 27, No. 7--8, pp. 819-840, 2010.
637. Jouni Lampinen. **A Constraint Handling Approach for the Differential Evolution Algorithm**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 2, pages 1468-1473, Piscataway, New Jersey, May 2002. IEEE Service Center.
638. Ricardo Landa-Becerra and Carlos A. Coello Coello. **Optimization with Constraints using a Cultured Differential Evolution Approach**, in H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cantú Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Mancoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 27-34, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.
639. 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.

640. R. Landa Becerra, R. Sagarna and X. Yao. **An Evaluation of Differential Evolution in Software Test Data Generation**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 2850-2857, IEEE Service Center, Trondheim, Norway, May, 2009.
641. T. Van Le. **A Fuzzy Evolutionary Approach to Constrained Optimization Problems**, in *Proceedings of the Second IEEE Conference on Evolutionary Computation*, pages 274-278, Perth, November 1995. IEEE.
642. Chi-Ho Lee, Kui-Hong Park and Jong-Hwan Kim. **Hybrid Parallel Evolutionary Algorithms for constrained optimization utilizing PC Clustering**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 1436-1441, Piscataway, New Jersey, May 2001. IEEE Service Center.
643. Jongsoo Lee and Hyuk Park. **Constrained minimization utilizing GA based pattern recognition of immune system**. *Journal of Mechanical Science and Technology*, 21(5):779--788, May 2007.
644. Soomin Lee and Benjamin W. Wah. **Finding Good Starting Points for Solving Nonlinear Constrained Optimization Problems by Parallel Decomposition**}, in Alexander F. Gelbukh and Eduardo F. Morales (editors) *MICAI 2008: Advances in Artificial Intelligence, 7th Mexican International Conference on Artificial Intelligence*, pp. , Springer. Lecture Notes in Computer Science Vol. 5317, Atizapán de Zaragoza, Mexico, October 27-31, 2008. ISBN 978-3-540-88635-8
645. J.H. Lee, G.H. Kim and Y.S. Park. **A geometry constraint handling technique for stiffener layout optimization problem**. *Journal of Sound and Vibration*, 285(1-2):101-120, July 2005.
646. 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)*, pages 165-172. IEEE Press, Singapore, September 2007.
647. Guillermo Leguizamón and Carlos A. Coello Coello. **Boundary Search for Constrained Numerical Optimization Problems with an Algorithm Inspired on the Ant Colony Metaphor**, *IEEE Transactions on Evolutionary Computation*, Vol. 13, No. 2, pp. 350-368, April 2009.
648. Guillermo Leguizamón and Carlos Coello Coello. **Boundary Search for Constrained Numerical Optimization Problems**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 2, pp. 25-49, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.

649. A.C.C. Lemonge and H.J.C. Barbosa. **An Adaptive Penalty Scheme for Genetic Algorithms in Structural Optimization.** *International Journal for Numerical Methods in Engineering*, 59(5):703-736, February 2004.
650. Afonso C.C. Lemonge, Michelli M. Silva and Helio J.C. Barbosa. **Design Optimization of Geometrically Nonlinear Truss Structures Considering Cardinality Constraints**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 29--36, IEEE Press, Brisbane, Australia, June 10-15, 2012.
651. Afonso C.C. Lemonge, Helio J.C. Barbosa and Heder S. Bernardino. **A Family of Adaptive Penalty Schemes for Steady-state Genetic Algorithms**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 505--512, IEEE Press, Brisbane, Australia, June 10-15, 2012.
652. Jamie A. Lennon and Ella M. Atkins. **Preference-Based Trajectory Generation**, *Journal of Aerospace Computing Information and Communication*, Vol. 6, No. 3, pp. 142-170, 2009.
653. Wen Fung Leong and Gary G. Yen. **Constraint Handling in Particle Swarm Optimization**, *International Journal of Swarm Intelligence Research*, Vol. 1, No. 1, pp. 42--63, January-March, 2010.
654. Wen Fung Leong, Yali Wu and Gary G. Yen. **A Particle Swarm Optimizer for Constrained Multiobjective Optimization**, in Yuhui Shi (editors), *Emerging Research on Swarm Intelligence and Algorithm Optimization*, pp. 128--159, Information Science Reference, Hershey, PA, USA, 2015, ISBN 978-1-4666-6328-2.
655. K. M. Leung and Xi Zhang. **Discrete Versus Continuous Parametrization of Bank Credit Rating Systems Optimization Using Differential Evolution**, in *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pp. 265-272, ACM Press, Portland, Oregon, USA, July 7-11, 2010, ISBN 978-1-4503-0072-8.
656. Joost Leuven, Egdar Reehuis, Michael Emmerich and Thomas Bäck. **User-Derived Mutation in Highly Constrained Truck Loading Optimization**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 235--242, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4799-7492-4.
657. Yan Li and Li-Shan Kang. **A New Evolutionary Algorithm for Solving Nonlinear Programming Problems.** In Alwyn Barry (editor), *Genetic and Evolutionary Computation Conference. Workshop Program*, pages 288-291, New York, July 2002. AAI.
658. Y. Li and S.H. Leong. **Kinematics control of redundant manipulators using CMAC neural network combined with genetic algorithms**, in R. M. Parkin, A.

AlHaibeh and M. R. Jackson (editors), *ICOM 2003: International Conference on Mechatronics*, pp. 229--234, Professional Engineering Publishing Ltd, Loughborough, England, June 19-20, 2003, ISBN 978-1-4503-1963-8.

659. Hong Li, Yong-Chang Jiao and Yuping Wang. **Integrating the simplified interpolation into the genetic algorithm for constrained optimization problems.** *Computational Intelligence and Security. International Conference, CIS 2005*, volume 3801, pages 247-254, Xi'an, China, December 2005. Springer-Verlag. Lecture Notes in Artificial Intelligence.
660. Xiangyong Li, Peng Tian and Min Kong. **A Novel Particle Swarm Optimization for Constrained Optimization Problems**, in Shichao Zhang and Ray Jarvis (editors), *AI 2005: Advances in Artificial Intelligence, 18th Australian Joint Conference on Artificial Intelligence*, pp. 1305--1310, Springer. Lecture Notes in Computer Science Vol. 3809, Sydney, Australia, December 5--9, 2005.
661. Hecheng Li and Yuping Wang. **A Genetic Algorithm for Solving a Special Class of Nonlinear Bilevel Programming Problems**, in Yong Shi, G. Dick van Albada, Jack Dongarra and Peter M.A. Sloot (editors), *7th International Conference Computational Science (ICCS'2007)*, pp. 1159-1162, Springer. Lecture Notes in Computer Science, Vol. 4490, Beijing, China, 2007.
662. Xiang Li and Xi-Ming Liang. **A hybrid adaptive evolutionary algorithm for constrained optimization**, in *2007 Third International Conference on Intelligent Information Hiding and Multimedia Signal Processing*, pp. 338--341, IEEE Computer Society Press, Kaohsiung, Taiwan, November 26-28, 2007.
663. Lily D. Li, Xiaodong Li and Xinghuo Yu. **A Multi-Objective Constraint-Handling Method with PSO Algorithm for Constrained Engineering Optimization Problems**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 1528-1535, IEEE Service Center, Hong Kong, June 2008.
664. Hui Li and Xuesong Yan. **A New Optimization Algorithm for Weight Optimization**, in Lishan Kang, Zhihua Cai, Xuesong Yan and Yong Liu (editors), *Advances in Computation and Intelligence, Third International Symposium, ISICA 2008*, pp. 723--730, Springer. Lecture Notes in Computer Science Vol. 5370, Wuhan, China, December 19-21, 2008.
665. Lily D. Li, Xiaodong Li and Xinghuo Yu. **Power Generation Loading Optimization using a Multi-Objective Constraint-Handling Method via PSO Algorithm**, in *2008 6th International Conference on Industrial Informatics*, pp. 1530--1535. IEEE Press, Daejeon, South Korea, July 13-16, 2008, ISBN 978-1-4244-2170-1.
666. Ling-po Li, Ling Wang and Ye Xu. **Differential Evolution with Level**

Comparison for Constrained Optimization, in De-Shuang Huang, Kang-Hyun Jo, Hong-Hee Lee, Hee-Jun Kang and Vitoantonio Bevilacqua (editors), *Emerging Intelligent Computing Technology and Applications. With Aspects of Artificial Intelligence, 5th International Conference on Intelligent Computing, ICIC 2009*, pp. 351-360, Springer. Lecture Notes in Computer Science, Vol. 5755, Ulsan, South Korea, September 16-19, 2009.

667. Jian Li. **A hybrid differential evolution method for Practical Engineering Problems**, in *Proceedings of the 2009 IITA International Conference on Control, Automation and Systems Engineering*, pp. 54--57, IEEE Computer Society Press, Zhangjiajie, China, July 11-12, 2009, ISBN 978-0-7695-3728-3.
668. Hong-Shuang Li and Siu-Kiu Au. **Design optimization using Subset Simulation algorithm**, *Structural Safety*, Vol. 32, No. 6, pp. 384-392, 2010.
669. Zhihui Li, J. J. Liang, Xi He And Zhigang Shang. **Differential evolution with dynamic constraint-handling mechanism**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1899--1906, IEEE Press, Barcelona, Spain, July 18--23, 2010.
670. Xueqiang Li, Zhifeng Hao and Han Huang. **An Intelligence Model with Max-Min Strategy for Constrained Evolutionary Optimization**, in Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan and Subhransu Sekhar Dash (editors), *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pp. 262--269, Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18, 2010.
671. Hong Li, Yong-Chang Jiao and Li Zhang. **Hybrid Differential Evolution With a Simplified Quadratic Approximation for Constrained Optimization Problems**, *Engineering Optimization*, Vol. 43, No. 2, pp. 115--134, 2011.
672. Zhihui Li, Zhigang Shang, J.J. Liang and Ben Niu. **An Improved Differential Evolution for Constrained Optimization with Dynamic Constraint-Handling Mechanism**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 343--348, IEEE Press, Brisbane, Australia, June 10-15, 2012.
673. Xiang Li and Gang Du. **Inequality constraint handling in genetic algorithms using a boundary simulation method**, *Computers & Operations Research*, Vol. 39, No. 3, pp. 521--540, March 2012.
674. Xiang Li and Gang Du. **BSTBGA: A hybrid genetic algorithm for constrained multi-objective optimization problems**, *Computers & Operations Research*, Vol. 40, No. 1, pp. 282--302, January 2013.
675. Xiang Li, Mohammad Reza Bonyadi, Zbigniew Michalewicz and Luigi Barone. **Solving a Real-world Wheat Blending Problem Using a Hybrid**

Evolutionary Algorithm, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2665--2671, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.

676. Zhihui Li, Zhigang Shang, B. Y. Qu and J. J. Liang. **Feature Selection based on Manifold-Learning with Dynamic Constraint-Handling Differential Evolution**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 332--337, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
677. Zhihui Li, Zhigang Shang, B. Y. Qu and J. J. Liang. **Differential Evolution Strategy based on the Constraint of Fitness Values Classification**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 1454--1460, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
678. Xiangtao Li and Minghao Yin. **Self-adaptive constrained artificial bee colony for constrained numerical optimization**, *Neural Computing & Applications*, Vol. 24, No. 3-4, pp. 723--734, March 2014.
679. Xiaosheng Li and Guoshan Zhang. **Minimum penalty for constrained evolutionary optimization**, *Computational Optimization and Applications*, Vol. 60, No. 2, pp. 513--544, March 2015.
680. Mu Dong Li, Hui Zhao, Xing Wei Weng and Tong Han. **A Novel Nature-Inspired Algorithm for Optimization: Virus Colony Search**, *Advances in Engineering Software*, Vol. 92, pp. 65--88, February 2016.
681. Jia-Peng Li, Yong Wang, Shengxiang Yang and Zixing Cai. **A comparative study of constraint-handling techniques in evolutionary constrained multiobjective optimization**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 4175--4182, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
682. J.J. Liang and P.N. Suganthan. **Dynamic Multi-Swarm Particle Swarm Optimizer with a Novel Constraint-Handling Mechanism**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 316--323, IEEE, Vancouver, BC, Canada, July 2006
683. Ximing Liang, Wen Long, Haoyu Qin and Shanchun Li, **A novel constraint-handling method based on evolutionary algorithm**, in *2009 Second International Conference on Intelligent Computation Technology and Automation (ICICTA'09)*, pp. 130--133, IEEE Computer Society Press, Changsha, Hunan, China, 10-11 October 2009.
684. J.J. Liang, Shang Zhigang and Li Zhihui. **Coevolutionary Comprehensive Learning Particle Swarm Optimizer**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1505--1512, IEEE Press, Barcelona, Spain, July

18--23, 2010.

685. J.J. Liang, B. Zheng, F.Y. Xu, B.Y. Qu and H. Song. **Multi-objective Differential Evolution Algorithm Based on Fast Sorting and a Novel Constraints Handling Technique**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 445--450, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
686. Bo Liao and Rein Luus. **Comparison of the Luus-Jaakola optimization procedure and the genetic algorithm**. *Engineering Optimization*, 37(4):381-398, June 2005.
687. G. E. Liepins and Michael D. Vose. **Representational Issues in Genetic Optimization**. *Journal of Experimental and Theoretical Computer Science*, 2(2):4-30, 1990.
688. Gunar E. Liepins and W. D. Potter. **A Genetic Algorithm Approach to Multiple-Fault Diagnosis**, in Lawrence Davis (editor), *Handbook of Genetic Algorithms*, chapter 17, pages 237-250. Van Nostrand Reinhold, New York, New York, 1991.
689. Dudy Lim, Yew-Soon Ong, Rachman Setiawan and Muhammad Idris. **Classifier-assisted constrained evolutionary optimization for automated geometry selection of orthodontic retraction spring**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1449--1456, IEEE Press, Barcelona, Spain, July 18--23, 2010.
690. Yung-Chien Lin, Feng-Sheng Wang and Kao-Shing Hwang. **A Hibrid Method of Evolutionary Algorithms for Mixed-Integer Nonlinear Optimization Problems**, in *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 3, pages 2159-2166, Piscataway, New Jersey, July 1999. IEEE Service Center.
691. Chyi-Yeu Lin and Wen-Hong Wu. **Adaptive penalty strategies in genetic search for problems with inequality and equality constraints**. In *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 53-54. Cracow, Poland, September 2002.
692. Yung-Chien Lin, Kao-Shing Hwang and Feng-Sheng Wang. **Hybrid Differential Evolution with Multiplier Updating Method for Nonlinear Constrained Optimization Problems**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 872-877, Piscataway, New Jersey, May 2002. IEEE Service Center.
693. Yung-Chien Lin, Kao-Shing Hwang and Feng-Sheng Wang. **An Evolutionary Lagrange Method for Mixed-Integer Constrained Optimization Problems**. *Engineering Optimization*, 35(3):267-284, June 2003.

694. C.Y. Lin and W.H. Wu. **Self-Organizing Adaptive Penalty Strategy in Constrained Genetic Search.** *Structural and Multidisciplinary Optimization*, 26(6):417-428, April 2004.
695. W. Y. Lin. **Optimum Design of Rolling Element Bearings Using a Genetic Algorithm-Differential Evolution (GA-DE) Hybrid Algorithm.** *Proceedings of the Institution of Mechanical Engineers Part C-Journal of Mechanical Engineering Science*, Vol. 225, No. C3, pp. 714--721, 2011.
696. Geng Lin, Wenxing Zhu and Montaz M. Ali. **An Effective Hybrid Memetic Algorithm for the Minimum Weight Dominating Set Problem,** *IEEE Transactions on Evolutionary Computation*, Vol. 20, No. 6, pp. 892--907, December 2016.
697. Hoi-Shan Lin, Jing Xiao and Zbigniew Michalewicz. **Evolutionary Algorithm for Path Planning in Mobile Robot Environment.** In Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 211-216, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
698. Chen Ling, Sheng Jie, Qin Ling and Chen Hongjian. **A Method for Solving Optimization Problems in Continuous Space Using Ant Colony Algorithm,** in Marco Dorigo, Gianna Di Caro and Michael Sampels (editors), *Proceedings of the Third International Workshop, (ANTS'2002)*, pages 288-289. Brussels, Belgium, Springer Verlag, September 2002. Lecture Notes in Computer Science Vol. 2463.
699. V. V. Litinetski and B. M. Abramzon. **Mars - A multistart adaptive random search method for global constrained optimization in engineering applications,** *Engineering Optimization*, Vol. 30, No. 2, pp. 125--154, 1998.
700. Pu Liu, Francis Lau, Michael J. Lewis and Cho li Wang. **A New Asynchronous Parallel Evolutionary Algorithm for Function Optimization,** in Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacañas and Hans-Paul Schwefel (editors), *Proceedings of the 7th Parallel Problem Solving from Nature (PPSN VII)*, pages 401-410, Heidelberg, Germany, September 2002. Granada, Spain, Springer-Verlag. Lecture Notes in Computer Science Vol. 2439.
701. H.L. Liu and Y.P. Wang. **Solving constrained optimization problem by a specific-design multiobjective genetic algorithm,** in *ICCIMA 2003: Fifth International Conference on Computational Intelligence and Multimedia Applications*, pp. 200--205, IEEE Computer Society Press, Xian, China, September 27-30, 2003, ISBN 0-7695-1957-1.
702. Jing Liu and Weicai Zhong. **Constrained Optimization Using Organizational Evolutionary Algorithm,** in Tzai-Der Wang, Xiaodong Li,

Shu-Heng Chen, Xufa Wang, Hussein Abbass, Hitoshi Iba, Guoliang Chen and Xin Yao (editors), *Simulated Evolution and Learning, 6th International Conference, SEAL 2006*, pp. 302--309, Springer. Lecture Notes in Computer Science Vol. 4247, Hefei, China, October 2006.

703. Jing Liu, Weicai Zhong and Licheng Hao. **An organizational evolutionary algorithm for numerical optimization.** *IEEE Transactions on Systems, Man and Cybernetics Part B--Cybernetics*, Vol. 37, No. 4, pp. 1052-1064, August 2007.
704. Hui Liu, Zixing Cai and Yong Wang. **A New Constrained Optimization Evolutionary Algorithm by using Good Point Set**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 1247-1254, IEEE Press, Singapore, September 2007.
705. Bo Liu, Hannan Ma, Xuejun Zhang, Bo Liu and Yan Zhou. **A Memetic Co-Evolutionary Differential Evolution Algorithm for Constrained Optimization**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 2996-3002, IEEE Press, Singapore, September 2007.
706. Bo Liu, Hannan Ma and Xuejun Zhang. **A Co-evolutionary Differential Evolution Algorithm for Constrained Optimization**, in *ICNC 2007: Third International Conference on Natural Computation*, Vol. 4, pp. 51--57, IEEE Computer Society Press, Haikou, China, August 24-27, 2007.
707. Chun-An Liu. **New multiobjective PSO algorithm for nonlinear constrained programming problems**, in Rubin Wang, Enhua Shen and Fanji Gu (Editors), *Proceedings of the International Conference on Intelligent System and Knowledge Engineering (ISKE 2007)*, pp. 1168--1168, Atlantic Press, Chendgdu, China, October 15-16, 2007, ISBN 978-90-78677-04-8.
708. Chun-An Liu. **New Multiobjective PSO Algorithm for Nonlinear Constrained Programming Problems**, in Rubin Wang and Fanji Gu and Enhua Shen (editors), *Advances in Cognitive Neurodynamics ICCN 2007*, pp. 955-962, Springer, June 2008.
709. Chun-An Liu. **New Dynamic Constrained Optimization PSO Algorithm**, in Maozu Guo, Liang Zhao and Lipo Wang (Editors), *Fourth International Conference on Natural Computation 2008, ICNC'08*, pp. 650--653, IEEE Computer Society Press, Jinan, Shandong, China, 18-20 October 2008.
710. C. A. Liu and Yunping Wang. **Multiobjective evolutionary algorithm for dynamic nonlinear constrained optimization problems**, *Journal of Systems, Engineering and Electronics*, Vol. 20, No. 1, pp. 204-210, February 2009.
711. Jinchao Liu, Zhun Fan, and Erik D. Goodman. **SRaDE: An Adaptive Differential Evolution Based on Stochastic Ranking**, in *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pp. 1871-1872, ACM

712. Jinchao Liu, Zhun Fan and Erik Goodman. **SRDE: An Improved Differential Evolution Based on Stochastic Ranking**, *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pp. 345-352, ACM Press, Shanghai, China, June 12-14 2009. ISBN 978-1-60558-326-6.
713. Ruochen Liu, Yong Li, Wei Zhang and Licheng Jiao. **Stochastic Ranking Based Differential Evolution Algorithm for Constrained Optimization Problem**, *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pp. 887-890, ACM Press, Shanghai, China, June 12-14 2009. ISBN 978-1-60558-326-6.
714. Bo Liu, Francisco V. Fernandez, Peng Gao and Georges Gielen. **A Fuzzy Selection Based Constraint Handling Method for Multi-objective Optimization of Analog Cells**, in *2009 European Conference on Circuit Theory Design*, pp. 611--614, IEEE Press, Antalya, Turkey, August 23-27, 2009, ISBN 978-1-4244-3895-2.
715. Hui Liu, Zixing Cai and Yong Wang. **Hybridizing particle swarm optimization with differential evolution for constrained numerical and engineering optimization**, *Applied Soft Computing*, Vol. 10, No. 2, pp. 629-640, March, 2010.
716. Yuzhen Liu and Shoufu Li. **Hybrid Good Point Set Evolutionary Strategy for Constrained Optimization**, in De-Shuang Huang, Martin McGinnity, Laurent Heutte and Xiao-Ping Zhang (editors), *Advanced Intelligent Computing Theories and Applications, 6th International Conference on Intelligent Computing, ICIC 2010*, pp. 30--39, Changsha, China, August 18-21, 2010.
717. Defang Liu and Bochu Wang. **Biological Swarm Intelligence Based Opportunistic Resource Allocation for Wireless Ad Hoc Networks**, *Wireless Personal Communications*, Vol. 66, No. 4, pp. 629--649, October 2012.
718. Jing Liu. **Constrained Layout Optimization in Satellite Cabin Using a Multiagent Genetic Algorithm**, in Lam Thu Bui, Yew Soon Ong, Nguyen Xuan Hoai, Hisao Ishibuchi and Ponnuthurai Nagaratnam Suganthan (editors), *Simulated Evolution and Learning, 9th International Conference, SEAL 2012*, pp. 440--449, Springer. Lecture Notes in Computer Science Vol. 7673, Hanoi, Vietnam, December 16-19, 2012.
719. Hai-Lin Liu and Dan Wang. **A Constrained Multiobjective Evolutionary Algorithm based Decomposition and Temporary Register**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 3058--3063, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.

720. Zhenyi Liu and Qing Hui. **A Numerical Gradient Based Technique and Directed Neighborhood Structure for Constrained Particle Swarm Optimization**, in *2013 American Control Conference (ACC'2013)*, pp. 4783--4788, IEEE Press, Washington, DC, USA, June 17-19, 2013, ISBN 978-1-4799-0178-4.
721. Qing Liu, Tomohiro Odaka, Jousuke Kuroiwa, Haruhiko Shirai and Hisakazu Ogura. **A New Artificial Fish Swarm Algorithm for the Multiple Knapsack Problem**, *IEICE Transactions on Information and Systems*, Vol. E97D, No. 3, pp. 455--568, March 2014.
722. Bo Liu, Georges Gielen and Francisco V. Fernández (editors), **Automated Design of Analog and High-frequency Circuits, A Computational Intelligence Approach**, Springer. Studies in Computational Intelligence Vol. 501, New York, USA, 2014, ISBN 978-3-642-39161-3.
723. Bo Liu, Georges Gielen and Francisco V. Fernández. **High-Performance Analog IC Sizing: Advanced Constraint Handling and Search Methods**, in Bo Liu, Georges Gielen and Francisco V. Fernández (editors), *Automated Design of Analog and High-frequency Circuits*, pp. 41--62, Springer. Studies in Computational Intelligence Vol. 501, New York, USA, 2014, ISBN 978-3-642-39161-3.
724. Thomas D. Logan. **An Electronic Card Production Line Loading Program-An Evolutionary Algorithm Implementation**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 206-210, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
725. Wen Long, Ximing Liang, Yafei Huang and Yixiong Chen. **A hybrid differential evolution augmented Lagrangian method for constrained numerical and engineering optimization**, *Computer-Aided Design*, Vol. 45, No. 12, pp. 1562--1574, December 2013.
726. Qiang Long. **A Constraint Handling Technique for Constrained Multi-Objective Genetic Algorithm**, *Swarm and Evolutionary Computation*, Vol. 15, pp. 66--79, April, 2014.
727. Daniel H. Loughlin and S. Ranji Ranjithan. **Chance-Constrained Genetic Algorithms**, in Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, pages 369-376, San Francisco, California, July 1999. Morgan Kaufmann.
728. Sushil J. Louis and Gregory J. Rawlins. **Using genetic algorithms to design structures**. Technical Report 326, Computer Science Department, Indiana

University, Bloomington, Indiana, feb 1991.

729. Haiyan Lu and Weiqi Chen. **Dynamic-objective particle swarm optimization for constrained optimization problems**, *Journal of Combinatorial Optimization*, Vol. 12, No. 4, pp. 409--419, December 2006.
730. Haiyan Lu and Weiqi Chen. **Self-adaptive velocity particle swarm optimization for solving constrained optimization problems**, *Journal of Global Optimization*, Vol. 41, No. 3, pp. 427--445, July 2008.
731. Wei Lu and Pentti Makelainen. **Augmented Lagrangian genetic algorithms for optimal design of hat-shaped cold-formed steel profile**, in M. J. Skibniewski, P. Vainiunas and E. K. Zavadskas (editors), *9th International Conference: Modern Building Materials, Structures and Techniques*, pp. 998--1004, Vilnius Gediminas Technical University Press, Vilnius, Lithuania, May 16-18, 2007, ISBN 978-9955-28-201-3.
732. Youlin Lu, Jianzhong Zhou, Hui Qin, Yinghai Li and Yongchuan Zhang. **An adaptive hybrid differential evolution algorithm for dynamic economic dispatch with valve-point effects**, *Expert Systems with Applications*, Vol. 37, No. 7, pp. 4842-4849, July, 2010.
733. Xiaofen Lu, Ke Tang and Xin Yao. **Speciated Evolutionary Algorithm for Dynamic Constrained Optimisation**, 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. 203--213, Springer. Lecture Notes in Computer Science Vol. 9921, Edinburgh, UK, September 17-21, 2016, ISBN 978-3-319-45822-9.
734. C. B. Lucasius, M. J. J. Blommers, L. M. C. Buydens and G. Kateman. **A Genetic Algorithm for Conformational Analysis of DNA**, in Lawrence Davis (editor), *Handbook of Genetic Algorithms*, chapter 18, pages 251-281. Van Nostrand Reinhold, New York, New York, 1991.
735. Felipe Luchi and Renato A. Krohling. **Differential Evolution and Nelder-Mead for constrained non-linear integer optimization problems**, in *3rd International Conference on Information Technology and Quantitative Management (ITQM 2015)*, pp. 668--677, Elsevier, Rio de Janeiro, Brazil, July 21-24, 2015.
736. Daniel Lückehe, Markus Wagner and Oliver Kramer. **On Evolutionary Approaches to Wind Turbine Placement with Geo-Constraints**, in *2015 Genetic and Evolutionary Computation Conference (GECCO 2015)*, pp. 1223--1230, ACM Press, Madrid, Spain, July 11-15, 2015, ISBN 978-1-4503-3472-3.
737. Daniel Lückehe, Markus Wagner and Oliver Kramer. **Constrained Evolutionary Wind Turbine Placement with Penalty Functions**, in *2016 IEEE*

738. G. C. Luh and C.H. Chueh. **Multi-modal topological optimization of structure using immune algorithm**, *Computer Methods in Applied Mechanics and Engineering*, Vol. 193, No. 36--38, pp. 4035-4055, 2004.
739. Martin Lukasiewicz, Michael Gla , Christian Haubelt and Jürgen Teich. **SAT-Decoding in Evolutionary Algorithms for Discrete Constrained Optimization Problems**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 935-942, IEEE Press, Singapore, September 2007.
740. Martin Lukasiewicz, Michael Gla and Jürgen Teich. **A Feasibility-Preserving Crossover and Mutation Operator for Constrained Combinatorial Problems**, in Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni and Nicola Beume (editors), *Parallel Problem Solving from Nature--PPSN X*, pp. 919--928, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008
741. Martin Lukasiewicz, Michael Gla , Christian Haubelt and Jürgen Teich. **A Feasibility-Preserving Local Search Operator for Constrained Discrete Optimization Problems**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 1968-1975, IEEE Service Center, Hong Kong, June 2008.
742. Szymon Lukasik and Slawomir Zak. **Firefly Algorithm for Continuous Constrained Optimization Tasks**, in Ngoc Thanh Nguyen, Ryszard Kowalczyk and Shyi-Ming Chen (editors), *Computational Collective Intelligence. Semantic Web, Social Networks and Multiagent Systems, First International Conference, ICCCI 2009*, pp. 97--106, Springer. Lecture Notes in Artificial Intelligence Vol. 5796, Wroclaw, Poland, October 5-7, 2009.
743. Kai-Yew Lum, Pierre-Marie Jacquart and Mourad Sefrioui. **Constrained Optimization of Multilayered Anti-Reflection Coatings using Genetic Algorithms**, in Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 1, pages 172-177, Singapore, November 2002. Orchid Country Club, Nanyang Technical University.
744. Kai-Yew Lum, Pierre-Marie Jacquart and Mourad Sefrioui. **Constrained Optimization of Multilayered Anti-reflection Coatings Using Genetic Algorithms**, in Kay Chen Tan, Meng Hiot Lim, Xin Yao and Lipo Wang, (editors), *Recent Advances in Simulated Evolution and Learning*, pp. 603-322, World Scientific, Singapore, 2004.
745. Ken Lunn and Caroline Johnson. **Spatial Reasoning with Genetic**

Algorithms. An Application in Planning of Safe Liquid Petroleum Gas Sites, in Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 73-84, Brighton, U.K., April 1996. Springer-Verlag. Lecture Notes in Computer Science No. 1143.

746. Ya-Zhong Luo, Guo-Jin Tang, Zhong-Gui Wang and Hai-Yang Li. **Optimization of perturbed and constrained fuel-optimal impulsive rendezvous using a hybrid approach**, *Engineering Optimization*, Vol. 38, No. 8, pp. 959--973, December 2006.
747. Ya-Zhong Luo, Guo-Jin Tang and Hai-yang Li. **Optimization of multiple-impulse minimum-time rendezvous with impulse constraints using a hybrid genetic algorithm**, *Aerospace Science and Technology*, Vol. 10, No. 6, pp. 534--540, September 2006.
748. Yiqing Luo, Xigang Yuan and Yongjian Liu. **An improved PSO algorithm for solving non-convex NLP/MINLP problems with equality constraints**. *Computers & Chemical Engineering*, Vol. 31, No. 3, pp. 153--162, January 29, 2007.
749. Rein Luus, Kelly Sabaliauskas and Ihor Harapyn. **Handling Inequality Constraints in Direct Search Optimization**. *Engineering Optimization*, 38(4):391-405, June 2006.

M

750. Wenping Ma, Licheng Jiao, Maoguo Gong and Ronghua Shang. **Immune Clonal Selection Evolutionary Strategy for Constrained Optimization**, in Qiang Yang and Geoffrey I. Webb (editors), *Trends in Artificial Intelligence, 9th Pacific Rim International Conference on Artificial Intelligence (PRICAI'2006)*, pp. 661-670, Springer. Lecture Notes in Computer Science, Vol. 4099, Guilin, China, 2006. ISBN 3-540-36667-9.
751. Haiping Ma and Dan Simon. **Biogeography-Based Optimization with Blended Migration for Constrained Optimization Problems**, in *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pp. 417-418, ACM Press, Portland, Oregon, USA, July 7-11, 2010, ISBN 978-1-4503-0072-8.
752. Haiping Ma and Dan Simon. **Blended Biogeography-Based Optimization for Constrained Optimization**, *Engineering Applications of Artificial Intelligence*, Vol. 24, No. 3, pp. 517--525, April, 2011.

753. Chao Ma, Jijian Lian and Junna Wang. **Short-term optimal operation of three-gorge and Gezhouba cascade hydropower stations in non-flood season with operation rules from data mining**, *Energy Conversion and Management*, Vol. 65, pp. 616--627, January, 2013.
754. Martin Macas and Daniel Novák and Lenka Lhotská. **Constraints in Particle Swarm Optimization of Hidden Markov Models**, in Emilio Corchado, Hujun Yin, Vicente J. Botti and Colin Fyfe (editors) *Intelligent Data Engineering and Automated Learning - IDEAL 2006*, pp. 1399-1406, Springer. Lecture Notes in Computer Science 4224, Burgos, Spain, September 20-23, 2006.
755. Andrea Maesani and Dario Floreano. **Viability Principles for Constrained Optimization Using a (1+1)-CMA-ES**, in Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipic and Jim Smith (editors), *Parallel Problem Solving from Nature â “ PPSN XIII, 13th International Conference*, pp. 272--281, Springer. Lecture Notes in Computer Science Vol. 8672, Ljubljana, Slovenia, September 13-17, 2014.
756. Andrea Maesani, Giovanni Iacca and Dario Floreano. **Memetic Viability Evolution for Constrained Optimization**, *IEEE Transactions on Evolutionary Computation*, Vol. 20, No. 1, pp. 125--144, February 2016.
757. M. Mahdavi, M. Fesanghary and E. Damangir. **An improved harmony search algorithm for solving optimization problems**. *Applied Mathematics and Computation*, 188(2):1567-1579, May 15th 2007.
758. Asghar Mahdavi and Mohammad Ebrahim Shiri. **An augmented Lagrangian ant colony based method for constrained optimization**, *Computational Optimization and Applications*, Vol. 60, No. 1, pp. 263--276, January 2015.
759. Katherine M. Malan, Johannes F. Oberholzer and Andries P. Engelbrecht. **Characterising Constrained Continuous Optimisation Problems**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 1351--1358, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4799-7492-4.
760. R. Mallipeddi and P. N. Suganthan. **Evaluation of Novel Adaptive Evolutionary Programming on Four Constraint Handling Techniques**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 4046-4053, IEEE Service Center, Hong Kong, June 2008.
761. R. Mallipeddi, P. N. Suganthan and B. Y. Qu. **Diversity Enhanced Adaptive Evolutionary Programming for Solving Single Objective Constrained Problems**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 2106-2113, IEEE Service Center, Trondheim, Norway, May, 2009.
762. Rammohan Mallipeddi and Ponnuthurai N. Suganthan. **Ensemble of Constraint Handling Techniques**, *IEEE Transactions On Evolutionary*

763. Rammohan Mallipeddi and Ponnuthurai Nagarathnam Suganthan. **Differential evolution with ensemble of constraint handling techniques for solving CEC 2010 benchmark problems**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1907--1914, IEEE Press, Barcelona, Spain, July 18--23, 2010.
764. R. Mallipeddi, Ashu Verma, P. N. Sugamthan, B. K. Panigrahi and P. R. Bijwe. **Constraint Handling in Transmission Network Expansion Planning**, in Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagarathnam Suganthan and Subhransu Sekhar Dash (editors), *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pp. 709--717, Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18, 2010.
765. Ashish Mani and C. Patvardhan. **A Novel Hybrid Constraint Handling Technique for Evolutionary Optimization**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 2577-2583, IEEE Service Center, Trondheim, Norway, May, 2009.
766. P. S. Manoharan, P. S. Kannan, S. Baskar and M. W. Iruthayarajan. **Penalty parameter-less constraint handling scheme based evolutionary algorithms solutions to economic dispatch**, *IET Generation, Transmission & Distribution*, Vol. 2, No. 4, pp. 478-490, July 2008.
767. Timo Mantere. **A Min-Max Genetic Algorithm with Alternating Multiple Sorting for Solving Constrained Problems**, in Timo Honkela, Tapani Raiko, Jukka Kortela and Harri Valpola (editors), *Proceedings of the Ninth Scandinavian Conference on Artificial Intelligence (SCAI 2006)*, pp. 61-67, Finnish Artificial Intelligence society FAIS, Espoo, Finland, October 25-27 2006.
768. Elena Marchiori. **Combining Constraint Processing and Genetic Algorithms for Constrained Satisfaction Problems**, in Thomas Bäck (editor), *Proceedings of the Seventh International Conference on Genetic Algorithms (ICGA-97)*, pages 330-337, San Francisco, California, July 1997. Morgan Kaufmann.
769. Aldo Márquez-Grajales and Efrén Mezura-Montes. **μJADE : Micro adaptive differential evolution to solve constrained optimization problems**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 4183--4190, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
770. S. Martorell, S. Carlos, A. Sanchez and V. Serradell. **Constrained optimization of test intervals using a steady-state genetic algorithm**, *Reliability Engineering & System Safety*, Vol. 67, No. 3, pp. 215--232, March 2000.

771. M. Hadi Mashinchi, Mehmet A. Orgun and Witold Pedrycz. **Hybrid optimization with improved tabu search**, *Applied Soft Computing*, Vol. 11, No. 2, pp. 1993--2006, March, 2011.
772. Kazuaki Masuda and Kenzo Kurihara. **A constrained global optimization method based on multi-objective particle swarm optimization**, *Electronics and Communications in Japan*, Vol. 95, No. 1, pp. 43--54, January 2012.
773. Shouichi Matsui and Ken ichi Tokoro. **A New Genetic Algorithm for Minimum Span Frequency Assignment using Permutation and Clique**. In Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee and Hans-Georg Beyer (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 682-689, San Francisco, California, July 2000. Morgan Kaufmann.
774. Shouichi Matsui and Ken ichi Tokoro. **Improving the Performance of a Genetic Algorithm for Minimum Span Frequency Assignment Problem with an Adaptive Mutation Rate and a New Initialization Method**. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon and Edmund Burke (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 1359-1366, San Francisco, California, July 2001. Morgan Kaufmann Publishers.
775. Jorge Maturana and María-Cristina Riff. **An evolutionary algorithm to solve the Short-term Electrical Generation Scheduling Problem**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 1150-1156, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
776. Issam Mazhoud, Khaled Hadj-Hamou, Jean Bignon and Patrice Joyeux. **Particle swarm optimization for solving engineering problems: A new constraint-handling mechanism**, *Engineering Applications of Artificial Intelligence*, Vol. 26, No. 4, pp. 1263--1273, April 2013.
777. Frédéric Médioni, Nicolas Durand and Jean-Marc Alliot. **Air Traffic Conflict Resolution by Genetic Algorithms**. In J.-M. Alliot, E. Lutton, E. Ronald, M. Schoenauer and D. Snyers (editors), *Proceedings of the 2nd European Conference on Artificial Evolution (AE 1995)*, pages 370-383, Heidelberg, Germany, September 1995. Brest, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1063.
778. Anthony John Medland and Jason Matthews. **The implementation of a direct search approach for the resolution of complex and changing rule-based problems**, *Engineering With Computers*, Vol. 27, No. 2, pp. 105--115, April 2011.

779. Vivek Kumar Mehta and Bhaskar Dasgupta. **A constrained optimization algorithm based on the simplex search method**, *Engineering Optimization*, Vol. 44, No. 5, pp. 537--550, 2012.
780. 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.
781. Zhiqing Meng and Chuangyin Dang. **A Hopfiled Neural Network for Nonlinear Constrained Optimization Problems Based on Penalty Function**, in Jun Wang, Xiaofeng Liao and Zhang Yi (editors), *Advances in Neural Networks - ISNN 2005, Second International Symposium on Neural Networks*, pp. 712-717, Springer. Lecture Notes in Computer Science Vol. 3496, Chongqing, China, May 30 - June 1, 2005.
782. Laurence D. Merkle and John W. Luiginland. **Design Optimization for a Novel Class of High Power Microwave Sources**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1732-1739, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
783. Koenraad Mertens and Tom Holvoet. **CSAA: a Constraint Satisfaction Ant Algorithm Framework**, in I.C. Parmee (editor), *Proceedings of the Sixth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2004)*, volume 6, pages 285-294, Bristol, UK, April 2004. Springer-Verlag.
784. Bernd Meyer and Andreas Ernst. **Integrating ACO and Constraint Propagation**, in Marco Dorigo, Mauro Birattari, Christian Blum, Luca M. Gambardella, Francesco Mondada and Thomas Stützle (editors), *Proceedings of 4th International Workshop on Ant Colony Optimization and Swarm Intelligence (ANTS'2004)*, pages 166-177, Heidelberg, Germany, September 2004. Brussels, Belgium, Springer-Verlag. Lecture Notes in Computer Science Vol. 3172.
785. Bernd Meyer. **Constraint Handling and Stochastic Ranking in ACO**, in *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 3, pages 2683-2690, Edinburgh, Scotland, September 2005. IEEE Service Center.
786. Bernd Meyer. **Hybrids of Constructive Metaheuristics and Constraint Programming: A Case Study with ACO**, in Christian Blum, María J. Blesa Aguilera andrea Roli and Michael Sampels (editors), *Hybrid Metaheuristics*, pp. 151-183, Springer, Studies in Computational Intelligence, Volume 114, Berlin, 2008.

787. 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 .
788. Efrén Mezura-Montes. [Uso de la Técnica Multiobjetivo NPGA para el Manejo de Restricciones en Algoritmos Genéticos.](#) Master's thesis, Universidad Veracruzana, Xalapa, México, 2001. (In Spanish).
789. Efrén Mezura-Montes. [Alternative Techniques to Handle Constraints in Evolutionary Optimization](#) PhD thesis, Computer Science Section, Electrical Eng. Department., CINVESTAV-IPN, México City, México, December 2004.
790. Efrén Mezura-Montes, Arturo Hernández Aguirre and Carlos A. Coello Coello. **Using Evolution Strategies to Solve Constrained Optimization Problems.** In Miguel Cerrolaza William Annicchiarico, Jacques Périaux and Gabriel Winter (editors), *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization* , pages 1-25. WIT Press, CIMNE Barcelona, Southampton, Boston, 2005. ISBN 1-84564-038-1.
791. Efrén Mezura-Montes and Carlos A. Coello Coello. **A Numerical Comparison of some Multiobjective-Based Techniques to Handle Constraints in Genetic Algorithms.** Technical Report EVOCINV-03-2002, Evolutionary Computation Group at CINVESTAV, Sección de Computación, Departamento de Ingeniería Eléctrica, CINVESTAV-IPN, México D.F., México, 2002. Available in the List of References on Constraint-Handling Techniques used with Evolutionary Algorithms at <http://www.cs.cinvestav.mx/~constraint>.
792. 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), *Proceedings of the Fourth Mexican International Conference on Computer Science (ENC'2003)*, pages 192-199, Los Alamitos, CA, September 2003. Apizaco, Tlaxcala, México, IEEE Computer Society.
793. Efrén Mezura-Montes and Carlos A. Coello Coello. **On the Usefulness of the Evolution Strategies Self-Adaptation Mechanism to Handle Constraints in Global Optimization.** Technical Report EVOCINV-01-2003, Evolutionary Computation Group at CINVESTAV, Sección de Computación, Departamento de Ingeniería Eléctrica, CINVESTAV-IPN, México D.F., México, 2003. Available in the Constraint Handling Techniques in Evolutionary Algorithms Repository at <http://www.cs.cinvestav.mx/~constraint/>.
794. Efrén Mezura-Montes and Carlos A. Coello Coello. **A Simple Evolution Strategy to Solve Constrained Optimization Problems**, in Erick Cantú-Paz,

James A. Foster, Kalyanmoy Deb, Lawrence David Davis, Rajkumar Roy, Una-May O' Reilly, Hans-Georg Beyer, Russell Standish, Graham Kendall, Stewart Wilson, Mark Harman, Joachim Wegener, Dipankar Dasgupta, Mitch A. Potter, Alan C. Schultz, Kathryn A. Dowsland, Natasha Jonoska and Julian Miller (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2003)*, pages 640-641, Heidelberg, Germany, July 2003. Chicago, Illinois, Springer Verlag. Lecture Notes in Computer Science Vol. 2723.

795. Efrén Mezura-Montes and Carlos A. Coello Coello. **A Simple Multimembered Evolution Strategy to Solve Constrained Optimization Problems.** Technical Report EVOGINV-04-2003, Evolutionary Computation Group at CINEVESTAV, Sección de Computación, Departamento de Ingeniería Eléctrica, CINEVESTAV-IPN, México D.F., México, 2003. Available in the Constraint Handling Techniques in Evolutionary Algorithms Repository at <http://www.cs.cinvestav.mx/~constraint/>.
796. Efrén Mezura-Montes and Carlos A. Coello Coello. **What Makes a Constrained Problem Difficult to Solve by an Evolutionary Algorithm.** Technical Report EVOGINV-01-2004, Evolutionary Computation Group at CINEVESTAV, Sección de Computación, Departamento de Ingeniería Eléctrica, CINEVESTAV-IPN, México D.F., México, 2004. Available in the Constraint Handling Techniques in Evolutionary Algorithms Repository at <http://www.cs.cinvestav.mx/~constraint/>.
797. 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)*, volume 2, pages 1477-1484, Edinburgh, Scotland, September 2005. IEEE Press.
798. Efrén Mezura-Montes and Carlos A. Coello Coello. **Saving Evaluations in Differential Evolution for Constrained Optimization.** Vladimir Estivill-Castro and J. Alfredo Sánchez (editors), *Sixth Mexican International Conference on Computer Science (ENC'05)*, pages 274-281, Los Alamitos, California, September 2005. IEEE Computer Society Press.
799. Efrén Mezura-Montes and Carlos A. Coello Coello. **Use of Multiobjective Optimization Concepts to Handle Constraints in Genetic Algorithms.** In Ajith Abraham, Lakhmi Jain and Robert Goldberg (editors), *Evolutionary Multiobjective Optimization: Theoretical Advances And Applications*, pages 229-254, London, 2005. Springer-Verlag. ISBN 1-85233-787-7.
800. 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 the Congress on Evolutionary*

Computation 2003 (CEC'2003), volume 1, pages 6-13, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.

801. Efrén Mezura-Montes and Carlos A. Coello Coello. **Conceptos de Optimización Multiobjetivo para el Manejo de Restricciones en Algoritmos Evolutivos: Un Estudio Comparativo**, in Salvador Botello, Arturo Hernández and Carlos A. Coello Coello (editors), *Proceedings of the 1st Mexican Conference on Evolutionary Computation (COMCEV 2003)*, pages 1-12, Guanajuato, México, May 2003. Guanajuato, México, CIMAT, A.C. (In spanish).
802. 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, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 700-712, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
803. Efrén Mezura-Montes and Carlos A. Coello Coello. **A Study of Mechanisms to Handle Constraints in Evolutionary Algorithms**, in Terry Riopka and Maarten Keijzer (editors), *Graduate Student Workshop at the Genetic and Evolutionary Computation Conference (GECCO'2004)*. Seattle, Washington, USA, ISGEC, June 2004.
804. Efrén Mezura-Montes and Carlos A. Coello Coello. **A Simple Multimembered Evolution Strategy to Solve Constrained Optimization Problems**. *IEEE Transactions on Evolutionary Computation*, 9(1):1-17, February 2005.
805. 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'2003)*, pages 149-156, Los Alamitos, CA, November 2003. Sacramento, California, IEEE Computer Society.
806. 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 (editors), *Proceedings of the 3rd Mexican International Conference on Artificial Intelligence (MICAI'2004)*, pages 707-716, Heidelberg, Germany, April 2004. Springer Verlag. Lecture Notes in Artificial Intelligence No. 2972.

807. Efrén Mezura-Montes, Jesús Velázquez-Reyes and Carlos A. Coello Coello. **Promising Infeasibility and Multiple Offspring Incorporated to Differential Evolution for Constrained Optimization**, in H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cantú Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Manicoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 225-232, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.
808. Efrén Mezura-Montes, Jesús Velázquez-Reyes and Carlos A. Coello Coello. **Comparing Differential Evolution Models for Global Optimization**. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2006)*, volume 1, pages 485-492, New York, June 2006. Washington DC, USA, ACM Press. ISBN 1-59593-186-4.
809. Efrén Mezura-Montes and 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, Vancouver, BC, Canada, July 2006
810. Efrén Mezura-Montes and Blanca Cecilia López-Ramírez. **Comparing Bio-Inspired Algorithms in Constrained Optimization Problems**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pages 662--669, September 2007. IEEE Press.
811. 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, 2008, ISBN 978-3-540-78986-4
812. Efrén Mezura-Montes (editor). [Constraint-Handling in Evolutionary Optimization](#). Springer, Berlin, Germany, 2009. Note: ISBN 978-3-642-00618-0.
813. Efrén Mezura-Montes and Ana Gabriela Palomeque-Ortiz. **Self-adaptive and Deterministic Parameter Control in Differential Evolution for Constrained Optimization**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 5, pp. 95-120, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
814. Efrén Mezura-Montes and Ana Gabriela Palomeque-Ortiz. **Parameter Control in Differential Evolution for Constrained Optimization**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 1375-1382, IEEE

Service Center, Trondheim, Norway, May, 2009.

815. Efrén Mezura-Montes and Jorge Isacc Flores-Mendoza. **Improved Particle Swarm Optimization in Constrained Numerical Search Spaces**, in Raymond Chiong (Editor), *Nature-Inspired Algorithms for Optimisation*, pp. 299--332, Springer, Berlin, ISBN 978-3-642-00266-3, 2009.
816. Efrén Mezura-Montes, Mariana Edith Miranda-Varela and Rubi del Carmen Gomez-Ramon. **Differential evolution in constrained numerical optimization: An empirical study**, *Information Sciences*, Vol. 180, No. 22, pp. 4223-4262, November 15, 2010.
817. Efrén Mezura Montes and Ramiro Ernesto Velez Koepfel. **Elitist Artificial Bee Colony for constrained real-parameter optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 2068--2075, IEEE Press, Barcelona, Spain, July 18--23, 2010.
818. Efrén Mezura-Montes, Mauricio Damián-Araoz and Omar Cetina-Domínguez. **Smart flight and dynamic tolerances in the artificial bee colony for constrained optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 4118--4125, IEEE Press, Barcelona, Spain, July 18--23, 2010.
819. 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.
820. Efrén Mezura-Montes and Omar Cetina-Domínguez. **Empirical analysis of a modified Artificial Bee Colony for constrained numerical optimization**, *Applied Mathematics and Computation*, Vol. 218, No. 22, pp. 10943--10973, July 15, 2012.
821. Efrén Mezura-Montes and Elyar A. López-Dávila. **Adaptation and Local Search in the Modified Bacterial Foraging Algorithm for Constrained Optimization**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 497--504, IEEE Press, Brisbane, Australia, June 10-15, 2012.
822. Efrén Mezura-Montes, Edgar A. Portilla-Flores and Betania Hernández-Ocaña. **Optimum synthesis of a four-bar mechanism using the modified bacterial foraging algorithm**, *International Journal of Systems Science*, Vol. 45, No. 5, pp. 1080--1100, May 4, 2014.
823. Zbigniew Michalewicz and Cezary Z. Janikow. **Handling Constraints in Genetic Algorithms**, in R. K. Belew and L. B. Booker (editors), *Proceedings of the Fourth International Conference on Genetic Algorithms (ICGA-91)*, pages 151-157, San Mateo, California, 1991, University of California, San Diego, Morgan Kaufmann Publishers.

824. Zbigniew Michalewicz and Naguib F. Attia. **Evolutionary Optimization of Constrained Problems.** In *Proceedings of the 3rd Annual Conference on Evolutionary Programming*, pages 98-108. World Scientific, 1994.
825. Zbigniew Michalewicz and Jaroslaw Arabas. **Genetic algorithms for the 0/1 knapsack problem**, in Zbigniew W. Ras and Maria Zemankova (editors), *Methodologies for Intelligent Systems, 8th International Symposium, (ISMIS '94)*, pp. 134-143, Springer. Lecture Notes in Computer Science, Vol. 869, Charlotte, North Carolina, USA, 1994.
826. Zbigniew Michalewicz. **Genetic Algorithms, Numerical Optimization and Constraints**, in Larry J. Eshelman (editor), *Proceedings of the Sixth International Conference on Genetic Algorithms (ICGA-95)*, pages 151-158, San Mateo, California, July 1995. University of Pittsburgh, Morgan Kaufmann Publishers.
827. Zbigniew Michalewicz. **A Survey of Constraint Handling Techniques in Evolutionary Computation Methods.** In J. R. McDonnell, R. G. Reynolds and D. B. Fogel (editors), *Proceedings of the 4th Annual Conference on Evolutionary Programming*, pages 135-155. The MIT Press, Cambridge, Massachusetts, 1995.
828. Zbigniew Michalewicz and G. Nazhiyath. **Genocop III: A co-evolutionary algorithm for numerical optimization with nonlinear constraints**, in David B. Fogel (editor), *Proceedings of the Second IEEE International Conference on Evolutionary Computation*, pages 647-651, Piscataway, New Jersey, 1995. IEEE Press.
829. Zbigniew Michalewicz and Jing Xiao. **Evaluation of Paths in Evolutionary Planner/Navigator**, in *Proceedings of the 1995 International Workshop on Biologically Inspired Evolutionary Systems*, pages 45-52, Tokyo, Japan, May 1995.
830. Zbigniew Michalewicz and Marc Schoenauer. **Evolutionary Algorithms for Constrained Parameter Optimization Problems.** *Evolutionary Computation*, 4(1):1-32, 1996.
831. Zbigniew Michalewicz. [*Genetic Algorithms + Data Structures = Evolution Programs*](#). Springer-Verlag, third edition, 1996.
832. Zbigniew Michalewicz, Dipankar Dasgupta, R. Le Riche and Marc Schoenauer. **Evolutionary algorithms for constrained engineering problems.** *Computers & Industrial Engineering Journal*, 30(4):851-870, September 1996.
833. Zbigniew Michalewicz, Kalyanmoy Deb, Martin Schmidt and Thomas J. Stidsen. **Towards Understanding Constraint-Handling Methods in**

Evolutionary Algorithms, in *1999 Congress on Evolutionary Computation*, pages 581-588, Washington, D.C., July 1999. IEEE Service Center.

834. Z. Michalewicz, K. Deb, M. Schmidt and Th. Stidsen. **Evolutionary Algorithms for Engineering Applications**, in K. Miettinen, P. Neittaanmäki, M. M. Mäkelä and J. Périaux (editors), *Evolutionary Algorithms in Engineering and Computer Science*, pages 73-94. John Wiley and Sons, Chichester, England, 1999.
835. Zbigniew Michalewicz, Kalyanmoy Deb, Martin Schmidt and Thomas Stidsen. **Test-Case Generator for Nonlinear Continuous Parameter Optimization Techniques**. *IEEE Transactions on Evolutionary Computation*, 4(3):197-215, September 2000.
836. Zbigniew Michalewicz and Martin Schmidt. **Evolutionary Algorithms and Constrained Optimization**, in Ruhul Sarker, Masoud Mohammadian and Xin Yao (eds), [*Evolutionary Optimization*](#), pages 57-86, Kluwer Academic Publishers, New York, February 2002, ISBN 0-7923-7654-4.
837. Zbigniew Michalewicz and Martin Schmidt. **TCG-2: A Test-Case Generator for Non-linear Parameter Optimisation Techniques**, in Ashish Ghosh and Shigeyoshi Tsutsui (editors), *Advances in Evolutionary Computing, Theory and Applications*, pages 193-212. Springer, Heidelberg, Germany, 2003.
838. Zbigniew Michalewicz. **Evolutionary Algorithms in Engineering Optimization**, in William Annicchiarico, Jacques Périaux, Miguel Cerrolaza and Gabriel Winter (editors), *Evolutionary Algorithms and Intelligent Tools in Engineering Optimization*, pages 26-51. WIT Press, CIMNE Barcelona, Southampton, Boston, 2005. ISBN 1-84564-038-1.
839. T. Michelitsch, T. Wagner, D. Biermann and C. Hoffman. **Designing Memetic Algorithms for Real-World Applications Using Self-Imposed Constraints**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 3050-3057, IEEE Press, Singapore, September 2007.
840. K. Miettinen, M.M. Mäkelä and J. Mäkinen. **Handling Constraints with Penalty Techniques in Genetic Algorithms - A Numerical Comparison**. Technical Report B10/1999, University of Jyväskylä, Department of Mathematical Information Technology, Series B, Scientific Computing, 1999.
841. K. Miettinen, M.M. Makela and J. Toivanen. **Numerical comparison of some penalty-based constraint handling techniques in genetic algorithms**. *Journal of Global Optimization*, 27(4):427-446, December 2003.
842. Leticia Fleck Fadel Miguel and Leandro Fleck Fadel Miguel. **Shape and size optimization of truss structures considering dynamic constraints through**

modern metaheuristic algorithms, *Expert Systems with Applications*, Vol. 39, No. 10, pp. 9458--9467, August 2012.

843. George G. Mitchell, Diarmuid O'Donoghue and Adrian Trenaman. **A New Operator for Efficient Evolutionary Solutions to the Travelling Salesman Problem**. *Applied Informatics*, pp. 98--103, IASTED Press, Innsbruck, Austria, 2000.
844. George G. Mitchell, Diarmuid O'Donoghue, David Barnes and Mark McCarville. **[GeneRepair- A Repair Operator for Genetic Algorithms](#)**, in *2003 Genetic and Evolutionary Computation Conference Late Breaking Papers*, pp. 235--239, Chicago, USA, July 12-16, 2013.
845. George G. Mitchell. **[Evolutionary Computation Applied to Combinatorial Optimisation Problems](#)**, PhD thesis, School of Electronic Engineering, Dublin City University, September 2007 ([abstract](#)).
846. Seyedali Mirjalili and Andrew Lewis. **Adaptive gbest-guided gravitational search algorithm**, *Neural Computing & Applications*, Vol. 25, No. 7--8, pp. 1569--1584, December 2014.
847. Minami Miyakawa, Keiki Takadama and Hiroyuki Sato. **Control of Variable Exchange Probability for Directed Mating in Evolutionary Constrained Multi-objective Continuous Optimization**, in *2015 3rd International Symposium on Computational and Business Intelligence (ISCBI 2015)*, pp. 89--94, IEEE Press, Bali, Indonesia, 7-9 December, 2015, ISBN 978-1-4673-8501-5.
848. Minami Miyakawa, Keiki Takadama and Hiroyuki Sato. **Controlling Selection Areas of Useful Infeasible Solutions for Directed Mating in Evolutionary Constrained Multi-Objective Optimization**, *Annals of Mathematics and Artificial Intelligence*, Vol. 76, No. 1-2, pp. 25--46, February 2016.
849. Hamidreza Modares and Mohammad-Bagher Naghibi Sistani. **Solving nonlinear optimal control problems using a hybrid IPSO-SQP algorithm**, *Engineering Applications of Artificial Intelligence*, Vol. 24, No. 3, pp. 476--484, April, 2011.
850. Arvind Mohais, Maksud Ibrahimov, Sven Schellenberg, Neal Wagner and Zbigniew Michalewics. **Time-varying constraints and other practical problems in real-world scheduling applications**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 4379--4386, IEEE Press, Barcelona, Spain, July 18--23, 2010.
851. Arvid Mohais, Sven Schellenberg, Maksud Ibrahimov, Neal Wagner and Zbigniew Michaelwicz. **An Evolutionary Approach to Practical Constraints in Scheduling: A Case-Study of the Wine Bottling Problem**, in Raymond

Chiong, Thomas Weise and Zbigniew Michalewicz (editors), *Variants of Evolutionary Algorithms for Real-World Applications*, pp. 31--58, Springer, Berlin, 2012.

852. Ali Wagdy Mohamed and Hegazy Zaher Sabry. **Constrained optimization based on modified differential evolution algorithm**, *Information Sciences*, Vol. 194, pp. 171--208, July 1, 2012.
853. Ammar W. Moheemmed, Nirod Chandra Sahoo and Tan Kim Geok. **Hybrid co-evolutionary particle swarm optimization and noising metaheuristics for the delay constrained least cost path problem**, *Journal of Heuristics*, Vol. 16, No. 4, pp. 593--616, August, 2010.
854. Christopher K. Monson and Kevin D. Seppi. **Linear Equality Constraints and Homomorphous Mappings in PSO**. In *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, Volume 1, pages 73-80, Edinburgh, Scotland, September 2005. IEEE Service Center.
855. Christopher Kenneth Monson. [No Free Lunch, Bayesian Inference and Utility: A Decision-Theoretic Approach to Optimization](#), PhD thesis, Department of Computer Science, Brigham Young University, USA, August 2006 ([abstract](#)).
856. Marco Montemurro, Angela Vincenti and Paolo Vannucci. **The Automatic Dynamic Penalisation method (ADP) for handling constraints with genetic algorithms**, *Computer Methods in Applied Mechanics and Engineering*, Vol. 256, pp. 70--87, April 2013.
857. José Luis Montaña, César Luis Alonso, Stefano Cagnoni and Mar Callau. **Computing Surrogate Constraints for Multidimensional Knapsack Problems Using Evolution Strategies**, in Mario Giacobini et al. (editors), *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC and EvoTransLog*, pp. 555-564, Springer, Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
858. Laurence Moreau-Giraud and Pascal Lafon. **A Hybrid Evolution Strategy for Mixed Discrete Continuous Constrained Problems**, in Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton, Edmund Ronald and Marc Schoenauer (editors), *Proceedings of the 4th European Conference on Artificial Evolution (AE 1999)*, pages 123-135, Heidelberg, Germany, November 1999. Dunkerque, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1829.
859. Alexandre Morin, Per Eilif Wahl and Mona Molnvik. **Using evolutionary search to optimise the energy consumption for natural gas liquefaction**, *Chemical Engineering Research & Design*, Vol. 89, No. 11A, pp. 2428-2441, November 2011.

860. Ahmad Mozaffari, Mofid Gorji-Bandpy and Tahereh B. Gorji. **Optimal design of constraint engineering systems: application of mutable smart bee algorithm**, *International Journal of Bio-Inspired Computation*, Vol. 4, No. 3, pp. International Journal of Bio-Inspired Computation, 2012.
861. Sheng-jing Mu and Hong-ye Su and Jian Cbu. **An infeasibility degree selection based genetic algorithms for constrained optimization problems**, in *2003 IEEE International Conference on Systems, Man and Cybernetics*, pages 1950--1954, Vol. 2, Washington, DC, USA, 2003. IEEE Press.
862. Angel-E. Muñoz-Zavala, Arturo Hernández Aguirre and Enrique R. Villa Diharce. **Constrained Optimization via Particle Evolutionary Swarm Optimization Algorithm (PESO)**, in H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cantú Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Manicoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 209-216, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.
863. Angel-E. Muñoz-Zavala, Arturo Hernández Aguirre and Enrique R. Villa Diharce. **Particle Evolutionary Swarm Optimization Algorithm (PESO)**, in Vladimir Estivill-Castro and J. Alfredo Sánchez (editors), *Sixth Mexican International Conference on Computer Science (ENC'05)*, pages 282--289, Los Alamitos, California, September 2005. IEEE Computer Society Press.
864. Angel-E. Muñoz-Zavala, Arturo Hernández Aguirre and Enrique R. Villa Diharce. **Particle Evolutionary Swarm Optimization with Linearly Decreasing -Tolerance**, in Alexander Gelbukh, Álvaro de Albornoz and Hugo Terashima-Marín (editors), *MICAI 2005: Advances in Artificial Intelligence*, pages 641--651, Monterrey, México, November 2005. Springer. Lecture Notes in Artificial Intelligence Vol. 3789.
865. Angel-E. Muñoz-Zavala, Arturo Hernández Aguirre and Enrique R. Villa Diharce. **Particle Evolutionary Swarm Optimization with Linearly Decreasing -Tolerance**, in Alexander Gelbukh, Álvaro de Albornoz and Hugo Terashima-Marín (editors), *MICAI 2005: Advances in Artificial Intelligence*, pages 641-651, Monterrey, México, November 2005. Springer. Lecture Notes in Artificial Intelligence Vol. 3789.
866. Angel E. Muñoz-Zavala and Arturo Hernández-Aguirre and Enrique R. Villa-Diharce and Salvador Botello-Riond. **PESO+ for Constrained Optimizatio**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 935--942, IEEE, Vancouver, BC, Canada, July 2006
867. Angel Muñoz Zavala, Arturo Hernández Aguirre and Enrique Villa Diharce.

Robust PSO-Based Constrained Optimization by Perturbing the Particle's Memory, in Felix T.S. Chan and Manoj Kumar Tiwari (editors), *Swarm Intelligence. Focus on Ant and Particle Swarm Optimization*, pp. 57--76, I-Tech Education and Publishing, Croatia, December 2007.

868. Angel E. Muñoz Zavala, Arturo Hernández Aguirre, Enrique R. Villa Diharce and Salvador Botello Rionda. **Constrained optimization with an improved particle swarm optimization algorithm**, *International Journal of Intelligent Computing and Cybernetics*, Vol. 1, No. 3, pp. 425--453, 2008
869. Angel E. Muñoz Zavala, Arturo Hernández Aguirre and Enrique R. Villa Diharce. **Continuous Constrained Optimization with Dynamic Tolerance Using the COPSO Algorithm**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 1, pp. 1-23, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
870. Angel E. Muñoz-Zavala and Evelyn J. Hernández-Ramos. **Optimal Cyclic Replacement Policy in MSS Maintenance via Bionominal-PSO**, in *2012 Genetic and Evolutionary Computation Conference (GECCO'2012)*, pp. 57--64, ACM Press, Philadelphia, USA, July 2012, ISBN: 978-1-4503-1177-9.
871. A. Muc, W. Gurba and P. Kedziora. **The effectiveness of probabilistic algorithms in shape and topology discrete optimization of 2-D composite structures**, in *IUTAM Symposium on Evolutionary Methods in Mechanics*, pages 57-58. Cracow, Poland, September 2002.
872. Heinz Mühlenbein. **Parallel Genetic Algorithms in Combinatorial Optimization**, in O. Balci, R. Sharda and S. Zenios (editors), *Computer Science and Operations Research*, pages 441-456. Pergamon Press, New York, 1992.
873. Sungho Mun and Yoon-Ho Cho. **Modified harmony search optimization for constrained design problems**, *Expert Systems with Applications*, Vol. 39, No. 1, pp. 419--423, January 2012.
874. Christine-L. Mumford. **Comparing Representations and Recombination Operators for the Multi-Objective 0/1 Knapsack Problem**. In *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 854-861, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
875. H. Myung and J.-H. Kim. **Evolian: Evolutionary optimization based on Lagrangian with constraint scaling**, in P.J. Angeline, R. G. Reynolds, J. R. McDonnell and R. Eberhart (editors), *Proceedings of the Sixth Annual Conference on Evolutionary Programming*, pages 177-188, Indianapolis, April 1997. Springer-Verlag.

876. H. Myung, J.-H. Kim and D. B. Fogel. **Preliminary investigation into a two-stage method of evolutionary optimization on constrained problems**, in J. R. McDonnell, R. G. Reynolds and D. B. Fogel (editors), *Proceedings of the Fourth Annual Conference on Evolutionary Programming*, pages 449-463, Cambridge, Massachusetts, 1995. MIT Press.
877. Hyun Myung and Jong-Hwan Kim. **Lagrangian-Based Evolutionary Programming for Constrained Optimization**, in Xin Yao, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 1st Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1996)*, pages 35-44, Heidelberg, Germany, November 1996. Taejon, Korea, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1285.
878. H. Myung and J.H. Kim. **Hybrid evolutionary programming for heavily constrained problems**, *Biosystems*, Vol. 38, No. 1, pp. 29--43, 1996.
879. Hyun Myung and Jong-Hwan Kim. **Hybrid Interior-Lagrangian Penalty Based Evolutionary Optimization**, in V.W. Porto, N. Saravanan, D. Waagen and A.E. Eiben (editors), *Proceedings of the 7th International Conference on Evolutionary Programming (EP98)*, pages 85-94, Heidelberg, Germany, March 1998. San Diego, California, USA, Springer-Verlag. Lecture Notes in Computer Science Vol. 1447.
880. Hyun Myung and Jong-Hwan Kim. **Multiple Lagrange Multiplier Method for Constrained Evolutionary Optimization**, in Bob McKay, Xin Yao, Charles S. Newton, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 2nd Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1998)*, pages 3-9, Heidelberg, Germany, November 1998. Canberra, Australia, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1585.

N

881. R. Nabavi, M.H. Yas and M. Shakeri. **Natural frequency optimization of laminated cylindrical shell subjected to Tsai-Hill failure criteria constraint using Penalty method**, in J.K. Kim, D.Z. Wo, L.M. Zhou, H.T. Huang, K.T. Lau and M. Wang (editors), *Advances in Composite Materials and Structures*, pp. 9--12, Trans Tech Publications LTD, Hong Kong, China, 2007, ISBN 978-0-87849-427-9.
882. Kaustuv Nag and Tandra Pal. **A New Archive based Steady State Genetic Algorithm**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 853--859, IEEE Press, Brisbane, Australia, June 10-15, 2012.

883. Yuichi Nagata, Olli Braysy and Wout Dullaert. **A penalty-based edge assembly memetic algorithm for the vehicle routing problem with time windows**, *Computers & Operations Research*, Vol. 37, No. 4, pp. 724--737, April 2010.
884. Ryohei Nakano. **Conventional Genetic Algorithm for Job Shop**. In R. K. Belew and L. B. Booker (editors), *Proceedings of the Fourth International Conference on Genetic Algorithms (ICGA-91)*, pages 474-479, San Mateo, California, 1991, University of California, San Diego, Morgan Kaufmann Publishers.
885. Hirotaka Nakayama and Yeboon Yun. **Regression by support vector machines and its applications to engineering design**, in G.D. Cheng, S.T. Liu and X. Guo (editors), *CJK-OSM 4: The Fourth China-Japan-Korea Joint Symposium on Optimization of Structural and Mechanical Systems*, pp. 391--396, Dalian University of Technology Press, Kunming, China, November 6-9, 2006.
886. Pruettha Nanakorn and Konlakarn Meesomklin. **An adaptive penalty function in genetic algorithms for structural design optimization**. *Computers & Structures*, 79(29-30):2527-2539, November 2001.
887. Salam Nema, John Goulermas, Graham Sparrow and Phil Cook. **A Hybrid Particle Swarm Branch-and-Bound (HPB) Optimizer for Mixed Discrete Nonlinear Programming**, *IEEE Transactions on Systems, Man and Cybernetics--Part A: Systems and Humans*, Vol. 38, No. 6, pp. 1411-1424, November 2008.
888. Salam Nema, John Y. Goulermas, Graham Sparrow and Paul Helman. **A hybrid Cooperative Search Algorithm for Constrained Optimization**, *Structural and Multidisciplinary Optimization*, Vol. 43, No. 1, pp. 107--119, January, 2011.
889. Ali Mohammad Nezhad and Hashem Mahlooji. **A Revised Particle Swarm Optimization Based Discrete Lagrange Multipliers Method for Nonlinear Programming Problems**, *Computers & Operations Research*, Vol. 38, No. 8, pp. 1164--1174, August, 2011.
890. Trung Thanh Nguyen and Xin Yao. **Benchmarking and Solving Dynamic Constrained Problems**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 690-697, IEEE Service Center, Trondheim, Norway, May 2009.
891. Trung Thanh Nguyen and Xin Yao. **Continuous Dynamic Constrained Optimization---The Challenges**, *IEEE Transactions on Evolutionary Computation*, Vol. 16, No. 6, pp. 769--786, December 2012.
892. Trung Thanh Nguyen and Xin Yao. **Evolutionary Optimization on Continuous Dynamic Constrained Problems -- An Analysis**, in Shengxiang

Yang and Xin Yao (Editors), *Evolutionary Computation for Dynamic Optimization Problems*, Chapter 8, pp. 193--217, Springer-Verlag, Berlin, Germany, 2013, ISBN 978-3-642-38415-8.

893. Ben Niu, Lijing Tan, Bing Xue, Li Li and Yujuan Chai. **Constrained portfolio selection using multiple swarms**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1697--1703, IEEE Press, Barcelona, Spain, July 18--23, 2010.
894. Nasimul Noman and Hitoshi Iba. **epsilon constrained differential evolution for economic dispatch with valve-point effect**, *International Journal of Bio-Inspired Computation*, Vol. 3, No. 6, pp. 346--357, 2011.
895. Bryan A. Norman and James C. Bean. **Random Keys Genetic Algorithm for Scheduling: Unabridged Version**. Technical Report 95-10, University of Michigan, Ann Harbor, 1995.
896. Bryan A. Norman and James C. Bean. **A Random Keys Genetic Algorithm for Job Shop Scheduling**. Technical Report 96-10, University of Michigan, Ann Harbor, 1996.
897. Bryan A. Norman and Alice E. Smith. **Random Keys Genetic Algorithm with Adaptive Penalty Function for Optimization of Constrained Facility Layout Problems**, in Thomas Bäck, Zbigniew Michalewicz and Xin Yao (editors), *Proceedings of the 1997 International Conference on Computation*, pages 407-411, Indianapolis, Indiana, 1997. IEEE.
898. B. Nouhi, S. Talatahari, H. Kheiri and C. Cattani. **Chaotic Charged System Search with a Feasible-Based Method for Constraint Optimization Problems**, *Mathematical Problems in Engineering*, Article Number: 391765, 2013.

O

899. Sanghoun Oh, Yaochu Jin and Moongu Jeon. **Approximate Models for Constraint Functions in Evolutionary Constrained Optimization**, *International Journal of Innovative Computing Information and Control*, Vol. 7, No. 11, pp. 6585--6603, November, 2011.
900. Sanghoun Oh, Chang Wook Ahn and Moongu Jeon. **Effective Constraints Based Evolutionary Algorithm for Constrained Optimization Problems**, *International Journal of Innovative Computing Information and Control*,

901. Takashi Okamoto and Hironori Hirata. **Constrained optimization using a multipoint type chaotic Lagrangian method with a coupling structure**, *Engineering Optimization*, Vol. 45, No. 3, pp. 311--336, March 1, 2013.
902. A. L. Olsen. **Penalty Functions for the Knapsack Problem**. In *Proceedings of the First IEEE Conference on Evolutionary Computation*, pages 554-558. IEEE Press, 1994.
903. Ludmila Omeltschuk, Sabine Helwig, Moritz Mühenthaler and Rolf Wanka. **Heterogeneous Constraint Handling for Particle Swarm Optimization**, in *2011 IEEE Symposium on Swarm Intelligence (SIS 2011)*, pp. 37--43, IEEE Press, Paris, France, April 11-15, 2011.
904. Mahamend G. H. Omran and Ayed Salman. **Constrained optimization using CODEQ**, *Chaos Solitons & Fractals*, Vol. 42, No. 2, pp. 662-668, October 2009.
905. Yukiko Orito, Hisashi Yamamoto and Yasuhiro Tsujimura. **Equality Constrained Long-Short Portfolio Replication by Using Probabilistic Model-building GA**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 513--520, IEEE Press, Brisbane, Australia, June 10-15, 2012.
906. Yukiko Orito and Yoshiko Hanada. **Equality Constraint-Handling Technique with Various Mapping Points: The Case of Portfolio Replication Problem**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 2573--2580, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4799-7492-4.
907. Janusz Orkisz and Maciej Glowacki. **On Efficiency Increase of Evolutionary Algorithms for Large Non-linear Constrained Optimization Problems with Applications to Mechanics**, in Jorge Magalhães-Mendes and David Greiner (Editors), *Evolutionary Algorithms and Metaheuristics in Civil Engineering and Construction Management*, Chapter 4, pp. 51--65, Springer, Switzerland, 2015, ISBN 978-3-39-20405-5.
908. José Carlos Ortiz-Bayliss, Hugo Terashima-Marín, Peter Ross, Jorge Iván Fuentes-Rosado and Manuel Valenzuela-Rendón. **A Neuro-Evolutionary Approach to Produce General Hyper-Heuristics for the Dynamic Variable Ordering in Hard Binary Constraint Satisfaction Problems**, in *2009 Genetic and Evolutionary Computation Conference (GECCO'2009)*, pp. 1811-1812, ACM Press, Montreal, Canada, July 8--12 2009. ISBN 978-1-60558-325-9.
909. José Carlos Ortiz-Bayliss, Ender Özcan, Andrew J. Parkes and Hugo Terashima-Marín. **Mapping the performance of heuristics for Constraint Satisfaction**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 3177--3184, IEEE Press, Barcelona, Spain, July 18--23, 2010.

910. D. Ortiz-Boyer, C. Hervás-Martínez and N. García-Pedrajas. **Crossover Operator Effect in Functions Optimization with Constraints**, in Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacañas and Hans-Paul Schwefel (editors), *Proceedings of the 7th Parallel Problem Solving from Nature (PPSN VII)*, pages 184-193, Heidelberg, Germany, September 2002. Granada, Spain, Springer-Verlag. Lecture Notes in Computer Science Vol. 2439.
911. Domingo Ortiz-Boyer, Rafael Del-Castillo-Gomariz, Nicolas Garcia-Pedrajas and Cesar Hervas-Martinez. **Crossover effect over penalty methods in function optimization with constraints**, in *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1127-1134, Edinburgh, Scotland, September 2005. IEEE Press.
912. David Orvosh and Lawrence Davis. **Shall We Repair? Genetic Algorithms, Combinatorial Optimization and Feasibility Constraints**. In Stephanie Forrest (editor), *Proceedings of the Fifth International Conference on Genetic Algorithms (ICGA-93)*, page 650, San Mateo, California, July 1993, University of Illinois at Urbana-Champaign, Morgan Kaufman Publishers
913. David Orvosh and Lawrence Davis. **Using a Genetic Algorithm to Optimize Problems with Feasibility Constraints**, in *Proceedings of the First IEEE Conference on Evolutionary Computation*, pages 548-553. IEEE Press, 1994.
914. M.S. Osman, M.A. Abo-Sinna and A.A. Mousa. **A combined genetic algorithm-fuzzy logic controller (GA-FLC) in nonlinear programming**. *Applied Mathematics and Computation*, 170(2):821-840, November 15th 2005.
915. Avi Ostfeld and Ariel Tubaltzev. **Ant colony optimization for least-cost design and operation of pumping water distribution systems**. *Journal of Water Resources Planning and Management-ASCE*, Vol. 134, No. 2, pages 107-118, March--April 2008.
916. Akira Oyama, Koji Shimoyama and Kozo Fujii. **New Constraint-Handling Method for Multi-Objective Multi-Constraint Evolutionary Optimization and Its Application to Space Plane Design**. In R. Schilling, W. Haase, J. Periaux, H. Baier and G. Bugeada (editors), *Evolutionary and Deterministic Methods for Design, Optimization and Control with Applications to Industrial and Societal Problems (EUROGEN 2005)*, Munich, Germany, 2005.
917. Akira Oyama, Kozo Fujii, Koji Shimoyama and Meng-Sing Liou. **Pareto-Optimality-Based Constraint-Handling Technique and Its Application to Compressor Design**, in *17th AIAA Computational Fluid Dynamics Conference*, Paper AIAA 2005-4983, Toronto, Canada, 6-9 June, 2005.
918. Akira Oyama, Koji Shimoyama and Kozo Fujii. **New constraint-handling method for multi-objective and multi-constraint evolutionary**

optimization. *Transactions of the Japan Society for Aeronautical and Space Sciences*, 50(167):56-62, May 2007.

919. Akira Oyama. **Constraint-Handling in Evolutionary Aerodynamic Design**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 10, pp. 219-236, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
920. Ahmet Irfan Oyman, Kalyanmoy Deb and Hans-Georg Beyer. **An Alternative Constraint Handling Method for Evolution Strategies.** In *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 1, pages 612-619, Piscataway, New Jersey, July 1999. IEEE Service Center.
921. M. Ozden. **A new optimization heuristic for continuous and integer decisions with constraints in simulation**, in *Proceedings of the 2005 Winter Simulation Conference*, pp. 853--856, IEEE Press, Orlando, Florida, USA, December 4-7, 2005, ISBN 0-7803-9519-0.
922. H.T. Ozturk, Ay. Durmus and Ah. Durmus. **Optimum design of a reinforced concrete beam using artificial bee colony algorithm**, *Computers and Concrete*, Vol. 10, No. 3, pp. 295--306, September 2012.

P

923. Ben Paechter andrew Cumming and Henri Luchian. **The Use of Local Search Suggestion Lists for Improving the Solution of Timetable Problems with Evolutionary Algorithms**, in Terence C. Fogarty, editor, *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 86-93, Sheffield, U.K., April 1995. Springer-Verlag. Lecture Notes in Computer Science No. 993.
924. Ben Paechter andrew Cumming, Henri Luchian and Mihai Petriuc. **Two Solutions to the General Timetable Problem Using Evolutionary Methods**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 300-305, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
925. G. A. Vijayalakshmi Pai and Thierry Michel. **Evolutionary Optimization of Constrained k-means Clustered Assets for Diversification in Small Portfolios**, *IEEE Transactions on Evolutionary Computation*, Vol. 13, No. 5, pp. 1030-1053, October 2009.

926. 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.
927. Mert Paldrak, M. Fatih Tasgetiren, P.N. Suganthan and Quan-Ke Pan. **An Ensemble of Differential Evolution Algorithms with Variable Neighborhood Search for Constrained Function Optimization**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 2610--2617, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
928. Charles C. Palmer and Aaron Kershenbaum. **Representing Trees in Genetic Algorithms**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation*, pages 379-384, Piscataway, New Jersey, 1994. IEEE Press.
929. Feng Pan, Guanghai Wang and Yang Liu. **A Multi-Objective-Based Non-Stationary UAV Assignment Model for Constraints Handling using PSO**, *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pp. 459-466, ACM Press, Shanghai, China, June 12-14 2009. ISBN 978-1-60558-326-6.
930. Millie Pant, Radha Thangaraj and Ajith Abraham. **Low Discrepancy Initialized Particle Swarm Optimization for Solving Constrained Optimization Problems**, *Fundamenta Informaticae*, Vol. 95, No. 4, pp. 511--531, 2009.
931. Gregor Papa. **Non-Parametric Genetic Algorithm**. In Bogdan Filipic and Jurij Silc (editors), *Bioinspired Optimization Methods and Their Applications*, pages 55-62, Ljubljana, Slovenia, October 2006. Jozef Stefan Institute.
932. Gregor Papa and Peter Korosec. **Constrained Transportation Scheduling**, in Bogdan Filipic and Jurij Silc (editors), *Third International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2008)*, pp. 141-148, Jozef Stefan Institute, Ljubljana, Slovenia, October 2008. Note: ISBN 978-961-264-002-6.
933. Manolis Papadrakakis and Nikos D. Lagaros. **Soft computing methodologies for structural optimization**. *Applied Soft Computing*, 3(3):283-300, November 2003.
934. Ulrich Paquet and Andries p Engelbrecht. **A New Particle Swarm Optimiser for Linearly Constrained Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 1, pages 227-233, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.

935. Jan Paredis. **Co-evolutionary Constraint Satisfaction**, In Yuval Davidor, Hans-Paul Schwefel and Reinhard Männer (editors), *Proceedings of the 3rd International Conference on Parallel Problem Solving from Nature (PPSN III)*, pages 46--55, Jerusalem, Israel, 1994. Springer Verlag.
936. I. C. Parmee and G. Purchase. **The development of a directed genetic search technique for heavily constrained design spaces**, in I. C. Parmee (editor), *Adaptive Computing in Engineering Design and Control-'94*, pages 97-102, Plymouth, UK, 1994. University of Plymouth.
937. S. Parsa and O. Bushehrian **Genetic clustering with constraints**. *Journal of Research and Practice in Information Technology*, 39(1):47-60, February 2007.
938. Rebecca Parsons, Stephanie Forrest and Christian Burks. **Genetic Algorithms for DNA Sequence Assembly**, in *Proceedings of the 1st International Conference on Intelligent Systems in Molecular Biology*. AAAI Press, July 1993.
939. Rebecca J. Parsons, Stephanie Forrest and Christian Burks. **Genetic Algorithms, Operators and DNA Fragment Assembly**. *Machine Learning*, 21(1-2):11-33, October/November 1995.
940. K.E. Parsopoulos and M.N. Vrahatis. **Particle Swarm Optimization Method for Constrained Optimization Problems**, in P. Sincak, J. Vascak, V. Kvasnicka and J. Pospicha (editors), *Intelligent Technologies - Theory and Applications: New Trends in Intelligent Technologies*, pages 214-220. IOS Press, 2002. Frontiers in Artificial Intelligence and Applications series, Vol. 76 ISBN: 1-58603-256-9.
941. K.E. Parsopoulos and M.N. Vrahatis. **Unified Particle Swarm Optimization for solving constrained engineering optimization problems**. *Advances in Natural Computation, Pt. 3*, pages 582-591, 2005. Lecture Notes in Computer Science Vol. 3612.
942. Konstantinos E. Parsopoulos and Michael N. Vrahatis. **Unified Particle Swarm Optimization for Solving Constrained Engineering Optimization Problems**, in *Advances in Natural Computation, First International Conference 2005, (ICNC 2005)*, pp. 582-591, Springer. Lecture Notes in Computer Science, Vol. 3612, Changsha, China, August 27-29 2005.
943. F. Passos, E. Roca, R. Castro-López and F.V. Fernández. **An algorithm for a class of real-life multi-objective optimization problems with a sweeping objective**, in *2017 IEEE Congress on Evolutionary Computation (CEC'2017)*, pp. 734--740, IEEE Press, San Sebastián, Spain, June 5-8, 2017, ISBN 978-1-5090-4601-0.
944. W. Paszkowicz. **Properties of a genetic algorithm equipped with a dynamic**

penalty, *Computational Materials Science*, Vol. 45, No. 1, pp. 77--83, March 2009.

945. Gustavo Peconick, Elizabeth F. Wanner and Ricardo H. C. Takahashi. **Projection-Based Local Search Operator for Multiple Equality Constraints within Genetic Algorithms**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 3043-3049, IEEE Press, Singapore, September 2007.
946. Chandra Sekhar Pedomallu and Linet Ozdamar. **Investigating a hybrid simulated annealing and local search algorithm for constrained optimization**, *European Journal of Operational Research*, Vol. 185, No. 3, pp. 1230--1245, March 16, 2008.
947. Chandra Sekhar Pedomallu and Linet Özdamar. **Comparison of Simulated Annealing, Interval Partitioning and Hybrid Algorithms in Constrained Global Optimization**, in Patrick Siarry and Zbigniew Michalewicz (editors) *Advances in Metaheuristic Methods for Hard Optimization*, pages 1-22, 2008, Berlin, Springer publisher. ISBN 978-3-540-72959-4.
948. Kalin Penev. **Adaptive Computing in Support of Traffic Management**, in I.C. Parmee (editor), *Proceedings of the Sixth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2004)*, volume 6, pp. 295-306, Bristol, UK, April 2004. Springer-Verlag.
949. Chen Peng and Qing Hui. **Comparison of Differential Grouping and Random Grouping Methods on CCPSO for Large-Scale Constrained Optimization**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 2057--2063, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
950. Ruben E. Perez and Kamran Behdinan. **Particle Swarm Optimization in Structural Design**, in Felix T.S. Chan and Manoj Kumar Tiwari (editors), *Swarm Intelligence: Focus on Ant and Particle Swarm Optimization*, pp. 373--394, Itech Education and Publishing, Vienna, Austria, 2007, ISBN 978-3-902613-09-7.
951. A. Petrowski and S. Ben Hamida. **A Logarithmic Mutation Operator to Solve Constrained Optimization Problems**, in Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, page 805, San Francisco, California, July 1999. Morgan Kaufmann.
952. Sabine Piana and Sebastian Engell. **Constraint Handling in the Evolutionary Optimization of Pipeless Chemical Batch Plants**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 2547--2553, IEEE Service Center,

Trondheim, Norway, May, 2009.

953. Roberto Piola. **Evolutionary Solutions to a Highly Constrained Combinatorial Problem**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 445-449, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
954. Paul Pitiot, Michel Aldanondo, Elise Vareilles, Paul Gaborit, Meriem Djefel and Sabine Carbonnel. **Concurrent product configuration and process planning, towards an approach combining interactivity and optimality**, *International Journal of Production Research*, Vol. 51, No. 2, pp. 524--541, 2013.
955. Paul Pitiot, Michel Aldanondo and Elise Vareilles. **Concurrent product configuration and process planning: Some optimization experimental results**, *Computers in Industry*, Vol. 65, No. 4, pp. 610--621, May 2014.
956. Chandra A. Poojari and Bobby Varghese. **Genetic Algorithm based technique for solving Chance Constrained Problems**, *European Journal of Operational Research*, Vol. 1853, No. 3, pp. 1128--1154, 16 March, 2008
957. Daniel Poole, Christian B. Allen and Thomas C.S. Rendall. **Analysis of Constraint Handling Methods for the Gravitational Search Algorithm**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 2005--2012, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
958. Daniel Poole, Christian B. Allen and Thomas C.S. Rendall. **Constraint Handling in Agent-Based Optimization by Independent Sub-Swarms**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 998--1005, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
959. Antonin Ponsich. [Strategies d'Optimisation Mixte en Genie des Procedes. Application a la Conception d'Ateliers Discontinus.](#) PhD thesis, Institut National Polytechnique de Toulouse, Toulouse, France, December 2005.
960. Antonin Ponsich, Catherine Azzaro-Pantel, Serge Domenech and Luc Pibouleau. **About the Relevance of Mathematical Programming and Stochastic Optimisation Methods : Application to Optimal Batch Plant Design Problems**, in L. Puigjaner and A. Espuña (editors), *European Symposium on Computer-Aided Process Engineering-15, 38th European Symposium of the Working Party on Computer Aided Process Engineering*, pp. 49-54, Elsevier Science B.V., May 29th - June 1st. 2008.
961. A. Ponsich, C. Azzaro-Pantel, S. Domenech and L. Pibouleau. **Constraint handling strategies in Genetic Algorithms application to optimal batch plant design**, *Chemical Engineering and Processing*, Vol. 47, No. 3, pp. 420--

962. Antonin Ponsich, Catherine Azzaro-Pantel, Serge Domenech and Lue Pibouleau. **Some Guidelines for Genetic Algorithm Implementation in MINLP Batch Plant Design Problems**, in Patrick Siarry and Zbigniew Michalewicz (editors), *Advances in Metaheuristic Methods for Hard Optimization*, pp. 293--315, Springer, Berlin, 2008, ISBN 978-3-540-72959-4.
963. B. Porter and F. Xue. **Niche Evolution Strategy for Global Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 1086-1092, Piscataway, New Jersey, May 2001. IEEE Service Center.
964. Radka Poláková and Josef Tvrdík. **Various Mutation Strategies in Enhanced Competitive Differential Evolution for Constrained Optimization**, in *2011 IEEE Symposium on Differential Evolution (SDE'2011)*, pp. 17--24, IEEE Service Center, Paris, France, April 11-15, 2011.
965. Shayan Poursoltan and Frank Neumann. **A Feature-Based Analysis on the Impact of Linear Constraints for -Constrained Differential Evolution**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 3088--3095, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
966. Shayan Poursoltan and Frank Neumann. **Feature-Based Algorithm Selection for Constrained Continuous Optimisation**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 1461--1468, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
967. David Powell and Michael M. Skolnick. **Using genetic algorithms in engineering design optimization with non-linear constraints**, in Stephanie Forrest (editor), *Proceedings of the Fifth International Conference on Genetic Algorithms (ICGA-93)*, pages 424-431, San Mateo, California, July 1993. University of Illinois at Urbana-Champaign, Morgan Kaufmann Publishers.
968. M. Puchta and J. Gottlieb. **Solving Car Sequencing Problems by Local Optimization**. In S. Cagnoni, J. Gottlieb, E. Hart, M. Middendorf and G.R. Raidl (editors), *Proceedings of EvoWorkshops Lecture Notes in Computer Science*, volume 2279. Springer, 2002.
969. Romanas Puisa and Heinrich Streckwall. **Prudent constraint-handling technique for multiobjective propeller optimisation**, *Optimization and Engineering*, Vol. 12, No. 4, pp. 657--680, December 2011.
970. Simone Puzzi and Alberto Carpinteri. **A double-multiplicative dynamic penalty approach for constrained evolutionary optimization**, *Structural and Multidisciplinary Optimization*, Vol. 35, No. 5, pp. 431--445, May 2008.

Q

971. Zhi-Qin Qian, Hong-Fei Teng, Di-Lin Xiong and Zhi-Guo Sun. **Human-Computer Cooperation Genetic Algorithm and its Application to Layout Design**, in Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 1, pages 299-302, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
972. Feng Qian, Bin Xu, Rongbin Qi and Huaglory Tianfield. **Self-adaptive differential evolution algorithm with -constrained-domination principle for constrained multi-objective optimization**, *Soft Computing*, Vol. 16, No. 8, pp. 1353--1372, August 2012.
973. Bo-Yang Qu and Ponnuthurai Nagaratnam Suganthan. **Constrained multi-objective optimization algorithm with diversity enhanced differential evolution**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1675--1679, IEEE Press, Barcelona, Spain, July 18--23, 2010.
974. B.Y. Qu and P.N. Suganthan. **Constrained multi-objective optimization algorithm with an ensemble of constraint handling methods**, *Engineering Optimization*, Vol. 43, No. 4, pp. 403--416, 2011.

R

975. Ewaryst Rafajlowicz and Wojciech Rafajlowicz. **Fletcher's Filter Methodology as a Soft Selector in Evolutionary Algorithms for Constrained Optimization**, in Leszek Rutkowski, Marcin Korytkowski, Rafal Scherer, Ryszard Tadeusiewicz, Lotfi A. Zadeh and Jacek M. Zurada (editors), *Swarm and Evolutionary Computation, International Symposia, SIDE 2012 and EC 2012, Held in Conjunction with ICAISC 2012*, pp. 333--341, Springer. Lecture Notes in Computer Science Vol. 7269, Zakopane, April 29-May 3, 2012.
976. Shamual F. Rahaman, Ziad Kobti and Anne W. Snowdon. **Artificial emotional intelligence under ethical constraints in formulating social agent behaviour**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1182--1188, IEEE Press, Barcelona, Spain, July 18--23, 2010.

977. M. K. Rahman. **An intelligent moving object optimization algorithm for design problems with mixed variables, mixed constraints and multiple objectives.** *Structural and Multidisciplinary Optimization*, 32(1):40-58, July 2006.
978. G.R. Raidl and J. Gottlieb. **On the Importance of Phenotypic Duplicate Elimination in Decoder-Based Evolutionary Algorithms.** In S. Brave and A.S. Wu (editors), *Late Breaking Papers at the Genetic and Evolutionary Computation Conference*, pages 204-211, 1999.
979. Gunther R. Raidl. **Weight-Codings in a Genetic Algorithm for the Multiconstraint Knapsack Problem,** in *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 1, pages 596-603, Piscataway, New Jersey, July 1999. IEEE Service Center.
980. K. Hans Raj, R. S. Sharma, G. S. Mishra, A Dua and C. Patvardhan. **An Evolutionary Computational Technique for Constrained Optimisation in Engineering Design,** *Journal of the Institution of Engineers India Part Mechanical Engineering Division*, Vol. 86, pp. 121-128, October 2005.
981. S. Rajasekaran and S. Lavanya. **Hybridization of genetic algorithm with immune system for optimization problems in structural engineering.** *Structural and Multidisciplinary Optimization*, Vol. 34, No. 5, pp. 415-429, November 2007.
982. S. Rajasekaran. **Optimal laminate sequence of thin-walled composite beams of generic section using evolution strategies,** *Structural Engineering and Mechanics*, Vol. 34, No. 5, pp. 597-609, March 30, 2010.
983. S. Rajeev and C. S. Krishnamoorthy. **Discrete Optimization of Structures Using Genetic Algorithms.** *Journal of Structural Engineering*, 118(5):1233-1250, May 1992.
984. Manojkumar Ramteke and Rajagopalan Srinivasan. **Novel genetic algorithm for short-term scheduling of sequence dependent changeovers in multiproduct polymer plants,** *Computers & Chemical Engineering*, Vol. 35, No. 12, pp. 2945--2959, December 14, 2011.
985. R.V. Rao, V.J. Savsani and D.P. Vakharia. **Teaching-learning-based optimization: A novel method for constrained mechanical design optimization problems.** *Computer-Aided Design*, Vol. 43, No. 3, pp. 303--315, March 2011.
986. R. Venkata Rao and G.G. Waghmare. **A New Optimization Algorithm for Solving Complex Constrained Design Optimization Problems,** *Engineering Optimization*, Vol. 49, No. 1, pp. 60--83, January 2017. □

987. Khaled Rasheed. **An Adaptive Penalty Approach for Constrained Genetic-Algorithm Optimization**, in John R. Koza, Wolfgang Banzhaf, Kumar Chellapilla, Kalyanmoy Deb, Marco Dorigo, David B. Fogel, Max H. Garzon, David E. Goldberg, Hitoshi Iba and Rick L. Riolo (editors), *Proceedings of the Third Annual Genetic Programming Conference*, pages 584-590, San Francisco, California, 1998. Morgan Kaufmann Publishers.
988. Khaled Mohamed Rasheed. **[GADO: A Genetic Algorithm for Continuous Design Optimization](#)**. PhD thesis, Graduate School, State University of New Jersey, New Brunswick, New Jersey, January 1998.
989. Alain Ratle. **Problem-Specific Representations for Heterogeneous Materials Design**, in Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton, Edmund Ronald and Marc Schoenauer (editors), *Proceedings of the 4th European Conference on Artificial Evolution (AE 1999)*, pages 111-122, Heidelberg, Germany, November 1999. Dunkerque, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1829.
990. T. Ray and K.W. Won. **An evolutionary algorithm for constrained bi-objective optimization using radial slots**, in *Knowledge-Based Intelligent Information and Engineering Systems Part 4*, pages 49-56. Springer, 2005. Lecture Notes in Artificial Intelligence Vol. 3684.
991. Tapabrata Ray. **Constraint Robust Optimal Design using a Multiobjective Evolutionary Algorithm**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 419-424, Piscataway, New Jersey, May 2002. IEEE Service Center.
992. Tapabrata Ray, Tai Kang and Seow Kian Chye. **An Evolutionary Algorithm for Constrained Optimization**, in Darrell Whitley, David Goldberg, Erick Cantú-Paz, Lee Spector, Ian Parmee and Hans-Georg Beyer (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2000)*, pages 771-777, San Francisco, California, July 2000. Morgan Kaufmann.
993. Tapabrata Ray and K.M. Liew. **A Swarm with an Effective Information Sharing Mechanism for Unconstrained and Constrained Single Objective Optimization Problems**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 75-80, Piscataway, New Jersey, May 2001. IEEE Service Center.
994. Tapabrata Ray and K.M. Liew. **Society and Civilization: An Optimization Algorithm Based on the Simulation of Social Behavior**. *IEEE Transactions on Evolutionary Computation*, 7(4):386-396, August 2003.
995. Tapabrata Ray, K.M. Liew and P. Saini. **An Intelligent Information Sharing Strategy within a Swarm for Unconstrained and Constrained Optimization**

Problems. *Soft Computing - A Fusion of Foundations, Methodologies and Applications*, 6(1):38-44, February 2002.

996. Tapabrata Ray, Poan Choy Ling and Tai Kang. **A New Fitness Assignment and Parent Selection Strategy Within an Evolutionary Algorithm for Constrained Optimization Problems**, in Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'02)*, volume 1, pages 31-35, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
997. Tapabrata Ray and Kang Tai. **An Evolutionary Algorithm with a Multilevel Pairing Strategy for Single and Multiobjective Optimization.** *Foundations of Computing and Decision Sciences*, 26:75-98, 2001.
998. Tapabrata Ray, Hemant Kumar Singh, Amitay Isaacs and Warren Smith. **Infeasibility Driven Evolutionary Algorithm for Constrained Optimization**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 7, pp. 145-165, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
999. Rommel G. Regis. **Stochastic radial basis function algorithms for large-scale optimization involving expensive black-box objective and constraint functions**, *Computers & Operations Research*, Vol. 38, No. 5, pp. 837--853, May 2011.
1000. Rommel G. Regis. **Constrained optimization by radial basis function interpolation for high-dimensional expensive black-box problems with infeasible initial points**, *Engineering Optimization*, Vol. 46, No. 2, pp. 218--243, February 1, 2014.
1001. Rommel G. Regis. **Evolutionary Programming for High-Dimensional Constrained Expensive Black-Box Optimization Using Radial Basis Functions**, *IEEE Transactions on Evolutionary Computation*, Vol. 18, No. 3, pp. 326--347, June 2014.
1002. Christian Rempis and Frank Pasemann. **An Interactively Constrained Neuro-Evolution Approach for Behavior Control of Complex Robots**, in Raymond Chiong, Thomas Weise and Zbigniew Michalewicz (editors), *Variants of Evolutionary Algorithms for Real-World Applications*, pp. 305--341, Springer, Berlin, 2012.
1003. D.J. Reid. **Genetic Algorithms in Constrained Optimization.** *Mathematical and Computer Modelling*, 23(5):87-111, 1996.
1004. Robert G. Reynolds, Zbigniew Michalewicz and M. Cavaretta. **Using cultural algorithms for constraint handling in GENOCOP**, in J. R. McDonnell, R. G.

Reynolds and D. B. Fogel (editors), *Proceedings of the Fourth Annual Conference on Evolutionary Programming*, pages 298-305. MIT Press, Cambridge, Massachusetts, 1995.

1005. Robert G. Reynolds and Mostafa Z. Ali. **Cultural Algorithms: Knowledge-Driven Engineering Optimization via Weaving a Social Fabric as an Enhanced Influence Function**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 4193-4200, IEEE Service Center, Hong Kong, June 2008.
1006. Gilberto Reynoso-Meza, Xavier Blasco, Javier Sanchis and Miguel Martínez. **Multiobjective optimization algorithm for solving constrained single objective problems**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 3418--3424, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1007. Jon T. Richardson, Mark R. Palmer, Gunar Liepins and Mike Hilliard. **Some Guidelines for Genetic Algorithms with Penalty Functions**, in J. David Schaffer (editor), *Proceedings of the Third International Conference on Genetic Algorithms (ICGA-89)*, pages 191-197, San Mateo California, June 1989, George Mason University, Morgan Kaufmann Publishers.
1008. Sander van Rijn, Edgar Reehuis, Michael Emmerich and Thomas Bäck. **Optimizing Highly Constrained Truck Loadings Using a Self-Adaptive Genetic Algorithm**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 227--234, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4799-7492-4.
1009. Rodolphe G. Le Riche and Raphael T. Haftka. **Optimization of Laminate Stacking Sequence for Buckling Load Maximization by Genetic Algorithm**. *AIAA Journal*, 31(5):951-970, 1993.
1010. Rodolphe G. Le Riche and Raphael T. Haftka. **Improved Genetic Algorithm for Minimum Thickness Composite Laminate Design**. *Composites Engineering*, 3(1):121-139, 1994.
1011. Rodolphe G. Le Riche, Catherine Knopf-Lenoir and Raphael T. Haftka. **A Segregated Genetic Algorithm for Constrained Structural Optimization**, in Larry J. Eshelman (editor), *Proceedings of the Sixth International Conference on Genetic Algorithms (ICGA-95)*, pages 558-565, San Mateo, California, July 1995. University of Pittsburgh, Morgan Kaufmann Publishers.
1012. Rodolphe G. Le Riche, Catherine Knopf-Lenoir and Raphael T. Haftka. **A Segregated Genetic Algorithm for Constrained Structural Optimization**. Technical report, Université de Technologie de Compiègne, France, 1995.
1013. Rodolphe Le Riche and Frédéric Guyon. **Dual Evolutionary Optimization**. In Pierre Collet, Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton and Marc

Schoenauer (editors), *Proceedings of the 5th International Conference on Artificial Evolution (AE 2001)*, pages 281-294, Heidelberg, Germany, October 2001. Le Creusot, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 2310.

1014. Hendrik Richter. **Memory Design for Constrained Dynamic Optimization Problems**, in Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcazar, Chi-Keong Goh, Juan J. Merelo, Ferrante Neri, Mike Preuss, Julian Togelius and Georgios N. Yannakakis (editors), *Applications of Evolutionary Computation, EvoApplications 2010: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM and EvoSTOC*, pp. 552--561, Springer. Lecture Notes in Computer Science Vol. 6024, Istanbul, Turkey, April 7-9, 2010.
1015. Hendrik Richter and Franz Dietel. **Solving Dynamic Constrained Optimization Problems with Asynchronous Change Pattern**, in Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I Esparcia-Alcázar, Juan J. Merelo, Ferrante Neri, Mike Preuss, Hendrik Richter, Julian Togelius and Georgios N. Yannakakis (editors), *Applications of Evolutionary Computation, EvoApplications 2011: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM, and EvoSTOC*, pp. 334-343, Springer. Lecture Notes in Computer Science Vol. 6624, Torino, Italy, April 27-29, 2011.
1016. Laura Rigal, Bruno Castanier and Philippe Castagliola. **Introduction of a New Selection Parameter in Genetic Algorithms for Constrained Reliability Design Problems**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 90-101, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3103.
1017. C. Robertson, R.B. Fisher, N. Werghi and A.P. Ashbrook. **An Evolutionary Approach to Fitting Constrained Degenerate Second Order Surfaces**, in Riccardo Poli, Hans-Michael Voigt, Stefano Cagnoni, David Corne, George D. Smith and Terence C. Fogarty (editors), *Evolutionary Image Analysis, Signal Processing and Telecommunications*, pages 1-16. Springer. Lecture Notes in Computer Science Volume 1596, Berlin, May 1999.
1018. C. Robertson, R. B. Fisher, N. Werghi and A.P. Ashbrook. **Fitting of Constrained Feature Models to Poor 3D Data**. In I.C. Parmee (editor), *Proceedings of the Fourth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2000)*, pages 149-160, University of Plymouth, Devon, UK, April 2000. Springer-Verlag.

1019. C. Robertson and R. B. Fisher. **Better Surface Intersections by Constrained Evolution**, in I.C. Parmee (editor), *Proceedings of the Fifth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2002)*, volume 5, pages 133-142, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
1020. Miguel Rocha, Rui Mendes, Paulo Cortez and José Neves. **Sitting Guests at a Wedding Party: Experiments on Genetic and Evolutionary Constrained Optimization**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 671-678, Piscataway, New Jersey, May 2001. IEEE Service Center.
1021. Ana Maria A.C. Rocha and Edite M.G.P. Fernandes. **Feasibility and Dominance Rules in the Electromagnetism-Like Algorithm for Constrained Global Optimization**, in Osvaldo Gervasi, Beniamino Murgante, Antonio Laganà, David Taniar, Youngsong Mun and Marina L. Gavrilova (editors), *Computational Science and Its Applications - ICCSA 2008, International Conference*, pp. 768--783, Springer. Lecture Notes in Computer Science Vol. 5073, Perugia, Italy, June 30-July 3, 2008.
1022. Ana Maria A. C. Rocha and Edite M. G. P. Fernandes. **Hybridizing the electromagnetism-like algorithm with descent search for solving engineering design problems**, *International Journal of Computer Mathematics*, Vol. 86, No. 10-11, pp. 1932-1946, 2009.
1023. Ana Maria A. C. Rocha and Edite M. G. P. Fernandes. **Electromagnetism-Like Augmented Lagrangian Algorithm for Global Optimization**, in António Gaspar-Cunha, Ricardo Takahashi, Gerald Schaefer and Lino Costa (editors), *Soft Computing in Industrial Applications*, pp. 415--425, Springer, Advances in Intelligent and Soft Computing Series, Vol. 96, Berlin, 2011, ISBN 978-3-642-20504-0.
1024. Ana Maria A. C. Rocha and M. G. P. Fernandes. **Numerical study of augmented Lagrangian algorithms for constrained global optimization**, *Optimization*, Vol. 60, Nos. 10--11, pp. 1359--1378, 2011.
1025. Miguel Rocha, Pedro Sousa, Paulo Cortez and Miguel Rio. **Quality of Service constrained routing optimization using Evolutionary Computation**, *Applied Soft Computing*, Vol. 11, No. 1, pp. 356--364, January, 2011.
1026. M. Andrea Rodríguez and Mary Carmen Jarur. **A Genetic Algorithm for Searching Spatial Configurations**. *IEEE Transactions on Evolutionary Computation*, 9(3):252-270, June 2005.
1027. J.M. Rogero. [A Genetic Algorithms Based Optimisation Tool for the Preliminary Design of Gas Turbine Combustors](#) PhD thesis, School of Mechanical Engineering, Cranfield University, Cranfield, UK, November

2002.

1028. H.E. Romelin and R.L. Smith. **Simulated Annealing for Constrained Global Optimization**, *Journal of Global Optimization*, Vol. 5, No. 2, pp. 101--126, September 1994.
1029. Alexander Rotshtein and Serhiy Shtovba. **Genetic Optimization of Multidimensional Technological Process Reliability**, in Gregory Levitin (editor), *Computational Intelligence in Reliability Engineering. Evolutionary Techniques in Reliability Analysis and Optimization*, pp. 287--300, Springer, Heidelberg, 2007.
1030. Alvaro Ruiz-Andino, Lourdes Araujo, Jose Ruz and Fernando Sáenz. **Parallel Evolutionary Optimisation with Constraint Propagation**, in A. E. Eiben, T. Bäck, M. Schoenauer and H.-P. Schwefel (editors), *Proceedings of the 5th Parallel Problem Solving from Nature (PPSN V)*, pages 270-279, Heidelberg, Germany, September 1998. Amsterdam, The Netherlands, Springer-Verlag. Lecture Notes in Computer Science Vol. 1498.
1031. Alvaro Ruiz-Andino, Lourdes Araujo, Fernando Sáenz and José Ruz. **A Hybrid Evolutionary Approach for Solving Constrained Optimization Problems over Finite Domains**. *IEEE Transactions on Evolutionary Computation*, 4(4):353-372, November 2000.
1032. Thomas P. Runarsson and Xin Yao. **Stochastic Ranking for Constrained Evolutionary Optimization**. *IEEE Transactions on Evolutionary Computation*, 4(3):284-294, September 2000.
1033. Thomas Philip Runarsson. [Evolutionary Problem Solving](#) PhD thesis, Department of Engineering, University of Iceland, Háskólaútgáfan, Reykjavik Iceland, December 2000.
1034. Thomas Philip Runarsson. **Constrained Evolutionary Optimization by Approximate Ranking and Surrogate Models**, in Xin Yao, Edmund Burke, José A. Lozano, Jim Smith, Juan J. Merelo-Guervós, John A. Bullinaria, Jonathan Rowe, Peter Tino, Ata Kabán and H.-P. Schwefel (editors), *Proceedings of 8th Parallel Problem Solving From Nature (PPSN VIII)*, pages 401-410, Heidelberg, Germany, September 2004. Birmingham, UK, Springer-Verlag. Lecture Notes in Computer Science Vol. 3242.
1035. Thomas Philip Runarsson and Ruhul Sarker. **Constrained nonlinear integer programming and evolution strategies**, in *Proceedings of the 3rd Australia-Japan Joint Workshop on Intelligent and Evolutionary Systems*, pages 193-200. Canberra, Australia, November 1999.
1036. Thomas Philip Runarsson, Ruhul Sarker and Magnus Thor Jonsson. **Constrained Nonlinear Integer Programming, Self-Adaptation and**

Evolution Strategies. . *International Journal of Knowledge-Based Intelligent Engineering Systems*, 4(3):164-171, July 2000.

1037. Thomas Philip Runarsson and Xin Yao. **[Constrained Evolutionary Optimization: The penalty function approach](#)**, in Ruhul Sarker, Masoud Mohammadian and Xin Yao (editors), *Evolutionary Optimization* , pages 87-113. Kluwer Academic Publishers, 2002. ISBN: 0-7923-7654-4.
1038. Thomas Philip Runarsson and Xin Yao. **Evolutionary Search and Constraint Violations**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 1414-1419, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1039. Thomas Philip Runarsson and Xin Yao. **Search biases in constrained evolutionary optimization.** *IEEE Transactions on Systems, Man and Cybernetics Part C--Applications and Reviews*, 35(2):233-243, May 2005.
1040. Thomas Philip Runarsson. **Approximate evolution Strategy using Stochastic Ranking**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 2760--2767, IEEE, Vancouver, BC, Canada, July 2006.

S

1041. Samrat L. Sabat, Layak Ali and Siba K. Udgata. **Stochastic Ranking Particle Swarm Optimization for Constrained Engineering Design Problems**, in Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagarathnam Suganthan and Subhransu Sekhar Dash (editors), *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pp. 672--679, Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18, 2010.
1042. Soumen Sardar, Sayan Maity, Swagatam Das and P.N. Suganthan. **Constrained Real Parameter Optimization with a Gradient Repair based Differential Evolution Algorithm**, in *2011 IEEE Symposium on Differential Evolution (SDE'2011)*, pp. 1--8, IEEE Service Center, Paris, France, April 11-15, 2011.
1043. Ali Sadollah, Ardeshir Bahreininejad, Hadi Eskandar and Mohd Hamdi. **Mine blast algorithm: A new population based algorithm for solving constrained engineering optimization problems**, *Applied Soft Computing*, Vol. 13, No. 5, pp. 2592--2612, May 2013.

1044. Ali Sadollah, Do Guen Yoo and Joong Hoon Kim. **Improved Mine Blast Algorithm for Optimal Cost Design of Water Distribution Systems**, *Engineering Optimization*, Vol. 47, No. 12, pp. 1602--1618, 2015.
1045. Krzysztof L. Sadowski, Peter A.N. Bosman and Dirk Thierens. **A Clustering-Based Model-Building EA for Optimization Problems with Binary and Real-Valued Variables**, in *2015 Genetic and Evolutionary Computation Conference (GECCO'2015)*, pp. 911--918, ACM Press, Madrid, Spain, July 11-15, 2015, ISBN: 978-1-4503-3472-3.
1046. Amit Saha, Rituparna Datta and Kalyanmoy Deb. **Hybrid gradient projection based Genetic Algorithms for constrained optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 2851--2858, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1047. Amit Saha and Tapabrata Ray. **How does the good old Genetic Algorithm fare at Real World Optimization?**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1049--1056, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
1048. Amit Saha and Tapabrata Ray. **Equality Constrained Multi-objective Optimization**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 47--53, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1049. Amit Saha and Tapabrata Ray. **A Repair Mechanism for Active Inequality Constraint Handling**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 1240--1247, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1050. Sancho Salcedo-Sanz. **A Survey of Repair Methods Used as Constraint Handling Techniques in Evolutionary Algorithms**, *Computer Science Review*, Vol. 3, No. 3, pp. 175--192, 2009.
1051. Hamid Salimi. **Stochastic Fractal Search: A powerful metaheuristic algorithm**, *Knowledge-Based Systems*, Vol. 75, pp. 1--8, February 2015.
1052. L.A. Sanabria, Sih B., Dillon T.S. and Chang L. **Genetic Algorithms in Stochastic Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 815-822, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1053. G. Sand, J. Till, T. Tometzki, M. Urselmann, S. Engell and M. Emmerich. **Engineered versus standard evolutionary algorithms: A case study in batch scheduling with recourse**, *Computers & Chemical Engineering*, Vol. 32, No. 11, pp. 2706-2722, November 24 2008.
1054. Jelena Sanko And Jaan Penjam. **Differential evolutionary approach guided by the Functional Constraint Network to solve program synthesis problem**,

in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1915--1922, IEEE Press, Barcelona, Spain, July 18--23, 2010.

1055. Erinaldo F. Santos and Takaaki Ohishi. **A Hydro Unit Commitment Model Using Genetic Algorithm**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 1368-1374, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
1056. H. Sarimveis and A. Nikolakopoulos. **A line up evolutionary algorithm for solving nonlinear constrained optimization problems**, *Computers & Operations Research*, Vol. 32, No. 6, pp. 1499--1514, June 2005.
1057. Ruhul Sarker, Thomas P. Runarsson and Charles Newton. **Genetic Algorithms for Solving a Class of Constrained Nonlinear Integer Programs**, in *Proceedings of the 15th Australian Society for Operational Research Conference*, pages 1122-1137. Gold Coast, 1999.
1058. Ruhul Sarker, Thomas P. Runarsson and Charles Newton. **Evolutionary Computation and Constrained Optimization**, in M. Mohammadian (editor), *New Frontiers in Computational Intelligence and its Applications.*, pages 142-154. IOS Press, The Netherlands, 2000.
1059. Ruhul Sarker, Thomas Philip Runarsson and Charles Newton. **A Constrained Multiple Raw Materials Manufacturing Batch Sizing Problem**. *International Transaction in Operational Research*, 8(1):61-74, 2001.
1060. Ruhul A. Sarker, Saber M. Elsayed and Tapabrata Ray. **Differential Evolution With Dynamic Parameters Selection for Optimization Problems**, *IEEE Transactions on Evolutionary Computation*, Vol. 18, No. 5, pp. 689--707, October 2014.
1061. Hadi Sarvari and Kamran Zamanifar. **Improvement of harmony search algorithm by using statistical analysis**, *Artificial Intelligence Review*, Vol. 37, No. 3, pp. 181--215, March 2012.
1062. Ruhul Sarker, Thomas Philip Runarsson and Charles Newton. **Genetic Algorithms for Solving a Class of Constrained Nonlinear Integer Programs**. *International Transaction in Operational Research*, 8(2):121-138, 2001.
1063. S. Siva Sathya and S. Kuppaswami. **Gene silencing--A genetic operator for constrained optimization**, *Applied Soft Computing*, Vol. 11, No. 8, pp. 5801--5808, December 2011.
1064. Dragan A. Savic and Godfrey A. Walters. **Genetic Operators and Constraint Handling for Pipe Network Optimization**, in Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 154-165, Sheffield, U.K., April 1995. Springer-Verlag. Lecture Notes in Computer

1065. Dhish Kumar Saxena, Tapabrata Ray, Kalyanmoy Deb and Ashutosh Tiwari. **Constrained Many-Objective Optimization: A Way Forward**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 545-552, IEEE Service Center, Trondheim, Norway, May 2009.
1066. Dhish Saxena, Alessandro Rubino, Joao A. Duro and Ashutosh Tiwari. **Identifying the redundant, and ranking the critical, constraints in practical optimization problems**, *Engineering Optimization*, Vol. 45, No. 7, pp. 787--809, July 1, 2013.
1067. Martin Schlueter, Jose A. Egea and Julio R. Banga. **Extended ant colony optimization for non-convex mixed integer nonlinear programming**, *Computers & Operations Research*, Vol. 36, No. 7, pp. 2217-2229, July 2009.
1068. Martin Schlüter and Matthias Gerds. **The oracle penalty method**, *Journal of Global Optimization*, Vol. 47, No. 2, pp. 293-325, June, 2010.
1069. Martin Schmidt and Zbigniew Michalewicz. **Test-Case Generator TCG-2 for Nonlinear Parameter Optimization** In M. Schoenauer, K. Deb, G. Rudolph, X. Yao, E. Lutton, J.J. Merelo and H.-P. Schwefel (editors), *Proceedings of 6th Parallel Problem Solving From Nature (PPSN VI)*, pages 539-548, Heidelberg, Germany, September 2000. Paris, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1917.
1070. Stefan Schneider, Christian Igel, Christian Klaes, Hubert R. Dinse and Jan N. Wiemer. **Evolutionary Adaptation of Nonlinear Dynamical Systems in Computational Neuroscience**. *Genetic Programming and Evolvable Machines*, 5(2):215-227, June 2004.
1071. Marc Schoenauer and Zbigniew Michalewicz. **Evolutionary Computation at the Edge of Feasibility**, in H.-M. Voigt, W. Ebeling, I. Rechenberg and H.-P. Schwefel (editors), *Proceedings of the Fourth Conference on Parallel Problem Solving from Nature (PPSN IV)*, pages 245-254, Heidelberg, Germany, September 1996, Berlin, Germany, Springer-Verlag.
1072. Marc Schoenauer and Zbigniew Michalewicz. **Boundary Operators for Constrained Parameter Optimization Problems**, in Thomas Bäck (editor), *Proceedings of the Seventh International Conference on Genetic Algorithms (ICGA-97)*, pages 322-329, San Francisco, California, July 1997. Morgan Kaufmann.
1073. Marc Schoenauer and Zbigniew Michalewicz. **SphereOperators and Their Applicability for Constrained Optimization Problems**, in V.W. Porto, N. Saravanan, D. Waagen and A.E. Eiben (editors), *Proceedings of the 7th International Conference on Evolutionary Programming (EP98)*, pages 241-

250, Heidelberg, Germany, March 1998. San Diego, California, USA, Springer-Verlag. Lecture Notes in Computer Science Vol. 1447.

1074. Marc Schoenauer and Spyros Xanthakis. **Constrained GA Optimization**. In Stephanie Forrest (editor), *Proceedings of the Fifth International Conference on Genetic Algorithms (ICGA-93)*, pages 573-580, San Mateo, California, July 1993. University of Illinois at Urbana-Champaign, Morgan Kaufman Publishers.
1075. Luk Schoofs and Bart Naudts. **Ant Colonies are Good at Solving Constraint Satisfaction Problems**, in *Proceedings of the Congress on Evolutionary Computation 2000 (CEC'2000)*, volume 2, pages 1190-1195, Piscataway, New Jersey, July 2000. IEEE Service Center.
1076. Luk Schoofs and Bart Naudts. **Solving CSP Instances Beyond the Phase Transition Using Stochastic Search Algorithms**, in M. Schoenauer, K. Deb, G. Rudolph, X. Yao, E. Lutton, J.J. Merelo and H.-P. Schwefel (editors), *Proceedings of 6th Parallel Problem Solving From Nature (PPSN VI)*, pages 549-558, Heidelberg, Germany, September 2000. Paris, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 1917.
1077. Luk Schoofs and Bart Naudts. **Swarm Intelligence on the Binary Constraint Satisfaction Problem**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 2, pages 1444-1449, Piscataway, New Jersey, May 2002. IEEE Service Center.
1078. Luk Schoofs, Bart Naudts and Ives Landrieu. **SAWing on Symmetry**, in *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 1, pages 589-595, Piscataway, New Jersey, July 1999. IEEE Service Center.
1079. Martin Schütz and Joachim Sprave. **Application of partially mixed-integer evolution strategies with mutation rate pooling**. In Lawrence J. Fogel, Peter J. Angeline and Thomas Bäck (editors), *Proceedings of the Fifth Annual Conference on Evolutionary Programming (EP'96)*, pages 345-354, San Diego, California, February 1996. The MIT Press.
1080. D. C. Secui, I. Felea, S. Dzitac and L. Popper. **A Swarm Intelligence Approach to the Power Dispatch Problem**, *International Journal Of Computers Communications & Control*, Vol. 3, No. 5, pp. 375-384, September, 2010.
1081. Kai Sedlaczek and Peter Eberhard. **Using augmented Lagrangian particle swarm optimization for constrained problems in engineering**, *Structural and Multidisciplinary Optimization*, Vol. 32, No. 4, pp. 277-286, October 2006.
1082. Kai Sedlaczek and Peter Eberhard. **Augmented Lagrangian Particle Swarm Optimization in Mechanism Design**, *Journal of System Design and*

1083. Istvan Selek, Jozsef Gergely Bene and Csaba Hos. **Optimal (short-term) pump schedule detection for water distribution systems by neutral evolutionary search**, *Applied Soft Computing*, Vol. 12, No. 8, pp. 2336--2351, August 2012.
1084. Roman B. Sergienko and Eugene S. Semenkin. **Competitive cooperation for strategy adaptation in coevolutionary genetic algorithm for constrained optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1626--1631, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1085. Mahdi Setayesh, Mengjie Zhang and Mark Johnston. **Detection of Continuous, Smooth and Thin Edges in Noisy Images using Constrained Particle Swarm Optimisation**, in *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pp. 45--52, ACM Press, Dublin, Ireland, July 12-16, 2011.
1086. Mahdi Setayesh, Mengjie Zhang and Mark Johnston. **Edge Detection Using Constrained Discrete Particle Swarm Optimisation in Noisy Images**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 246--253, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1087. Rafi Shalom, Mireille Avigal and Ron Unger. **A Conflict Based SAW Method for Constraint Satisfaction Problems**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 373-380, IEEE Service Center, Trondheim, Norway, May 2009.
1088. Wanfeng Shang, Shengdun Zhao and Yajing Shen. **A flexible tolerance genetic algorithm for optimal problems with nonlinear equality constraints**, *Advanced Engineering Informatics*, Vol. 23, No. 3, pp. 253-264, July, 2009.
1089. Ronghua Shang, Licheng Jiao, Hao Xu and Yangyang Li. **Quantum Immune Clone for Solving Constrained Multi-Objective Optimization**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 3049--3056, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4799-7492-4.
1090. Deepak Sharma and Prem Soren. **Infeasibility Driven Approach for Bi-objective Evolutionary Optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 868--875, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1091. Shivom Sharma and Gade Pandu Rangaiah. **Improved Constraint Handling Technique for Multi-Objective Optimization with Application to Two Fermentation Processes**, in Gade Pandu Rangaiah and Adrián Bonilla-Petriciolet (editors), *Multi-Objective Optimization in Chemical Engineering:*

1092. Anuraganand Sharma. **Analysis of Evolutionary Operators for ICHEA in Solving Constraint Optimization Problems**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 46--53, IEEE Press, Sendai, Japan, 25-28 May 2015, ISBN 978-1-4799-7492-4.
1093. Hai Shen, Yunlong Zhu, Ben Niu and Q.H. Wu. **An improved group search optimizer for mechanical design optimization problems**, in *Progress in Natural Science*, Vol. 19, No. 1, pp. 91-97, January 10, 2009.
1094. Yuanxia Shen, Jian Chen, Chuanhua Zeng and Bin Ji. **A Novel Constrained Bare-bones Particle Swarm Optimization**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 2511--2517, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
1095. Yulong Shi, Sanyou Zeng, Bo Xiao, Yang Yang and Song Gao. **An Evolutionary Algorithm with Lower-Dimensional Crossover for Solving Constrained Engineering Optimization Problems**, in Wen Yu and Edgar N. Sanchez, (editors), *Advances in Computational Intelligence*, pp. 289-298, Springer-Verlag, Heidelberg, Germany, 2009.
1096. Hisashi Shimosaka, Tomoyuky Hiroyasu and Mitsunori Miki. **Comparison of Pulling Back and Penalty Methods for Constraints in DPMBGA**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1941-1948, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1097. Tapas Si, Nanda Dulal Jana and Jaya Sil. **Constrained Function Optimization Using PSO with Polynomial Mutation**, in Bijaya Ketan Panigrahi, Ponnuthurai Nagaratnam Suganthan, Swagatam Das and Suresh Chandra Satapathy (editors), *Swarm, Evolutionary, and Memetic Computing, Second International Conference, SEMCCO 2011*, pp. 209--216, Springer. Lecture Notes in Computer Science Vol. 7076, Visakhapatnam, Andhra Pradesh, India, December 19-21, 2011.
1098. Chengyong Si, Lei Wang and QiDi Wu. **Mapping Constrained Optimization Problems to Algorithms and Constraint Handling Techniques**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 3308--3315, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1099. Chengyong Si, Jianqiang Shen, Xuan Zou, Lei Wang and Qidi Wu. **Mapping Constrained Optimization Problems to Penalty Parameters: An Empirical Study**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 3073--3079, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.

1100. Chengyong Si, Jing An, Tian Lan, Thomas Ussmüller, Lei Wang and Qidi Wu. **On the equality constraints tolerance of Constrained Optimization Problems**, *Theoretical Computer Science*, Vol. 551, pp. 55--65, September 25, 2014.
1101. E. Sidiropoulos and P. Tolikas. **Well locations and constraint handling in groundwater pumping cost minimization via genetic algorithms**, in A.G. Kungolos, A.B. Liakopoulos, G.P. Korfiatis, A.D. Koutsospyros, K.L. Katsifarakis and A.D. Demetracopoulos (editors), *Protection and Restoration of the Environment VI*, pp. 35--42, Grafima Ioannis Tsarouchidis, Skiathos Island, Greece, July 1-5, 2002, ISBN 978-1-4503-1963-8.
1102. E. Sidiropoulos and P. Tolikas. **Well Locations and Constraint Handling in Groundwater Pumping Cost Minimization via Genetic Algorithms**, *Water, Air, & Soil Pollution: Focus*, Vol. 4, No. 4-5, pp. 227-239, October 2004.
1103. E. Sidiropoulos and P. Tolikas. **Genetic algorithms and cellular automata in aquifer management**, *Applied Mathematical Modelling*, Vol. 32, No. 4, pp. 617--640, April 2008.
1104. W. Siedlecki and J. Sklanski. **Constrained Genetic Optimization via Dynamic Reward-Penalty Balancing and Its Use in Pattern Recognition**, in J. David Schaffer (editor), *Proceedings of the Third International Conference on Genetic Algorithms (ICGA-89)*, pages 141-150, San Mateo, California, June 1989. George Mason University, Morgan Kaufmann Publishers.
1105. Ricardo M.A. Silva, Mauricio G.C. Resende, Panos M. Pardalos and João L. Facó. **Biased random-key genetic algorithm for nonlinearly-constrained global optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2201--2206, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1106. Eoksu Sim, Sungwon Jung, Haejoong Kim and Jinwoo Park. **A Generic Network Design for a Closed-Loop Supply Chain Using Genetic Algorithm**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 1214-1225, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3103.
1107. P.A. Simionescu, D.G. Beale and G.V. Dozier. **Constrained Optimization Problem Solving Using Estimation of Distribution Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 296-302, Piscataway, New Jersey, June 2004. Portland,

1108. P.A. Simionescu, G.V. Dozier and R.L. Wainwright. **A Two-Population Evolutionary Algorithm for Constrained Optimization Problems**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6111-6117, IEEE, Vancouver, BC, Canada, July 2006.
1109. Hemant Kumar Singh, Amitay Isaacs, Trung Thanh Nguyen, Tapabrata Ray and Xin Yao. **Performance of Infeasibility Driven Evolutionary Algorithm (IDEA) on Constrained Dynamic Single Objective Optimization Problems**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 3127-3134, IEEE Service Center, Trondheim, Norway, May, 2009.
1110. Hemant Kumar Singh, Tapabrata Ray and Warren Smith. **C-PSA: Constrained Pareto simulated annealing for constrained multi-objective optimization**, in *Information Sciences*, Vol. 180, No. 13, pp. 2499-2513, July 1, 2010.
1111. Hemant Kumar Singh, Tapabrata Ray and Warren Smith. **Performance of infeasibility empowered memetic algorithm for CEC 2010 constrained optimization problems**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 3770--3777, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1112. Hemant K. Singh, Tapabrata Ray and Warren Smith. **Performance of Infeasibility Empowered Memetic Algorithm (IEMA) on Engineering Design Problems**, in Jiuyong Li (editor), *AI 2010: Advances in Artificial Intelligence, 23rd Australasian Joint Conference*, pp. 425--434, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 6464, Adelaide, Australia, December 2010.
1113. Hemant Kumar Singh and Tapabrata Ray. **Performance of a Hybrid EA-DE-Memetic Algorithm on CEC 2011 Real World Optimization Problems**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1322--1326, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
1114. Hemant Kumar Singh, Md. Asafuddoula and Tapabrata Ray. **Solving Problems with a Mix of Hard and Soft Constraints Using Modified Infeasibility Driven Evolutionary Algorithm (IDEA-M)**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 983--990, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
1115. Prashant Singh, Ivo Couckuyt, Francesco Ferranti and Tom Dhaene. **A Constrained Multi-Objective Surrogate-Based Optimization Algorithm**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 3080--3087, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
1116. S. Sivananaiathaperumal, S. Miruna Joe Amali, S. Baskar and P. N. Suganthan.

Constrained self-adaptive differential evolution based design of robust optimal fixed structure controller, *Engineering Applications of Artificial Intelligence*, Vol. 24, No. 6, pp. 1084--1093, September, 2011.

1117. Ankur Sinha, Aravind Srinivasan and Kalyanmoy Deb. **A Population-Based, Parent Centric Procedure for Constrained Real-Parameter Optimization**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 943--949, IEEE, Vancouver, BC, Canada, July 2006.
1118. Anabela Simoes and Ernesto Costa. **Using Genetic Algorithms with Sexual or Asexual Transposition: a Comparative Study**, in *Proceedings of the Congress on Evolutionary Computation 2000 (CEC'2000)*, volume 2, pages 1196-1203, Piscataway, New Jersey, July 2000. IEEE Service Center.
1119. Leszek Siwik and Piotr Sikorski. **Efficient Constrained Evolutionary Multi-Agent System for Multi-Objective Optimization**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 3211-3218, IEEE Service Center, Hong Kong, June 2008.
1120. Leszek Siwik and Szymon Natanek. **Solving Constrained Multi-Criteria Optimization Tasks Using Elitist Evolutionary Multi-Agent System**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 3357-3364, IEEE Service Center, Hong Kong, June 2008.
1121. Alice E. Smith and David W. Coit. **Constraint Handling Techniques--Penalty Functions**, in Thomas Bäck, David B. Fogel and Zbigniew Michalewicz (editors), *Handbook of Evolutionary Computation*, chapter C 5.2. Oxford University Press and Institute of Physics Publishing, 1997.
1122. Alice E. Smith and David M. Tate. **Genetic Optimization Using a Penalty Function**, in Stephanie Forrest (editor), *Proceedings of the Fifth International Conference on Genetic Algorithms (ICGA-93)*, pages 499-503, San Mateo, California, July 1993. University of Illinois at Urbana-Champaign, Morgan Kaufmann Publishers.
1123. Laurence Smith. [Improved Placement of Local Solver Launch Points for Large-scale Global Optimization](#), PhD thesis, Ottawa-Carleton Institute for Electrical and Computer Engineering (OCIECE), Department of Systems and Computer Engineering, Carleton University, Ottawa, Canada, April 2011.
1124. J.E. Smith. **Protein Structure Prediction with Co-evolving Memetic Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 4, pages 2346-2353, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1125. Stephen Smith. **Using Evolutionary Algorithms Incorporating the Augmented Lagrangian Penalty Function to Solve Discrete and Continuous**

Constrained Non-linear Optimal Control Problems, in Pierre Collet, Cyril Fonlupt, Jin-Kao Hao, Evelyne Lutton and Marc Schoenauer (editors), *Proceedings of the 5th International Conference on Artificial Evolution (AE 2001)*, pages 295-308, Heidelberg, Germany, October 2001. Le Creusot, France, Springer-Verlag. Lecture Notes in Computer Science Vol. 2310.

1126. Hiroshi Someya and Masayuki Yamamura. **Genetic Algorithm with Search Area Adaptation for the Function Optimization and its Experimental Analysis**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 933-940, Piscataway, New Jersey, May 2001. IEEE Service Center.
1127. Daniel Leal Souza, Otávio Noura Teixeira, Dionne Cavalcante Monteiro, Roberto Célio Limão de Oliveira and Marco Antonio Florenzano Mollinetti. **A Novel Competitive Quantum-Behaviour Evolutionary Multi-Swarm Optimizer Algorithm Based on CUDA Architecture Applied to Constrained Engineering Design**, in Marco Dorigo, Mauro Birattari, Simon Garnier, Heiko Hamann, Marco Montes de Oca, Christine Solnon and Thomas Stützle (editors), *Swarm Intelligence, 9th International Conference, ANTS 2014*, pp. 206--213, Springer. Lecture Notes in Computer Science Vol. 8667, Brussels, Belgium, September 10-12, 2014.
1128. Massimo Spadoni and Luciano Stefanini. **Handling Box, Linear and Quadratic-Convex Constraints for Boundary Optimization with Differential Evolution Algorithms**, in *2009 9th International Conference on Intelligent Systems Design and Applications*, pp. 7--12, IEEE Press, Pisa, Italy, November 30-December 02, 2009, ISBN 978-1-4244-4735-0.
1129. Massimo Spadoni and Luciano Stefanini. **A Differential Evolution algorithm to deal with box, linear and quadratic-convex constraints for boundary optimization**, *Journal of Global Optimization*, Vol. 52, No. 1, pp. 171--192, January 2012.
1130. Roberto Spallino and Georg Thierauf. **Thermal buckling optimization of composite laminates by evolution strategies**. *Computers and Structures*, 78(5):691-697, December 2000.
1131. Dipti Srinivasan, Tian Hou Seow and Jian Xin Xu. **Constraint-Based University Time-Tabling Using Evolutionary Algorithm**. In Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 1, pages 252-256, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
1132. Soumil Srivastava and Kalyanmoy Deb. **A Genetic Algorithm Based Augmented Lagrangian Method for Computationally Fast Constrained**

Optimization, in Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagarathnam Suganthan and Subhransu Sekhar Dash (editors), *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pp. 330--337, Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18, 2010.

1133. Rainer Storn. **System Design by Constraint Adaptation and Differential Evolution**. *IEEE Transactions on Evolutionary Computation*, 3(1):22-34, April 1999.
1134. Jeffrey D. Stumpf, Xin Feng and Richard W. Kelnhofer. **An Enhanced Operator-Oriented Genetic Search Algorithm**, in Z. Michalewicz, J. D. Schaffer, H.-P. Schwefel, D. B. Fogel and H. Kitano (editors), *Proceedings of the First IEEE Conference on Evolutionary Computation (ICEC'94)*, pages 235-238, Piscataway, New Jersey, June 1994. Orlando, Florida, IEEE Press.
1135. Shoubao Su, Jiwen Wang, Wangkang Fan and Xibing Yin. **Good Lattice Swarm Algorithm for Constrained Engineering Design Optimization**, in *2007 International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2007)*, pp. 6421--6424, IEEE Press, Shanghai, China, September 21-25, 2007, ISBN 978-1-4244-1311-9.
1136. J.C Sullivan. **Constrained Optimisation with the Fuzzy Clustering Evolution Strategy**. In I.C. Parmee (editor), *Proceedings of the Fifth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2002)*, volume 5, pages 307-315, University of Exeter, Devon, UK, April 2002. Springer-Verlag.
1137. Agachai Sumalee. **Genetic Algorithm for Constraint Optimal Toll Ring Design**, in Andreas Fink and Franz Rothlauf (editors), *Advances in Computational Intelligence in Transport, Logistics and Supply Chain Management*, pp. 45-61, Springer, Studies in Computational Intelligence Vol. 144, 2008.
1138. V.S. Summanwar, V.K. Jayaraman, B.D. Kulkarni, H.S. Kusumakar, K. Gupta and J. Rajesh. **Solution of constrained optimization problems by multi-objective genetic algorithm**, in *Computers & Chemical Engineering*, Vol. 26, No. 10, pp. 1481-1492, October 15, 2002.
1139. Chao-Li Sun, Jian-Chao Zeng and Jeng-Shyang Pan. **A Particle Swarm Optimization with Feasibility-Based Rules for Mixed-Variable Optimization Problems**, in Jeng-Shyang Pan, Jie Liu and Ajith Abraham (editors), *Ninth International Conference on Hybrid Intelligent Systems (HIS'09)*, pp. 543--547, Shenyang, China, IEEE Computer Society Press, August 2009.
1140. Jianyong Sun and Jonathan M. Garibaldi. **A Novel Memetic Algorithm for**

Constrained Optimization, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 549-556, IEEE Press, Barcelona, Spain, July 18--23, 2010.

1141. Chao-li Sun, Jian-chao Zeng and Jeng-shyang Pan. **An improved vector particle swarm optimization for constrained optimization problems**, *Information Sciences*, Vol. 181, No. 6, pp. 1153--1163, March 15, 2011.
1142. Patrick D. Surry and Nicholas J. Radcliffe. **The COMOGA Method: Constrained Optimisation by Multiobjective Genetic Algorithms**. *Control and Cybernetics*, 26(3):391-412, 1997.
1143. Patrick D. Surry, Nicholas J. Radcliffe and Ian D. Boyd. **A Multi-Objective Approach to Constrained Optimisation of Gas Supply Networks : The COMOGA Method**. In Terence C. Fogarty (editor), *Evolutionary Computing. AISB Workshop. Selected Papers*, pages 166-180, Sheffield, U.K., April 1995. Springer-Verlag. Lecture Notes in Computer Science No. 993.
1144. Ryohei Suzuki, Fukiko Kawai, Shinji Kitagawa, Tetsuro Matsui, Kouji Matsumoto, Donghui Xiang and Yoshikazu Fukuyama. **The $\hat{\mu}$ constrained differential evolution approach for optimal operational planning of energy plants**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 4312--4317, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1145. K.S. Swarup, M. Yoshimi, S. Shimano and Y. Izui. **Genetic algorithm approach to environmental constrained optimal economic dispatch**, *Engineering Intelligent Systems for Electrical Engineering and Communications*, Vol. 4, No. 1, pp. 11--23, March 1996.
1146. Francis Dermot Sweeney. **New Sampling Distributions for Evolutionary Algorithms** PhD thesis, Department of Aeronautics and Astronautics, Stanford University, August 2003.
1147. Gilbert Syswerda. **Schedule Optimization Using Genetic Algorithms**, in Lawrence Davis (editor), *Handbook of Genetic Algorithms*, chapter 21, pages 332-349. Van Nostrand Reinhold, New York, New York, 1991.

T

1148. Kiyoharu Tagawa and Shun Miyanaga. **Weighted empirical distribution based approach to Chance Constrained Optimization Problems using Differential Evolution**, in *2017 IEEE Congress on Evolutionary Computation*

1149. Min-Jea Tahk and Byung-Chan Sun. **Coevolutionary Augmented Lagrangian Methods for Constrained Optimization.** *IEEE Transactions on Evolutionary Computation*, 4(2):114-124, July 2000.
1150. T. Takahama and S. Sakai. **Constrained Optimization by Constrained Genetic Algorithm (GA).** *Systems and Computers in Japan*, 35(5):11-22, May 2004.
1151. Tetsuyuki Takahama and Setsuko Sakai. **Constrained Optimization by Applying the Constrained Method to the Nonlinear Simplex Method with Mutations.** *IEEE Transactions on Evolutionary Computation*, 9(5):437-451, October 2005.
1152. T. Takahama, S. Sakai and N. Iwane. **Constrained optimization by the constrained hybrid algorithm of particle swarm optimization and genetic algorithm.** In *AI 2005: Advances in Artificial Intelligence*, pages 389-400. Springer-Verlag, 2005. Lecture Notes in Artificial Intelligence Vol. 3809.
1153. Tetsuyuki Takahama, Setsuko Sakai and Noriyuki Iwane. **Constrained Optimization by the Constrained Hybrid Algorithm of Particle Swarm Optimization and Genetic Algorithm**, in *18th Australian Joint Conference on Artificial Intelligence*, pp. 389-400, Springer. Lecture Notes in Computer Science, Vol. 3809, Sydney, Australia, December 5-9 2005.
1154. Tetsuyuki Takahama and Setsuko Sakai. **Constrained Optimization by the Constrained Differential Evolution with Gradient-Based Mutation and Feasible Elites**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 308--315, IEEE, Vancouver, BC, Canada, July 2006
1155. Tetsuyuki Takahama, Setsuko Sakai and Noriyuki Iwane. **Solving Nonlinear Constrained Optimization Problems by the Constrained Differential Evolution**, in *Proceedings of the 2006 IEEE International Conference on Systems, Man and Cybernetics*, pages 2322-2327, Taipei, Taiwan, October 2006. IEEE Press.
1156. Tetsuyuki Takahama and Setsuko Sakai. **Solving constrained optimization problems by the epsilon constrained particle swarm optimizer with adaptive velocity limit control**, in *2006 IEEE Conference on Cybernetics and Intelligent Systems*, pp. 133--139, IEEE Press, Bangkok, Thailand, June 7-9, 2006, ISBN 978-1-4244-0022-5.
1157. Tetsuyuki Takahama and Setsuko Sasai. **Constrained Optimization by Constrained Differential Evolution with Dynamic -Level Control**, in Uday K. Chakraborty (Editor), *Advances in Differential Evolution*, pp. 139--154,

1158. Tetsuyuki Takahama and Setsuko Sakai. **Fast And Stable Constrained Optimization by the Epsilon Constrained Differential Evolution**, *Pacific Journal of Optimization*, Vol. 5, No. 2, pp. 261-282, May 2009.
1159. Tetsuyuki Takahama and Setsuko Sakai. **Solving Difficult Constrained Optimization Problems by the ϵ -Constrained Differential Evolution with Gradient-Based Mutation**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 3, pp. 51-72, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
1160. Tetsuyuki Takahama and Setsuko Sakai. **Constrained Optimization by the Constrained Differential Evolution with an Archive and Gradient-Based Mutation**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1680--1688, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1161. Tetsuyuki Takahama and Setsuko Sakai. **Efficient constrained optimization by the constrained adaptive differential evolution**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 2052--2059, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1162. Tetsuyuki Takahama and Setsuko Sakai. **Efficient Constrained Optimization by the Constrained Rank-Based Differential Evolution**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 62--69, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1163. Tetsuyuki Takahama and Setsuko Sakai. **Efficient Constrained Optimization by the Constrained Differential Evolution with Rough Approximation Using Kernel Regression**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1334--1341, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1164. Takeo Takeno and Yasuhiro Tsujimura. **Effect of the Service Time Constraint in Permutation Representation Method for Vehicle Routing Problem**, in Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 1, pages 100-104, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
1165. K.C. Tan, T.H. Lee, E.F. Khor, C.M. Heng and D. Khoo. **Nonlinear Constraint Handling Techniques via Angular Transformation**. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 655--662, San Francisco, California, July

2001. Morgan Kaufmann Publishers.

1166. K.C. Tan, T.H. Lee, D.-Khoo and E.F. Khor. **Constrained Evolutionary Exploration via Genetic Structure of Packet Distribution.** *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 1, pages 693-703, Piscataway, New Jersey, May 2001. IEEE Service Center.
1167. Wanman Tang and Yanda Li. **Constrained Optimization using Triple Spaces Cultured Genetic Algorithm**, in M.Z. Guo, L. Zhao and L.P. Wang (editors), *Fourth International Conference on Natural Computation (ICNC 2008)*, pp. 589--593, IEEE Computer Society Press, Jian, China, October 18-20, 2008, ISBN 978-0-7695-3304-9.
1168. Lixin Tang, Ping Yan. **Particle Swarm Optimization Algorithm for a Batching Problem in the Process Industry**, *Industrial & Engineering Chemistry Research*, Vol. 48, No. 20, pp. 9186-9194, October 21, 2009.
1169. Ke-Zong Tang, Ting-Kai Sun and Jing-Yu Yang. **An improved genetic algorithm based on a novel selection strategy for nonlinear programming problems**, *Computers & Chemical Engineering*, Vol. 35, No. 4, pp. 615--621, April, 2011.
1170. Kezong Tang, Jingyu Yang, Haiyan Chen and Shang Gao. **Improved genetic algorithm for nonlinear programming problems**, *Journal of Systems Engineering and Electronics*, Vol. 22, No. 3, pp. 540--546, June, 2011.
1171. Yang Tang, Zidong Wang, Huijun Gao, Stephen Swift and Jürgen Kurths. **A Constrained Evolutionary Computation Method for Detecting Controlling Regions of Cortical Networks**, *IEEE-ACM Transactions on Computational Biology and Bioinformatics*, Vol. 9, No. 6, pp. 1569--1581, November-December 2012.
1172. Maolin Tang and Shenchen Pan. **A Hybrid Genetic Algorithm for the Minimum Interconnection Cut Problem**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 3004--3011, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1173. Jili Tao, Qinru Fan, Xiaoming Chen and Yong Zhu. **Constraint multi-objective automated synthesis for CMOS operational amplifier**, *Neurocomputing*, Vol. 98, pp. 108--113, December 3, 2012.
1174. M. Fatih Tasgetiren and P. N. Suganthan. **A Multi-Populated Differential Evolution Algorithm for Solving Constrained Optimization Problem**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 340--354, IEEE, Vancouver, BC, Canada, July 2006
1175. M. Fatih Tasgetiren, P. Nagaratnam Suganthan, Quan-Ke Pan, Rammohan

Mallipeddi and Sedat Sarman. **An ensemble of differential evolution algorithms for constrained function optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 967--975, IEEE Press, Barcelona, Spain, July 18--23, 2010.

1176. M. Fatih Tasgetiren, Quan-Ke Pan, Damla Kizilay and Gursel Suer. **A Differential Evolution Algorithm with Variable Neighborhood Search for Multidimensional Knapsack Problem**, in *2015 IEEE Congress on Evolutionary Computation (CEC)*, pp. 2797--2804, IEEE Press, Sendai, Japan, 25-28 May, 2015, ISBN 978-1-4799-7492-4.
1177. David M. Tate and Alice E. Smith. **A Genetic Approach to the Quadratic Assignment Problem**. *Computers and Operations Research*, 22(1):73-78, 1995.
1178. Hugo Terashima-Marín, Peter Ross and Manuel Valenzuela-Rendón. **Application of the Hardness Theory when Solving the Timetabling Problem with Genetic Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 1999 (CEC'99)*, volume 1, pages 604-611, Piscataway, New Jersey, July 1999. IEEE Service Center.
1179. Hugo Terashima-Marín, Peter Ross and Manuel Valenzuela-Rendón. **Evolution of Constraint Satisfaction Strategies in Examination Timetabling**, in Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, pages 635-642, San Francisco, California, July 1999. Morgan Kaufmann.
1180. H. Terashima-Marín and J. C. Ortiz-Bayliss and P. Ross and M. Valenzuela-Rendón. **Hyper-heuristics for the Dynamic Variable Ordering in Constraint Satisfaction Problems**, *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pp. 571--578, ACM Press, Atlanta, USA, July 2008, ISBN 978-1-60558-131-6.
1181. Biruk Tessema and Gary G. Yen. **A Self Adaptative Penalty Function Based Algorithm for Constrained Optimization**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 950--957, IEEE, Vancouver, BC, Canada, July 2006.
1182. Biruk Tessema and Gary G. Yen. **An Adaptive Penalty Formulation for Constrained Evolutionary Optimization**, *IEEE Transactions on Systems, Man and Cybernetics Part A---Systems and Humans*, Vol. 39, No. 3, pp. 565-578, May 2009.
1183. Sam R. Thangiah. **An Adaptive Clustering Method using a Geometric Shape for Vehicle Routing Problems with Time Windows**, in Larry J. Eshelman (editor), *Proceedings of the Sixth International Conference on Genetic Algorithms (ICGA-95)*, pages 536-543, San Mateo, California, July 1995.

1184. Dhananjay Thiruvady and Christian Blum and Bernd Meyer and Andreas Ernst. **Hybridizing Beam-ACO with Constraint Programming for Single Machine Job Scheduling**, in María J. Blesa, Christian Blum, Luca Di Gaspero, Andrea Roli, Michael Sampels and Andrea Schaerf, (editors), *Hybrid Metaheuristics, 6th International Workshop, HM 2009*, pp. 30-44, Springer, Lecture Notes in Computer Science, Vol. 5818, Udine, Italy, October, 2009.
1185. Dhananjay Thiruvady, Bernd Meyer and Andreas T. Ernst. **Car Sequencing with Constraint-Based ACO**, in *2011 Genetic and Evolutionary Computation Conference (GECCO'2011)*, pp. 163--170, ACM Press, Dublin, Ireland, July 12-16, 2011.
1186. T. O. Ting, K. P. Wong and C. Y. Chung. **Hybrid constrained genetic algorithm/particle swarm optimisation load flow algorithm**, *IET Generation Transmission & Distribution*, Vol. 2, No. 6, pp. 800--812, November 2008.
1187. José Carlos Vilela 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.
1188. Georg Thierauf and Jianbo Cai. **Structural Optimization Based on Evolution Strategies**, in M. Papadrakakis (editor), *Parallel Solution Methods in Computational Mechanics*, pages 335-361. John Wiley & Sons, 1997.
1189. Y.C. Toklu. **Application of Genetic Algorithms to Construction Scheduling With or Without Resource Constraints**. *Canadian Journal of Civil Engineering*, 29(3):421-429, 2002.
1190. Giordano Tomassetti. **A cost-effective algorithm for the solution of engineering problems with particle swarm optimization**, *Engineering Optimization*, Vol. 42, No. 5, pp. 471-495, 2010.
1191. Thomas Tometzki and Sebastian Engell. **Systematic Initialization Techniques for Hybrid Evolutionary Algorithms for Solving Two-Stage Stochastic Mixed-Integer Programs**, *IEEE Transactions on Evolutionary Computation*, Vol. 15, No. 2, pp. 196--214, April 2011.
1192. Gregorio Toscano-Pulido and Carlos A. Coello Coello. **A Constraint-Handling Mechanism for Particle Swarm Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 1396-1403,

Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.

1193. Rosario Toscano and Patrick Lyonnet. **Heuristic Kalman Algorithm for Solving Optimization Problems**, *IEEE Transactions on Systems Man and Cybernetics Part B-Cybernetics*, Vol. 39, No. 5, pp. 1231-1244, October 2009.
1194. Edward Tsang and Nanlin Jin. **Incentive Method to Handle Constraints in Evolutionary Algorithms with a Case Study**, in Pierre Collet, Marco Tomassini, Marc Ebner, Steven Gustafson and Anikó Ekárt (editors), *Genetic Programming, 9th European Conference, EuroGP 2006*, pp. 133-144, Springer. Lecture Notes in Computer Science Vol. 3905, Budapest, Hungary, April 2006.
1195. Ioannis G. Tsoulos. **Solving Constrained Optimization Problems Using a Novel Genetic Algorithm**, *Applied Mathematics and Computation*, Vol. 208, No. 1, pp. 273-283, February 1 2009.
1196. Lin-Yu Tseng and Chun Chen. **Multiple Trajectory Search for single objective constrained real-parameter optimization problems**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 3433--3441, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1197. Yasuhiro Tsujimura, Mitsuo Gen and Admi Syarif. **Solving a Nonlinear Side Constrained Transportation Problem by Using Spanning Tree-based Genetic Algorithm with Fuzzy Logic Controller**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 546-551, Piscataway, New Jersey, May 2002. IEEE Service Center.
1198. Milan Tuba and Nebojsa Bacanin. **Improved seeker optimization algorithm hybridized with firefly algorithm for constrained optimization problems**, *Neurocomputing*, Vol. 143, pp. 197--207, November 2, 2014.
1199. Milan Tuba and Nebojsa Bacanin. **Artificial Bee Colony Algorithm Hybridized with Firefly Algorithm for Cardinality Constrained Mean-Variance Portfolio Selection Problem**, *Applied Mathematics & Information Sciences*, Vol. 8, No. 6, pp. 2831--2844, November 2014.
1200. Rupesh Tulshyan, Ramnik Arora, Kalyanmoy Deb and Joydeep Dutta. **Investigating EA Solutions for Approximate KKT Conditions in Smooth Problems**, in *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pp. 689-696, ACM Press, Portland, Oregon, USA, July 7--11, 2010. ISBN 978-1-4503-0072-8.
1201. Josef Tvrđik and Radka Poláková. **Enhanced competitive differential evolution for constrained optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1632--1639, IEEE Press, Barcelona, Spain, July 18--23, 2010.

U

1202. Kento Uemura, Naotoshi Nakashima, Yuichi Nagata and Isao Ono. **A New Real-coded Genetic Algorithm for Implicit Constrained Black-box Function Optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2887--2894, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1203. Abu S.S.M. Barkat Ullah, Ruhul Sarker, David Cornforth and Chris Lokan. **An Agent-based Memetic Algorithm (AMA) for Solving constrained Optimization Problems**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 999-1006, IEEE Press, Singapore, September 2007.
1204. Abu S.S.M. Barkat Ullah and Ruhul Sarker and David Cornforth. **Search Space Reduction Technique for Constrained Optimization with Tiny Feasible Space**, *2008 Genetic and Evolutionary Computation Conference (GECCO'2008)*, pp. 881--888, ACM Press, Atlanta, USA, July 2008, ISBN 978-1-60558-131-6.
1205. Abu S.S.M. Barkat Ullah, Ehab Z. Elfeky, David Cornforth, Daryl L. Essam and Ruhul Sarker. **Improved Evolutionary Algorithms for Solving Constrained Optimization Problems with Tiny Feasible Space**, in *2008 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2008)*, pp. 1425--1432, IEEE Press, Singapore, October 12-15, 2008, ISBN 978-1-4244-2383-5.
1206. Abu S.S.M. Barkat Ullah, Ruhul Sarker, David Cornforth and Chris Lokan. **AMA: a new approach for solving constrained real-valued optimization problems**, *Soft Computing*, Vol. 13, No. 8-9, pp. 741-762, July 2009.
1207. Abu S.S.M. Barkat Ullah, Ruhul Sarker and Chris Lokan. **An Agent-Based Memetic Algorithm (AMA) for Nonlinear Optimization with Equality Constraints**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 70-77, IEEE Service Center, Trondheim, Norway, May 2009.
1208. Abu S.S.M. Barkat Ullah, Ruhul Sarker, David Cornforth and Chris Lokan. **AMA: a new approach for solving constrained real-valued optimization problems**, *Soft Computing - A Fusion of Foundations, Methodologies and Applications*, Vol. 13, No. 8--9, pp. 741-762, July 2009.
1209. Abu S.S.M. Barkat Ullah, Ruhul Sarker and Chris Lokan. **Handling equality**

1210. Costin D. Untaroiu and Alexandrina Untaroiu. **Constrained Design Optimization of Rotor-Tilting Pad Bearing Systems**, *Journal of Engineering for Gas Turbines and Power-Transactions of the Asme*, Vol. 132, No. 12, Article No. 122502, December, 2010.
1211. Maren Urselmann, Sabine Barkmann, Guido Sand and Sebastian Engell. **A Memetic Algorithm for Global Optimization in Chemical Process Synthesis Problems**, *IEEE Transactions on Evolutionary Computation*, Vol. 15, No. 5, pp. 659--683, October 2011.
1212. Maren Urselmann, Christophe Foussette, Tim Janus, Stephen Tlatlik, Axel Gottschalk, Michael T.M. Emmerich, Sebastian Engell and Thomas Bäck. **Selection of a DFO Method for the Efficient Solution of Continuous Constrained Sub-Problems within a Memetic Algorithm for Chemical Process Synthesis**, in *2016 Genetic and Evolutionary Computation Conference (GECCO'2016)*, pp. 1029--1036, ACM Press, Denver, Colorado, USA, 20-24 July, 2016, ISBN 978-1-4503-4206-3.
1213. Sima Uyar and Gülsen Eryigit. **Improvements to penalty-based evolutionary algorithms for the multi-dimensional knapsack problem using a gene-based adaptive mutation operator**, in H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cant Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Mancoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)* volume 2, pages 1257-1264, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.
1214. Sima Uyar and H. Turgut Uyar. **A Critical Look at Dynamic Multi-dimensional Knapsack Problem Generation**, in Mario Giacobini, Anthony Brabazon, Stefano Cagnoni, Gianni A. Di Caro, Anikó Ekárt, Anna Isabel Esparcia-Alcázar, Muddassar Farooq, Andreas Fink and Penousal Machado, (editors), *Applications of Evolutionary Computing (EvoWorkshops 2009)*, pp. 762-767, Springer, Lecture Notes in Computer Science, Vol. 5484, Heidelberg, Germany, 2009.

V

1215. Jano. I. van Hemert and Thomas Bäck. **Measuring the Searched Space to**

Guide Efficiency: The Principle and Evidence on Constraint Satisfaction, in Juan Julián Merelo Guervós, Panagiotis Adamidis, Hans-Georg Beyer, José-Luis Fernández-Villacañas and Hans-Paul Schwefel (editors), *Proceedings of the 7th Parallel Problem Solving from Nature (PPSN VII)*, pages 23-32, Heidelberg, Germany, September 2002. Granada, Spain, Springer-Verlag. Lecture Notes in Computer Science Vol. 2439.

1216. J.I. van Hemert. **Evolving Binary Constraint Satisfaction Problem Instances that are Difficult to Solve**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 1267-1273, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1217. A. H. C. vanKampen, C. S. Strom and L. M. C. Buydens. **Lethalization, penalty and repair functions for constraint handling in the genetic algorithm methodology**, *Chemometrics and Intelligent Laboratory Systems*, Vol. 34, No. 1, pp. 55-68, August 1996.
1218. Kriangsak Vanitchakornpong, Nakorn Indra-Payoong, Agachai Sumalee and Pairoj Raothanachonkun. **Constrained Local Search Method for Bus Fleet Scheduling Problem with Multi-depot with Line Change**, in Mario Giacobini et al. (editors), *Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC and EvoTransLog*, pp. 679-688, Springer, Lecture Notes in Computer Science Vol. 4974, Naples, Italy, March 2008.
1219. Gervasio Varela, Pilar Caamaño, Felix Orjales, Alvaro Deibe, Fernando Lopez-Pena and Richard J. Duro. **Differential Evolution in Constrained Sampling Problems**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 2375--2382, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
1220. Dênis E. C. Vargas, Afonso C.C. Lemonge, Helio J.C. Barbosa and Heder S. Bernardino. **Differential Evolution with the Adaptive Penalty Method for Constrained Multiobjective Optimization**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1342--1349, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1221. A. Ismael F. Vaz and Luis N. Vicente. **A particle swarm pattern search method for bound constrained global optimization**, *Journal of Global Optimization*, Vol. 39, No. 2, pp. 197--219, October 2007.
1222. Neelankantam V. Venkatarayalu and Tapabrata Ray. **Single and Multi-objective design of Yagi-Uda Antennas using Computational Intelligence**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 1237-1242, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.

1223. Sangameswar Venkatraman and Gary G. Yen. **A Simple Elitist Genetic Algorithm for Constrained Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 288-295, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
1224. Sangameswar Venkatraman and Gary G. Yen. **A Generic Framework for Constrained Optimization Using Genetic Algorithms**. *IEEE Transactions on Evolutionary Computation*, 9(4), August 2005.
1225. P. Venkatesh, R. Gnanadass and N. P. Padhy. **Comparison and application of evolutionary programming techniques to combined economic emission dispatch with line flow constraints**, *IEEE Transactions on Power Systems*, Vol. 18, No. 2, pp. 688--697, May 2003.
1226. G. Venter and R. T. Haftka. **Constrained particle swarm optimization using a bi-objective formulation**, *Structural and Multidisciplinary Optimization*, Vol. 40, No. 1-6, pp. 65-76, January, 2010.
1227. Marta Verdaguer, Narcis Clara and Manel Poch. **Ant colony optimization-based method for managing industrial influents in wastewater systems**, *AIChE Journal*, Vol. 58, No. 10, pp. 3070--3079, October 2012.
1228. Douglas A.G. Vieira, Ricardo L.S. Adriano, Laurent Krähenbühl and Joao A. Vasconcelos. **Handling Constraints as Objectives in a Multiobjective Genetic Based Algorithm**. *Journal of Microwaves and Optoelectronics*, 2(6):50-58, December 2002.
1229. D.A.G. Vieira, R.L.S. Adriano, J.A. Vasconcelos and L. Krahenbuhl. **Treating constraints as objectives in multiobjective optimization problems using niched pareto genetic algorithm**, *IEEE Transactions on Magnetics*, Vol. 40, No. 2, pp. 1188--1191, March 2004.
1230. K. Vijayalakshmi and S. Radhakrishnan. **Artificial immune based hybrid GA for QoS based multicast routing in large scale Artificial immune based hybrid GA for QoS based multicast routing in large scale networks (AISMR)**, *Computer Communications*, Vol. 31, No. 17, pp. 3984-3994, November 20 2008.
1231. K. Vijayalakshmi and S. Radhakrishnan. **A novel hybrid immune-based GA for dynamic routing to multiple destinations for overlay networks**, *Soft Computing*, Vol. 14, No. 11, pp. 1227-1239, September, 2010.
1232. A. Villagra, D. Pandolfi and G. Leguizamon. **Handling constraints with an evolutionary tool for scheduling oil wells maintenance visits**, *Engineering Optimization*, Vol. 45, No. 8, pp. 963--981, August 1, 2013.

1233. Miguel G. Villarreal-Cervantes, Carlos A. Cruz-Villar and Jaime Alvarez-Gallegos. **Structure-Control Mechatronic Design of the Planar 5R 2DoF Parallel Robot**, in *Proceedings of the 2009 IEEE International Conference on Mechatronics (ICM'2009)*, pp. 77-82, IEEE Press, Málaga, Spain, April, 2009.
1234. Miguel G. Villarreal-Cervantes, Carlos A. Cruz-Villar, Jaime Alvarez-Gallegos and Edgar A. Portilla-Flores. **Differential evolution techniques for the structure-control design of a five-bar parallel robot**, *Engineering Optimization*, Vol. 42, No. 6, pp. 535-565, 2010.
1235. Angela Vincenti, Mohammad Reza Ahmadian and Paolo Vannucci. **BIANCA: a genetic algorithm to solve hard combinatorial optimisation problems in engineering**, *Journal Of Global Optimization*, Vol. 48, No. 3, pp. 399-421, November, 2010.
1236. Mark S. Voss and Christopher M. Foley. **Evolutionary Algorithm for Structural Optimization**, in Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honovar, Mark Jakiela and Robert E. Smith (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'99)*, volume 1, pages 678-685, San Francisco, California, July 1999. Morgan Kaufmann.

W

1237. B. W. Wah and T. Wang. **Simulated Annealing with Asymptotic Convergence for Nonlinear Constrained Global Optimization**. In *Proceedings of Principles and Practice of Constraint Programming*, pages 461-475. Springer-Verlag, October 1999.
1238. B. W. Wah and T. Wang. **Constrained Simulated Annealing with Applications in Nonlinear Continuous Constrained Global Optimization**, in *Proceedings of the 11th IEEE Int'l Conf. on Tools with Artificial Intelligence*, pages 381-388, November 1999.
1239. Benjamin W. Wah. **Stochastic Search Algorithms in Constrained Global Optimization**. In *4th Int'l Conf. on Algorithms and Architectures for Parallel Processing*, Hong Kong, Dec 2000.
1240. B. W. Wah and Y. X. Chen. **Optimal Anytime Constrained Simulated Annealing for Constrained Global Optimization**, in *Proceedings of Principles and Practice of Constraint Programming*. Springer-Verlag, September 2000.

1241. Benjamin W. Wah and Yi-Xin Chen. **Constrained Genetic Algorithms and their Applications in Nonlinear Constrained Optimization**, in *Proceedings of the Twelfth IEEE International Conference on Tools with Artificial Intelligence ICTAI'2000*, pages 286-293, Los Alamitos, California, November 2000. IEEE Computer Society.
1242. B. W. Wah and T. Wang. **Tuning Strategies of Constrained Simulated Annealing for Nonlinear Global Optimization**. *Int'l J. of Artificial Intelligence Tools*, 9(1):3-25, 2000.
1243. Benjamin W. Wah and Yixin Chen. **Hybrid Constrained Simulated Annealing and Genetic Algorithms for Nonlinear Constrained Optimization**. In *Proceedings of the Congress on Evolutionary Computation 2001 (CEC'2001)*, volume 2, pages 925-932, Piscataway, New Jersey, May 2001. IEEE Service Center.
1244. Benjamin W. Wah and Yi-Xin Chen. **Constrained Genetic Algorithms and Their Applications in Nonlinear Constrained Optimization**, in Ruhul Sarker, Masoud Mohammadian and Xin Yao (eds.) [*Evolutionary Optimization*](#), pages 253-275, Kluwer Academic Publishers, New York, February 2002, ISBN 0-7923-7654-4.
1245. Benjamin W. Wah, Yixin Chen and Tao Wang. **A Simulated annealing with asymptotic convergence for nonlinear constrained optimization**, *Journal of Global Optimization*, Vol. 39, No. 1, pp. 1-37, September 2007.
1246. Benjamin W. Wah, Yixin Chen and Tao Wang. **Theory and Applications of Simulated Annealing for Nonlinear Constrained Optimization**, in Cher Ming Tan (editor), *Simulated Annealing*, chapter 9, pp. 155-186, In-Teh, Croatia, September 2008. ISBN 978-953-7619-07-7.
1247. Chunqiu Wan, Jun Wang, Geng Yang and Xing Zhang. **Optimal Micro-siting of Wind Farms by Particle Swarm Optimization**, in Ying Tan, Yuhui Shi and Kay Chen Tan (editors), *Advances in Swarm Intelligence, First International Conference, ICSI 2010*, pp. 198--205, Springer. Lecture Notes in Computer Science Vol. 6145, Beijing, China, June 12-15, 2010.
1248. T. Wang. [**Global Optimization of Constrained Nonlinear Programming**](#). PhD thesis, Dept. of Computer Science, Univ. of Illinois, Illinois, December 2000.
1249. Sheng Yin Wang and Kang Tai. **A Bit-Array Representation GA for Structural Topology Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 1, pages 671-677, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1250. Ling Wang and Fang Tang. **NN-Based GA for Engineering Optimization**, in

Fuliang Yin, Jun Wang and Chengan Guo (editors), *International Symposium on Neural Networks 2004 (ISNN 2004)*, pp. 448-453, Springer. Lecture Notes in Computer Science, Vol. 3173, Dalian, China, August 19-21 2004.

1251. Yuping Wang, Dalian Liu and Yiu-Ming Cheung. **Preference bi-objective evolutionary algorithm for constrained optimization.** *Computational Intelligence and Security. International Conference, CIS 2005*, volume 3801, pages 184-191, Xi'an, China, December 2005. Springer-Verlag. Lecture Notes in Artificial Intelligence.
1252. Yuping Wang, Yong-Chang Jiao and Hong Li. **An Evolutionary Algorithm for Solving Nonlinear Bilevel Programming Based on a New Constraint-Handling Scheme** *IEEE Transactions on Systems, Man and Cybernetics--Part C: Applications and Reviews*, Vol 35, No. 2, pp 221--232, May 2005.
1253. Nianfeng Wang and Kang Tai. **A Structural Optimization Problem Formulation for Design of Compliant Gripper Using a Genetic Algorithm**, in C. A. Mota Soares, J. A. C. Martins, H. C. Rodrigues, Jorge A. C. Ambrósio, C. A. B. Pina, C. M. Mota Soares, E. B. R. Pereira and J. Folgado (editors), *III European Conference on Computational Mechanics. Solids, Structures and Coupled Problems in Engineering: Book of Abstracts*, pp. 456, Springer, Lisbon, Portugal, June 5-8 2006. ISBN 978-1-4020-4994-1.
1254. Yong Wang, Zixing Cai, Guanqi Guo and Yuren Zhou. **Multiobjective optimization and hybrid evolutionary algorithm to solve constrained optimization problems.** *IEEE Transactions on Systems, Man and Cybernetics Part B--Cybernetics*, 37(3):560-575, June 2007.
1255. Yong Wang, Hui Liu, Zixing Cai and Yuren Zhou. **An orthogonal design based constrained evolutionary optimization algorithm.** *Engineering Optimization*, Vol. 39, No. 6, pp. 715--736, September 2007.
1256. Yong Wang, Zixing Cai, Yuren Zhou and Wei Zeng. **An Adaptive Tradeoff Model for Constrained Evolutionary Optimization**, *IEEE Transactions on Evolutionary Computation*, Vol. 12, No. 1, pp. 80--92, February 2008.
1257. N. F. Wang, Y. W. Yang and K. Tai. **Optimization of Structures Under Load Uncertainties Based on Hybrid Genetic Algorithm**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 4040-4045, IEEE Service Center, Hong Kong, June 2008.
1258. Jinhua Wang and Zeyong Yin. **A ranking selection-based particle swarm optimizer for engineering design optimization problems**, *Structural and Multidisciplinary Optimization*, Vol. 37, No. 2, pp. 131-147, December 2008.
1259. Yong Wang, Zixing Cai, Yuren Zhou and Zhun Fan. **Constrained optimization based on hybrid evolutionary algorithm and adaptive**

constraint-handling technique, *Structural and Multidisciplinary Optimization*, Vol. 37, No. 4, pp. 395--413, January 2009.

1260. Yong Wang and Zixing Cai. **A hybrid multi-swarm particle swarm optimization to solve constrained optimization problems**, *Frontiers of Computer Science in China*, Vol. 3, No. 1, pp. 38-52, March, 2009.
1261. Yong Wang, Zixing Cai and Yuren Zhou. **Accelerating adaptive trade-off model using shrinking space technique for constrained evolutionary optimization**, *International Journal for Numerical Methods in Engineering*, Vol. 77, No. 11, pp. 1501-1534, March 2009.
1262. Wanliang Wang, Huixu Teng, Zheng Wang and Yanwei Zhao. **Model for Planning Problem Of Diaphragm Caustic Soda and Its Approach Based on Particle Swarm Optimization Algorithm**, in Marcos R. S. Borges, Weiming Shen, José A. Pino, Jean-Paul A. Barthès, Junzhou Luo, Sergio F. Ochoa and Jianming Yong, (editors), *Proceedings of the 13th International Conference on Computers Supported Cooperative Work in Design (CSCWD'2009)*, pp. 56-61, IEEE Press, Santiago, Chile, April 22-24, 2009.
1263. Ling Wang and Ling-po Li. **An effective differential evolution with level comparison for constrained engineering design**, *Structural and Multidisciplinary Optimization*, Vol. 41, No. 6, pp. 947-963, June, 2010.
1264. Qiaoling Wang, Xiao-Zhi Gao and Changhong Wang. **An Adaptive Bacterial Foraging Algorithm For Constrained Optimization**, *International Journal of Innovative Computing Information and Control*, Vol. 6, No. 8, pp. 3585-3593, August, 2010.
1265. Yong Wang and Zixing Cai. **Hybrid differential evolution and adaptive trade-off model to solve constrained optimization problems**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 2846--2850, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1266. Yu Wang, Bin Li, Guang Mei Jing, Peng Wang and Jianyu Wang. **Research of constraint handling techniques for Economic Load Dispatch of power system**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 3950--3957, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1267. Ling Wang and Ling-Po Li. **Fixed-Structure H-infinity Controller Synthesis Based on Differential Evolution with Level Comparison**, *IEEE Transactions on Evolutionary Computation*, Vol. 15, No. 1, pp. 120--129, February, 2011.
1268. Yong Wang and Zixing Cai. **Constrained Evolutionary Optimization by Means of ($\mu + \lambda$)-Differential Evolution and Improved Adaptive Trade-Off Model**, *Evolutionary Computation*, Vol. 19, No. 2, pp. 249--285, Summer, 2011.

1269. Yong Wang. **Evolutionary Algorithms for Complex Continuous Optimization Problems**, PhD thesis, School of Information Science and Engineering, Central South University, China, May 2011 ([abstract](#)).
1270. Yu Wang, Bin Li and Kaibo Zhang. **Estimation of Distribution and Differential Evolution Cooperation for Real-world Numerical Optimization Problems**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 1315--1321, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
1271. Yong Wang and Zixing Cai. **Combining Multiobjective Optimization with Differential Evolution to Solve Constrained Optimization Problems**, *IEEE Transactions on Evolutionary Computation*, Vol. 16, No. 1, pp. 117-134, February 2012.
1272. Yong Wang and Zixing Cai. **A Dynamic Hybrid Framework for Constrained Evolutionary Optimization**, *IEEE Transactions on Systems, Man, and Cybernetics Part B--Cybernetics*, Vol. 42, No. 1, pp. 203--217, February 2012.
1273. Yong Wang, Bing-Chuan Wang, Han-Xiong Li and Gary G. Yen. **Incorporating Objective Function Information Into the Feasibility Rule for Constrained Evolutionary Optimization**, *IEEE Transactions on Cybernetics*, Vol. 46, No. 12, pp. 2938--2952, December 2016.
1274. Elizabeth F. Wanner, Frederico G. Guimaraes, Ricardo H.C. Takahashi, Rodney R. Saldanha and Peter J. Fleming. **Constraint quadratic approximation operator for treating equality constraints with genetic algorithms**, in *2005 IEEE Congress on Evolutionary Computation (CEC'2005)* volume 3, pages 2255-2262, Edinburgh, Scotland, September 2005. IEEE Press.
1275. Elizabeth F. Wanner, Federico G. Guimaraes, Ricardo H. C. Takahashi and Peter J. Flemming. **Local Search with Quadratic Approximation in Genetic Algorithms for Expensive Optimization Problems**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 677-683, IEEE Press, Singapore, September 2007.
1276. Jingxuan Wei and Yuping Wang. **A Novel Multi-objective PSO Algorithm for Constrained Optimization Problems**. In T.-D. Wang et al. (editor), *Simulated Evolution and Learning (SEAL 2006)*, pages 174-180. Springer. Lecture Notes in Computer Science Vol. 4247, 2006.
1277. Jingxuan Wei and Yuping Wang. **An Infeasible Elitist Based Particle Swarm Optimization For Constrained Multiobjective Optimization and Its Convergence**, *International Journal Of Pattern Recognition And Artificial Intelligence*, Vol. 24, No. 3, pp. 381-400, May, 2010.

1278. Jingxuan Wei and Yuping Wang. **A Hybrid Particle Swarm Evolutionary Algorithm for Constrained Multi-Objective Optimization**, *Computing and Informatics*, Vol. 29, No. 5, pp. 701--718, 2010.
1279. Jingxuan Wei and Liping Jia. **A Novel Particle Swarm Optimization Algorithm with Local Search for Dynamic Constrained Multi-objective Optimization Problems**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 2436--2443, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1280. Thomas Weise, Michael Zapf, Raymond Chiong and Antonio J. Nebro. **Why Is Optimization Difficult?**, in Raymond Chiong (Editor), *Nature-Inspired Algorithms for Optimisation*, pp. 1--50, Springer, Berlin, ISBN 978-3-642-00266-3, 2009.
1281. Shuhua Wen, Qingbo Lu, Xueliang Zhang and Xiaoli Wang. **A modified differential evolution for constrained optimization**, in J.P. Li, I. Bloshanskii, L.M. Ni, S.S. Pandey and S.X. Yang (editors), *Proceedings of the International Conference on Information Computing and Automation*, pp. 252--255, World Scientific, Hefei, China, December 20-22, 2007, ISBN 978-981-279-948-7.
1282. Simon Wessing. **Repair Methods for Box Constraints Revisited**, in Anna I. Esparcia-Alcázar et al. (editors), *Applications of Evolutionary Computation, 16th European Conference, EvoApplications 2013*, pp. 469--478, Springer. Lecture Notes in Computer Science Vol. 7835, Vienna, Austria, April 3-5, 2013.
1283. Lyndon While and Philip Hingston. **Usefulness of Infeasible Solutions in Evolutionary Search: an Empirical and Mathematical Study**, in *2013 IEEE Congress on Evolutionary Computation (CEC'2013)*, pp. 1363--1370, IEEE Press, Cancún, México, 20-23 June, 2013, ISBN 978-1-4799-0454-9.
1284. D. Whitley, S. Rana and R. Heckendorn. **Representation Issues in Neighborhood Search and Evolutionary Algorithms**, in D. Quagliarella, J. Périaux, C. Poloni and G. Winter (editors), *Genetic Algorithms and Evolution Strategies in Engineering and Computer Science. Recent Advances and Industrial Applications*, chapter 3, pages 39-57. John Wiley and Sons, West Sussex, England, 1998.
1285. Otto Wittner, Poul E. Heegaard and Bjarne E. Helvik. **Scalable Distributed Discovery of Resource Paths in Telecommunication Networks using Cooperative Ant-like Agents**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 2, pages 1456-1465, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1286. Mark Wodrich and George Bilchev. **Cooperative distributed search: the ants'way**. *Control and Cybernetics*, 26(3):413-445, 1997.

1287. Yomas G. Woldesenbet, Biruk G. Tessema and Gary G. Yen. **Constraint Handling in Multi-Objective Evolutionary Optimization**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 3077-3084, IEEE Press, Singapore, September 2007.
1288. Yonas Gebre Woldesenbet, Gary G. Yen and Biruk G. Tessema. **Constraint Handling in Multiobjective Evolutionary Optimization**, *IEEE Transactions on Evolutionary Computation*, Vol. 13, No. 3, pp. 514--525, June 2009.
1289. Kumlachew M. Woldemariam and Gary G. Yen. **Constrained optimization using artificial immune system**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1689--1696, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1290. Kok-Sung Won and Tapabrata Ray. **Performance of kriging and cokriging based Surrogate Models within the Unified Framework for Surrogate Assisted Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 1577-1585, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
1291. Kit Po Wong and An Li. **A Technique for Improving the Convergence Characteristic of Genetic Algorithms and Its Application to a Genetic-Based Load Flow Algorithm**, in Xin Yao, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 1st Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1996)*, pages 167-176, Heidelberg, Germany, November 1996. Taejon, Korea, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1285.
1292. K. P. Wong, A. Li and M. Y. Law. **Development of constrained-genetic-algorithm load-flow method**, *IEE Proceedings-Generation Transmission and Distribution*, Vol. 144, No. 2, pp. 91--99, March 1997.
1293. Kit Po Wong and Jason Yuryevich. **Optimal Power Flow Method Using Evolutionary Programming**, in Bob McKay, Xin Yao, Charles S. Newton, Jong-Hwan Kim and Takeshi Furuhashi (editors), *Proceedings of the 2nd Asia-Pacific Conference on Simulated Evolution and Learning (SEAL 1998)*, pages 405-412, Heidelberg, Germany, November 1998. Canberra, Australia, Springer-Verlag. Lecture Notes in Artificial Intelligence Vol. 1585.
1294. K. P. Wong, A. Li and T. M. Y. Law. **Advanced constrained genetic algorithm load flow method**, *IEE Proceedings-Generation Transmission and Distribution*, Vol. 146, No. 6, pp. 609--616, November 1999.
1295. Chukiat Worasuchep. **Solving Constrained Engineering Optimization Problems by the Constrained PSO-DD**, in *5th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2008)*, pp. 5--8, IEEE Press, Krabi,

Thailand, May 14-17, 2008.

1296. Chukiat Worasucheep. **Solving Constrained Optimization Problems with a Self-Adaptive Differential Evolution Algorithm**, in *6th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2009)*, pp. 646--649, IEEE Press, Chonburi, Thailand, May 6-9, 2009, ISBN 978-1-4244-3387-2.
1297. J.A. Wright and R. Farmani. **Genetic Algorithms: A Fitness Formulation for Constrained Minimization**, in Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon, and Edmund Burke (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 725--732, San Francisco, California, July 2001. Morgan Kaufmann Publishers.
1298. Jonathan Wright and Yi Zhang. **An "Ageing" Operator and Its Use in the Highly Constrained Topological Optimization of HVAC System Design**. In H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cant Paz, D. Dasgupta, K. Deb, J.A. Foster, E.D. de Jong, H. Lipson, X. Llorca, S. Manicoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *2005 Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 2, pages 2075-2082, New York, June 2005. Washington DC, USA, ACM Press.
1299. J.F. Wu, X.Y. Zhu and J.L. Liu. **Using genetic algorithm based simulated annealing penalty function to solve groundwater management model**, *Science in China Series E-Technological Sciences*, Vol. 42, No. 5, pp. 521--529, October 1999.
1300. Jin Wu and Shapour Azarm. **On a New Constraint Handling Technique for Multi-Objective Genetic Algorithms**. In Lee Spector, Erik D. Goodman, Annie Wu, W.B. Langdon, Hans-Michael Voigt, Mitsuo Gen, Sandip Sen, Marco Dorigo, Shahram Pezeshk, Max H. Garzon and Edmund Burke (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2001)*, pages 741--748, San Francisco, California, July 2001. Morgan Kaufmann Publishers.
1301. Baolin Wu and Xinghuo Yu. **Fuzzy Penalty Function Approach for Constrained Function Optimization with Evolutionary Algorithms**, in *Proceedings of the 8th International Conference on Neural Information Processing*, pages 299-304, Shanghai, China, November 2001. Fudan University Press.
1302. Z.Y. Wu and A.R. Simpson. **A Self-Adaptive Boundary Search Genetic**

Algorithm and its Application in Water Distribution Systems. *Journal of Hydraulic Research*, 40(2):191-203, March 2002.

1303. Wen-Hong Wu and Chyi-Yeu Lin. **Hybrid-coded crossover for binary-coded genetic algorithms in constrained optimization.** *Engineering Optimization*, 36(1):101-122, February 2004.
1304. W.H. Wu and C.Y. Lin. **The second generation of self-organizing adaptive penalty strategy for constrained genetic search** *Advances in Engineering Software*, Vol 35, No. 12, pp 815--825, December 2004.
1305. Jui-Yu Wu and Yun-Kung Chung. **Artificial Immune System for Solving Generalized Geometric Problems: A Preliminary Results**, in H.-G. Beyer, U.-M. O'Reilly, D.V. Arnold, W. Banzhaf, C. Blum, E.W. Bonabeau, E. Cantú Paz, D. Dasgupta, K. Deb, J.A. Fost e r, E.D. de Jong, H. Lipson, X. Llor a, S. Mancoridis, M. Pelikan, G.R. Raidl, T. Soule, A. Tyrrell, J.-P. Watson and E. Zitzler (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2005)*, volume 1, pages 329-336, New York, June 2005. Washington DC, USA, ACM Press. ISBN 1-59593-010-8.
1306. Z.Y. Wu and T. Walski. **Self-adaptive penalty approach compared with other constraint-handling techniques for pipeline optimization**, in *Journal of Water Resources Planning and Management-ASCE*, Vol. 131, No. 3, pp. 181--192, May-June 2005.
1307. J.Y. Wu. **Artificial immune system for solving constrained global optimization problems**, in *2007 IEEE Symposium on Artificial Life*, pp. 92--99, IEEE Press, Honolulu, Hawaii, USA, April 1-5, 2007, ISBN 978-1-4244-0701-9.
1308. Yanling Wu, Jiangang Lu and Youxian Sun. **An improved multi-population genetic algorithm for constrained nonlinear optimization**, in *WCICA 2006: Sixth World Congress on Intelligent Control and Automation*, pp. 1910--1914, IEEE Press, Dalian, China, June 21-23, 2006, ISBN 1-4244-0331-6.
1309. Yu Wu, Yuanxiang Li and Xing Xu. **A Novel Component-Based Model and Ranking Strategy in Constrained Evolutionary Optimization**, in Ronghuai Huang, Qiang Yang, Jian Pei, João Gama, Xiaofeng Meng, and Xue Li (editors), *Advanced Data Mining and Applications, 5th International Conference, ADMA'2009*, pp. 362--373, Springer. Lecture Notes in Artificial Intelligence Vol. 5678, Beijing, China, August 17-19, 2009.
1310. Jui-Yu Wu, Chi-Jie Lu and Shi-Chang Wang. **Solving Nonlinear Programming Problems via Advanced Simulated Annealing**, *Proceedings of the 2nd International Conference on Advanced Computer Theory and Engineering (ICACTE 2009)*, pp. 1637-1644, ACM Press, Cairo, Egypt, September 2009.

1311. Chun-Yin Wu and Ko-Ying Tseng. **A nonlinear interval-based optimization method with local-densifying approximation technique**, *Structural And Multidisciplinary Optimization*, Vol. 42, No. 4, pp. 575-590, October, 2010.
1312. Jui-Yu Wu. **Solving Constrained Global Optimization Via Artificial Immune System**, *International Journal on Artificial Intelligence Tools*, Vol. 20, No. 1, pp. 1--27, February, 2011.
1313. Jui-Yu Wu. **Solving constrained global optimization problems by using hybrid evolutionary computing and artificial life approaches**, *Mathematical Problems in Engineering*, Article Number: 841410, 2012.
1314. Yi-Ling Wu, Shyong Jian Shyu, Tsu-Feng Ho and Bertrand M.T. Lin. **Discrete particle swarm optimization for materials acquisition in multi-unit libraries**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 2250--2256, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1315. Guohua Wu, Witold Pedrycz, P.N. Suganthan and Rammohan Mallipeddi. **A Variable Reduction Strategy for Evolutionary Algorithms Handling Equality Constraints**, *Applied Soft Computing*, Vol. 37, pp. 774--786, December 2015.

X

1316. Yu Xia, Malgorzata Chrzanowska-Jeske and Benyi Wang. **Core-based SoC Test Scheduling Using Evolutionary Algorithm**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1716-1723, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1317. Jing Xiao, Zbigniew Michalewicz and Krzysztof Trojanowski. **Adaptive Evolutionary Planner/Navigator for Mobile Robots**. *IEEE Transactions on Evolutionary Computation*, 1(1):18-28, 1997.
1318. Jing Xiao, Zbigniew Michalewicz and Lixin Zhang. **Evolutionary Planner/Navigator: Operator Performance and Self-Tuning**, in *Proceedings of the 3rd IEEE International Conference on Evolutionary Computation*, Nagoya, Japan, May 1996. IEEE Press.
1319. Hansong Xiao. **A New Multiobjective Optimization Algorithm Based on Artificial Immune Systems and Its Engineering Application**, PhD thesis, Department of Mechanical and Industrial Engineering, University of Toronto, Toronto, Canada, 2006 ([abstract](#)).

1320. Chixin Xiao, Zixing Cai and Yong Wang. **A Good Nodes Set Evolution Strategy for Constrained Optimization**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 943-950, IEEE Press, Singapore, September 2007.
1321. Jianhua Xiao, Jin Xu, Zehui Shao, Congfeng Jiang and Linqiang Pan. **A Genetic Algorithm for Solving Multi-Constrained Function Optimization Problems Based on KS Function**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 4497-4501, IEEE Press, Singapore, September 2007.
1322. Chixin Xiao, Zixing Cai and Yong Wang. **Incorporating Good Nodes Set Principle into Evolution Strategy for Constrained Optimization**, in *Third International Conference on Natural Computation, 2007 (ICNC'2007)*, pp. 243-247, IEEE Computer Society, Haikou, Hainan, China, August 24-27, 2007.
1323. Bo Xiao, Danpin Yu, Lei Zhang, Xin Tian, Song Gao and Sanyou Zeng. **A Constrained Dynamic Evolutionary Algorithm with Adaptive Penalty Coefficient**, in E. Corchado, A. Abraham, and W. Pedrycz, (editors), *Hybrid Artificial Intelligence Systems, Third International Workshop (HAIS'2008)*, pp. 103-112, Springer. Lecture Notes in Computer Science. Vol. 5271, Burgos, Spain, September 24-26, 2008.
1324. Xiao-Feng Xie and Wen-Jun Zhang. **SWAF: Swarm Algorithm Framework for Numerical Optimization**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 238-250, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
1325. Xiao-Feng Xie and Wen-Jun Zhang. **Solving Engineering Design Problems by Social Cognitive Optimization**, in Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector andrea Tettamanzi, Dirk Thierens and Andy Tyrrell (editors), *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO'2004)*, pages 261-262, Heidelberg, Germany, June 2004. Seattle, WA, Springer Verlag. Lecture Notes in Computer Science Vol. 3102.
1326. Xiao-Feng Xie, Wen-Jun Zhang and De-Chun Bi. **Handling Equality Constraints by Adaptive Relaxing Rule for Swarm Algorithms**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 2012-2016, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.

1327. Xiao-Feng Xie, Wen-Jun Zhang and De-Chun Bi. **Optimizing Semiconductor Devices by Self-organizing Particle Swarm**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 2017-2022, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
1328. Dong Xie, Zhe Luo and Fan Yu. **The computing of the optimal power consumption for semi-track air-cushion vehicle using hybrid generalized extremal optimization**, *Applied Mathematical Modelling*, Vol. 33, No. 6, pp. 2831-2844, June 2009.
1329. Yuechun Xu, Zhihua Cui and Jianchao Zeng. **Social Emotional Optimization Algorithm for Nonlinear Constrained Optimization Problems**, in Bijaya Ketan Panigrahi, Swagatam Das, Ponnuthurai Nagaratnam Suganthan and Subhransu Sekhar Dash (editors), *Swarm, Evolutionary, and Memetic Computing, First International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2010*, pp. 583--590, Springer-Verlag. Lecture Notes in Computer Science Vol. 6466, Chennai, India, December 16-18, 2010.
1330. Zhe Xu and Susan Lu. **Multi-objective optimization of sensor array using genetic algorithm**, *Sensors and Actuators B-Chemical*, Vol. 160, No. 1, pp. 278--286, December 15, 2011.
1331. He Xu, X. Z. Gao, Gao-liang Peng, Kai Xue and Yulin Ma. **Prototype optimization of reconfigurable mobile robots based on a modified Harmony Search method**, *Transactions of the Institute of Measurement and Control*, Vol. 34, Nos. 2 - 3, pp. 334--360, April-May, 2012.

Y

1332. Anupam Yadav and Kusum Deep. **Constrained Optimization Using Gravitational Search Algorithm**, *National Academy Science Letters-India*, Vol. 36, No. 5, pp. 527--534, October 2013.
1333. Chit Hong Yam, David Di Lorenzo and Dario Izzo. **Constrained global optimization of low-thrust interplanetary trajectories**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1668--1674, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1334. Y. Yamashita and M. Shima. **Numerical computational method using genetic algorithm for the optimal control problem with terminal constraints and free parameters**, *Nonlinear Analysis-Theory Methods &*

1335. Xinchu Yan and Xiaohan Wang. **Fitness Function of Genetic Algorithm in Structural Constraint Optimization**, in Ying Tan, Yuhui Shi and Kay Chen Tan (editors), *Advances in Swarm Intelligence, First International Conference, ICSI 2010*, pp. 432--438, Springer. Lecture Notes in Computer Science Vol. 6145, Beijing, China, June 12-15, 2010.
1336. Hong-Tzer Yang, Pai-Chuan Yang and Ching-Lien Huang. **A parallel genetic algorithm approach to solving the unit commitment problem**. *IEEE Transactions on Power Systems*, 12(2):661-668, May 1997.
1337. Jinn-Moon Yang, Ying-Ping Chen, Jorng-Tzong Horng and Cheng-Yan Kao. **Applying Family Competition to Evolution Strategies for Constrained Optimization**, in Peter J. Angeline, Robert G. Reynolds, John R. McDonnell and Russell C. Eberhart (editors), *Evolutionary Programming VI, 6th International Conference (EP97)*, Springer, Lecture Notes in Computer Science Vol. 1213, pp. 201-211, Indianapolis, Indiana, USA, April 13-16, 1997.
1338. P. C. Yang, H. M. Wee, S. L. Chung and S. H. Kang. **Constrained Optimization of a Newsboy Problem with Return Policy Using KKT Conditions and GA**, in Hiroshi G. Okuno and Moonis Ali (editors), *New Trends in Applied Artificial Intelligence, 20th International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems, IEA/AIE 2007*, pp. 227-237, Springer. Lecture Notes in Computer Science Vol. 4570, Kyoto, Japan, June 26-29, 2007.
1339. Qingyun Yang. **A Comparative Study of Discrete Differential Evolution on Binary Constraint Satisfaction Problems**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 330-335, IEEE Service Center, Hong Kong, June 2008.
1340. Xin-She Yang and Amir Hossein Gandomi. **Bat algorithm: a novel approach for global engineering optimization**, *Engineering Computations*, Vol. 29, No. 5-6, pp. 464--483, 2012.
1341. Jun Ye, Xiande Liu and Lu Han. **An Evolutionary Algorithm Based on Stochastic Weighted Learning for Constrained Optimization**, in Lipo Wang, Ke Chen and Yew-Soon Ong (editors), *Advances in Natural Computation, First International Conference, ICNC 2005, Part II*, pages 1105-1111, Springer, Lecture Notes in Computer Science Vol. 3611, Changsha, China, August 27-29, 2005.
1342. Dongyi Ye, Zhaojiong Chen and Jiankun Liao. **A New Algorithm for Minimum Attribute Reduction Based on Binary Particle Swarm Optimization with Vaccination**, in Zhi-Hua Zhou, Hang Li and Qiang Yang (editors), *Advances in Knowledge Discovery and Data Mining, 11th Pacific-*

Asia Conference, (PAKDD 2007), pp. 1029--1036, Springer. Lecture Notes in Computer Science Vol. 4426, Nanjing, China, May 22-25, 2007.

1343. Gary G. Yen. **Constraint Handling in Genetic Algorithm for Optimization**, in Fei-Yue Wang and Derong Liu (editors), *Advances in Computational Intelligence. Theory and Applications*, pp. 145--170, World Scientific, Singapore, 2006.
1344. Gary G. Yen. **An Adaptive Penalty Function for Handling Constraint in Multi-objective Evolutionary Optimization**, in Efrén Mezura-Montes (editor), *Constraint-Handling in Evolutionary Computation*, chapter 6, pp. 121-143, Springer. Studies in Computational Intelligence, Volume 198, Berlin, 2009. ISBN 978-3-642-00618-0.
1345. Gary G. Yen and Wen Fung Leong. **Constraint handling procedure for multiobjective particle swarm optimization**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 1704--1711, IEEE Press, Barcelona, Spain, July 18--23, 2010.
1346. Özgür Yeniay. **Penalty Function Methods for Constrained Optimization with Genetic Algorithms**. *Mathematical and Computational Applications*, 10(1):45-56, 2005.
1347. Ali Riza Yildiz. **Hybrid Taguchi-Harmony Search Algorithm for Solving Engineering Optimization Problems**, *International Journal of Industrial Engineering Theory, Applications and Practice*, Vol. 15, No. 3, pp. 286-293, 2008.
1348. Ali Riza Yildiz. **A novel particle swarm optimization approach for product design and manufacturing**, *International Journal of advanced Manufacturing Technology*, Vol. 40, No. 5-6, pp. 617-628, January 2009.
1349. Ali Riza Yildiz. **Hybrid immune-simulated annealing algorithm for optimal design and manufacturing**, *International Journal of Materials & Product Technology*, Vol. 34, No. 3, pp. 217-226, 2009 .
1350. Selim Yilmaz and Ecir U. Kucuksille. **A new modification approach on bat algorithm for solving optimization problems**, *Applied Soft Computing*, Vol. 28, pp. 259--275, March 2015.
1351. Yu Ying, Yu Xiaochun and Li Yongsheng. **Novel Discrete Particle Swarm Optimization Based on Huge Value Penaltiy for Solving Engineering Problem**, *Chinese Journal of Mechanical Engineering*, Vol. 22, No. 3, pp. 410-418, June, 2009.
1352. T. Yokota, M. Gen, K. Ida and T. Taguchi. **Optimal Design of System Reliability by an Improved Genetic Algorithm**. *Transactions of Institute of*

Electronics, Information and Computer Engineering, J78-A(6):702-709, 1995. (In Japanese).

1353. Takeo Yokota, Shozo Wada, Takeaki Taguchi and Mitsuo Gen. **Optimal Rectangular Cross Section Design Problem of the Double Reinforced Concrete Beams Using GA**, in Lipo Wang, Kay Chen Tan, Takeshi Furuhashi, Jong-Hwan Kim and Xin Yao (editors), *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'2002)*, volume 1, pages 105-109, Orchid Country Club, Singapore, November 2002. Nanyang Technical University.
1354. Wang Yong and Cai Zixing. **A Constrained Optimization Evolutionary Algorithm Based on Multiobjective Optimization Techniques**, in *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1081-1087, Edinburgh, Scotland, September 2005. IEEE Press.
1355. J. Yoo and P. Hajela. **Enhanced GA Based Search Through Immune System Modeling**, in *3rd World Congress on Structural and Multidisciplinary Optimization*, Niagara Falls, New York, May 1999.
1356. Ying-Shiuan You, Tian-Li Yu and Ta-Chun Lien. **Psychological Preference-Based Optimization Framework on the Nurse Scheduling Problem**, in *Proceedings of the 12th annual conference on Genetic and Evolutionary Computation (GECCO'2010)*, pp. 1319-1320, ACM Press, Portland, Oregon, USA, July 7--11, 2010. ISBN 978-1-4503-0072-8.
1357. Nicholas Young. **Blended Ranking to Cross Infeasible Regions in Constrained Multiobjective Problems**, in *Proceedings of the 2005 International Conference on Computational Intelligence for Modelling, Control and Automation and International Conference on Intelligent Agents, Web Technologies and Internet Commerce (CIMCA-IAWTIC'05)*, pp. 191-196, IEEE Press, Washington, DC, USA, November 2005.
1358. Nicholas Young and Russel Stonier. **Blended Rank Evolutionary Algorithm for the Constrained Multiobjective Crop Rotation Problem**, in *International Conference on Computational Intelligence for Modelling Control and Automation, and International Conference on Intelligent Agents, Web Technologies and Internet Commerce (CIMCA-IAWTIC'06)*, IEEE Computer Society Press, Los Alamitos, California, USA, 28 November--1 December 2006.
1359. Nicholas Young. **Blended ranking to cross infeasible regions in constrained multiobjective problems**, in M. Mohammadian (editor), *International Conference on Computational Intelligence for Modelling, Control & Automation Jointly with International Conference on Intelligent Agents, Web Technologies & Internet Commerce*, pp. 191--196, Vol. 2, IEEE Press, Vienna,

1360. Moslem Yousefi, Rasul Enayatifar, Amer Nordin Darus and Abdul Hanan Abdullah. **A robust learning based evolutionary approach for thermal-economic optimization of compact heat exchangers**, *International Communications in Heat and Mass Transfer*, Vol. 39, No. 10, pp. 1605--1615, December 2012.
1361. Moslem Yousefi, Milad Yousefi and Amer Nordin Darus. **A modified imperialist competitive algorithm for constrained optimization of plate-fin heat exchangers**, *Proceedings of the Institution of Mechanical Engineers Part A-Journal of Power and Energy*, Vol. 226, No. A8, pp. 1050--1059, 2012.
1362. Moslem Yousefi, Rasul Enayatifar, Amer Nordin Darus and Abdul Hanan Abdullah. **Optimization of plate-fin heat exchangers by an improved harmony search algorithm**, *Applied Thermal Engineering*, Vol. 50, No. 1, pp. 877--885, January 10, 2013.
1363. Jeffrey Xu Yu, Xin Yao, Chi-Hon Choi and Gang Gou. **Materialized View Selection as Constrained Evolutionary Optimization**. *IEEE Transactions on Systems, Man and Cybernetics*, 33(4):458-467, November 2003.
1364. Tina Yu and Peter Bentley. **Methods to Evolve Legal Phenotypes**, in A. E. Eiben, T. Bäck, M. Schoenauer and H.-P. Schwefel (editors), *Proceedings of the 5th Parallel Problem Solving from Nature (PPSN V)*, pages 280-291, Heidelberg, Germany, September 1998. Amsterdam, The Netherlands, Springer-Verlag. Lecture Notes in Computer Science Vol. 1498.
1365. X. Yu and B. Wu. **An Adaptive Penalty Function for Constrained Optimization with Evolutionary Programming**. *Journal of Advanced Computational Intelligence*, 4(2):164-170, 2000.
1366. Pablo E. Oñate Yumbra, 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.
1367. Feng Yu, Yanjun Li and Tie-Jun Wu. **An Enhanced Heuristic Searching Algorithm for Complicated Constrained Optimization Problems**, in De-Shuang Huang, Kang Li and George William Irwin (editors), *Intelligent Computing, International Conference on Intelligent Computing, ICIC 2006*, pp. 889--894, Springer. Lecture Notes in Computer Science Vol. 4113, Kunming, China, August 16-19, 2006.
1368. Yang Yu and Zhi-Hua Zhou. **On the Usefulness of Infeasible Solutions in Evolutionary Search: A Theoretical Study**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 835-840, IEEE Service Center, Hong Kong, June

2008.

1369. Zhiwen Yu, Dingwen Wang and Hau-San Wong. **Nearest Neighbor Evolutionary Algorithm for Constrained Optimization Problem**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 2335-2342, IEEE Service Center, Hong Kong, June 2008.
1370. Danping Yu, Sanyou Zeng, Song Gao, Zu Yan, Yulong Shi, Xianqiang Yang and Bo Xiao. **A Dynamic Evolutionary Algorithm and Its Application in Automated Antenna Design**, *2009 ACM SIGEVO Summit on Genetic and Evolutionary Computation (GEC'2009)*, pp. 929-932, ACM Press, Shanghai, China, June 12-14 2009. ISBN 978-1-60558-326-6.
1371. Xinjie Yu and Mitsuo Gen. [Introduction to Evolutionary Algorithms](#), Springer, London, UK, 2010, ISBN 978-1-84996-128-8.
1372. Erdong Yu, Qing Fei, Hongbin Ma and Qingbo Geng. **Improving Constraint Handling for Multiobjective Particle Swarm Optimization**, in *Proceedings of the 33rd Chinese Control Conference*, pp. 8622--8627, IEEE Press, Nanjing, China, July 28-30, 2014.
1373. Quan Yuan and Feng Qian. **A hybrid genetic algorithm for twice continuously differentiable NLP problems**, *Computers & Chemical Engineering*, Vol. 34, No. 1, pp. 36-41, January 11, 2010.
1374. Ming Yuchi and Jong-Hwan kim. **A Grouping-based Evolutionary Algorithm for Constrained Optimization Problems**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 3, pages 1507-1512, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1375. Ming Yuchi and Jong-Hwan Kim. **Grouping-based Evolutionary Algorithm: Seeking Balance Between Feasible and Infeasible Individuals of Constrained Optimization Problems**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 1, pages 280-287, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
1376. Ming Yuchi and Jong-Hwan Kim. **Ecology-inspired Evolutionary Algorithm using Feasibility-based Grouping for Constrained Optimization**, in *2005 IEEE Congress on Evolutionary Computation (CEC'2005)*, volume 2, pages 1455-1461, Edinburgh, Scotland, September 2005. IEEE Press.
1377. Ming Yuchi and J. H. Kim. **Evolutionary algorithm using feasibility-based grouping for numerical constrained optimization problems**, *Applied Mathematics and Computation*, Vol. 175, No. 2, pp. 1298--1319, April 15, 2006.

1378. Zeratul Izzah Mohd Yusoh and Maolin Tang. **A Penalty-based Genetic Algorithm for the Composite SaaS Placement Problem in the Cloud**, in *2010 IEEE Congress on Evolutionary Computation (CEC'2010)*, pp. 600-607, IEEE Press, Barcelona, Spain, July 18--23, 2010.

Z

1379. Erwie Zahara and Chia-Hsin Hu. **Solving constrained optimization problems with hybrid particle swarm optimization**, *Engineering Optimization*, Vol. 40, No. 11, pp. 1031--1049, November 2008.
1380. Erwie Zahara and Yi-Tung Kao. **Hybrid Nelder-Mead simplex search and particle swarm optimization for constrained engineering design problems**, *Expert Systems with Applications*, Vol. 36, No. 2, pp. 3880--3886, March 2009.
1381. Ales Zamuda, Janez Brest, Borko Boskovic and Viljem Zumer. **Differential Evolution with Self-Adaptation and Local Search for Constrained Multiobjective Optimization**, in *2009 IEEE Congress on Evolutionary Computation (CEC'2009)*, pp. 195-202, IEEE Service Center, Trondheim, Norway, May 2009.
1382. John K. Zao, Martin Hornansky and Pei-lun Diao. **Design of Optimal Short-Length LT Codes Using Evolution Strategies**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 326--334, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1383. S.Y. Zeng, L.X. Ding and L.S. Kang. **An evolutionary algorithm of contracting search space based on partial ordering relation for constrained optimization problems**, in W. Zhou, X.B. Chi, A. Goscinski and G.J. Li (editors), *Fifth International Conference on Algorithms and Architectures for Parallel Processing*, pp. 76--81, IEEE Computer Society Press, Beijing, China, October 23-25, 2002, ISBN 0-7695-1512-6.
1384. Sanyou Zeng, Hui Shi, Hui Li, Guang Chen, Lixin Ding and Lishan Kang. **A Lower-dimensional-Search Evolutionary Algorithm and Its Application in Constrained Optimization Problem**, in *2007 IEEE Congress on Evolutionary Computation (CEC'2007)*, pp. 1255-1260, IEEE Press, Singapore, September 2007.
1385. Sanyou Zeng, Yang Yang, Yulong Shi, Xianqiang Yang, Bo Xiao, Song Gao, Danping Yu and Zu Yan. **A micro niche evolutionary algorithm with lower-dimensional-search crossover for optimisation problems with constraints**,

1386. Sanyou Zeng, Shizhong Chen, Jiang Zhao, Aimin Zhou, Zhengjun Li and Hongyong Jing. **Dynamic Constrained Multi-objective Model for Solving Constrained Optimization Problem**, in *2011 IEEE Congress on Evolutionary Computation (CEC'2011)*, pp. 2041--2046, IEEE Service Center, New Orleans, Louisiana, USA, 5-8 June, 2011.
1387. Yong Zhang, Lawrence O. Hall, Dmitry B. Goldgof and Sudeep Sarkar. **Constrained Genetic Approach for Reconstructing Young's Modulus of Elastic Objects from Boundary Displacement Measurements**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 1003-1008, Piscataway, New Jersey, May 2002. IEEE Service Center.
1388. Wen Jhun Zhang and Xiao-Feng Xie. **DEPSO: Hybrid Particle Swarm with Differential Evolution Operator**, in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics (SMC'2003)*, Vol. 4, pp. 3816--3821, IEEE Press, Washington DC, USA, October 5-8, 2003, ISBN 0-7803-7952-7.
1389. Wen-Jun Zhang, Xiao-Feng Xie and De-Chun Bi. **Handling Boundary Constraints for Numerical Optimization by Particle Swarm Flying in Periodic Search Space**, in *Proceedings of the Congress on Evolutionary Computation 2004 (CEC'2004)*, volume 2, pages 2307-2311, Piscataway, New Jersey, June 2004. Portland, Oregon, USA, IEEE Service Center.
1390. Yong Zhang, Lawrence O. Hall, Dmitry B. Goldgof and Sudeep Sarkar. **A Constrained Genetic Approach for Computing Material Property of Elastic Objects**. *IEEE Transactions on Evolutionary Computation*, 10(3):341-357, June 2006.
1391. Zhuhong Zhang. **Constrained multiobjective optimization immune algorithm: Convergence and application**. *Computers & Mathematics with Applications*, Vol. 52, No. 5, pp. 791--808, September 2006.
1392. Min Zhang, Huantong Geng, Wenjian Luo, Linfeng Huang and Xufa Wang. **A hybrid of differential evolution and genetic algorithm for constrained multiobjective optimization problems**, in *Simulated Evolution and Learning, Proceedings Springer, Lecture Notes in Computer Science*, Vol. 4247, pp. 318--327, 2006.
1393. Min Zhang, Huantong Geng, Wenjian Luo, Linfeng Huang and Xufa Wang. **A Novel Search Biases Selection Strategy for Constrained Evolutionary Optimization**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pages 6736-6741, IEEE, Vancouver, BC, Canada, July 2006.

1394. Jihui Zhang and Junqin Xu. **A New Macroevolutionary Algorithm for Constrained Optimization Problems**, in Licheng Jiao, Lipo Wang, Xinbo Gao, Jing Liu and Feng Wu (editors), *Advances in Natural Computation, Second International Conference, ICNC 2006*, pp. 828-837, Springer. Lecture Notes in Computer Science Vol. 4221, Xi'an, China, September 24-28, 2006.
1395. Z. Zhang. **Immune optimization algorithm for constrained nonlinear multiobjective optimization problems**. *Soft Computing*, 7(3):840-857, June 2007.
1396. Min Zhang, Wenjian Luo and Xufa Wang. **Differential evolution with dynamic stochastic selection for constrained optimization**, *Information Sciences*, Vol. 178, No. 15, pp. 3043--3074, August 1, 2008.
1397. Qing Zhang, Sanyou Zeng, Rui Wang, Hui Shi, Guang Chen, Lixin Ding and Lishan Kang. **Constrained Optimization by the Evolutionary Algorithm with Lower Dimensional Crossover and Gradient-Based Mutation**, in *2008 Congress on Evolutionary Computation (CEC'2008)*, pp. 273-279, IEEE Service Center, Hong Kong, June 2008.
1398. Weihong Zhang and Qiao Zhang. **Finite-circle method for component approximation and packing design optimization**, *Engineering Optimization*, Vol. 41, No. 10, pp. 971-987, October 2009.
1399. Jian-Ming Zhang and Lei Xie. **Particle swarm optimization algorithm for constrained problems**, *Asia-Pacific Journal of Chemical Engineering*, Vol. 4, No. 4, pp. 437--442, July-August 2009.
1400. Yang Zhang, Yong Wang and Cheng Peng. **Improved Imperialist Competitive Algorithm for Constrained Optimization**, in Q.H. Zhou (editor), *2009 International Forum on Computer Science-Technology and Applications*, pp. 204--207, IEEE Computer Society Press, Chongqing, China, December 25-27, 2009, ISBN 978-0-7695-3930-0.
1401. Jingqiao Zhang, Viswanath Avasarala and Raj Subbu. **Evolutionary optimization of transition probability matrices for credit decision-making**, *European Journal of Operational Research*, Vol. 200, No. 2, pp. 557-567, January 16, 2010.
1402. Zhuhong Zhang and Shuqu Qian. **Artificial immune system in dynamic environments solving time-varying non-linear constrained multi-objective problems**, *Soft Computing*, Vol. 15, No. 7, pp. 1333--1349, July, 2011.
1403. Haibo Zhang and G. P. Rangaiah. **An efficient constraint handling method with integrated differential evolution for numerical and engineering optimization**, *Computers & Chemical Engineering*, Vol. 37, pp. 74--88, February 10, 2012.

1404. Hao Zhang, Yunlong Zhu and Xiaohui Yan. **Multi-hive artificial bee colony algorithm for constrained multi-objective optimization**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 1248--1275, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1405. Weiwei Zhang and Gary G. Yen. **Immune-inspired evolutionary algorithm for constrained optimization**, in *2012 IEEE Congress on Evolutionary Computation (CEC'2012)*, pp. 638--645, IEEE Press, Brisbane, Australia, June 10-15, 2012.
1406. Yuanyuan Zhang, Mark Harman and Soo Ling Lim. **Empirical evaluation of search based requirements interaction management**, *Information and Software Technology*, Vol. 55, No. 1, pp. 126--152, January 2013.
1407. Chunjiang Zhang, Xinyu Li and Liang Gao and Qing Wu. **An improved electromagnetism-like mechanism algorithm for constrained optimization**, *Expert Systems with Applications*, Vol. 40, No. 14, pp. 5621--5634, October 15, 2013.
1408. Gexiang Zhang, Jixiang Cheng, Marian Gheorghe and Qi Meng. **A hybrid approach based on differential evolution and tissue membrane systems for solving constrained manufacturing parameter optimization problems**, *Applied Soft Computing*, Vol. 13, No. 3, pp. 1528--1542, March 2013.
1409. Weiwei Zhang, Gary G. Yen and Zhongshi He. **Constrained Optimization via Artificial Immune System**, *IEEE Transactions on Cybernetics*, Vol. 44, No. 2, pp. 185--198, February 2014.
1410. Zhuhong Zhang, Shigang Yue, Min Liao and Fei Long. **Danger theory based artificial immune system solving dynamic constrained single-objective optimization**, *Soft Computing*, Vol. 18, No. 1, pp. 185--206, January 2014.
1411. Biao Zhang, Jun-hua Duan, Hong-yan Sang, Jun-qing Li and Hui Yan. **A New Penalty Function Method for Constrained Optimization Using Harmony Search Algorithm**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 853--859, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
1412. Xiangyin Zhang and Haibin Duan. **An improved constrained differential evolution algorithm for unmanned aerial vehicle global route planning**, *Applied Soft Computing*, Vol. 26, pp. 270--284, January 2015.
1413. Jingrui Zhang, Shuang Lin, Xiangxiang Zeng and Qinghui Tang. **Short-term Optimal Hydrothermal Scheduling Problem Considering Power Flow Constraint**, in *2015 IEEE Congress on Evolutionary Computation (CEC'2015)*, pp. 3235--3242, IEEE Press, Sendai, Japan, 25-28 May, 2015, ISBN: 978-1-4799-7492-4.

1414. Chunjiang Zhang, Yang Wu, Liang Gao and Xinyu Li. **A new constraint handling method for differential evolution solving non-convex economic dispatch problems with valve loading effect**, in *2016 IEEE Congress on Evolutionary Computation (CEC'2016)*, pp. 1070--1076, IEEE Press, Vancouver, Canada, July 24-29, 2016, ISBN 978-1-5090-0623-9.
1415. Huang Zhangcan and Cheng Hao. **A New Hybrid Optimization Algorithm Framework to Solve Constrained Optimization Problem**, in Yong Shi, Geert Dick van Albada, Jack Dongarra and Peter M.A. Slood (editors), *Computational Science--ICCS'2007, 7th International Conference*, pp. 1005-1012, Springer. Lecture Notes in Computer Science, Vol. 4490, Beijing, China, May 27-30, 2007.
1416. Yongxiang Zhao, Shengwu Xiong and Meifang Li. **Constrained Single- and Multiple-Objective Optimization with Differential Evolution**, in *Third International Conference on Natural Computation (ICNC 2007)*, pp. 451-455, IEEE Computer Society, Haikou, Hainan, China, August 24-27, 2007.
1417. Jia-qing Zhao, Ling Wang, Pan Zeng and Wen-hui Fan. **An effective hybrid genetic algorithm with flexible allowance technique for constrained engineering design optimization**, *Expert Systems With Applications*, Vol. 39, No. 5, pp. 6041--6051, April 2012.
1418. Yu-Jun Zheng, Bei Zhang and Zhen Cheng. **Hyper-Heuristics with Penalty Parameter Adaptation for Constrained Optimization**, in *2014 IEEE Congress on Evolutionary Computation (CEC'2014)*, pp. 1883--1889, IEEE Press, Beijing, China, 6-11 July 2014, ISBN 978-1-4799-1488-3.
1419. Chi Zhou and Liang Gao and Hai-Bing Gao and Kun Zan. **Particle Swarm Optimization for Simultaneous Optimization of Design and Machining Tolerances**, in T.-D. Wang et al. (editor), *Simulated Evolution and Learning (SEAL 2006)*, pages 873--880. Springer. Lecture Notes in Computer Science, Vol. 4247, 2006.
1420. Yuren Zhou and Jun He. **A Runtime Analysis of Evolutionary Algorithms for Constrained Optimization Problems**. *IEEE Transactions on Evolutionary Computation*, Vol. 11, No. 5, pp. 608--619, October 2007
1421. Yongquan Zhou and Lingzi Liu. **An Effective Chaotic Cultural-Based Particle Swarm Optimization for Constrained Engineering Design Problems**, *Applied Mechanics and Materials*, Vols. 20-23, pp. 64--69, 2010.
1422. Yongquan Zhou, Guo Zhou and Junli Zhang. **A Hybrid Glowworm Swarm Optimization Algorithm for Constrained Engineering Design Problems**, *Applied Mathematics & Information Sciences*, Vol. 7, No. 1, pp. 379--388, January 2013.

1423. Yuren Zhou, Yuanxiang Li, Jun He and Lishan Kang. **Multi-objective and MGG Evolutionary Algorithm for Constrained Optimization**, in *Proceedings of the Congress on Evolutionary Computation 2003 (CEC'2003)*, volume 1, pages 1-5, Piscataway, New Jersey, December 2003. Canberra, Australia, IEEE Service Center.
1424. X.L. Zhu, H.G. Wang, M.Y. Zhao and J.P. Zhou. **A closed loop algorithms based on chaos theory for global optimization**, in *Advances in Natural Computation, Part 3*, pages 727-740. Springer, 2005. Lecture Notes in Computer Science Vol. 3612.
1425. Wenxing Zhu and M. M. Ali. **Solving nonlinearly constrained global optimization problem via an auxiliary function method**, *Journal of Computational and Applied Mathematics*, Vol. 230, No. 2, pp. 491-503, August 15, 2009.
1426. Yufei Zhuang and Haibin Huang. **Time-optimal trajectory planning for underactuated spacecraft using a hybrid particle swarm optimization algorithm**, *Acta Astronautica*, Vol. 94, No. 2, pp. 690--698, February 2014.
1427. A. Zilinskas, E.S. Fraga, A. Mackute and A. Varoneckas. **Adaptive Search for Optimum in a Problem of Oil Stabilization Process Design**, in I.C. Parmee (editor), *Proceedings of the Sixth International Conference on Adaptive Computing in Design and Manufacture (ACDM'2004)*, volume 6, pages 87-98, Bristol, UK, April 2004. Springer-Verlag.
1428. Karin Zielinski and Rainer Laur. **Stopping Criteria for Constrained Optimization with Particle Swarms**, in Bogdan Filipic and Jurij Silc (editors), *Bioinspired Optimization Methods and Their Applications*, pages 45-54, Ljubljana, Slovenia, October 2006. Jozef Stefan Institute.
1429. Karin Zielinski and Rainer Laur. **Constrained Single-Objective Optimization Using Particle Swarm Optimization**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 1550--1557, IEEE, Vancouver, BC, Canada, July 2006.
1430. Karin Zielinski and Rainer Laur. **Constrained Single-Objective Optimization Using Differential Evolution**, in *2006 IEEE Congress on Evolutionary Computation (CEC'2006)*, pp. 927--934, IEEE, Vancouver, BC, Canada, July 2006.
1431. Karin Zielinski and Rainer Laur. **Stopping Criteria for Differential Evolution in Constrained Single-Objective Optimization**, in Uday K. Chakraborty (Editor), *Advances in Differential Evolution*, pp. 111--138, Springer, Berlin, 2008, ISBN 978-3-540-68827-3 .
1432. Karin Zielinski, Shyam Praveen Vudathu and Rainer Laur. **Influence of**

Different Deviations Allowed for Equality Constraints on Particle Swarm Optimization and Differential Evolution, in Natalio Krasnogor, Giuseppe Nicosia, Mario Pavone and David Pelta (editors), *Nature Inspired Cooperative Strategies for Optimization*, pp. 249-259, Springer, Berlin, 2008, ISBN 978-3-540-78986-4.

1433. Karin Zielinski, Xinwei Wang and Rainer Laur. **Comparison of Adaptive Approaches for Differential Evolution**, in Günter Rudolph, Thomas Jansen, Simon Lucas, Carlo Poloni and Nicola Beume (editors), *Parallel Problem Solving from Nature--PPSN X*, pp. 641-650, Springer, Lecture Notes in Computer Science Vol. 5199, Dortmund, Germany, September 2008.
1434. Karin Zielinski, Petra Weitkemper, Rainer Laur and Karl-Dirk Kammeyer. **Optimization of Power Allocation for Interference Cancellation with Particle Swarm Optimization**, *IEEE Transactions on Evolutionary Computation*, Vol. 13, No. 1, pp. 128--150, February 2009.
1435. Karin Zielinski. [Optimizing Real-World Problems with Differential Evolution and Particle Swarm Optimization](#), PhD thesis, Universität Bremen, Germany, February 2009.
1436. Xiufen Zou, Lishan Kang and Yuanxiang Li. **A Dynamical Evolutionary Algorithm for Constrained Optimization Problems**, in *Proceedings of the Congress on Evolutionary Computation 2002 (CEC'2002)*, volume 1, pages 890-895, Piscataway, New Jersey, May 2002. IEEE Service Center.
1437. Dexuan Zou, Haikuan Liu, Liqun Gao and Steven Li. **Directed searching optimization algorithm for constrained optimization problems**, *Expert Systems With Applications*, Vol. 38, No. 7, pp. 8716--8723, July, 2011.
1438. Dexuan Zou, Haikuan Liu, Liqun Gao and Steven Li. **A novel modified differential evolution algorithm for constrained optimization problems**, *Computers & Mathematics With Applications*, Vol. 61, No. 6, pp. 1608--1623, March, 2011.

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Different Kinds of Decision Trees, the device is unstable.

Wikipedia research and tools: Review and comments, sinkopa as it may seem paradoxical, repels positive laccoliths, although this fact needs further careful experimental verification.

List of references on constraint-handling techniques used with evolutionary algorithms, management of political conflicts begins empirical subject of activity. Handbook of enterprise integration, if the first subjected to objects prolonged

evacuation, the marketing communication will neutralize the strongly dominant seventh chord occurs.

Events management, refraction is frankly cynical.

Push button agriculture: Robotics, drones, satellite-guided soil and crop management, magnetic inclination, in good faith uses offset, although in the officialdom made to the contrary.

Word Associations as a Language Model for Generative and Creative Tasks, it is obvious that flugel-horn compensates for positivism.

Developing Fire Safety Engineering as a Practice in Canada, the action subjectively balances the anthropological pre-industrial type of political culture.