IRIDIA BibTeX Repository (July 9, 2021)

[1] AAAI. **35th AAAI Conference on Artificial Intelligence: Reproducibility Checklist**. https://aaai.org/Conferences/AAAI-21/reproducibility-checklist/, 2021. Last accessed: June 6th, 2021.

[2] AAAI2020. *The Thirty-Fourth AAAI Conference on Artificial Intelligence, AAAI 2020, The Thirty-Second Innovative Applications of Artificial Intelligence Conference, IAAI 2020, The Tenth AAAI Symposium on Educational Advances in Artificial Intelligence, EAAI 2020, New York, NY, USA, February 7-12, 2020*, 2020. AAAI Press. ISBN 978-1-57735-823-7.

[3] Emile H. L. Aarts and Jan Karel Lenstra, editors. *Local Search in Combinatorial Optimization*. John Wiley & Sons, Chichester, UK, 1997.

[4] Emile H. L. Aarts, Jan H. M. Korst, and Wil Michiels. **Simulated Annealing**. In Edmund K. Burke and Graham Kendall, editors, *Search Methodologies*, pages 187–210. Springer, Boston, MA, 2005. doi:10.1007/0-387-28356-0.

[5] Hussein A. Abbass. **The self-adaptive Pareto differential evolution algorithm**. In *Proceedings of the 2002 Congress on Evolutionary Computation (CEC'02)*, pages 831–836, Piscataway, NJ, 2002. IEEE Press.

[6] Hussein A. Abbass, Ruhul Sarker, and Charles Newton. **PDE: a Pareto-frontier differential evolution approach for multi-objective optimization problems**. In *Proceedings of the 2001 Congress on Evolutionary Computation (CEC'01)*, pages 971–978, Piscataway, NJ, 2001. IEEE Press.

[7] Ajith Abraham and Marcin Paprzycki, editors. *Proceedings of the 5th International Conference on Intelligent Systems Design and Applications*, 2005.

[8] Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors. *Evolutionary Multiobjective Optimization*. Advanced Information and Knowledge Processing. Springer, London, UK, Jan. 2005.

[9] David Abramson. **Constructing School Timetables Using Simulated Annealing: Sequential and Parallel Algorithms**. *Management Science*, 37(1):98–113, 1991.

[10] David Abramson, Mohan Krishna Amoorthy, and Henry Dang. **Simulated annealing cooling schedules for the school timetabling problem**. *Asia-Pacific Journal of Operational Research*, 16(1):1–22, 1999.

[11] A. Acan. **An external memory implementation in ant colony optimization**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 73–84. Springer, Heidelberg, 2004.
Keywords: memory-based ACO.

[12] A. Acan. **An external partial permutations memory for ant colony optimization**. In Günther R. Raidl and Jens Gottlieb, editors, *Proceedings of EvoCOP 2005 – 5th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 3448 of *Lecture Notes in Computer Science*, pages 1–11. Springer, Heidelberg, 2005.
Keywords: memory-based ACO.

[13] ACC2019. *2019 American Control Conference, ACC 2019, Philadelphia, PA, USA, July 10-12, 2019*, 2019. IEEE.

[14] Tobias Achterberg. **SCIP: Solving constraint integer programs**. *Mathematical Programming Computation*, 1(1):1–41, July 2009.
    Annotation: http://mpc.zib.de/archive/2009/1/Achterberg2009_Article_SCIPSolvingConstraintIntegerPr.pdf.

[15] Tobias Achterberg and Timo Berthold. **Improving the feasibility pump**. *Discrete Optimization*, 4(1):77–86, 2007.

[16] ACM. **Artifact Review and Badging Version 1.1**. https://www.acm.org/publications/policies/artifact-review-and-badging-current, Aug. 2020.

[17] Héctor-Gabriel Acosta-Mesa, Fernando Rechy-Ramírez, Efrén Mezura-Montes, Nicandro Cruz-Ramírez, and Rodolfo Hernández Jiménez. **Application of time series discretization using evolutionary programming for classification of precancerous cervical lesions**. *Journal of Biomedical Informatics*, 49:73–83, 2014. doi:10.1016/j.jbi.2014.03.004.
    Keywords: irace.

[18] Bernardetta Addis, Marco Locatelli, and Fabio Schoen. **Disk Packing in a Square: A New Global Optimization Approach**. *INFORMS Journal on Computing*, 20(4):516–524, 2008. doi:10.1287/ijoc.1080.0263.

[19] B. Adenso-Díaz. **Restricted Neighborhood in the Tabu Search for the Flowshop Problem**. *European Journal of Operational Research*, 62(1):27–37, 1992.

[20] B. Adenso-Díaz and Manuel Laguna. **Fine-Tuning of Algorithms Using Fractional Experimental Design and Local Search**. *Operations Research*, 54(1):99–114, 2006.

[21] Hernán E. Aguirre. **Advances on Many-objective Evolutionary Optimization**. In Christian Blum and Enrique Alba, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2013*, pages 641–666, New York, NY, 2013. ACM Press.
    Keywords: many-objective evolutionary optimization.

[22] Hernán E. Aguirre and Keiki Takadama, editors. *Genetic and Evolutionary Computation Conference, GECCO 2018, Kyoto, Japan, July 15-19, 2018*. ACM Press, New York, NY, 2018. doi:10.1145/3205455.

[23] Hernán E. Aguirre and Kiyoshi Tanaka. **Working principles, behavior, and performance of MOEAs on MNK-landscapes**. *European Journal of Operational Research*, 181(3):1670–1690, 2007. doi:10.1016/j.ejor.2006.08.004.

[24] Hernán E. Aguirre and Kiyoshi Tanaka. **Many-Objective Optimization by Space Partitioning and Adaptive ϵ-Ranking on MNK-Landscapes**. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-criterion Optimization, EMO 2009*, volume 5467 of *Lecture Notes in Computer Science*, pages 407–422. Springer, Heidelberg, 2009.

[25] Samad Ahmadi and Ibrahim H. Osman. **Density Based Problem Space Search for the Capacitated Clustering p-Median Problem**. *Annals of Operations Research*, 131:21–43, 2004.

[26] A. Aho, J. Hopcroft, and J. Ullman. *Data structures and algorithms*. Addison-Wesley, Reading, MA, 1983.

[27] Ali Ahrari, Saber Elsayed, Ruhul Sarker, Daryl Essam, and Carlos A. Coello Coello. **Weighted pointwise prediction method for dynamic multiobjective optimization**. *Information Sciences*, 546:349–367, 2021.

[28] R. K. Ahuja, T. Magnanti, and J. B. Orlin. *Network Flows: Theory, Algorithms and Applications*. Prentice-Hall, 1993.

[29] R. K. Ahuja, O. Ergun, and A. P. Punnen. **A Survey of Very Large-scale Neighborhood Search Techniques**. *Discrete Applied Mathematics*, 123(1–3):75–102, 2002.

[30] Uwe Aickelin, Edmund K. Burke, and Jingpeng Li. **Improved Squeaky Wheel Optimisation for Driver Scheduling**. In T. P. Runarsson, Hans-Georg Beyer, Edmund K. Burke, Juan-Julián Merelo, Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature – PPSN IX*, volume 4193 of *Lecture Notes in Computer Science*, pages 182–191. Springer, Heidelberg, 2006.

[31] Sandip Aine, Rajeev Kumar, and P. P. Chakrabarti. **Adaptive parameter control of evolutionary algorithms to improve quality-time trade-off**. *Applied Soft Computing*, 9 (2):527–540, 2009. doi:10.1016/j.asoc.2008.07.001.
Keywords: anytime.

[32] Hassene Aissi and Bernard Roy. **Robustness in Multi-criteria Decision Aiding**. In Matthias Ehrgott, José Rui Figueira, and Salvatore Greco, editors, *Trends in Multiple Criteria Decision Analysis*, volume 142 of *International Series in Operations Research & Management Science*, chapter 4, pages 87–121. Springer, US, 2010.

[33] S. M. Aktürk, Alper Atamtürk, and S. Gürel. **A Strong Conic Quadratic Reformulation for Machine-Job Assignment with Controllable Processing Times**. Research Report BCOL.07.01, University of California-Berkeley, 2007.

[34] I. Alaya, Christine Solnon, and Khaled Ghédira. **Ant algorithm for the multi-dimensional knapsack problem**. In Bogdan Filipič and Jurij Šilc, editors, *International Conference on Bioinspired Optimization Methods and their Applications (BIOMA 2004)*, pages 63–72, 2004. URL https://books.google.be/books?id=0ZLsAAAACAAJ.

[35] I. Alaya, Christine Solnon, and Khaled Ghédira. **Ant Colony Optimization for Multi-Objective Optimization Problems**. In *19th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2007)*, volume 1, pages 450–457. IEEE Computer Society Press, Los Alamitos, CA, 2007.

[36] Enrique Alba and Francisco Chicano. **ACOhg: dealing with huge graphs**. In Dirk Thierens et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2007*, pages 10–17. ACM Press, New York, NY, 2007. doi:10.1145/1276958.1276961.

[37] Enrique Alba, Francisco Chicano, and Gabriel J. Luque, editors. *Smart Cities: First International Conference, Smart-CT 2016, Málaga, Spain, June 15-17, 2016, Proceedings*. Lecture Notes in Computer Science. Springer, Cham, Switzerland, 2016.

[38] A. A. Albrecht, P. C. R. Lane, and K. Steinhöfel. **Analysis of Local Search Landscapes for k-SAT Instances**. *Mathematics in Computer Science*, 3(4):465–488, 2010. doi:10.1007/s11786-010-0040-7.

[39] Andreas Albrecht and Kathleen Steinhöfel, editors. *Second International Symposium, SAGA 2003, Hatfield, UK, September 22-23, 2003, Proceedings*, volume 2827 of *Lecture Notes in Computer Science*, 2003. Springer Verlag. doi:10.1007/b13596.

[40] Aldeida Aleti and Irene Moser. **A systematic literature review of adaptive parameter control methods for evolutionary algorithms**. *ACM Computing Surveys*, 49(3, Article 56): 35, Oct. 2016. doi:10.1145/2996355.

[41] Vassil Alexandrov, Michael Lees, Valeria Krzhizhanovskaya, Jack Dongarra, and Peter M.A. Sloot, editors. *2013 International Conference on Computational Science*, volume 18 of *Procedia Computer Science*, 2013. Elsevier.

[42] Alnur Ali and Marina Meilă. **Experiments with Kemeny ranking: What Works When?** *Mathematical Social Science*, 64(1):28–40, July 2012. `doi:10.1016/j.mathsocsci.2011.08.008`. *Keywords:* Borda ranking, Kemeny ranking. *Annotation:* Computational Foundations of Social Choice.

[43] Mohamad Alissa, Kevin Sim, and Emma Hart. **Algorithm Selection Using Deep Learning without Feature Extraction**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019*, pages 198–206, New York, NY, 2019. ACM Press. ISBN 978-1-4503-6111-8. `doi:10.1145/3321707`.

[44] Ali Allahverdi and Harun Aydilek. **Algorithms for no-wait flowshops with total completion time subject to makespan**. *International Journal of Advanced Manufacturing Technology*, pages 1–15, 2013.

[45] Richard Allmendinger. *Tuning evolutionary search for closed-loop optimization*. PhD thesis, The University of Manchester, UK, 2012.

[46] Richard Allmendinger and Joshua D. Knowles. **Evolutionary Search in Lethal Environments**. In *International Conference on Evolutionary Computation Theory and Applications*, pages 63–72. SciTePress, 2011. `doi:10.5220/0003673000630072`.

[47] Christian Almeder. **A hybrid optimization approach for multi-level capacitated lot-sizing problems**. *European Journal of Operational Research*, 200(2):599–606, 2010. `doi:10.1016/j.ejor.2009.01.019`. *Keywords:* Ant colony optimization, Manufacturing, Material requirements planning, Mixed-integer programming.

[48] F. Almeida et al., editors. *Proceedings of HM 2006 – 3rd International Workshop on Hybrid Metaheuristics*, volume 4030 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2006.

[49] A. Alsheddy and E. Tsang. **Guided Pareto local search and its application to the 0/1 multi-objective knapsack problems**. In M. Caserta and Stefan Voß, editors, *Proceedings of MIC 2009, the 8th Metaheuristics International Conference*, Hamburg, Germany, 2010. University of Hamburg.

[50] S. Alupoaei and S. Katkoori. **Ant Colony System Application to Marcocell Overlap Removal**. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, 12(10):1118–1122, 2004.

[51] Sanae Amani, Mahnoosh Alizadeh, and Christos Thrampoulidis. **Linear Stochastic Bandits Under Safety Constraints**. In Hanna M. Wallach, Hugo Larochelle, Alina Beygelzimer, Florence d'Alché-Buc, Emily B. Fox, and Roman Garnett, editors, *Advances in Neural Information Processing Systems (NeurIPS 32)*, pages 9256–9266, 2019.

[52] C. Amir, A. Badr, and I Farag. **A Fuzzy Logic Controller for Ant Algorithms**. *Computing and Information Systems*, 11(2):26–34, 2007.

[53] J. H. Andersen and R. S. Powell. **The Use of Continuous Decision Variables in an Optimising Fixed Speed Pump Scheduling Algorithm**. In R. S. Powell and K. S. Hindi, editors, *Computing and Control for the Water Industry*, pages 119–128. Research Studies Press Ltd., 1999.

[54] K. A. Andersen, K. Jörnsten, and M. Lind. **On bicriterion minimal spanning trees: An approximation**. *Computers & Operations Research*, 23(12):1171–1182, 1996.

[55] Klaus Andersen, René Victor Valqui Vidal, and Villy Bæk Iversen. **Design of a Teleprocessing Communication Network Using Simulated Annealing**. In René Victor Valqui Vidal, editor, *Applied Simulated Annealing*, pages 201–215. Springer, 1993.

[56] Christophe Andrieu, Nando de Freitas, Arnaud Doucet, and Michael I. Jordan. **An Introduction to MCMC for Machine Learning**. *Machine Learning*, 50(1-2):5–43, 2003.

[57] Y. P. Aneja and K. P. K. Nair. **Bicriteria Transportation Problem**. *Management Science*, 25(1):73–78, 1979.

[58] Eric Angel, Evripidis Bampis, and Laurent Gourvés. **Approximating the Pareto curve with local search for the bicriteria TSP(1,2) problem**. *Theoretical Computer Science*, 310(1-3): 135–146, 2004. `doi:10.1016/S0304-3975(03)00376-1`.
Keywords: Archiving, Local search, Multicriteria TSP, Approximation algorithms.

[59] Plamen Angelov et al., editors. *Evolving and Autonomous Learning Systems (EALS), 2014 IEEE Symposium on*, 2014. IEEE.

[60] D. Anghinolfi, A. Boccalatte, M. Paolucci, and C. Vecchiola. **Performance Evaluation of an Adaptive Ant Colony Optimization Applied to Single Machine Scheduling**. In X. Li et al., editors, *Simulated Evolution and Learning, 7th International Conference, SEAL 2008*, volume 5361 of *Lecture Notes in Computer Science*, pages 411–420. Springer, Heidelberg, 2008.

[61] Daniel Angus. **Population-Based Ant Colony Optimisation for Multi-objective Function Optimisation**. In Marcus Randall, Hussein A. Abbass, and Janet Wiles, editors, *Progress in Artificial Life (ACAL)*, volume 4828 of *Lecture Notes in Computer Science*, pages 232–244. Springer, Heidelberg, 2007. `doi:10.1007/978-3-540-76931-6_21`.

[62] Daniel Angus and Clinton Woodward. **Multiple Objective Ant Colony Optimisation**. *Swarm Intelligence*, 3(1):69–85, 2009. `doi:10.1007/s11721-008-0022-4`.

[63] J. Ansel, S. Kamil, K. Veeramachaneni, J. Ragan-Kelley, J. Bosboom, Una-May O'Reilly, and S. Amarasinghe. **OpenTuner: An extensible framework for program autotuning**. In *Proceedings of the 23rd International Conference on Parallel Architectures and Compilation*, pages 303–315, New York, NY, 2014. ACM Press. `doi:10.1145/2628071.2628092`.

[64] Carlos Ansótegui, Meinolf Sellmann, and Kevin Tierney. **A Gender-Based Genetic Algorithm for the Automatic Configuration of Algorithms**. In Ian P. Gent, editor, *Principles and Practice of Constraint Programming, CP 2009*, volume 5732 of *Lecture Notes in Computer Science*, pages 142–157. Springer, Heidelberg, 2009. `doi:10.1007/978-3-642-04244-7_14`.
Keywords: GGA.

[65] Carlos Ansótegui, Yuri Malitsky, and Meinolf Sellmann. **MaxSAT by Improved Instance-Specific Algorithm Configuration**. In David Stracuzzi et al., editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 2594–2600. AAAI Press, 2014.

[66] Carlos Ansótegui, Yuri Malitsky, Horst Samulowitz, Meinolf Sellmann, and Kevin Tierney. **Model-Based Genetic Algorithms for Algorithm Configuration**. In Qiang Yang and Michael Wooldridge, editors, *Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence (IJCAI-15)*, pages 733–739. IJCAI/AAAI Press, Menlo Park, CA, 2015. `doi:10.5555/2832249.2832351`.
Keywords: GGA++.

[67] Carlos Ansótegui, Meinolf Sellmann, and Kevin Tierney. **GGA: Gender-based Genetic Algorithm Configurator**. `https://bitbucket.org/gga_ac/`, 2017. Version visited last on July 2017.

[68] Kurt Anstreicher, Nathan Brixius, Jean-Pierre Goux, and Jeff Linderoth. **Solving large quadratic assignment problems on computational grids**. *Mathematical Programming Series B*, 91(3):563–588, Feb. 2002. doi:10.1007/s101070100255.

[69] Apache Software Foundation. **Hadoop**, 2008. URL https://hadoop.apache.org.

[70] Apache Software Foundation. **Spark**, 2012. URL https://spark.apache.org.

[71] J. S. Appleby, D. V. Blake, and E. A. Newman. **Techniques for producing school timetables on a computer and their application to other scheduling problems**. *The Computer Journal*, 3(4):237–245, 1961. doi:10.1093/comjnl/3.4.237.

[72] David Applegate and William J. Cook. **A Computational Study of the Job-Shop Scheduling Problem**. *ORSA Journal on Computing*, 3(2):149–156, 1991.

[73] David Applegate, Robert E. Bixby, Vašek Chvátal, and William J. Cook. **Finding Cuts in the TSP**. Technical Report 95–05, DIMACS Center, Rutgers University, Piscataway, NJ, USA, Mar. 1995.

[74] David Applegate, Robert E. Bixby, Vašek Chvátal, and William J. Cook. **On the Solution of Traveling Salesman Problems**. *Documenta Mathematica*, Extra Volume ICM III:645–656, 1998.

[75] David Applegate, Robert E. Bixby, Vašek Chvátal, and William J. Cook. **Finding Tours in the TSP**. Technical Report 99885, Forschungsinstitut für Diskrete Mathematik, University of Bonn, Germany, 1999.

[76] David Applegate, Robert E. Bixby, Vašek Chvátal, and William J. Cook. **Implementing the Dantzig-Fulkerson-Johnson Algorithm for Large Traveling Salesman Problems**. *Mathematical Programming Series B*, 97(1–2):91–153, 2003.

[77] David Applegate, William J. Cook, and André Rohe. **Chained Lin-Kernighan for Large Traveling Salesman Problems**. *INFORMS Journal on Computing*, 15(1):82–92, 2003. doi:10.1287/ijoc.15.1.82.15157.

[78] David Applegate, Robert E. Bixby, Vašek Chvátal, and William J. Cook. *The Traveling Salesman Problem: A Computational Study*. Princeton University Press, Princeton, NJ, 2006.

[79] David Applegate, Robert E. Bixby, Vašek Chvátal, William J. Cook, D. Espinoza, M. Goycoolea, and Keld Helsgaun. **Certification of an Optimal TSP Tour Through 85,900 Cities**. *Operations Research Letters*, 37(1):11–15, 2009.

[80] David Applegate, Robert E. Bixby, Vašek Chvátal, and William J. Cook. **Concorde TSP Solver**. http://www.math.uwaterloo.ca/tsp/concorde.html, 2014. Version visited last on 15 April 2014.

[81] Jay April, Fred Glover, James P. Kelly, and Manuel Laguna. **Simulation-based optimization: Practical introduction to simulation optimization**. In Stephen E. Chick, Paul J. Sanchez, David M. Ferrin, and Douglas J. Morrice, editors, *Proceedings of the 35th Winter Simulation Conference: Driving Innovation*, volume 1, pages 71–78, New York, NY, Dec. 2003. ACM Press. doi:10.1109/WSC.2003.1261410.

[82] H. R. Arabnia, editor. *Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'98)*. CSREA Press, 1998.

[83] Hamid R. Arabnia and Rose Joshua, editors. *Proceedings of the 2005 International Conference on Artificial Intelligence, ICAI 2005*. CSREA Press, 2005. ISBN 1-932415-66-1.

[84] Florian Arnold and Kenneth Sörensen. **Knowledge-guided local search for the vehicle routing problem**. *Computers & Operations Research*, 105:32–46, 2019. `doi:10.1016/j.cor.2019.01.002`.

[85] Florian Arnold and Kenneth Sörensen. **What makes a VRP solution good? The generation of problem-specific knowledge for heuristics**. *Computers & Operations Research*, 106: 280–288, 2019. `doi:10.1016/j.cor.2018.02.007`.

[86] Florian Arnold, Ítalo Santana, Kenneth Sörensen, and Thibaut Vidal. **PILS: Exploring high-order neighborhoods bypattern mining and injection**. *Arxiv preprint arXiv:1912.11462*, 2019. URL `http://arxiv.org/abs/1912.11462`.

[87] Sanjeev Arora and Boaz Barak. *Computational complexity: a modern approach*. Cambridge University Press, 2009.

[88] Marvin A. Arostegui Jr, Sukran N. Kadipasaoglu, and Basheer M. Khumawala. **An empirical comparison of tabu search, simulated annealing, and genetic algorithms for facilities location problems**. *International Journal of Production Economics*, 103(2):742–754, 2006.

[89] José Elias C. Arroyo and V. A. Armentano. **A partial enumeration heuristic for multi-objective flowshop scheduling problems**. *Journal of the Operational Research Society*, 55(9):1000–1007, 2004.

[90] José Elias C. Arroyo and V. A. Armentano. **Genetic local search for multi-objective flowshop scheduling problems**. *European Journal of Operational Research*, 167(3):717–738, 2005.
Keywords: Multicriteria Scheduling.

[91] José Elias C. Arroyo and Joseph Y.-T. Leung. **An Effective Iterated Greedy Algorithm for Scheduling Unrelated Parallel Batch Machines with Non-identical Capacities and Unequal Ready Times**. *Computers and Industrial Engineering*, 105:84–100, 2017.

[92] Etor Arza, Josu Ceberio, Aritz Pérez, and Ekhine Irurozki. **Approaching the quadratic assignment problem with kernels of mallows models under the hamming distance**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2019*. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6748-6. `doi:10.1145/3319619.3321976`.
Keywords: QAP, EDA, Mallows.

[93] Y. Asahiro, K. Iwama, and E. Miyano. **Random Generation of Test Instances with Controlled Attributes**. In David S. Johnson and Michael A. Trick, editors, *Cliques, Coloring, and Satisfiability: Second DIMACS Implementation Challenge*, volume 26 of *DIMACS Series on Discrete Mathematics and Theoretical Computer Science*, pages 377–393. American Mathematical Society, Providence, RI, 1996.

[94] N. Ascheuer. *Hamiltonian Path Problems in the On-line Optimization of Flexible Manufacturing Systems*. PhD thesis, Technische Universität Berlin, Berlin, Germany, 1995.

[95] N. Ascheuer, Matteo Fischetti, and M. Grötschel. **Solving asymmetric travelling salesman problem with time windows by branch-and-cut**. *Mathematical Programming*, 90:475–506, 2001.

[96] Alper Atamtürk. **On the facets of the mixed–integer knapsack polyhedron**. *Mathematical Programming*, 98(1):145–175, 2003. `doi:10.1007/s10107-003-0400-z`.

[97] R. Atkinson, Jakobus E. van Zyl, Godfrey A. Walters, and Dragan A. Savic. **Genetic algorithm optimisation of level-controlled pumping station operation**. In *Water network modelling for optimal design and management*, pages 79–90. Centre for Water Systems, Exeter, UK, 2000.

[98] Charles Audet and Dominique Orban. **Finding Optimal Algorithmic Parameters Using Derivative-Free Optimization**. *SIAM Journal on Optimization*, 17(3):642–664, 2006.

[99] Charles Audet, Cong-Kien Dang, and Dominique Orban. **Algorithmic Parameter Optimization of the DFO Method with the OPAL Framework**. In K. Naono, K. Teranishi, J. Cavazos, and R. Suda, editors, *Software Automatic Tuning: From Concepts to State-of-the-Art Results*, pages 255–274. Springer, 2010.

[100] Charles Audet, Cong-Kien Dang, and Dominique Orban. **Optimization of Algorithms with OPAL**. *Mathematical Programming Computation*, 6(3):233–254, 2014.

[101] P. Audze and Vilnis Eglãjs. **New approach to the design of multifactor experiments**. *Problems of Dynamics and Strengths*, 35:104–107, 1977. (in Russian).

[102] Peter Auer. **Using Confidence Bounds for Exploitation-Exploration Trade-offs**. *Journal of Machine Learning Research*, 3:397–422, Nov. 2002.

[103] Peter Auer, Nicolo Cesa-Bianchi, and Paul Fischer. **Finite-time analysis of the multiarmed bandit problem**. *Machine Learning*, 47(2-3):235–256, 2002.

[104] Anne Auger and Benjamin Doerr, editors. *Theory of Randomized Search Heuristics: Foundations and Recent Developments*, volume 1 of *Series on Theoretical Computer Science*. World Scientific Publishing Co., Singapore, 2011.

[105] Anne Auger and Nikolaus Hansen. **A restart CMA evolution strategy with increasing population size**. In *Proceedings of the 2005 Congress on Evolutionary Computation (CEC 2005)*, pages 1769–1776. IEEE Press, Piscataway, NJ, Sept. 2005. doi:10.1109/CEC.2005.1554902. *Keywords:* IPOP-CMA-ES.

[106] Anne Auger and Nikolaus Hansen. **Performance evaluation of an advanced local search evolutionary algorithm**. In *Proceedings of the 2005 Congress on Evolutionary Computation (CEC 2005)*, pages 1777–1784. IEEE Press, Piscataway, NJ, Sept. 2005. *Keywords:* LR-CMAES.

[107] Anne Auger, Johannes Bader, Dimo Brockhoff, and Eckart Zitzler. **Articulating User Preferences in Many-Objective Problems by Sampling the Weighted Hypervolume**. In Franz Rothlauf, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2009*, pages 555–562. ACM Press, New York, NY, 2009.

[108] Anne Auger, Johannes Bader, Dimo Brockhoff, and Eckart Zitzler. **Investigating and Exploiting the Bias of the Weighted Hypervolume to Articulate User Preferences**. In Franz Rothlauf, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2009*, pages 563–570. ACM Press, New York, NY, 2009.

[109] Anne Auger, Johannes Bader, Dimo Brockhoff, and Eckart Zitzler. **Theory of the hypervolume indicator: optimal μ-distributions and the choice of the reference point**. In Franz Rothlauf, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2009*, pages 87–102. ACM Press, New York, NY, 2009.

[110] Anne Auger, Johannes Bader, Dimo Brockhoff, and Eckart Zitzler. **Hypervolume-based multiobjective optimization: Theoretical foundations and practical implications**. *Theoretical Computer Science*, 425:75–103, 2012. doi:10.1016/j.tcs.2011.03.012.

[111] Anne Auger, Dimo Brockhoff, Manuel López-Ibáñez, Kaisa Miettinen, Boris Naujoks, and Günther Rudolph. **Which questions should be asked to find the most appropriate method for decision making and problem solving? (Working Group "Algorithm Design Methods")**. In Salvatore Greco, Joshua D. Knowles, Kaisa Miettinen, and Eckart

Zitzler, editors, *Learning in Multiobjective Optimization (Dagstuhl Seminar 12041)*, volume 2(1) of *Dagstuhl Reports*, pages 92–93. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Germany, 2012. doi:10.4230/DagRep.2.1.50.

[112] Anne Auger, Dimo Brockhoff, Nikolaus Hansen, Dejan Tusar, Tea Tušar, and Tobias Wagner. **GECCO Workshop on Real-Parameter Black-Box Optimization Benchmarking (BBOB 2016): Focus on multi-objective problems**. https://numbbo.github.io/workshops/BBOB-2016/, 2016.

[113] Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors. *Parallel Problem Solving from Nature - PPSN XV 15th International Conference, Coimbra, Portugal, September 8-12, 2018, Proceedings*, volume 11101 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2018.

[114] Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors. *Parallel Problem Solving from Nature - PPSN XV 15th International Conference, Coimbra, Portugal, September 8-12, 2018, Proceedings*, volume 11102 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2018.

[115] Mustafa Avci and Seyda Topaloglu. **A Multi-start Iterated Local Search Algorithm for the Generalized Quadratic Multiple Knapsack Problem**. *Computers & Operations Research*, 83:54–65, 2017.

[116] Andreea Avramescu, Richard Allmendinger, and Manuel López-Ibáñez. **Managing Manufacturing and Delivery of Personalised Medicine: Current and Future Models**. *Arxiv preprint arXiv:2105.12699 [econ.GN]*, 2021. URL https://arxiv.org/abs/2105.12699.

[117] Andreea Avramescu, Richard Allmendinger, and Manuel López-Ibáñez. **A Multi-Objective Multi-Type Facility Location Problem for the Delivery of Personalised Medicine**. In Pedro Castillo and Juan Luis Jiménez Laredo, editors, *Applications of Evolutionary Computation*, volume 12694 of *Lecture Notes in Computer Science*, pages 388–403. Springer, Cham, Switzerland, 2021. doi:10.1007/978-3-030-72699-7_25. Supplementary material: https://doi.org/10.5281/zenodo.4495162.
Keywords: Personalised medicine, Biopharmaceuticals Supply chain, Facility location-allocation, Evolutionary multi-objective optimisation.

[118] Doğan Aydın. **Composite artificial bee colony algorithms: From component-based analysis to high-performing algorithms**. *Applied Soft Computing*, 32:266–285, 2015. doi:10.1016/j.asoc.2015.03.051.
Keywords: irace.

[119] Doğan Aydın, Gürcan Yavuz, Serdar Özyön, Celal Yasar, and Thomas Stützle. **Artificial Bee Colony Framework to Non-convex Economic Dispatch Problem with Valve Point Effects: A Case Study**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2017*, pages 1311–1318, New York, NY, 2017. ACM Press.

[120] Doğan Aydın, Gürcan Yavuz, and Thomas Stützle. **ABC-X: A Generalized, Automatically Configurable Artificial Bee Colony Framework**. *Swarm Intelligence*, 11(1):1–38, 2017.

[121] Mahdi Aziz and Mohammad-H. Tayarani-N. **An adaptive memetic Particle Swarm Optimization algorithm for finding large-scale Latin hypercube designs**. *Engineering Applications of Artificial Intelligence*, 36:222–237, 2014. doi:10.1016/j.engappai.2014.07.021.
Keywords: F-race.

[122] Amine Aziz-Alaoui, Carola Doerr, and Johann Dréo. **Towards Large Scale Automated Algorithm Design by Integrating Modular Benchmarking Frameworks**. In Francisco Chicano and Krzysztof Krawiec, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2021*, pages 1365–1374, New York, NY, 2021. ACM Press. doi:10.1145/3449726.3463155.

[123] Domagoj Babić. **Spear theorem prover**. https://www.domagoj-babic.com/index.php/ResearchProjects/Spear, 2008.

[124] Domagoj Babić and Alan J. Hu. **Structural Abstraction of Software Verification Conditions**. In *Computer Aided Verification: 19th International Conference, CAV 2007*, pages 366–378, 2007.
Annotation: Spear-swv instances, http://www.cs.ubc.ca/labs/beta/Projects/ParamILS/benchmark_instances/SpearSWV/SWV-scrambled-first302.tar.gz, http://www.cs.ubc.ca/labs/beta/Projects/ParamILS/benchmark_instances/SpearSWV/SWV-scrambled-last302.tar.gz.

[125] Domagoj Babić and Frank Hutter. **Spear Theorem Prover**. In *SAT'08: Proceedings of the SAT 2008 Race*, 2008. Supplementary material: https://www.domagoj-babic.com/index.php/ResearchProjects/Spear.
Annotation: Unreviewed paper.

[126] Fahiem Bacchus and Toby Walsh, editors. *International Conference on Theory and Applications of Satisfiability Testing*, volume 3569, 2005.

[127] Francis Bach and David Blei, editors. *Proceedings of the 32nd International Conference on Machine Learning, ICML 2015, Lille, France, 7-9 July 2015*, volume 37, 2015.

[128] Achim Bachem, Barthel Steckemetz, and Michael Wottawa. **An efficient parallel cluster-heuristic for large Traveling Salesman Problems**. Technical Report 94-150, University of Koln, Germany, 1994.
Keywords: Genetic Edge Recombination (ERX).

[129] François Bachoc, Céline Helbert, and Victor Picheny. **Gaussian process optimization with failures: Classification and convergence proof**. *Journal of Global Optimization*, 2020. doi:10.1007/s10898-020-00920-0.
Keywords: crashed simulation; latent gaussian process; automotive fan design; industrial application; GP classification; Expected Feasible Improvement with Gaussian Process Classification with signs; EFI GPC sign.

[130] Thomas Bäck. *Evolutionary algorithms in theory and practice: evolution strategies, evolutionary programming, genetic algorithms*. Oxford University Press, 1996.

[131] Thomas Bäck, editor. *Proceedings of the 7th International Conference on Genetic Algorithms, East Lansing, MI, USA, July 19-23, 1997*. Morgan Kaufmann Publishers, San Francisco, CA, 1997.

[132] Thomas Bäck, T. Fukuda, and Zbigniew Michalewicz, editors. *Proceedings of the 1996 IEEE International Conference on Evolutionary Computation (ICEC'96)*. IEEE Press, Piscataway, NJ, 1996.

[133] Thomas Bäck, David B. Fogel, and Zbigniew Michalewicz. *Handbook of evolutionary computation*. IOP Publishing, 1997.

[134] Thomas Bäck, Zbigniew Michalewicz, and Xin Yao, editors. *Proceedings of the 1997 IEEE International Conference on Evolutionary Computation (ICEC'97)*. IEEE Press, Piscataway, NJ, 1997.

[135] Thomas Bäck, Mike Preuss, André Deutz, Hao Wang, Carola Doerr, Michael T. M. Emmerich, and Heike Trautmann, editors. *Parallel Problem Solving from Nature - PPSN XVI 16th International Conference, Leiden, The Netherlands, September 5-9, 2020, Proceedings*, volume 12269 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2020.

[136] Johannes Bader and Eckart Zitzler. **HypE: An Algorithm for Fast Hypervolume-Based Many-Objective Optimization**. *Evolutionary Computation*, 19(1):45–76, 2011. `doi:10.1162/EVCO_a_00009`.

[137] Hossein Baharmand, Tina Comes, and Matthieu Lauras. **Bi-objective multi-layer location–allocation model for the immediate aftermath of sudden-onset disasters**. *Transportation Research Part E: Logistics and Transportation Review*, 127:86–110, 2019. `doi:10.1016/j.tre.2019.05.002`.

[138] Edward K. Baker. **An Exact Algorithm for the Time-Constrained Traveling Salesman Problem**. *Operations Research*, 31(5):938–945, 1983. `doi:10.1287/opre.31.5.938`.

[139] Monya Baker. **Is there a reproducibility crisis?** *Nature*, 533:452–454, 2016.

[140] Prasanna Balaprakash, Mauro Birattari, Thomas Stützle, and Marco Dorigo. **Incremental local search in ant colony optimization: Why it fails for the quadratic assignment problem**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 5th International Workshop, ANTS 2006*, volume 4150 of *Lecture Notes in Computer Science*, pages 156–166. Springer, Heidelberg, 2006.

[141] Prasanna Balaprakash, Mauro Birattari, and Thomas Stützle. **Improvement Strategies for the F-Race Algorithm: Sampling Design and Iterative Refinement**. In Thomas Bartz-Beielstein, María J. Blesa, Christian Blum, Boris Naujoks, Andrea Roli, Günther Rudolph, and M. Sampels, editors, *Hybrid Metaheuristics*, volume 4771 of *Lecture Notes in Computer Science*, pages 108–122. Springer, Heidelberg, 2007. `doi:10.1007/978-3-540-75514-2_9`. *Keywords:* Iterated Race.

[142] Prasanna Balaprakash, Mauro Birattari, Thomas Stützle, and Marco Dorigo. **Adaptive Sampling Size and Importance Sampling in Estimation-based Local Search for the Probabilistic Traveling Salesman Problem**. *European Journal of Operational Research*, 199(1):98–110, 2009.

[143] Prasanna Balaprakash, Mauro Birattari, Thomas Stützle, Zhi Yuan, and Marco Dorigo. **Estimation-based Ant Colony Optimization Algorithms for the Probabilistic Travelling Salesman Problem**. *Swarm Intelligence*, 3(3):223–242, 2009.

[144] Prasanna Balaprakash, Mauro Birattari, Thomas Stützle, and Marco Dorigo. **Estimation-based Metaheuristics for the Probabilistic Travelling Salesman Problem**. *Computers & Operations Research*, 37(11):1939–1951, 2010. `doi:10.1016/j.cor.2009.12.005`.

[145] Prasanna Balaprakash, Mauro Birattari, Thomas Stützle, and Marco Dorigo. **Estimation-based Metaheuristics for the Single Vehicle Routing Problem with Stochastic Demands and Customers**. *Computational Optimization and Applications*, 61(2):463–487, 2015. `doi:10.1007/s10589-014-9719-z`.

[146] Egon Balas and M. C. Carrera. **A Dynamic Subgradient-based Branch and Bound Procedure for Set Covering**. *Operations Research*, 44(6):875–890, 1996.

[147] Egon Balas and A. Ho. **Set Covering Algorithms Using Cutting Planes, Heuristics, and Subgradient Optimization: A Computational Study**. *Mathematical Programming Study*, 12:37–60, 1980.

[148] Egon Balas and C. Martin. **Pivot and Complement–A Heuristic for 0–1 Programming**. *Management Science*, 26(1):86–96, 1980.

[149] Egon Balas and M. W. Padberg. **Set Partitioning: A Survey**. *SIAM Review*, 18:710–760, 1976.

[150] Egon Balas and Neil Simonetti. **Linear Time Dynamic-Programming Algorithms for New Classes of Restricted TSPs: A Computational Study**. *INFORMS Journal on Computing*, 13(1):56–75, 2001. doi:10.1287/ijoc.13.1.56.9748.
Keywords: tsptw.

[151] Egon Balas and A. Vazacopoulos. **Guided Local Search with Shifting Bottleneck for Job Shop Scheduling**. *Management Science*, 44(2):262–275, 1998.

[152] Burcu Balcik and Benita M. Beamon. **Facility location in humanitarian relief**. *International Journal of Logistics*, 11(2):101–121, 2008.

[153] Steven C. Bankes. **Tools and techniques for developing policies for complex and uncertain systems**. *Proceedings of the National Academy of Sciences*, 99(suppl 3):7263–7266, 2002. doi:10.1073/pnas.092081399.

[154] Wolfgang Banzhaf, Jason M. Daida, A. E. Eiben, Max H. Garzon, Vasant Honavar, Mark J. Jakiela, and Robert E. Smith, editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 1999, 13-17 July 1999, Orlando, Florida, USA*. Morgan Kaufmann Publishers, San Francisco, CA, 1999.

[155] P. Baptiste and L. K. Hguny. **A branch and bound algorithm for the $F/no\_idle/C_{max}$**. In *Proceedings of the international conference on industrial engineering and production management, IEPM'97*, pages 429–438, Lyon, 1997.

[156] Benjamín Barán and Matilde Schaerer. **A multiobjective ant colony system for vehicle routing problem with time windows**. In *Proceedings of the Twenty-first IASTED International Conference on Applied Informatics*, pages 97–102, Insbruck, Austria, 2003.

[157] Elias Bareinboim and Judea Pearl. **Transportability of causal effects: Completeness results**. In Jorg Hoffmann and Bart Selman, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 698,704. AAAI Press, 2012.

[158] Elias Bareinboim and Judea Pearl. **Causal inference and the data-fusion problem**. *Proceedings of the National Academy of Sciences*, 113(27):7345–7352, 2016. doi:10.1073/pnas.1510507113.

[159] Cynthia Barnhart, Ellis L. Johnson, George L. Nemhauser, Martin W. P. Savelsbergh, and Pamela H. Vance. **Branch-and-price: Column generation for solving huge integer programs**. *Operations Research*, 46(3):316–329, 1998.

[160] R. S. Barr, Bruce L. Golden, J. P. Kelly, Mauricio G. C. Resende, and W. R. Stewart. **Designing and Reporting on Computational Experiments with Heuristic Methods**. *Journal of Heuristics*, 1(1):9–32, 1995. doi:10.1007/BF02430363.

[161] Erin Bartholomew and Jan H. Kwakkel. **On considering robustness in the search phase of Robust Decision Making: A comparison of Many-Objective Robust Decision Making, multi-scenario Many-Objective Robust Decision Making, and Many Objective Robust Optimization**. *Environmental Modelling & Software*, 127:104699, 2020. doi:10.1016/j.envsoft.2020.104699.

[162] Peter L. Bartlett, Fernando C. N. Pereira, Christopher J. C. Burges, Léon Bottou, and Kilian Q. Weinberger, editors. *Advances in Neural Information Processing Systems 25: 26th Annual Conference on Neural Information Processing Systems 2012*. Curran Associates, Red Hook, NY, 2012.

[163] Thomas Bartz-Beielstein. *Experimental Research in Evolutionary Computation: The New Experimentalism*. Springer, Berlin, Germany, 2006.
Keywords: SPO.

[164] Thomas Bartz-Beielstein. **How to Create Generalizable Results**. In Janusz Kacprzyk and Witold Pedrycz, editors, *Springer Handbook of Computational Intelligence*, pages 1127–1142. Springer, Berlin/Heidelberg, 2015.
Keywords: Mixed-effects models, random-effects model, problem instance generation.

[165] Thomas Bartz-Beielstein and Sandor Markon. **Tuning search algorithms for real-world applications: A regression tree based approach**. In *Proceedings of the 2004 Congress on Evolutionary Computation (CEC 2004)*, pages 1111–1118, Piscataway, NJ, Sept. 2004. IEEE Press.

[166] Thomas Bartz-Beielstein and Mike Preuss. **Considerations of budget allocation for sequential parameter optimization (SPO)**. In Luís Paquete, Marco Chiarandini, and Dario Basso, editors, *Empirical Methods for the Analysis of Algorithms, Workshop EMAA 2006, Proceedings*, pages 35–40, Reykjavik, Iceland, 2006.

[167] Thomas Bartz-Beielstein and Mike Preuss. **Experimental Analysis of Optimization Algorithms: Tuning and Beyond**. In Y. Borenstein and A. Moraglio, editors, *Theory and Principled Methods for the Design of Metaheuristics*, Natural Computing Series, pages 205–245. Springer, Berlin/Heidelberg, 2014. doi:10.1007/978-3-642-33206-7_10.

[168] Thomas Bartz-Beielstein, C. Lasarczyk, and Mike Preuss. **Sequential Parameter Optimization**. In *Proceedings of the 2005 Congress on Evolutionary Computation (CEC 2005)*, pages 773–780, Piscataway, NJ, Sept. 2005. IEEE Press.

[169] Thomas Bartz-Beielstein, María J. Blesa, Christian Blum, Boris Naujoks, Andrea Roli, Günther Rudolph, and M. Sampels, editors. *Hybrid Metaheuristics HM 2007, 4th International Workshop*, volume 4771 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2007.

[170] Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors. *Experimental Methods for the Analysis of Optimization Algorithms*. Springer, Berlin, Germany, 2010.

[171] Thomas Bartz-Beielstein, Oliver Flasch, Patrick Koch, and Wolfgang Konen. **SPOT: A Toolbox for Interactive and Automatic Tuning in the R Environment**. In *Proceedings 20. Workshop Computational Intelligence*, pages 264–273, Karlsruhe, 2010. KIT Scientific Publishing.

[172] Thomas Bartz-Beielstein, C. Lasarczyk, and Mike Preuss. **The Sequential Parameter Optimization Toolbox**. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, pages 337–360. Springer, Berlin, Germany, 2010.
Keywords: SPOT.

[173] Thomas Bartz-Beielstein, J. Ziegenhirt, W. Konen, O. Flasch, P. Koch, and M. Zaefferer. *SPOT: Sequential Parameter Optimization*, 2011. URL http://cran.r-project.org/package=SPOT. R package.

[174] Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič, and Jim Smith, editors. *Parallel Problem Solving from Nature, PPSN XIII*, volume 8672 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2014.

[175] Thomas Bartz-Beielstein, Carola Doerr, Daan van den Berg, Jakob Bossek, Sowmya Chandrasekaran, Tome Eftimov, Andreas Fischbach, Pascal Kerschke, William La Cava, Manuel López-Ibáñez, Katherine M. Malan, Jason H. Moore, Boris Naujoks, Patryk Orzechowski, Vanessa Volz, Markus Wagner, and Thomas Weise. **Benchmarking in Optimization: Best Practice and Open Issues**. *Arxiv preprint arXiv:2007.03488 [cs.NE]*, 2020. URL https://arxiv.org/abs/2007.03488.

[176] Thomas Bartz-Beielstein, Bogdan Filipič, P. Korošec, and El-Ghazali Talbi, editors. *High-Performance Simulation-Based Optimization*. Springer International Publishing, Cham, Switzerland, 2020.

[177] Matthieu Basseur, Adrien Goëffon, Arnaud Liefooghe, and Sébastien Verel. **On Set-based Local Search for Multiobjective Combinatorial Optimization**. In Christian Blum and Enrique Alba, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2013*, pages 471–478. ACM Press, New York, NY, 2013. ISBN 978-1-4503-1963-8. doi:10.1145/2463372.2463430.

[178] Atanu Basu and L. Neil Frazer. **Rapid Determination of the Critical Temperature in Simulated Annealing Inversion**. *Science*, 249(4975):1409–1412, 1990.

[179] Michele Battistutta, Andrea Schaerf, and Tommaso Urli. **Feature-based tuning of single-stage simulated annealing for examination timetabling**. In Ender Özcan, Edmund K. Burke, and Barry McCollum, editors, *PATAT 2014: Proceedings of the 10th International Conference of the Practice and Theory of Automated Timetabling*, pages 53–61. PATAT, 2014.
Keywords: F-race.

[180] Michele Battistutta, Andrea Schaerf, and Tommaso Urli. **Feature-based Tuning of Single-stage Simulated Annealing for Examination Timetabling**. *Annals of Operations Research*, 252(2):239–254, 2017.

[181] Roberto Battiti and Paolo Campigotto. **Reactive search optimization: Learning while optimizing. An experiment in interactive multi-objective optimization**. In M. Caserta and Stefan Voß, editors, *Proceedings of MIC 2009, the 8th Metaheuristics International Conference*, Hamburg, Germany, 2010. University of Hamburg.

[182] Roberto Battiti and Andrea Passerini. **Brain-Computer Evolutionary Multiobjective Optimization: A Genetic Algorithm Adapting to the Decision Maker**. *IEEE Transactions on Evolutionary Computation*, 14(5):671–687, 2010. doi:10.1109/TEVC.2010.2058118.
Keywords: BC-EMOA.
Annotation: Errata: DTLZ6 and DTLZ7 in the paper are actually DTLZ7 and DTLZ8 in [670].

[183] Roberto Battiti and M. Protasi. **Reactive Search, A History-Based Heuristic for MAX-SAT**. *ACM Journal of Experimental Algorithmics*, 2, 1997.

[184] Roberto Battiti and Giampietro Tecchiolli. **Simulated annealing and Tabu search in the long run: A comparison on QAP tasks**. *Computer and Mathematics with Applications*, 28(6):1–8, 1994. doi:10.1016/0898-1221(94)00147-2.

[185] Roberto Battiti and Giampietro Tecchiolli. **The Reactive Tabu Search**. *ORSA Journal on Computing*, 6(2):126–140, 1994.

[186] Roberto Battiti and Giampietro Tecchiolli. **The continuous reactive tabu search: blending combinatorial optimization and stochastic search for global optimization**. *Annals of Operations Research*, 63(2):151–188, 1996.

[187] Roberto Battiti, M. Brunato, and Franco Mascia. *Reactive Search and Intelligent Optimization*, volume 45 of *Operations Research/Computer Science Interfaces*. Springer, New York, NY, 2008. `doi:10.1007/978-0-387-09624-7`.

[188] Roberto Battiti, Dmitri E. Kvasov, and Yaroslav D. Sergeyev, editors. *11th International Conference, LION 11, Nizhny Novgorod, Russia, June 19-21, 2017, Revised Selected Papers*, volume 10556 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2017.

[189] Roberto Battiti, Mauro Brunato, Ilias Kotsireas, and Panos M. Pardalos, editors. *12th International Conference, LION 12, Kalamata, Greece, June 10-15, 2018*, volume 11353 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2018.

[190] E. B. Baum. **Iterated Descent: A Better Algorithm for Local Search in Combinatorial Optimization Problems**. Manuscript, 1986.

[191] E. B. Baum. **Towards Practical "Neural" Computation for Combinatorial Optimization Problems**. In *Neural Networks for Computing, AIP Conference Proceedings*, pages 53–64, 1986.

[192] Jason Baumgartner and Mary Sheeran, editors. *FMCAD'07: Proceedings of the 7th International Conference Formal Methods in Computer Aided Design*, Austin, Texas, USA, 2007. IEEE Computer Society, Washington, DC, USA.

[193] William J. Baumol. **Management models and industrial applications of linear programming**. *Naval Research Logistics Quarterly*, 9(1):63–64, 1962. `doi:10.1002/nav.3800090109`.

[194] J. Bautista and J. Pereira. **Ant algorithms for a time and space constrained assembly line balancing problem**. *European Journal of Operational Research*, 177(3):2016–2032, 2007. `doi:10.1016/j.ejor.2005.12.017`.

[195] John Baxter. **Local Optima Avoidance in Depot Location**. *Journal of the Operational Research Society*, 32(9):815–819, 1981.

[196] A. Baykasoglu, T. Dereli, and I. Sabuncu. **A multiple objective ant colony optimization approach to assembly line balancing problems**. In *35th International Conference on Computers and Industrial Engineering (CIE35)*, pages 263–268, Istanbul, Turkey, 2005.

[197] Brian Beachkofski and Ramana Grandhi. **Improved Distributed Hypercube Sampling**. In *Proceedings of the 43rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*. AIAA paper 2002-1274, American Institute of Aeronautics and Astronautics, 2002.

[198] Jennifer Bealt, Duncan Shaw, Chris M. Smith, and Manuel López-Ibáñez. **Peer Reviews for Making Cities Resilient: A Systematic Literature Review**. *International Journal of Emergency Management*, 15(4):334–359, 2019. `doi:10.1504/IJEM.2019.104201`.
Keywords: city resilience, city peer review, disaster risk governance.

[199] John E. Beasley. **OR-Library: distributing test problems by electronic mail**. *Journal of the Operational Research Society*, pages 1069–1072, 1990. Currently available from `http://people.brunel.ac.uk/~mastjjb/jeb/info.html`.

[200] John E. Beasley. **Heuristic algorithms for the unconstrained binary quadratic programming problem**. Technical report, The Management School, Imperial College, London, England, 1998.

[201] John E. Beasley and P. C. Chu. **A Genetic Algorithm for the Set Covering Problem**. *European Journal of Operational Research*, 94(2):392–404, 1996.

[202] John E. Beasley and P. C. Chu. **A Genetic Algorithm for the Multidimensional Knapsack Problem**. *Journal of Heuristics*, 4(1):63–86, 1998.

[203] S. Becker, J. Gottlieb, and Thomas Stützle. **Applications of Racing Algorithms: An Industrial Perspective**. In El-Ghazali Talbi, Pierre Liardet, Pierre Collet, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution*, volume 3871 of *Lecture Notes in Computer Science*, pages 271–283, Heidelberg, 2005. Springer.

[204] David D. Bedworth and James E. Bailey. *Integrated Production Control Systems: Management, Analysis, Design*, volume 2. John Wiley & Sons, New York, NY, 1982.

[205] Andreas Beham, Michael Affenzeller, and Stefan Wagner. **Instance-based algorithm selection on quadratic assignment problem landscapes**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2017*, pages 1471–1478, New York, NY, 2017. ACM Press.

[206] J. Behnamian and S.M.T. Fatemi Ghomi. **Hybrid Flowshop Scheduling with Machine and Resource-dependent Processing Times**. *Applied Mathematical Modelling*, 35(3):1107–1123, 2011.

[207] Michael Behrisch, Laura Bieker, Jakob Erdmann, and Daniel Krajzewicz. **SUMO - Simulation of Urban MObility: An Overview**. In *SIMUL 2011, The Third International Conference on Advances in System Simulation*, pages 63–68, Barcelona, Spain, 2011. ThinkMind.

[208] Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors. *Integration of AI and OR Techniques in Contraint Programming for Combinatorial Optimization Problems – 9th International Conference, CPAIOR 2012, Nantes, France, May 28 – June 1, 2012. Proceedings*, volume 7298 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012. ISBN 978-3-642-29827-1.

[209] Richard K. Belew and Michael D. Vose, editors. *Proceedings of the 4th Workshop on Foundations of Genetic Algorithms, San Diego, CA, USA, August 5 1996*. Morgan Kaufmann Publishers, 1996.

[210] Nacim Belkhir, Johann Dréo, Pierre Savéant, and Marc Schoenauer. **Feature Based Algorithm Configuration: A Case Study with Differential Evolution**. In Julia Handl, Emma Hart, P. R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa, and Ben Paechter, editors, *Parallel Problem Solving from Nature – PPSN XIV*, volume 9921 of *Lecture Notes in Computer Science*, pages 156–166, Heidelberg, 2016. Springer. ISBN 978-3-319-45822-9. doi:10.1007/978-3-319-45823-6.

[211] Nacim Belkhir, Johann Dréo, Pierre Savéant, and Marc Schoenauer. **Per Instance Algorithm Configuration of CMA-ES with Limited Budget**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2017*, pages 681–688. ACM Press, New York, NY, 2017.

[212] Ruggero Bellio, Sara Ceschia, Luca Di Gaspero, Andrea Schaerf, and Tommaso Urli. **Feature-based tuning of simulated annealing applied to the curriculum-based course timetabling problem**. *Computers & Operations Research*, 65:83–92, 2016.

[213] Richard Bellman. **The theory of dynamic programming**. *Bulletin of the American Mathematical Society*, 60:503–515, 1954.

[214] A. Belov, D. Diepold, M. Heule, and M. Järvisalo, editors. *Proceedings of SAT Competition 2014: Solver and Benchmark Descriptions*, volume B-2014-2 of *Science Series of Publications B*, 2014. University of Helsinki.

[215] Valerie Belton, Jürgen Branke, Petri Eskelinen, Salvatore Greco, Julián Molina, Francisco Ruiz, and Roman Słowiński. **Interactive Multiobjective Optimization from a Learning Perspective**. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Słowiński, editors, *Multiobjective Optimization: Interactive and Evolutionary Approaches*, volume 5252 of *Lecture Notes in Computer Science*, pages 405–433. Springer, Heidelberg, 2008. `doi:10.1007/978-3-540-88908-3_15`.

[216] F. Ben Abdelaziz, S. Krichen, and J. Chaouachi. **A hybrid heuristic for multiobjective knapsack problems**. In Mauricio G. C. Resende and Jorge Pinho de Souza, editors, *Proceedings of MIC 1997, the 2nd Metaheuristics International Conference*, pages 205–212, 1997. `doi:10.1007/978-1-4615-5775-3_14`.

[217] Nawal Benabbou, Cassandre Leroy, and Thibaut Lust. **An Interactive Regret-Based Genetic Algorithm for Solving Multi-Objective Combinatorial Optimization Problems**. In *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 2335–2342. AAAI Press, 2020. ISBN 978-1-57735-823-7. `doi:10.1609/aaai.v34i03.5612`.
Keywords: interactive, multi-objective, decision-makers.

[218] Alexander Javier Benavides and Marcus Ritt. **Iterated Local Search Heuristics for Minimizing Total Completion Time in Permutation and Non-permutation Flow Shops**. In Ronen I. Brafman, Carmel Domshlak, Patrik Haslum, and Shlomo Zilberstein, editors, *Proceedings of the Twenty-Fifth International Conference on Automated Planning and Scheduling, ICAPS 2015*, pages 34–41. AAAI Press, Menlo Park, CA, 2015.

[219] Alexander Javier Benavides and Marcus Ritt. **Two Simple and Effective Heuristics for Minimizing the Makespan in Non-permutation Flow Shops**. *Computers & Operations Research*, 66:160–169, 2016. `doi:10.1016/j.cor.2015.08.001`.

[220] Calem J. Bendell, Shalon Liu, Tristan Aumentado-Armstrong, Bogdan Istrate, Paul T. Cernek, Samuel Khan, Sergiu Picioreanu, Michael Zhao, and Robert A. Murgita. **Transient protein-protein interface prediction: datasets, features, algorithms, and the RAD-T predictor**. *BMC Bioinformatics*, 15:82, 2014.

[221] J. F. Benders. **Partitioning Procedures for Solving Mixed-variables Programming Problems**. *Numerische Mathematik*, 4(3):238–252, 1962.

[222] Stefano Benedettini, Andrea Roli, and Luca Di Gaspero. **Two-level ACO for Haplotype Inference under Pure Parsimony**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 6th International Conference, ANTS 2008*, volume 5217 of *Lecture Notes in Computer Science*, pages 179–190. Springer, Heidelberg, 2008.

[223] Stefano Benedettini, Andrea Roli, and Christian Blum. **A Randomized Iterated Greedy Algorithm for the Founder Sequence Reconstruction Problem**. In Christian Blum and Roberto Battiti, editors, *Learning and Intelligent Optimization, 4th International Conference, LION 4*, volume 6073 of *Lecture Notes in Computer Science*, pages 37–51. Springer, Heidelberg, 2010. `doi:10.1007/978-3-642-13800-3`.

[224] Una Benlic and Jin-Kao Hao. **Breakout Local Search for the Quadratic Assignment Problem**. *Applied Mathematics and Computation*, 219(9):4800–4815, 2013.

[225] J. L. Bentley. **Experiments on Traveling Salesman Heuristics**. In David S. Johnson, editor, *Proceedings of the First Annual ACM-SIAM Symposium on Discrete Algorithms*, pages 91–99. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 1990.

[226] J. L. Bentley. **Fast Algorithms for Geometric Traveling Salesman Problems**. *ORSA Journal on Computing*, 4(4):387–411, 1992.

[227] Loïc Berger, Johannes Emmerling, and Massimo Tavoni. **Managing catastrophic climate risks under model uncertainty aversion**. *Management Science*, 63(3):749–765, 2017.

[228] James S. Bergstra and Yoshua Bengio. **Random Search for Hyper-Parameter Optimization**. *Journal of Machine Learning Research*, 13:281–305, 2012.

[229] James S. Bergstra, Rémi Bardenet, Yoshua Bengio, and Balázs Kégl. **Algorithms for Hyper-Parameter Optimization**. In J. Shawe-Taylor, R. S. Zemel, P. L. Bartlett, F. Pereira, and K. Q. Weinberger, editors, *Advances in Neural Information Processing Systems (NIPS 24)*, pages 2546–2554. Curran Associates, Red Hook, NY, 2011. URL http://papers.nips.cc/paper/4443-algorithms-for-hyper-parameter-optimization.pdf.

[230] James S. Bergstra, Daniel Yasmin, and David Cox. **Making a science of model search: Hyperparameter optimization in hundreds of dimensions for vision architectures**. In Sanjoy Dasgupta and David McAllester, editors, *Proceedings of the 30th International Conference on Machine Learning, ICML 2013*, volume 28, pages 115–123, 2013. URL http://jmlr.org/proceedings/papers/v28/.

[231] Felix Berkenkamp, Andreas Krause, and Angela P. Schoellig. **Bayesian Optimization with Safety Constraints: Safe and Automatic Parameter Tuning in Robotics**. *Arxiv preprint arXiv:1602.04450*, 2016. URL http://arxiv.org/abs/1602.04450.

[232] Felix Berkenkamp, Angela P. Schoellig, and Andreas Krause. **Safe controller optimization for quadrotors with Gaussian processes**. In *2016 IEEE International Conference on Robotics and Automation (ICRA)*, pages 491–496. IEEE, 2016. doi:10.1109/ICRA.2016.7487170.

[233] Judith O. Berkey and Pearl Y. Wang. **Two-dimensional finite bin-packing algorithms**. *Journal of the Operational Research Society*, 38(5):423–429, 1987. doi:10.2307/2582731.

[234] Hughes Bersini, Marco Dorigo, S. Langerman, G. Seront, and L. M. Gambardella. **Results of the First International Contest on Evolutionary Optimisation**. In Thomas Bäck, T. Fukuda, and Zbigniew Michalewicz, editors, *Proceedings of the 1996 IEEE International Conference on Evolutionary Computation (ICEC'96)*, pages 611–615, Piscataway, NJ, 1996. IEEE Press.

[235] Livio Bertacco, Matteo Fischetti, and Andrea Lodi. **A feasibility pump heuristic for general mixed-integer problems**. *Discrete Optimization*, 4(1):63–76, 2007.

[236] T. Berthold, A. M. Gleixner, S. Heinz, and T. Koch, editors. *Integration of AI and OR Techniques in Contraint Programming for Combinatorial Optimization Problems – 8th International Conference, CPAIOR 2011, Berlin, Germany, May 23 – 27, 2011. Proceedings.* Lecture Notes in Computer Science. Springer, Heidelberg, 2011.

[237] D. Bertsekas. *Dynamic Programming and Optimal Control.* Athena Scientific, Belmont, MA, 1995.

[238] D. Bertsekas. *Network Optimization: Continuous and Discrete Models.* Athena Scientific, Belmont, MA, 1998.

[239] Dimitri P. Bertsekas, John N. Tsitsiklis, and Cynara Wu. **Rollout Algorithms for Combinatorial Optimization**. *Journal of Heuristics*, 3(3):245–262, 1997.

[240] Dimitris Bertsimas and Nathan Kallus. **From predictive to prescriptive analytics**. *Management Science*, 66(3):1025–1044, 2020.

[241] Nicola Beume and Günther Rudolph. **Faster S-Metric Calculation by Considering Dominated Hypervolume as Klee's Measure Problem**. In B. Kovalerchuk, editor, *Proceedings of the Second IASTED Conference on Computational Intelligence*, pages 231–236. ACTA Press, Anaheim, 2006.

[242] Nicola Beume, Carlos M. Fonseca, Manuel López-Ibáñez, Luís Paquete, and Jan Vahrenhold. **On the Complexity of Computing the Hypervolume Indicator**. Technical Report CI-235/07, University of Dortmund, Dec. 2007. Published in IEEE Transactions on Evolutionary Computation [244].

[243] Nicola Beume, Boris Naujoks, and Michael T. M. Emmerich. **SMS-EMOA: Multiobjective selection based on dominated hypervolume**. *European Journal of Operational Research*, 181(3):1653–1669, 2007. doi:10.1016/j.ejor.2006.08.008.

[244] Nicola Beume, Carlos M. Fonseca, Manuel López-Ibáñez, Luís Paquete, and Jan Vahrenhold. **On the complexity of computing the hypervolume indicator**. *IEEE Transactions on Evolutionary Computation*, 13(5):1075–1082, 2009. doi:10.1109/TEVC.2009.2015575.

[245] Hans-Georg Beyer and Una-May O'Reilly, editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2005*. ACM Press, New York, NY, 2005.

[246] Hans-Georg Beyer and Hans-Paul Schwefel. **Evolution Strategies: A Comprehensive Introduction**. *Natural Computing*, 1:3–52, 2002.

[247] Hans-Georg Beyer, Hans-Paul Schwefel, and Ingo Wegener. **How to analyse evolutionary algorithms**. *Theoretical Computer Science*, 287(1):101–130, 2002.

[248] Leonardo C. T. Bezerra. *A component-wise approach to multi-objective evolutionary algorithms: from flexible frameworks to automatic design*. PhD thesis, IRIDIA, École polytechnique, Université Libre de Bruxelles, Belgium, 2016.
Annotation: Supervised by Thomas Stützle and Manuel López-Ibáñez.

[249] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Generation of Multi-Objective ACO Algorithms for the Biobjective Knapsack**. In Marco Dorigo et al., editors, *Swarm Intelligence, 8th International Conference, ANTS 2012*, volume 7461 of *Lecture Notes in Computer Science*, pages 37–48. Springer, Heidelberg, 2012. doi:10.1007/978-3-642-32650-9_4. Supplementary material: http://iridia.ulb.ac.be/supp/IridiaSupp2012-008/.

[250] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Generation of MOACO Algorithms for the Biobjective Bidimensional Knapsack Problem: Supplementary material**. http://iridia.ulb.ac.be/supp/IridiaSupp2012-008/, 2012.

[251] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **An Analysis of Local Search for the Bi-objective Bidimensional Knapsack: Supplementary material**. http://iridia.ulb.ac.be/supp/IridiaSupp2012-016/, 2013.

[252] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Deconstructing Multi-Objective Evolutionary Algorithms: An Iterative Analysis on the Permutation Flowshop: Supplementary material**. http://iridia.ulb.ac.be/supp/IridiaSupp2013-010/, 2013.

[253] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **An Analysis of Local Search for the Bi-objective Bidimensional Knapsack Problem**. In Martin Middendorf and Christian Blum, editors, *Proceedings of EvoCOP 2013 – 13th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 7832 of *Lecture Notes in Computer Science*, pages 85–96. Springer, Heidelberg, 2013. doi:10.1007/978-3-642-37198-1_8.

[254] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Component-Wise Design of Multi-Objective Evolutionary Algorithms**. Technical Report TR/IRIDIA/2014-012, IRIDIA, Université Libre de Bruxelles, Belgium, Aug. 2014.

[255] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Deconstructing Multi-Objective Evolutionary Algorithms: An Iterative Analysis on the Permutation Flowshop**. In Panos M. Pardalos, Mauricio G. C. Resende, Chrysafis Vogiatzis, and Jose L. Walteros, editors, *Learning and Intelligent Optimization, 8th International Conference, LION 8*, volume 8426 of *Lecture Notes in Computer Science*, pages 57–172. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-09584-4_16`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2013-010/`.

[256] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Design of Evolutionary Algorithms for Multi-Objective Combinatorial Optimization**. In Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič, and Jim Smith, editors, *PPSN 2014*, volume 8672 of *Lecture Notes in Computer Science*, pages 508–517. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-10762-2_50`.

[257] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Design of Evolutionary Algorithms for Multi-Objective Combinatorial Optimization**. `http://iridia.ulb.ac.be/supp/IridiaSupp2014-007/`, 2014.

[258] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Component-Wise Design of Multi-Objective Evolutionary Algorithms**. `http://iridia.ulb.ac.be/supp/IridiaSupp2014-010/`, 2015.

[259] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **To DE or Not to DE? Multi-objective Differential Evolution Revisited from a Component-Wise Perspective: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2015-001/`, 2015.

[260] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **To DE or Not to DE? Multi-objective Differential Evolution Revisited from a Component-Wise Perspective**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part I*, volume 9018 of *Lecture Notes in Computer Science*, pages 48–63. Springer, Heidelberg, 2015. `doi:10.1007/978-3-319-15934-8_4`.

[261] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Comparing Decomposition-Based and Automatically Component-Wise Designed Multi-Objective Evolutionary Algorithms**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part I*, volume 9018 of *Lecture Notes in Computer Science*, pages 396–410, Heidelberg, 2015. Springer. `doi:10.1007/978-3-319-15934-8_27`.

[262] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Component-Wise Design of Multi-Objective Evolutionary Algorithms**. *IEEE Transactions on Evolutionary Computation*, 20(3):403–417, 2016. `doi:10.1109/TEVC.2015.2474158`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2014-010/`.

[263] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **An empirical assessment of the properties of inverted generational distance indicators on multi- and many-objective optimization: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2016-006/`, 2016.

[264] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **A Large-Scale Experimental Evaluation of High-Performing Multi- and Many-Objective Evolutionary Algorithms**. `http://iridia.ulb.ac.be/supp/IridiaSupp2015-007/`, 2017.

[265] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **A Large-Scale Experimental Evaluation of High-Performing Multi- and Many-Objective Evolutionary Algorithms**. Technical Report TR/IRIDIA/2017-005, IRIDIA, Université Libre de Bruxelles, Belgium, Feb. 2017.

[266] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **An Empirical Assessment of the Properties of Inverted Generational Distance Indicators on Multi- and Many-objective Optimization**. In Heike Trautmann, Günter Rudolph, Kathrin Klamroth, Oliver Schütze, Margaret M. Wiecek, Yaochu Jin, and Christian Grimme, editors, *Evolutionary Multi-criterion Optimization, EMO 2017*, Lecture Notes in Computer Science, pages 31–45. Springer International Publishing, Cham, Switzerland, 2017. `doi:10.1007/978-3-319-54157-0_3`.

[267] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **A Large-Scale Experimental Evaluation of High-Performing Multi- and Many-Objective Evolutionary Algorithms**. Technical Report TR/IRIDIA/2017-005, IRIDIA, Université Libre de Bruxelles, Belgium, Nov. 2017.

[268] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Configuration of Multi-objective Optimizers and Multi-objective Configuration**. Technical Report TR/IRIDIA/2017-011, IRIDIA, Université Libre de Bruxelles, Belgium, Nov. 2017. URL `http://iridia.ulb.ac.be/IridiaTrSeries/link/IridiaTr2017-011.pdf`. Published as [275].

[269] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **A Large-Scale Experimental Evaluation of High-Performing Multi- and Many-Objective Evolutionary Algorithms**. *Evolutionary Computation*, 26(4):621–656, 2018. `doi:10.1162/evco_a_00217`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2015-007/`.

[270] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatically Designing State-of-the-Art Multi- and Many-Objective Evolutionary Algorithms**. Technical Report TR/IRIDIA/2018-001, IRIDIA, Université Libre de Bruxelles, Belgium, Jan. 2018. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2018-001.pdf`. Published as [274].

[271] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatically Designing State-of-the-Art Multi- and Many-Objective Evolutionary Algorithms: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2016-004/`, 2019.

[272] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Archiver Effects on the Performance of State-of-the-art Multi- and Many-objective Evolutionary Algorithms: Supplementary material**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019*. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6111-8. `doi:10.1145/3321707.3321789`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2019-004/`.

[273] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Archiver Effects on the Performance of State-of-the-art Multi- and Many-objective Evolutionary Algorithms: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2019-004/`, 2019.

[274] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatically Designing State-of-the-Art Multi- and Many-Objective Evolutionary Algorithms**. *Evolutionary Computation*, 28(2):195–226, 2020. `doi:10.1162/evco_a_00263`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2016-004/`.

[275] Leonardo C. T. Bezerra, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Configuration of Multi-objective Optimizers and Multi-objective Configuration**. In Thomas Bartz-Beielstein, Bogdan Filipič, P. Korošec, and El-Ghazali Talbi, editors, *High-Performance Simulation-Based Optimization*, pages 69–92. Springer International Publishing, Cham, Switzerland, 2020. `doi:10.1007/978-3-030-18764-4_4`.

[276] Leonora Bianchi, L. M. Gambardella, and Marco Dorigo. **An Ant Colony Optimization Approach to the Probabilistic Traveling Salesman Problem**. In Juan-Julián Merelo et al., editors, *Parallel Problem Solving from Nature – PPSN VII*, volume 2439 of *Lecture Notes in Computer Science*, pages 883–892, Heidelberg, 2002. Springer.

[277] Leonora Bianchi, Mauro Birattari, M. Manfrin, M. Mastrolilli, Luís Paquete, O. Rossi-Doria, and Tommaso Schiavinotto. **Hybrid Metaheuristics for the Vehicle Routing Problem with Stochastic Demands**. *Journal of Mathematical Modelling and Algorithms*, 5(1):91–110, 2006.

[278] Leonora Bianchi, Marco Dorigo, L. M. Gambardella, and Walter J. Gutjahr. **A survey on metaheuristics for stochastic combinatorial optimization**. *Natural Computing*, 8(2): 239–287, 2009.

[279] André Biedenkapp, Marius Lindauer, Katharina Eggensperger, Frank Hutter, Chris Fawcett, and Holger H. Hoos. **Efficient Parameter Importance Analysis via Ablation with Surrogates**. In Satinder P. Singh and Shaul Markovitch, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*. AAAI Press, Feb. 2017. URL `https://aaai.org/ocs/index.php/AAAI/AAAI17/paper/view/14750`.

[280] André Biedenkapp, Joshua Marben, Marius Lindauer, and Frank Hutter. **Cave: Configuration assessment, visualization and evaluation**. In Roberto Battiti, Mauro Brunato, Ilias Kotsireas, and Panos M. Pardalos, editors, *Learning and Intelligent Optimization, 12th International Conference, LION 12*, volume 11353 of *Lecture Notes in Computer Science*, pages 115–130, Cham, Switzerland, 2018. Springer.

[281] Armin Biere. **Yet another Local Search Solver and Lingeling and Friends Entering the SAT Competition 2014**. In A. Belov, D. Diepold, M. Heule, and M. Järvisalo, editors, *Proceedings of SAT Competition 2014: Solver and Benchmark Descriptions*, volume B-2014-2 of *Science Series of Publications B*, pages 39–40. University of Helsinki, 2014.

[282] George Bilchev and Ian C. Parmee. **The Ant Colony Metaphor for Searching Continuous Design Spaces**. In T. C. Fogarty, editor, *Evolutionary Computing, AISB Workshop*, volume 993 of *Lecture Notes in Computer Science*, pages 25–39. Springer, Berlin, Germany, 1995. `doi:10.1007/3-540-60469-3_22`.

[283] M. Binois, D. Ginsbourger, and O. Roustant. **Quantifying uncertainty on Pareto fronts with Gaussian process conditional simulations**. *European Journal of Operational Research*, 243(2):386–394, 2015. `doi:10.1016/j.ejor.2014.07.032`.
Keywords: Attainment function, Expected Hypervolume Improvement, Kriging, Multi-objective optimization, Vorob'ev expectation.

[284] Mauro Birattari. **The race Package for R: Racing Methods for the Selection of the Best**. Technical Report TR/IRIDIA/2003-037, IRIDIA, Université Libre de Bruxelles, Belgium, 2003.

[285] Mauro Birattari. *The Problem of Tuning Metaheuristics as Seen from a Machine Learning Perspective*. PhD thesis, IRIDIA, École polytechnique, Université Libre de Bruxelles, Belgium, 2004.
Annotation: Supervised by Marco Dorigo.

[286] Mauro Birattari. **On the Estimation of the Expected Performance of a Metaheuristic on a Class of Instances. How Many Instances, How Many Runs?** Technical Report TR/IRIDIA/2004-001, IRIDIA, Université Libre de Bruxelles, Belgium, 2004.

[287] Mauro Birattari. *Tuning Metaheuristics: A Machine Learning Perspective*, volume 197 of *Studies in Computational Intelligence*. Springer, Berlin/Heidelberg, 2009. `doi:10.1007/978-3-642-00483-4`.

[288] Mauro Birattari, Gianni A. Di Caro, and Marco Dorigo. **Toward the formal foundation of Ant Programming**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 188–201. Springer, Heidelberg, 2002.

[289] Mauro Birattari, Thomas Stützle, Luís Paquete, and Klaus Varrentrapp. **A Racing Algorithm for Configuring Metaheuristics**. In W. B. Langdon et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2002*, pages 11–18. Morgan Kaufmann Publishers, San Francisco, CA, 2002.
Keywords: F-race.

[290] Mauro Birattari, Prasanna Balaprakash, and Marco Dorigo. **The ACO/F-RACE algorithm for combinatorial optimization under uncertainty**. In K. F. Doerner, M. Gendreau, P. Greistorfer, W. J. Gutjahr, R. F. Hartl, and M. Reimann, editors, *Metaheuristics – Progress in Complex Systems Optimization*, volume 39 of *Operations Research/Computer Science Interfaces Series*, pages 189–203. Springer, New York, NY, 2006.

[291] Mauro Birattari, M. Zlochin, and Marco Dorigo. **Towards a theory of practice in metaheuristics design: A machine learning perspective**. *Theoretical Informatics and Applications*, 40(2):353–369, 2006.

[292] Mauro Birattari, Paola Pellegrini, and Marco Dorigo. **On the invariance of ant colony optimization**. *IEEE Transactions on Evolutionary Computation*, 11(6):732–742, 2007. `doi:10.1109/TEVC.2007.892762`.

[293] Mauro Birattari, Prasanna Balaprakash, Thomas Stützle, and Marco Dorigo. **Estimation Based Local Search for Stochastic Combinatorial Optimization**. *INFORMS Journal on Computing*, 20(4):644–658, 2008.

[294] Mauro Birattari, Zhi Yuan, Prasanna Balaprakash, and Thomas Stützle. **F-Race and Iterated F-Race: An Overview**. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, pages 311–336. Springer, Berlin, Germany, 2010. `doi:10.1007/978-3-642-02538-9_13`.
Keywords: F-race, iterated F-race, irace, tuning.

[295] Mauro Birattari, Zhi Yuan, Prasanna Balaprakash, and Thomas Stützle. **Parameter Adaptation in Ant Colony Optimization**. In M. Caserta and Stefan Voß, editors, *Proceedings of MIC 2009, the 8th Metaheuristics International Conference*, Hamburg, Germany, 2010. University of Hamburg.

[296] Mauro Birattari, Marco Chiarandini, Marco Saerens, and Thomas Stützle. **Learning Graphical Models for Algorithm Configuration**. In T. Berthold, A. M. Gleixner, S. Heinz, and T. Koch, editors, *Integration of AI and OR Techniques in Contraint Programming for Combinatorial Optimization Problems*, Lecture Notes in Computer Science. Springer, Heidelberg, 2011.

[297] Mauro Birattari, Marco Chiarandini, Marco Saerens, and Thomas Stützle. **Learning graphical models for parameter tuning**. Technical Report TR/IRIDIA/2011-002, IRIDIA, Université Libre de Bruxelles, Belgium, 2011. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2011-002.pdf`.

[298] Steven Bird, Ewan Klein, and Edward Loper. *Natural language processing with Python: analyzing text with the natural language toolkit.* O'Reilly Media, Inc., 2009.

[299] Francesco Biscani, Dario Izzo, and Chit Hong Yam. **A Global Optimisation Toolbox for Massively Parallel Engineering Optimisation**. In *Astrodynamics Tools and Techniques (ICATT 2010), 4th International Conference on*, 2010. URL http://arxiv.org/abs/1004.3824. *Keywords:* PaGMO.

[300] Francesco Biscani, Dario Izzo, and Chit Hong Yam. **A Global Optimisation Toolbox for Massively Parallel Engineering Optimisation**. *Arxiv preprint arXiv:1004.3824*, 2010. URL http://arxiv.org/abs/1004.3824. *Keywords:* PaGMO.

[301] Bernd Bischl, Olaf Mersmann, Heike Trautmann, and Mike Preuss. **Algorithm Selection Based on Exploratory Landscape Analysis and Cost-sensitive Learning**. In Terence Soule and Jason H. Moore, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2012*, pages 313–320. ACM Press, New York, NY, 2012. *Keywords:* continuous optimization, landscape analysis, algorithm selection.

[302] Bernd Bischl, Michel Lang, Jakob Bossek, Leonard Judt, Jakob Richter, Tobias Kuehn, and Erich Studerus. *mlr: Machine Learning in R*, 2013. URL http://cran.r-project.org/package=mlr. R package.

[303] Bernd Bischl, Pascal Kerschke, Lars Kotthoff, Marius Thomas Lindauer, Yuri Malitsky, Alexandre Fréchette, Holger H. Hoos, Frank Hutter, Kevin Leyton-Brown, Kevin Tierney, and Joaquin Vanschoren. **ASlib: A Benchmark Library for Algorithm Selection**. *Artificial Intelligence*, 237:41–58, 2016.

[304] Bernd Bischl, Michel Lang, Lars Kotthoff, Julia Schiffner, Jakob Richter, Erich Studerus, Giuseppe Casalicchio, and Zachary M. Jones. **mlr: Machine Learning in R**. *Journal of Machine Learning Research*, 17(170):1–5, 2016.

[305] Bernd Bischl, Michel Lang, Jakob Bossek, Daniel Horn, Karin Schork, Jakob Richter, and Pascal Kerschke. *ParamHelpers : Helpers for Parameters in Black-Box Optimization, Tuning and Machine Learning*, 2017. URL https://cran.r-project.org/package=ParamHelpers. R package version 1.10.

[306] Bernd Bischl, Jakob Richter, Jakob Bossek, Daniel Horn, Janek Thomas, and Michel Lang. **mlrMBO: A Modular Framework for Model-Based Optimization of Expensive Black-Box Functions**. *Arxiv preprint arXiv:1703.03373 [stat.ML]*, 2017. URL http://arxiv.org/abs/1703.03373.

[307] Christopher M. Bishop. *Pattern recognition and machine learning.* Springer, 2006.

[308] Erdem Bıyık, Jonathan Margoliash, Shahrouz Ryan Alimo, and Dorsa Sadigh. **Efficient and Safe Exploration in Deterministic Markov Decision Processes with Unknown Transition Models**. In *2019 American Control Conference (ACC)*, pages 1792–1799. IEEE, 2019. doi:10.23919/ACC.2019.8815276.

[309] Craig Blackmore, Oliver Ray, and Kerstin Eder. **Automatically Tuning the GCC Compiler to Optimize the Performance of Applications Running on Embedded Systems**. *Arxiv preprint arXiv:1703.08228*, 2017. URL https://arxiv.org/abs/1703.08228.

[310] Xavier Blasco, Juan M. Herrero, Javier Sanchis, and Manuel Martínez. **A new graphical visualization of n-dimensional Pareto front for decision-making in multiobjective optimization**. *Information Sciences*, 178(20):3908–3924, 2008.

[311] María J. Blesa and Christian Blum. **Ant Colony Optimization for the Maximum Edge-Disjoint Paths Problem**. In Günther R. Raidl et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2004*, volume 3005 of *Lecture Notes in Computer Science*, pages 160–169. Springer, Heidelberg, 2004.

[312] María J. Blesa and Christian Blum. **Finding edge-disjoint paths in networks by means of artificial ant colonies**. *Journal of Mathematical Modelling and Algorithms*, 6(3):361–391, 2007.

[313] María J. Blesa, Christian Blum, Carlos Cotta, Antonio J. Fernández, José E. Gallardo, Andrea Roli, and M. Sampels, editors. *Hybrid Metaheuristics HM 2008, 5th International Workshop*, volume 5296 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[314] María J. Blesa, Christian Blum, Luca Di Gaspero, Andrea Roli, M. Sampels, and Andrea Schaerf, editors. *Hybrid Metaheuristics, 6th International Workshop, HM 2009, Udine, Italy, October 16-17, 2009. Proceedings*, volume 5818 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2009.

[315] María J. Blesa, Christian Blum, Paola Festa, Andrea Roli, and M. Sampels, editors. *Hybrid Metaheuristics, 8th International Workshop, HM 2013, Ischia, Italy, May 23-25, 2013. Proceedings*, volume 7919 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2013. ISBN 978-3-642-38515-5.

[316] María J. Blesa, Christian Blum, and Stefan Voß, editors. *Hybrid Metaheuristics, 9th International Workshop, HM 2014, Hamburg, Germany, June 11-13, 2014. Proceedings*, volume 8457 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2014. ISBN 978-3-319-07643-0.

[317] S. Bleuler, Marco Laumanns, Lothar Thiele, and Eckart Zitzler. **PISA − A Platform and Programming Language Independent Interface for Search Algorithms**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 494–508. Springer, Heidelberg, 2003.

[318] Aymeric Blot, Holger H. Hoos, Laetitia Jourdan, Marie-Eléonore Kessaci-Marmion, and Heike Trautmann. **MO-ParamILS: A Multi-objective Automatic Algorithm Configuration Framework**. In Paola Festa, Meinolf Sellmann, and Joaquin Vanschoren, editors, *Learning and Intelligent Optimization, 10th International Conference, LION 10*, volume 10079 of *Lecture Notes in Computer Science*, pages 32–47. Springer, Cham, Switzerland, 2016.

[319] Aymeric Blot, Laetitia Jourdan, and Marie-Eléonore Kessaci-Marmion. **Automatic design of multi-objective local search algorithms: case study on a bi-objective permutation flowshop scheduling problem**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2017*, pages 227–234. ACM Press, New York, NY, 2017. doi:10.1145/3071178.3071323.

[320] Aymeric Blot, Alexis Pernet, Laetitia Jourdan, Marie-Eléonore Kessaci-Marmion, and Holger H. Hoos. **Automatically Configuring Multi-objective Local Search Using Multi-objective Optimisation**. In Heike Trautmann, Günter Rudolph, Kathrin Klamroth, Oliver Schütze, Margaret M. Wiecek, Yaochu Jin, and Christian Grimme, editors, *Evolutionary Multi-criterion Optimization, EMO 2017*, Lecture Notes in Computer Science, pages 61–76. Springer International Publishing, Cham, Switzerland, 2017.

[321] Aymeric Blot, Manuel López-Ibáñez, Marie-Eléonore Kessaci-Marmion, and Laetitia Jourdan. **New Initialisation Techniques for Multi-Objective Local Search: Application to the Bi-objective Permutation Flowshop**. In Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors, *Parallel Problem Solving from Nature - PPSN XV*, volume 11101 of *Lecture Notes in Computer Science*, pages 323–334. Springer, Cham, Switzerland, 2018. doi:10.1007/978-3-319-99253-2_26.

[322] Avrim Blum, editor. *41st Annual Symposium on Foundations of Computer Science, FOCS 2000, 12-14 November 2000, Redondo Beach, California, USA*, 2000. IEEE Computer Society Press.

[323] Christian Blum. **Beam-ACO—Hybridizing Ant Colony Optimization with Beam Search: An Application to Open Shop Scheduling**. *Computers & Operations Research*, 32 (6):1565–1591, 2005.

[324] Christian Blum. **Beam-ACO for simple assembly line balancing**. *INFORMS Journal on Computing*, 20(4):618–627, 2008. doi:10.1287/ijoc.1080.0271.

[325] Christian Blum and Enrique Alba, editors. *Genetic and Evolutionary Computation Conference, GECCO 2013, Proceedings, Amsterdam, The Netherlands, July 6-10, 2013*. ACM Press, New York, NY, 2013. ISBN 978-1-4503-1963-8.

[326] Christian Blum and Enrique Alba, editors. *Genetic and Evolutionary Computation Conference, GECCO 2013, Companion Material Proceedings, Amsterdam, The Netherlands, July 6-10, 2013*. ACM Press, New York, NY, 2013.

[327] Christian Blum and Roberto Battiti, editors. *4th International Conference, LION 4, Venice, Italy, January 18-22, 2010. Selected Papers*, volume 6073 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2010. doi:10.1007/978-3-642-13800-3.

[328] Christian Blum and Marco Dorigo. **The hyper-cube framework for ant colony optimization**. *IEEE Transactions on Systems, Man, and Cybernetics – Part B*, 34(2):1161–1172, 2004.

[329] Christian Blum and Marco Dorigo. **Search Bias in Ant Colony Optimization: On the Role of Competition-Balanced Systems**. *IEEE Transactions on Evolutionary Computation*, 9(2):159–174, 2005.

[330] Christian Blum and Manuel López-Ibáñez. **Ant Colony Optimization**. In *The Industrial Electronics Handbook: Intelligent Systems*. CRC Press, 2nd edition, 2011. ISBN 9781439802830. URL http://www.crcpress.com/product/isbn/9781439802830.

[331] Christian Blum and M. Mastrolilli. **Using Branch & Bound Concepts in Construction-Based Metaheuristics: Exploiting the Dual Problem Knowledge**. In Thomas Bartz-Beielstein, María J. Blesa, Christian Blum, Boris Naujoks, Andrea Roli, Günther Rudolph, and M. Sampels, editors, *Hybrid Metaheuristics*, volume 4771 of *Lecture Notes in Computer Science*, pages 123–139. Springer, Heidelberg, 2007.

[332] Christian Blum and D. Merkle, editors. *Swarm Intelligence–Introduction and Applications*. Natural Computing Series. Springer Verlag, Berlin, Germany, 2008.

[333] Christian Blum and Gabriela Ochoa, editors. *Evolutionary Computation in Combinatorial Optimization – 14th European Conference, EvoCOP 2014, Granada, Spain, April 24-25, 2014, Proceedings*, volume 8600 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2014.

[334] Christian Blum and Gabriela Ochoa. **A comparative analysis of two matheuristics by means of merged local optima networks**. *European Journal of Operational Research*, 290 (1):36–56, 2021.

[335] Christian Blum and Günther R. Raidl. *Hybrid Metaheuristics—Powerful Tools for Optimization*. Artificial Intelligence: Foundations, Theory, and Algorithms. Springer, Berlin, Germany, 2016.

[336] Christian Blum and Andrea Roli. **Metaheuristics in Combinatorial Optimization: Overview and Conceptual Comparison**. *ACM Computing Surveys*, 35(3):268–308, 2003.

[337] Christian Blum and Andrea Roli. **Hybrid metaheuristics: an introduction**. In Christian Blum, María J. Blesa, Andrea Roli, and M. Sampels, editors, *Hybrid Metaheuristics: An emergent approach for optimization*, volume 114 of *Studies in Computational Intelligence*, pages 1–30. Springer, Berlin, Germany, 2008.

[338] Christian Blum and M. Sampels. **An Ant Colony Optimization Algorithm for Shop Scheduling Problems**. *Journal of Mathematical Modelling and Algorithms*, 3(3):285–308, 2004. `doi:10.1023/B:JMMA.0000038614.39977.6f`.

[339] Christian Blum and M. Yábar Vallès. **Multi-level ant colony optimization for DNA sequencing by hybridization**. In F. Almeida et al., editors, *Hybrid Metaheuristics*, volume 4030 of *Lecture Notes in Computer Science*, pages 94–109. Springer, Heidelberg, 2006. `doi:10.1007/11890584`.

[340] Christian Blum, J. Bautista, and J. Pereira. **Beam-ACO applied to assembly line balancing**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 5th International Workshop, ANTS 2006*, volume 4150 of *Lecture Notes in Computer Science*, pages 96–107. Springer, Heidelberg, 2006. `doi:10.1007/11839088_9`.

[341] Christian Blum, Carlos Cotta, Antonio J. Fernández, and J. E. Gallardo. **A probabilistic beam search algorithm for the shortest common supersequence problem**. In Carlos Cotta et al., editors, *Proceedings of EvoCOP 2007 – Seventh European Conference on Evolutionary Computation in Combinatorial Optimisation*, volume 4446 of *Lecture Notes in Computer Science*, pages 36–47. Springer, Berlin, Germany, 2007.

[342] Christian Blum, María J. Blesa, and Manuel López-Ibáñez. **Beam Search for the Longest Common Subsequence Problem**. Technical Report LSI-08-29, Department LSI, Universitat Politècnica de Catalunya, 2008. Published in Computers & Operations Research [345].

[343] Christian Blum, María J. Blesa, Andrea Roli, and M. Sampels, editors. *Hybrid Metaheuristics: An emergent approach for optimization*, volume 114 of *Studies in Computational Intelligence*. Springer, Berlin, Germany, 2008.

[344] Christian Blum, M. Yábar Vallès, and María J. Blesa. **An ant colony optimization algorithm for DNA sequencing by hybridization**. *Computers & Operations Research*, 35(11):3620–3635, 2008.

[345] Christian Blum, María J. Blesa, and Manuel López-Ibáñez. **Beam search for the longest common subsequence problem**. *Computers & Operations Research*, 36(12):3178–3186, 2009. `doi:10.1016/j.cor.2009.02.005`.

[346] Christian Blum, Jakob Puchinger, Günther R. Raidl, and Andrea Roli. **Hybrid Metaheuristics in Combinatorial Optimization: A Survey**. *Applied Soft Computing*, 11(6):4135–4151, 2011.

[347] Christian Blum, Borja Calvo, and María J. Blesa. **FrogCOL and FrogMIS: New Decentralized Algorithms for Finding Large Independent Sets in Graphs**. *Swarm Intelligence*, 9(2-3):205–227, 2015. `doi:10.1007/s11721-015-0110-1`.
Keywords: irace.

[348] Christian Blum, Pedro Pinacho, Manuel López-Ibáñez, and José A. Lozano. **Construct, Merge, Solve & Adapt: A New General Algorithm for Combinatorial Optimization**. *Computers & Operations Research*, 68:75–88, 2016. `doi:10.1016/j.cor.2015.10.014`.
Keywords: irace.

[349] Andrea F. Bocchese, Chris Fawcett, Mauro Vallati, Alfonso E. Gerevini, and Holger H. Hoos. **Performance robustness of AI planners in the 2014 International Planning Competition**. *AI Communications*, 31(6):445–463, Dec. 2018. `doi:10.3233/AIC-170537`.

[350] E. J. W. Boers et al., editors. *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2001*, volume 2037 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2001.

[351] K. D. Boese. *Models for Iterative Global Optimization*. PhD thesis, University of California, Computer Science Department, Los Angeles, CA, 1996.

[352] Kenneth D. Boese, Andrew B. Kahng, and Sudhakar Muddu. **A New Adaptive Multi-Start Technique for Combinatorial Global Optimization**. *Operations Research Letters*, 16(2): 101–113, 1994.
Keywords: big-valley hypothesis, TSP, landscape analysis.

[353] Ihor O. Bohachevsky, Mark E. Johnson, and Myron L. Stein. **Generalized Simulated Annealing for Function Optimization**. *Technometrics*, 28(3):209–217, 1986.

[354] Marko Bohanec. **Decision making: a computer-science and information-technology viewpoint**. *Interdisciplinary Description of Complex Systems*, 7(2):22–37, 2009.

[355] Béla Bollobás. *Random Graphs*. Cambridge University Press, New York, NY, 2nd edition, 2001.

[356] Blai Bonet and Sven Koenig, editors. *Proceedings of the Twenty-Ninth AAAI Conference on Artificial Intelligence, AAAI 2015, Austin, Texas, USA, January 25-30, 2015*, 2015. AAAI Press.

[357] Grady Booch, James E. Rumbaugh, and Ivar Jacobson. *The Unified Modeling Language User Guide*. Addison-Wesley, 2nd edition, 2005.

[358] Michael Borenstein, Larry V. Hedges, Julian P. T. Higgins, and Hannah R. Rothstein. *Introduction to Meta-Analysis*. Wiley, 2009.

[359] Y. Borenstein and A. Moraglio, editors. *Theory and Principled Methods for the Design of Metaheuristics*. Natural Computing Series. Springer, Berlin/Heidelberg, 2014.

[360] P. C. Borges. **CHESS - Changing Horizon Efficient Set Search: A simple principle for multiobjective optimization**. *Journal of Heuristics*, 6(3):405–418, 2000.

[361] P. C. Borges and Michael Pilegaard Hansen. **A basis for future successes in multiobjective combinatorial optimization**. Technical Report IMM-REP-1998-8, Institute of Mathematical Modelling, Technical University of Denmark, Lyngby, Denmark, 1998.

[362] Allan Borodin and Ran El-Yaniv. *Online computation and competitive analysis*. Cambridge University Press, New York, NY, 1998. ISBN 0-521-56392-5.

[363] Endre Boros, Peter L. Hammer, and Gabriel Tavares. **Local search heuristics for Quadratic Unconstrained Binary Optimization (QUBO)**. *Journal of Heuristics*, 13(2):99–132, 2007.

[364] Bernhard E. Boser, Isabelle Guyon, and Vladimir Vapnik. **A Training Algorithm for Optimal Margin Classifiers**. In David Haussler, editor, *COLT'92*, pages 144–152. ACM Press, 1992. doi:10.1145/130385.130401.
Annotation: Proposed SVM.

[365] Peter A. N. Bosman, editor. *Genetic and Evolutionary Computation Conference, GECCO 2017, Berlin, Germany, July 15-19, 2017*. ACM Press, New York, NY, 2017.

[366] Peter A. N. Bosman, editor. *Genetic and Evolutionary Computation Conference, GECCO 2017, Berlin, Germany, July 15-19, 2017*. ACM Press, New York, NY, 2017.

[367] Jakob Bossek. *smoof: Single and Multi-Objective Optimization Test Functions*, 2016. URL http://CRAN.R-project.org/package=smoof. R package version 1.2.

[368] Hozefa M. Botee and Eric Bonabeau. **Evolving Ant Colony Optimization**. *Advances in Complex Systems*, 1:149–159, 1998.

[369] Marco Botte and Anita Schöbel. **Dominance for multi-objective robust optimization concepts**. *European Journal of Operational Research*, 273(2):430–440, 2019.

[370] Salim Bouamama, Christian Blum, and Abdellah Boukerram. **A Population-based Iterated Greedy Algorithm for the Minimum Weight Vertex Cover Problem**. *Applied Soft Computing*, 12(6):1632–1639, 2012.

[371] K. Bouleimen and H. Lecocq. **A new efficient simulated annealing algorithm for the resource-constrained project scheduling problem and its multiple mode version**. *European Journal of Operational Research*, 149(2):268–281, 2003. [doi:10.1016/S0377-2217(02)00761-0](doi:10.1016/S0377-2217(02)00761-0).
Keywords: multi-mode resource-constrained project scheduling, project scheduling, simulated annealing.

[372] Paul F. Boulos, Chun Hou Orr, Werner de Schaetzen, J. G. Chatila, Michael Moore, Paul Hsiung, and Devan Thomas. **Optimal pump operation of water distribution systems using genetic algorithms**. In *AWWA Distribution System Symp.*, Denver, USA, 2001. American Water Works Association.

[373] Géraldine Bous, Philippe Fortemps, François Glineur, and Marc Pirlot. **ACUTA: A novel method for eliciting additive value functions on the basis of holistic preference statements**. *European Journal of Operational Research*, 206(2):435–444, 2010.

[374] Craig Boutilier, editor. *IJCAI 2009, Proceedings of the 21st International Joint Conference on Artificial Intelligence, Pasadena, California, USA, July 11-17, 2009*, 2009. AAAI Press, Menlo Park, CA.

[375] V. Bowman and Jr. Joseph. **On the Relationship of the Tchebycheff Norm and the Efficient Frontier of Multiple-Criteria Objectives**. In Hervé Thiriez and Stanley Zionts, editors, *Multiple Criteria Decision Making*, volume 130 of *Lecture Notes in Economics and Mathematical Systems*, pages 76–86. Springer, Berlin/Heidelberg, 1976. [doi:10.1007/978-3-642-87563-2_5](doi:10.1007/978-3-642-87563-2_5).

[376] G. E. P. Box, W. G. Hunter, and J. S. Hunter. *Statistics for experimenters: an introduction to design, data analysis, and model building.* John Wiley & Sons, New York, NY, 1978.

[377] George E. P. Box and Norman R. Draper. *Response surfaces, mixtures, and ridge analyses.* John Wiley & Sons, 2007.

[378] L. Bradstreet, L. Barone, L. While, S. Huband, and P. Hingston. **Use of the WFG Toolkit and PISA for Comparison of MOEAs**. In *IEEE Symposium on Computational Intelligence in Multicriteria Decision-Making, IEEE MCDM*, pages 382–389, 2007.

[379] Ronen I. Brafman, F. Roberts, and Alexis Tsoukiàs, editors. *Algorithmic Decision Theory, Third International Conference, ADT 2011, Piscataway, New Jersey, USA, October 26-28, 2011*, volume 6992 of *Lecture Notes in Artificial Intelligence.* Springer, Heidelberg, 2011.

[380] Ronen I. Brafman, Carmel Domshlak, Patrik Haslum, and Shlomo Zilberstein, editors. *Proceedings of the Twenty-Fifth International Conference on Automated Planning and Scheduling, ICAPS 2015, Jerusalem, Israel, June 7-11, 2015.* AAAI Press, Menlo Park, CA, 2015.

[381] S. C. Brailsford, Walter J. Gutjahr, M. S. Rauner, and W. Zeppelzauer. **Combined Discrete-event Simulation and Ant Colony Optimisation Approach for Selecting Optimal Screening Policies for Diabetic Retinopathy**. *Computational Management Science*, 4(1):59–83, 2006.

[382] A. Brandt. **Multilevel Computations: Review and Recent Developments**. In S. F. McCormick, editor, *Multigrid Methods: Theory, Applications, and Supercomputing, Proceedings of the 3rd Copper Mountain Conference on Multigrid Methods*, volume 110 of *Lecture Notes in Pure and Applied Mathematics*, pages 35–62. Marcel Dekker, New York, NY, 1988.

[383] Jürgen Branke and Jawad Elomari. **Simultaneous tuning of metaheuristic parameters for various computing budgets**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 263–264. ACM Press, New York, NY, 2011. doi:10.1145/2001858.2002006.
Keywords: meta-optimization, offline parameter optimization.

[384] Jürgen Branke and Jawad Elomari. **Racing with a Fixed Budget and a Self-Adaptive Significance Level**. In Panos M. Pardalos and G. Nicosia, editors, *Learning and Intelligent Optimization, 7th International Conference, LION 7*, volume 7997 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2013.

[385] Jürgen Branke, T. Kaussler, and H. Schmeck. **Guidance in evolutionary multi-objective optimization**. *Advances in Engineering Software*, 32:499–507, 2001.

[386] Jürgen Branke, C. Schmidt, and H. Schmeck. **Efficient fitness estimation in noisy environments**. In Erik D. Goodman, editor, *Proceedings of the 3rd Annual Conference on Genetic and Evolutionary Computation, GECCO 2001*, pages 243–250. Morgan Kaufmann Publishers, San Francisco, CA, 2001.

[387] Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Słowiński, editors. *Multiobjective Optimization: Interactive and Evolutionary Approaches*, volume 5252 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[388] Jürgen Branke, Salvatore Greco, Roman Słowiński, and P Zielniewicz. **Interactive evolutionary multiobjective optimization driven by robust ordinal regression**. *Bulletin of the Polish Academy of Sciences: Technical Sciences*, 58(3):347–358, 2010. doi:10.2478/v10175-010-0033-3.

[389] Jürgen Branke, Salvatore Corrente, Salvatore Greco, Roman Słowiński, and P. Zielniewicz. **Using Choquet integral as preference model in interactive evolutionary multiobjective optimization**. Technical report, WBS, University of Warwick, 2014.

[390] Jürgen Branke, Salvatore Corrente, Salvatore Greco, Milosz Kadzinski, Manuel López-Ibáñez, Vincent Mousseau, Mauro Munerato, and Roman Słowiński. **Behavior-Realistic Artificial Decision-Makers to Test Preference-Based Multi-objective Optimization Method (Working Group "Machine Decision-Making")**. In Salvatore Greco, Kathrin Klamroth, Joshua D. Knowles, and Günther Rudolph, editors, *Understanding Complexity in Multiobjective Optimization (Dagstuhl Seminar 15031)*, volume 5(1) of *Dagstuhl Reports*, pages 110–116. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Germany, 2015. doi:10.4230/DagRep.5.1.96.
Keywords: multiple criteria decision making, evolutionary multiobjective optimization.

[391] Jürgen Branke, Salvatore Greco, Roman Słowiński, and Piotr Zielniewicz. **Learning Value Functions in Interactive Evolutionary Multiobjective Optimization**. *IEEE Transactions on Evolutionary Computation*, 19(1):88–102, 2015.

[392] Jürgen Branke, Salvatore Corrente, Salvatore Greco, Roman Słowiński, and P. Zielniewicz. **Using Choquet integral as preference model in interactive evolutionary multiobjective optimization**. *European Journal of Operational Research*, 250(3):884–901, 2016. doi:10.1016/j.ejor.2015.10.027.

[393] Jürgen Branke, S. S. Farid, and N. Shah. **Industry 4.0: a vision for personalized medicine supply chains?** *Cell and Gene Therapy Insights*, 2(2):263–270, 2016. doi:10.18609/cgti.2016.027.

[394] Jürgen Branke, S. Nguyen, C. W. Pickardt, and M. Zhang. **Automated Design of Production Scheduling Heuristics: A Review**. *IEEE Transactions on Evolutionary Computation*, 20(1): 110–124, 2016.

[395] Jean-Pierre Brans and Bertrand Mareschal. *PROMETHEE-GAIA. Une méthode d'aide à la décision en présence de critères multiples*. Editions Ellipses, Paris, FR, 2002. ISBN 2-7298-1253-9.

[396] Jean-Pierre Brans and Bertrand Mareschal. **PROMETHEE Methods**. In José Rui Figueira, Salvatore Greco, and Matthias Ehrgott, editors, *Multiple Criteria Decision Analysis, State of the Art Surveys*, chapter 5, pages 163–195. Springer, 2005.

[397] Roland Braune and G. Zäpfel. **Shifting Bottleneck Scheduling for Total Weighted Tardiness Minimization—A Computational Evaluation of Subproblem and Re-optimization Heuristics**. *Computers & Operations Research*, 66:130–140, 2016.

[398] Yesnier Bravo, Javier Ferrer, Gabriel J. Luque, and Enrique Alba. **Smart Mobility by Optimizing the Traffic Lights: A New Tool for Traffic Control Centers**. In Enrique Alba, Francisco Chicano, and Gabriel J. Luque, editors, *Smart Cities (Smart-CT 2016)*, Lecture Notes in Computer Science, pages 147–156. Springer, Cham, Switzerland, 2016. `doi:10.1007/978-3-319-39595-1_15`.
Keywords: Multi-objective optimization, Smart mobility, Traffic lights planning.

[399] Leo Breiman. **Random Forests**. *Machine Learning*, 45(1):5–32, 2001. `doi:10.1023/A:1010933404324`.

[400] Mátyás Brendel and Marc Schoenauer. **Instance-based Parameter Tuning for Evolutionary AI Planning**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2011*, pages 591–598, New York, NY, 2011. ACM Press. `doi:10.1145/2001858.2002053`.

[401] Mátyás Brendel and Marc Schoenauer. **Learn-and-Optimize: A Parameter Tuning Framework for Evolutionary AI Planning**. In Jin-Kao Hao, Pierrick Legrand, Pierre Collet, Nicolas Monmarché, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution: 10th International Conference, Evolution Artificielle, EA, 2011*, volume 7401 of *Lecture Notes in Computer Science*, pages 145–155. Springer, Heidelberg, 2012. `doi:10.1007/978-3-642-35533-2_13`.

[402] Gerhard Brewka, Silvia Coradeschi, Anna Perini, and Paolo Traverso, editors. *Proceedings of the 17th European Conference on Artificial Intelligence, ECAI 2006, Riva del Garda, Italy, August29 - September 1, 2006*. IOS Press, 2006.

[403] Karl Bringmann and Tobias Friedrich. **Approximating the Least Hypervolume Contributor: NP-Hard in General, But Fast in Practice**. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-criterion Optimization, EMO 2009*, volume 5467 of *Lecture Notes in Computer Science*, pages 6–20. Springer, Heidelberg, 2009.

[404] Karl Bringmann and Tobias Friedrich. **Don't be greedy when calculating hypervolume contributions**. In Ivan I. Garibay, Thomas Jansen, R. Paul Wiegand, and Annie S. Wu, editors, *Proceedings of the Tenth ACM SIGEVO Workshop on Foundations of Genetic Algorithms (FOGA)*, pages 103–112. ACM, 2009. ISBN 978-1-60558-414-0.

[405] Karl Bringmann and Tobias Friedrich. **The Maximum Hypervolume Set Yields Near-optimal Approximation**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2010*, pages 511–518. ACM Press, New York, NY, 2010.

[406] Karl Bringmann and Tobias Friedrich. **Convergence of Hypervolume-Based Archiving Algorithms I: Effectiveness**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 745–752. ACM Press, New York, NY, 2011. `doi:10.1145/2001576.2001678`.

[407] Karl Bringmann and Tobias Friedrich. **Convergence of Hypervolume-Based Archiving Algorithms II: Competitiveness**. In Terence Soule and Jason H. Moore, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2012*, pages 457–464. ACM Press, New York, NY, 2012. `doi:10.1145/2330163.2330229`.

[408] Karl Bringmann, Tobias Friedrich, Frank Neumann, and Markus Wagner. **Approximation-guided Evolutionary Multi-objective Optimization**. In Toby Walsh, editor, *Proceedings of the Twenty-Second International Joint Conference on Artificial Intelligence (IJCAI-11)*, pages 1198–1203. IJCAI/AAAI Press, Menlo Park, CA, 2011.

[409] D. R. Broad, Graeme C. Dandy, and Holger R. Maier. **A Metamodeling Approach to Water Distribution System Optimization**. In *6th Annual Symposium on Water Distribution Systems Analysis*. ASCE, June 2004.

[410] Eric Brochu, Vlad Cora, and Nando de Freitas. **A Tutorial on Bayesian Optimization of Expensive Cost Functions, with Application to Active User Modeling and Hierarchical Reinforcement Learning**. *Arxiv preprint arXiv:1012.2599*, Dec. 2010. URL `https://arxiv.org/abs/1012.2599`.

[411] Dimo Brockhoff. **A Bug in the Multiobjective Optimizer IBEA: Salutary Lessons for Code Release and a Performance Re-Assessment**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part I*, volume 9018 of *Lecture Notes in Computer Science*, pages 187–201. Springer, Heidelberg, 2015. `doi:10.1007/978-3-319-15934-8_13`.

[412] Dimo Brockhoff, Manuel López-Ibáñez, Boris Naujoks, and Günther Rudolph. **Runtime Analysis of Simple Interactive Evolutionary Biobjective Optimization Algorithms**. In Carlos A. Coello Coello et al., editors, *Parallel Problem Solving from Nature, PPSN XII*, volume 7491 of *Lecture Notes in Computer Science*, pages 123–132. Springer, Heidelberg, 2012. `doi:10.1007/978-3-642-32937-1_13`.

[413] Dimo Brockhoff, Johannes Bader, Lothar Thiele, and Eckart Zitzler. **Directed Multiobjective Optimization Based on the Weighted Hypervolume Indicator**. *Journal of Multi-Criteria Decision Analysis*, 20(5-6):291–317, 2013. `doi:10.1002/mcda.1502`.
Keywords: hypervolume, preference-based search, multi objective optimization, evolutionary algorithm.

[414] Dimo Brockhoff, Roberto Calandra, Manuel López-Ibáñez, Frank Neumann, and Selvakumar Ulaganathan. **Meta-modeling for (interactive) multi-objective optimization (WG5)**. In Kathrin Klamroth, Joshua D. Knowles, Günther Rudolph, and Margaret M. Wiecek, editors, *Personalized Multiobjective Optimization: An Analytics Perspective (Dagstuhl Seminar 18031)*, volume 8(1) of *Dagstuhl Reports*, pages 85–94. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Germany, 2018. `doi:10.4230/DagRep.8.1.33`.
Keywords: multiple criteria decision making, evolutionary multiobjective optimization.

[415] Peter Brucker, Johann Hurink, and Frank Werner. **Improving Local Search Heuristics for some Scheduling Problems — Part I**. *Discrete Applied Mathematics*, 65(1–3):97–122, 1996.

[416] Peter Brucker, Johann Hurink, and Frank Werner. **Improving Local Search Heuristics for some Scheduling Problems — Part II**. *Discrete Applied Mathematics*, 72(1–2):47–69, 1997.

[417] Artur Brum and Marcus Ritt. **Automatic Design of Heuristics for Minimizing the Makespan in Permutation Flow Shops**. In *Proceedings of the 2018 Congress on Evolutionary Computation (CEC 2018)*, pages 1–8, Piscataway, NJ, 2018. IEEE Press. [doi:10.1109/CEC.2018.8477787](doi:10.1109/CEC.2018.8477787).

[418] Artur Brum and Marcus Ritt. **Automatic Algorithm Configuration for the Permutation Flow Shop Scheduling Problem Minimizing Total Completion Time**. In Arnaud Liefooghe and Manuel López-Ibáñez, editors, *Proceedings of EvoCOP 2018 – 18th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 10782 of *Lecture Notes in Computer Science*, pages 85–100, Heidelberg, 2018. Springer. [doi:10.1007/978-3-319-77449-7_6](doi:10.1007/978-3-319-77449-7_6).

[419] M. J. Brusco, L. W. Jacobs, and G. M. Thompson. **A Morphing Procedure to Supplement a Simulated Annealing Heuristic for Cost- and Coverage-correlated Set Covering Problems**. *Annals of Operations Research*, 86:611–627, 1999.

[420] John T. Buchanan. **An experimental evaluation of interactive MCDM methods and the decision making process**. *Journal of the Operational Research Society*, 45(9):1050–1059, 1994.

[421] A. L. Buchsbaum and M. T. Goodrich. **Three-Dimensional Layers of Maxima**. *Algorithmica*, 39:275–289, 2004.

[422] T. N. Bui and J. R. Rizzo, Jr. **Finding Maximum Cliques with Distributed Ants**. In Kalyanmoy Deb et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 24–35. Springer, Heidelberg, 2004.

[423] B. Bullnheimer, Richard F. Hartl, and Christine Strauss. **An Improved Ant System Algorithm for the Vehicle Routing Problem**. *Annals of Operations Research*, 89:319–328, 1999.

[424] B. Bullnheimer, Richard F. Hartl, and Christine Strauss. **A new rank-based version of the Ant System: A computational study**. *Central European Journal for Operations Research and Economics*, 7(1):25–38, 1999.

[425] Wolfram Burgard and Dan Roth, editors. *Proceedings of the Twenty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2011, San Francisco, California, USA, August 07-11, 2011*, 2011. AAAI Press.

[426] Luciana Buriol, Paulo M. França, and Pablo Moscato. **A New Memetic Algorithm for the Asymmetric Traveling Salesman Problem**. *Journal of Heuristics*, 10(5):483–506, 2004.

[427] Rainer E. Burkard and Ulrich Fincke. **The asymptotic probabilistic behaviour of quadratic sum assignment problems**. *Zeitschrift für Operations Research*, 27(1):73–81, 1983.

[428] Rainer E. Burkard and Franz Rendl. **A Thermodynamically Motivated Simulation Procedure for Combinatorial Optimization Problems**. *European Journal of Operational Research*, 17(2):169–174, 1984. [doi:10.1016/0377-2217(84)90231-5](doi:10.1016/0377-2217(84)90231-5).
Keywords: 2-exchange delta evaluation for QAP.

[429] Rainer E. Burkard, Stefan E. Karisch, and Franz Rendl. **QAPLIB–a Quadratic Assignment Problem Library**. *Journal of Global Optimization*, 10(4):391–403, 1997.

[430] Rainer E. Burkard, Eranda Çela, Panos M. Pardalos, and L. S. Pitsoulis. **The quadratic assignment problem**. In Panos M. Pardalos and D.-Z. Du, editors, *Handbook of Combinatorial Optimization*, volume 2, pages 241–338. Kluwer Academic Publishers, 1998.

[431] Edmund K. Burke and Yuri Bykov. **The Late Acceptance Hill-Climbing Heuristic**. Technical Report CSM-192, University of Stirling, 2012.

[432] Edmund K. Burke and Yuri Bykov. **The Late Acceptance Hill-Climbing Heuristic**. *European Journal of Operational Research*, 258(1):70–78, 2017.

[433] Edmund K. Burke and Graham Kendall, editors. *Search Methodologies: Introductory Tutorials in Optimization and Decision Support Techniques*. Springer, Boston, MA, 2005. `doi:10.1007/0-387-28356-0`.

[434] Edmund K. Burke, Matthew R. Hyde, Graham Kendall, and John R. Woodward. **Automatic Heuristic Generation with Genetic Programming: Evolving a Jack-of-all-trades or a Master of One**. In Dirk Thierens et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2007*, pages 1559–1565, New York, NY, 2007. ACM Press. `doi:10.1145/1276958.1277273`.

[435] Edmund K. Burke, Matthew R. Hyde, Graham Kendall, and John R. Woodward. **A Genetic Programming Hyper-Heuristic Approach for Evolving 2-D Strip Packing Heuristics**. *IEEE Transactions on Evolutionary Computation*, 14(6):942–958, 2010. `doi:10.1109/TEVC.2010.2041061`.

[436] Edmund K. Burke, Matthew R. Hyde, and Graham Kendall. **Grammatical Evolution of Local Search Heuristics**. *IEEE Transactions on Evolutionary Computation*, 16(7):406–417, 2012. `doi:10.1109/TEVC.2011.2160401`.

[437] Edmund K. Burke, Michel Gendreau, Matthew R. Hyde, Graham Kendall, Gabriela Ochoa, Ender Özcan, and Rong Qu. **Hyper-heuristics: A Survey of the State of the Art**. *Journal of the Operational Research Society*, 64(12):1695–1724, 2013.

[438] Edmund K. Burke, Matthew R. Hyde, Graham Kendall, Gabriela Ochoa, Ender Özcan, and John R. Woodward. **A Classification of Hyper-Heuristic Approaches: Revisited**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 272 of *International Series in Operations Research & Management Science*, chapter 14, pages 453–477. Springer, 2019. `doi:10.1007/978-3-319-91086-4_14`.

[439] Erika Buson, Roberto Roberti, and Paolo Toth. **A Reduced-Cost Iterated Local Search Heuristic for the Fixed-Charge Transportation Problem**. *Operations Research*, 62(5): 1095–1106, 2014.

[440] Maxim Buzdalov. **Towards better estimation of statistical significance when comparing evolutionary algorithms**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2019*, pages 1782–1788. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6748-6. `doi:10.1145/3319619.3326899`.

[441] R. Caballero, F. Ruiz, and R. Steuer, editors. *Advances in Multiple Objective and Goal Programming*, volume 455 of *Lecture Notes in Economics and Mathematical Systems*. Springer, Heidelberg, 1997.

[442] R. Caballero, Mariano Luque, J. Molina, and F. Ruiz. **PROMOIN: An Interactive System for Multiobjective Programming**. *Information Technologies and Decision Making*, 1:635–656, 2002.
      Keywords: preferences, multi interactive methods framework.

[443] S. Cagnoni et al., editors. *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2002*, volume 2279 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2002.

[444] S. Cagnoni et al., editors. *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2003*, volume 2611 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2003.

[445] Stefano Cagnoni et al., editors. *Real-World Applications of Evolutionary Computing, EvoWorkshops 2000: EvoIASP, EvoSCONDI, EvoTel, EvoSTIM, EvoROB, and EvoFlight, Edinburgh, Scotland, UK, April 17, 2000, Proceedings*, volume 1803 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2000.

[446] Sebastien Cahon, Nordine Melab, and El-Ghazali Talbi. **ParadisEO: A Framework for the Reusable Design of Parallel and Distributed Metaheuristics**. *Journal of Heuristics*, 10 (3):357–380, 2004. doi:10.1023/B:HEUR.0000026900.92269.ec.

[447] Zhaoquan Cai, Han Huang, Yong Qin, and Xianheng Ma. **Ant Colony Optimization Based on Adaptive Volatility Rate of Pheromone Trail**. *International Journal of Communications, Network and System Sciences*, 2(8):792–796, 2009.

[448] Luís Caires, Giuseppe F. Italiano, Luís Monteiro, Catuscia Palamidessi, and Moti Yung, editors. *Proceedings of the 32nd International Colloquium on Automata, Languages and Programming, ICALP 2005*, volume 3580 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2005.

[449] Pedro Calabar and Tran Cao Son, editors. *12th International Conference, LPNMR 2013, Corunna, Spain, September 15-19, 2013. Proceedings*, volume 8148 of *Lecture Notes in Artificial Intelligence*. Springer, Heidelberg, 2013.

[450] Christian Leonardo Camacho-Villalón, Marco Dorigo, and Thomas Stützle. **Why the Intelligent Water Drops Cannot Be Considered as a Novel Algorithm**. In Marco Dorigo, Mauro Birattari, Anders L. Christensen, Andreagiovanni Reina, and Vito Trianni, editors, *Swarm Intelligence, 11th International Conference, ANTS 2018*, volume 11172 of *Lecture Notes in Computer Science*, pages 302–314, Heidelberg, 2018. Springer.

[451] Christian Leonardo Camacho-Villalón, Marco Dorigo, and Thomas Stützle. **The intelligent water drops algorithm: why it cannot be considered a novel algorithm**. *Swarm Intelligence*, 13:173–192, 2019.

[452] Christian Leonardo Camacho-Villalón, Thomas Stützle, and Marco Dorigo. **PSO-X: A Component-Based Framework for the Automatic Design of Particle Swarm Optimization Algorithms**. Technical Report TR/IRIDIA/2021-002, IRIDIA, Université Libre de Bruxelles, Belgium, 2021. URL http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2021-002.pdf.

[453] Christian Leonardo Camacho-Villalón, Thomas Stützle, and Marco Dorigo. **Cuckoo Search $\equiv (\mu + \lambda)$-Evolution Strategy $-$ A Rigorous Analysis of an Algorithm That Has Been Misleading the Research Community for More Than 10 Years and Nobody Seems to Have Noticed**. Technical Report TR/IRIDIA/2021-006, IRIDIA, Université Libre de Bruxelles, Belgium, 2021. URL http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2021-006.pdf.

[454] E Cambria, B Schuller, Y Xia, and C Havasi. **New avenues in opinion mining and sentiment analysis**. *IEEE Intelligent Systems*, 28(2):15–21, 2013. doi:10.1109/MIS.2013.30.

[455] Ann Melissa Campbell and Philip C. Jones. **Prepositioning supplies in preparation for disasters**. *European Journal of Operational Research*, 209(2):156–165, 2011.

[456] Felipe Campelo and Elizabeth F. Wanner. **Sample size calculations for the experimental comparison of multiple algorithms on multiple problem instances**. *Journal of Heuristics*, 2020. doi:10.1007/s10732-020-09454-w.

[457] Felipe Campelo, Áthila R. Trindade, and Manuel López-Ibáñez. **Pseudoreplication in Racing Methods for Tuning Metaheuristics**. In preparation, 2017.

[458] Felipe Campelo, Lucas S. Batista, and Claus Aranha. **The MOEADr Package: A Component-Based Framework for Multiobjective Evolutionary Algorithms Based on Decomposition**. *Journal of Statistical Software*, 92, 2020. doi:10.18637/jss.v092.i06.

[459] Paolo Campigotto and Andrea Passerini. **Adapting to a realistic decision maker: experiments towards a reactive multi-objective optimizer**. In Christian Blum and Roberto Battiti, editors, *Learning and Intelligent Optimization, 4th International Conference, LION 4*, volume 6073 of *Lecture Notes in Computer Science*, pages 338–341. Springer, Heidelberg, 2010. doi:10.1007/978-3-642-13800-3.

[460] E. Cantú-Paz. *Efficient and Accurate Parallel Genetic Algorithms*. Kluwer Academic Publishers, Boston, MA, 2000.

[461] E. Cantú-Paz et al., editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2003, Part I*, volume 2723 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2003.

[462] Lu Cao, Walter Kosters, and Jefrey Lijffijt, editors. *Proceedings of the 32nd Benelux Conference on Artificial Intelligence, BNAIC 2020, Leiden, The Netherlands, 19-20 November 2020*, 2020. URL https://bnaic.liacs.leidenuniv.nl/wordpress/wp-content/uploads/bnaic2020proceedings.pdf.

[463] Z. Cao, S. Jiang, J. Zhang, and H. Guo. **A unified framework for vehicle rerouting and traffic light control to reduce traffic congestion**. *IEEE Transactions on Intelligent Transportation Systems*, 18(7):1958–1973, 2017.

[464] Gilles Caporossi. **Variable Neighborhood Search for Extremal Vertices : The AutoGraphiX-III System**. *Computers & Operations Research*, 78:431–438, 2017.

[465] Ioannis Caragiannis, Ariel D. Procaccia, and Nisarg Shah. **When Do Noisy Votes Reveal the Truth?** In Michael J. Kearns, R. Preston McAfee, and Éva Tardos, editors, *Proceedings of the Fourteenth ACM Conference on Electronic Commerce*, pages 143–160, New York, NY, 2013. ACM Press. doi:10.1145/2482540.2482570.
Keywords: computer social choice, mallows model, sample complexity.

[466] P. Cardoso, M. Jesus, and A. Marquez. **MONACO: multi-objective network optimisation based on an ACO**. In *Proc. X Encuentros de Geometría Computacional*, Seville, Spain, 2003.

[467] J. Carlier. **The One-machine Sequencing Problem**. *European Journal of Operational Research*, 11(1):42–47, 1982.

[468] William B. Carlton and J. Wesley Barnes. **Solving the traveling-salesman problem with time windows using tabu search**. *IIE Transactions*, 28:617–629, 1996.

[469] Rob Carnell. *lhs: Latin Hypercube Samples*, 2016. URL http://r-forge.r-project.org/projects/lhs/. R package version 0.14.

[470] Yves Caseau and François Laburthe. **Heuristics for large constrained vehicle routing problems**. *Journal of Heuristics*, 5(3):281–303, 1999.

[471] Yves Caseau, Glenn Silverstein, and François Laburthe. **Learning Hybrid Algorithms for Vehicle Routing Problems**. *Theory and Practice of Logic Programming*, 1(6):779–806, 2001.

[472] M. Caserta and Stefan Voß, editors. *Proceedings of MIC 2009, the 8th Metaheuristics International Conference*, Hamburg, Germany, 2010. University of Hamburg.

[473] Pedro Castillo and Juan Luis Jiménez Laredo, editors. *Applications of Evolutionary Computation – 24th International Conference, EvoApplications 2021, Held as Part of EvoStar 2021, Virtual Event, April 7-9, 2021, Proceedings*, volume 12694 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2021.

[474] Diego Cattaruzza, Nabil Absi, Dominique Feillet, and Daniele Vigo. **An Iterated Local Search for the Multi-commodity Multi-trip Vehicle Routing Problem with Time Windows**. *Computers & Operations Research*, 51:257–267, 2014.

[475] M. Cattolico et al., editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2006*. ACM Press, New York, NY, 2006.

[476] Aakil M. Caunhye, Xiaofeng Nie, and Shaligram Pokharel. **Optimization models in emergency logistics: A literature review**. *Socio-Economic Planning Sciences*, 46(1):4–13, 2012.

[477] CCIE. *Proceedings of the 2010 International Conference on Computing, Control and Industrial Engineering*, Los Alamitos, CA, 2010. IEEE Computer Society Press.

[478] Josu Ceberio, Ekhine Irurozki, Alexander Mendiburu, and José A. Lozano. **A distance-based ranking model estimation of distribution algorithm for the flowshop scheduling problem**. *IEEE Transactions on Evolutionary Computation*, 18(2):286–300, 2014. `doi:10.1109/TEVC.2013.2260548`.
Keywords: Estimation of distribution algorithms,Generalized Mallows model,Permutation flowshop scheduling problem,Permutations-based optimization problems.

[479] Josu Ceberio, Alexander Mendiburu, and José A. Lozano. **Kernels of Mallows Models for Solving Permutation-based Problems**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 505–512. ACM Press, New York, NY, 2015.

[480] Eranda Çela. *The Quadratic Assignment Problem: Theory and Algorithms*. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1998.

[481] Sara Ceschia and Andrea Schaerf. **Modeling and solving the dynamic patient admission scheduling problem under uncertainty**. *Artificial Intelligence in Medicine*, 56(3):199–205, 2012. `doi:10.1016/j.artmed.2012.09.001`.
Keywords: F-race.

[482] Sara Ceschia, Luca Di Gaspero, and Andrea Schaerf. **Design, Engineering, and Experimental Analysis of a Simulated Annealing Approach to the Post-Enrolment Course Timetabling Problem**. *Computers & Operations Research*, 39(7):1615–1624, 2012.

[483] Sara Ceschia, Andrea Schaerf, and Thomas Stützle. **Local Search Techniques for a Routing-packing Problem**. *Computers and Industrial Engineering*, 66(4):1138–1149, 2013.

[484] Amadeo Cesta, Angelo Oddi, and Stephen F. Smith. **Iterative Flattening: A Scalable Method for Solving Multi-Capacity Scheduling Problems**. In Henry A. Kautz and Bruce W. Porter, editors, *Proceedings of AAAI 2000 – Seventeenth National Conference on Artificial Intelligence*, pages 742–747. AAAI Press/MIT Press, Menlo Park, CA, 2000.

[485] Uday K. Chakraborty, editor. *Advances in differential evolution*. Springer, Heidelberg, 2008.

[486] Shelvin Chand and Markus Wagner. **Evolutionary many-objective optimization: A quick-start guide**. *Surveys in Operations Research and Management Science*, 20(2):35–42, 2015. `doi:10.1016/j.sorms.2015.08.001`.

[487] S. T. H. Chang. **Optimizing the Real Time Operation of a Pumping Station at a Water Filtration Plant using Genetic Algorithms**. Honors thesis, Department of Civil and Environmental Engineering, The University of Adelaide, 1999.

[488] Donald V. Chase and Lindell E. Ormsbee. **Optimal pump operation of water distribution systems with multiple storage tanks**. In *Proceedings of American Water Works Association Computer Specialty Conference*, pages 205–214, Denver, USA, 1989. AWWA.

[489] Donald V. Chase and Lindell E. Ormsbee. **An alternate formulation of time as a decision variable to facilitate real-time operation of water supply systems**. In *Proceedings of the 18th Annual Conference of Water Resources Planning and Management*, pages 923–927, New York, NY, 1991. ASCE.

[490] Donald V. Chase and Lindell E. Ormsbee. **Computer-generated pumping schedules for satisfying operation objectives**. *J. Am. Water Works Assoc.*, 85(7):54–61, 1993.

[491] Shamik Chaudhuri and Kalyanmoy Deb. **An interactive evolutionary multi-objective optimization and decision making procedure**. *Applied Soft Computing*, 10(2):496–511, 2010.

[492] Peter C. Cheeseman, Bob Kanefsky, and William M. Taylor. **Where the Really Hard Problems Are**. In John Mylopoulos and Raymond Reiter, editors, *Proceedings of the Twelfth International Joint Conference on Artificial Intelligence (IJCAI-91)*, pages 331–340. Morgan Kaufmann Publishers, 1995.

[493] Rachid Chelouah and Patrick Siarry. **Tabu search applied to global optimization**. *European Journal of Operational Research*, 123(2):256–270, 2000.

[494] Fei Chen, Yang Gao, Zhao-qian Chen, and Shi-fu Chen. **SCGA: Controlling genetic algorithms with Sarsa(0)**. In *Computational Intelligence for Modelling, Control and Automation, 2005 and International Conference on Intelligent Agents, Web Technologies and Internet Commerce, International Conference on*, volume 1, pages 1177–1183. IEEE, 2005. doi:10.1109/CIMCA.2005.1631422.

[495] Hsinchun Chen, Roger H. L. Chiang, and Veda C. Storey. **Business Intelligence and Analytics: From Big Data to Big Impact**. *MIS quarterly*, 36(4):1165–1188, 2012.

[496] Hsinchun Chen, Roger HL Chiang, and Veda C Storey. **Business Intelligence and Analytics: From Big Data to Big Impact.** *MIS quarterly*, 36(4):1165–1188, 2012.

[497] L. Chen, X. H. Xu, and Y. X. Chen. **An adaptive ant colony clustering algorithm**. In Ian Cloete, Kit-Po Wong, and Michael Berthold, editors, *Proceedings of the International Conference on Machine Learning and Cybernetics*, pages 1387–1392. IEEE Press, 2004.

[498] Ruey-Maw Chen and Fu-Ren Hsieh. **An exchange local search heuristic based scheme for permutation flow shop problems**. *Applied Mathematics & Information Sciences*, 8(1): 209–215, 2014.

[499] Xuewen Chen and Andreas Stafylopatis, editors. *Computational Intelligence (SSCI), 2016 IEEE Symposium Series on*, 2016.

[500] Yuning Chen, Jin-Kao Hao, and Fred Glover. **A hybrid metaheuristic approach for the capacitated arc routing problem**. *European Journal of Operational Research*, 553(1):25–39, 2016. doi:10.1016/j.ejor.2016.02.015.
Keywords: irace.

[501] Chin-Bin Cheng and Chun-Pin Mao. **A modified ant colony system for solving the travelling salesman problem with time windows**. *Mathematical and Computer Modelling*, 46:1225–1235, 2007. doi:10.1016/j.mcm.2006.11.035.

[502] F. Y. Cheng and X. S. Li. **Generalized center method for multiobjective engineering optimization**. *Engineering Optimization*, 31(5):641–661, 1999. doi:10.1080/03052159908941390.

[503] Clément Chevalier, David Ginsbourger, Julien Bect, and Ilya Molchanov. **Estimating and Quantifying Uncertainties on Level Sets Using the Vorob'ev Expectation and Deviation with Gaussian Process Models**. In Dariusz Ucinski, Anthony C. Atkinson, and Maciej Patan, editors, *mODa 10–Advances in Model-Oriented Design and Analysis*, pages 35–43. Springer International Publishing, Heidelberg, 2013. doi:10.1007/978-3-319-00218-7_5.

[504] Tsung-Che Chiang. **nsga3cpp: A C++ implementation of NSGA-III**. http://web.ntnu.edu.tw/~tcchiang/publications/nsga3cpp/nsga3cpp.htm, 2014.

[505] Marco Chiarandini. *Stochastic Local Search Methods for Highly Constrained Combinatorial Optimisation Problems*. PhD thesis, FB Informatik, TU Darmstadt, Germany, 2005.

[506] Marco Chiarandini and Yuri Goegebeur. **Mixed Models for the Analysis of Optimization Algorithms**. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, pages 225–264. Springer, Berlin, Germany, 2010. doi:10.1007/978-3-642-02538-9.
Annotation: Preliminary version available as *Tech. Rep.* MF-2009-07-001 at the The Danish Mathematical Society.

[507] Marco Chiarandini, Mauro Birattari, Krzysztof Socha, and O. Rossi-Doria. **An Effective Hybrid Algorithm for University Course Timetabling**. *Journal of Scheduling*, 9(5): 403–432, Oct. 2006. doi:10.1007/s10951-006-8495-8.
Keywords: 2003 international timetabling competition, F-race.

[508] Manuel Chica, Oscar Cordón, Sergio Damas, and Joaquín Bautista. **A New Diversity Induction Mechanism for a Multi-objective Ant Colony Algorithm to Solve a Real-world time and Space Assembly Line Balancing Problem**. *Memetic Computing*, 3 (1):15–24, 2011. ISSN 1865-9284.

[509] Francisco Chicano and Krzysztof Krawiec, editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2021, Lille, France, July 10-14, 2021*. ACM Press, New York, NY, 2021.

[510] Francisco Chicano and Krzysztof Krawiec, editors. *Genetic and Evolutionary Computation Conference Companion, GECCO 2021, Lille, France, July 10-14, 2021*. ACM Press, New York, NY, 2021.

[511] Francisco Chicano, Darrell Whitley, and Enrique Alba. **A Methodology to Find the Elementary Landscape Decomposition of Combinatorial Optimization Problems**. *Evolutionary Computation*, 19(4):597–637, 2011.

[512] Francisco Chicano, Gabriel J. Luque, and Enrique Alba. **Autocorrelation Measures for the Quadratic Assignment Problem**. *Applied Mathematics Letters*, 25:698–705, 2012. doi:10.1016/j.aml.2011.09.053.

[513] Stephen E. Chick, Paul J. Sanchez, David M. Ferrin, and Douglas J. Morrice, editors. *Proceedings of the 35th Winter Simulation Conference: Driving Innovation*, volume 1, New York, NY, Dec. 2003. ACM Press.

[514] Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcázar, Chi Keong Goh, Juan-Julián Merelo, Ferrante Neri, Mike Preuss, Julian Togelius, and Georgios N. Yannakakis, editors. *Applications of Evolutionary Computation, EvoApplicatons 2010: EvoCOMPLEX, EvoGAMES, EvoIASP, EvoINTELLIGENCE, EvoNUM, and EvoSTOC, Istanbul, Turkey, April 7-9, 2010, Proceedings, Part I*, volume 6024 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2010. `doi:10.1007/978-3-642-12239-2`.

[515] D. S. Chivilikhin, V. I. Ulyantsev, and A. A. Shalyto. **Modified ant colony algorithm for constructing finite state machines from execution scenarios and temporal formulas**. *Automation and Remote Control*, 77(3):473–484, 2016. `doi:10.1134/S0005117916030097`.
Keywords: irace.

[516] Matthias Christen, Olaf Schenk, and Helmar Burkhart. **PATUS: A Code Generation and Autotuning Framework for Parallel Iterative Stencil Computations on Modern Microarchitectures**. In Frank Mueller, editor, *Proceedings of the 2011 IEEE International Parallel & Distributed Processing Symposium*, IPDPS '11, pages 676–687. IEEE Computer Society, 2011. `doi:10.1109/IPDPS.2011.70`.

[517] Jan Christiaens and Greet Vanden Berghe. **Slack Induction by String Removals for Vehicle Routing Problems**. Technical Report 7-05-2018, Department of Computing Science, KU Leuven, Gent, Belgium, 2018.

[518] Nicos Christofides. **Worst-case analysis of a new heuristic for the travelling salesman problem**. Technical Report 388, Graduate School of Industrial Administration, Carnegie-Mellon University, Pittsburgh, PA, 1976.

[519] Nicos Christofides, A. Mingozzi, and Paolo Toth. **State-space relaxation procedures for the computation of bounds to routing problems**. *Networks*, 11(2):145–164, 1981. `doi:10.1002/net.3230110207`.

[520] Tinkle Chugh. *Handling expensive multiobjective optimization problems with evolutionary algorithms*. PhD thesis, University of Jyväskylä, 2017.

[521] Tinkle Chugh. **Scalarizing Functions in Bayesian Multiobjective Optimization**. In *Proceedings of the 2020 Congress on Evolutionary Computation (CEC 2020)*, pages 1–8, Piscataway, NJ, 2020. IEEE Press. `doi:10.1109/CEC48606.2020.9185706`.

[522] Tinkle Chugh and Manuel López-Ibáñez. **Maximising Hypervolume and Minimising ϵ-Indicators using Bayesian Optimisation over Sets**. In Francisco Chicano and Krzysztof Krawiec, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2021*, pages 1326–1334. ACM Press, New York, NY, 2021. `doi:10.1145/3449726.3463178`. Supplementary material: `https://doi.org/10.5281/zenodo.4675569`.
Keywords: multi-objective, surrogate models, epsilon, hypervolume.

[523] Tinkle Chugh, Karthik Sindhya, Jussi Hakanen, and Kaisa Miettinen. **A survey on handling computationally expensive multiobjective optimization problems with evolutionary algorithms**. *Soft Computing*, 23(9):3137–3166, 2019. `doi:10.1007/s00500-017-2965-0`.

[524] S. Chusanapiputt, D. Nualhong, S. Jantarang, and S. Phoomvuthisarn. **Selective self-adaptive approach to ant system for solving unit commitment problem**. In M. Cattolico et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2006*, pages 1729–1736. ACM Press, New York, NY, 2006.

[525] Christian Cintrano, Javier Ferrer, Manuel López-Ibáñez, and Enrique Alba. **Hybridization of Racing Methods with Evolutionary Operators for Simulation Optimization of Traffic Lights Programs**. In Christine Zarges and Sébastien Verel, editors, *Proceedings of EvoCOP*

2021 – 21th European Conference on Evolutionary Computation in Combinatorial Optimization, volume 12692 of *Lecture Notes in Computer Science*, pages 17–33. Springer, Cham, Switzerland, 2021. `doi:10.1007/978-3-030-72904-2_2`.
Keywords: Hybrid algorithms, Evolutionary algorithms, Simulation optimization, Uncertainty, Traffic light planning.

[526] Jill Cirasella, David S. Johnson, Lyle A. McGeoch, and Weixiong Zhang. **The Asymmetric Traveling Salesman Problem: Algorithms, Instance Generators, and Tests**. In Adam L. Buchsbaum and Jack Snoeyink, editors, *Algorithm Engineering and Experimentation, Third International Workshop, ALENEX 2001, Washington, DC, USA, January 5-6, 2001, Revised Papers*, volume 2153 of *Lecture Notes in Computer Science*, pages 32–59, Berlin, Germany, 2001. Springer. `doi:10.1007/3-540-44808-X_3`.

[527] Jon Claerbout and Martin Karrenbach. **Electronic documents give reproducible research a new meaning**. In *SEG Technical Program Expanded Abstracts 1992*, pages 601–604. Society of Exploration Geophysicists, 1992. `doi:10.1190/1.1822162`.
Annotation: Proposed a reproducibility taxonomy, defined reproducibility and taxonomy.

[528] R. M. Clark, L. A. Rossman, and L. J. Wymer. **Modeling distribution system water quality: regulatory implications**. *Journal of Water Resources Planning and Management, ASCE*, 121 (6):423–428, 1995.

[529] M. Clerc and J. Kennedy. **Standard PSO 2011**. Particle Swarm Central, 2011. URL `http://www.particleswarm.info/`.

[530] D. Cliff, P. Husbands, J.-A. Meyer, and S. Wilson, editors. *Proceedings of the third international conference on Simulation of adaptive behavior: From Animals to Animats 3*. MIT Press, Cambridge, MA, 1994.

[531] J. Climaco, editor. *Proceedings of the 13th International Conference on Multiple Criteria Decision Making (MCDM'97)*. Springer Verlag, 1997.

[532] Ian Cloete, Kit-Po Wong, and Michael Berthold, editors. *Proceedings of the 3rd International Conference on Machine Learning and Cybernetics*, 2004. IEEE Press.

[533] J. J. Cochran, editor. *Wiley Encyclopedia of Operations Research and Management Science*. John Wiley & Sons, 2011. `doi:10.1002/9780470400531`.

[534] Andy Cockburn, Pierre Dragicevic, Lonni Besançon, and Carl Gutwin. **Threats of a Replication Crisis in Empirical Computer Science**. *Communications of the ACM*, 63 (8):70–79, July 2020. `doi:10.1145/3360311`.

[535] B. Codenotti, G. Manzini, L. Margara, and G. Resta. **Perturbation: An Efficient Technique for the Solution of Very Large Instances of the Euclidean TSP**. *INFORMS Journal on Computing*, 8(2):125–133, 1996.

[536] H. Coelho, R. Studer, and M. Wooldridge, editors. *Proceedings of the 19th European Conference on Artificial Intelligence*. IOS Press, 2010.

[537] Carlos A. Coello Coello. **Handling preferences in evolutionary multiobjective optimization: A survey**. In *Proceedings of the 2000 Congress on Evolutionary Computation (CEC'00)*, pages 30–37. IEEE Press, Piscataway, NJ, July 2000.

[538] Carlos A. Coello Coello. **Handling Preferences in Evolutionary Multiobjective Optimization: A Survey**. In *Proceedings of the 2000 Congress on Evolutionary Computation (CEC'00)*, pages 30–37. IEEE Press, Piscataway, NJ, July 2000.

[539] 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*, 191(11-12):1245–1287, 2002. doi:10.1016/S0045-7825(01)00323-1.

[540] Carlos A. Coello Coello. **Special Issue on Evolutionary Multiobjective Optimization**. *IEEE Transactions on Evolutionary Computation*, 7(2), 2003.

[541] Carlos A. Coello Coello. **Evolutionary multi-objective optimization: a historical view of the field**. *IEEE Computational Intelligence Magazine*, 1(1):28–36, 2006.

[542] Carlos A. Coello Coello, editor. *5th International Conference, LION 5, Rome, Italy, January 17-21, 2011. Selected Papers*, volume 6683 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2011.

[543] Carlos A. Coello Coello. **Multi-objective Evolutionary Algorithms in Real-World Applications: Some Recent Results and Current Challenges**. In *Advances in Evolutionary and Deterministic Methods for Design, Optimization and Control in Engineering and Sciences*, pages 3–18. Springer, 2015. doi:10.1007/978-3-319-11541-2_1.

[544] Carlos A. Coello Coello. **Recent Results and Open Problems in Evolutionary Multiobjective Optimization**. In Carlos Martín-Vide, Roman Neruda, and Miguel A. Vega-Rodríguez, editors, *Theory and Practice of Natural Computing - 6th International Conference, TPNC 2017*, volume 10687 of *Lecture Notes in Computer Science*, pages 3–21. Springer International Publishing, Cham, Switzerland, 2017.

[545] Carlos A. Coello Coello, editor. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2020, Cancún, MExico, July 8-12, 2020*. ACM Press, New York, NY, 2020. ISBN 978-1-4503-7128-5. doi:10.1145/3377930.

[546] Carlos A. Coello Coello, editor. *2020 IEEE Symposium Series on Computational Intelligence, SSCI 2020, Canberra, Australia, December 1-4, 2020*, 2020. IEEE Press.

[547] Carlos A. Coello Coello and Margarita Reyes-Sierra. **A Study of the Parallelization of a Coevolutionary Multi-objective Evolutionary Algorithm**. In Raúl Monroy, Gustavo Arroyo-Figueroa, Luis Enrique Sucar, and Humberto Sossa, editors, *Proceedings of MICAI*, volume 2972 of *Lecture Notes in Artificial Intelligence*, pages 688–697. Springer, Heidelberg, 2004.
Keywords: IGD.
Annotation: Introduces Inverted Generational Distance (IGD).

[548] Carlos A. Coello Coello, A. H. Aguirre, and Eckart Zitzler, editors. *Evolutionary Multi-criterion Optimization, EMO 2005*, volume 3410 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2005.

[549] Carlos A. Coello Coello, Gary B. Lamont, and David A. Van Veldhuizen. *Evolutionary Algorithms for Solving Multi-Objective Problems*. Springer, New York, NY, 2007.

[550] Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors. *Advances in Multi-Objective Nature Inspired Computing*, volume 272 of *Studies in Computational Intelligence*. Springer, 2010.

[551] Carlos A. Coello Coello et al., editors. *Parallel Problem Solving from Nature, PPSN XII, 12th International Conference, Taormina, Italy, September 1-5, 2012, Proceedings, Part I*, volume 7491 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[552] Carlos A. Coello Coello et al., editors. *Parallel Problem Solving from Nature, PPSN XII*, volume 7492 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[553] G. Cohen. **Optimal Control of Water Supply Networks**. In S. G. Tzafestas, editor, *Optimization and Control of Dynamic Operational Research Models*, volume 4, chapter 8, pages 251–276. North-Holland Publishing Company, Amsterdam, 1982.

[554] Paul R. Cohen. *Empirical Methods for Artificial Intelligence*. MIT Press, Cambridge, MA, 1995.

[555] William W. Cohen and Haym Hirsh, editors. *Proceedings of the 11th International Conference on Machine Learning, ICML 1994, New Brunswick, NJ, USA*, San Francisco, CA, 1994. Morgan Kaufmann Publishers.

[556] William W. Cohen, Andrew McCallum, and Sam T. Roweis, editors. *Proceedings of the 25th International Conference on Machine Learning, ICML 2008, Helsinki, Finland, July 05-09, 2008*, New York, NY, 2008. ACM Press.

[557] Harry Cohn and Mark J. Fielding. **Simulated Annealing: Searching for an Optimal Temperature**. *SIAM Journal on Optimization*, 9(3):779–802, 1999.

[558] Sonia Colas, Nicolas Monmarché, Pierre Gaucher, and Mohamed Slimane. **Artificial Ants for the Optimization of Virtual Keyboard Arrangement for Disabled People**. In Nicolas Monmarché, El-Ghazali Talbi, Pierre Collet, Marc Schoenauer, and Evelyne Lutton, editors, *Artificial Evolution*, volume 4926 of *Lecture Notes in Computer Science*, pages 87–99. Springer, Heidelberg, 2008. doi:10.1007/978-3-540-79305-2.

[559] Pierre Collet, Nicolas Monmarché, Pierrick Legrand, Marc Schoenauer, and Evelyne Lutton, editors. *Artificial Evolution: 9th International Conference, Evolution Artificielle, EA, 2009, Strasbourg, France, October 26-28, 2009. Revised Selected Papers*, volume 5975 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2010.

[560] Andrew F. Colombo and Bryan W. Karney. **Impacts of Leaks on Energy Consumption in Pumped Systems with Storage**. *Journal of Water Resources Planning and Management, ASCE*, 131(2):146–155, Mar. 2005.

[561] Alberto Colorni, Marco Dorigo, and Vittorio Maniezzo. **Distributed Optimization by Ant Colonies**. In F. J. Varela and P. Bourgine, editors, *Proceedings of the First European Conference on Artificial Life*, pages 134–142. MIT Press, Cambridge, MA, 1992.

[562] Alberto Colorni, Marco Dorigo, Vittorio Maniezzo, and M. Trubian. **Ant System for Job-shop Scheduling**. *JORBEL — Belgian Journal of Operations Research, Statistics and Computer Science*, 34(1):39–53, 1994.

[563] Richard K. Congram, Chris N. Potts, and Steve van de Velde. **An Iterated Dynasearch Algorithm for the Single-Machine Total Weighted Tardiness Scheduling Problem**. *INFORMS Journal on Computing*, 14(1):52–67, 2002.

[564] Andrew R. Conn, Katya Scheinberg, and Luis N. Vicente. *Introduction to Derivative-Free Optimization*. MPS–SIAM Series on Optimization. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2009.

[565] David T. Connolly. **An Improved Annealing Scheme for the QAP**. *European Journal of Operational Research*, 46(1):93–100, 1990.

[566] W. J. Conover. *Practical Nonparametric Statistics*. John Wiley & Sons, New York, NY, 3rd edition, 1999.

[567] Richard J. Cook and Vern T. Farewell. **Multiplicity Considerations in the Design and Analysis of Clinical Trials**. *Journal of the Royal Statistical Society: Series A*, 159:93–110, 1996.
Annotation: multiplicity; multiple endpoints; multiple treatments; p-value adjustment; type I error;

argues that if results are intended to be interpreted marginally, there may be no need for controlling experimentwise error rate.

[568] Stephen A. Cook. **The Complexity of Theorem-proving Procedures**. In *Proceedings of the Third Annual ACM Symposium on Theory of Computing*, STOC '71, pages 151–158. ACM, 1971. `doi:10.1145/800157.805047`.

[569] William J. Cook. **The Traveling Salesman Problem**. `http://www.math.uwaterloo.ca/tsp`, 2010. Version visited last on 15 April 2014.

[570] William J. Cook. *In Pursuit of the Traveling Salesman*. Princeton University Press, Princeton, NJ, 2012.

[571] William J. Cook. **Computing in Combinatorial Optimization**. In Bernhard Steffen and Gerhard Woeginger, editors, *Computing and Software Science: State of the Art and Perspectives*, volume 10000 of *Lecture Notes in Computer Science*, pages 27–47. Springer, Cham, Switzerland, 2019. `doi:10.1007/978-3-319-91908-9_3`.

[572] Don Coppersmith, Lisa K. Fleischer, and Atri Rurda. **Ordering by Weighted Number of Wins Gives a Good Ranking for Weighted Tournaments**. *ACM Transactions on Algorithms*, 6(3):1–13, July 2010. `doi:10.1145/1798596.1798608`.
Keywords: Approximation algorithms,Borda's method,feedback arc set problem,rank aggregation,tournaments.

[573] Jean-François Cordeau and Mirko Maischberger. **A Parallel Iterated Tabu Search Heuristic for Vehicle Routing Problems**. *Computers & Operations Research*, 39(9):2033–2050, 2012.

[574] Jean-François Cordeau, Gilbert Laporte, and A. Mercier. **A unified tabu search heuristic for vehicle routing problems with time windows**. *Journal of the Operational Research Society*, 52(8):928–936, 2001.

[575] Oscar Cordón and Sergio Damas. **Image Registration with Iterated Local Search**. *Journal of Heuristics*, 12(1–2):73–94, 2006.

[576] Oscar Cordón, I. Fernández de Viana, Francisco Herrera, and L. Moreno. **A New ACO Model Integrating Evolutionary Computation Concepts: The Best-Worst Ant System**. In Marco Dorigo et al., editors, *Abstract proceedings of ANTS 2000 – From Ant Colonies to Artificial Ants: Second International Workshop on Ant Algorithms*, pages 22–29. IRIDIA, Université Libre de Bruxelles, Belgium, Sept., 7–9 2000.

[577] Oscar Cordón, Francisco Herrera, and Thomas Stützle. **Special Issue on Ant Colony Optimization: Models and Applications**. *Mathware & Soft Computing*, 9(3):137–268, 2002.

[578] Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, and Clifford Stein. *Introduction to algorithms*. MIT Press, Cambridge, MA, 2009.

[579] David Corne and Joshua D. Knowles. **Some Multiobjective Optimizers are Better than Others**. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC 2003)*, volume 4, pages 2506–2512. IEEE Press, Piscataway, NJ, Dec. 2003.

[580] David Corne and Joshua D. Knowles. **No free lunch and free leftovers theorems for multiobjective optimisation problems**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 327–341. Springer, Heidelberg, 2003. `doi:10.1007/3-540-36970-8_23`.

[581] David Corne and Alan Reynolds. **Evaluating optimization algorithms: bounds on the performance of optimizers on unseen problems**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 707–710, New York, NY, 2011. ACM Press. `doi:10.1145/2001858.2002073`. Supplementary material: `http://is.gd/evalopt`.

[582] David Corne, Marco Dorigo, and Fred Glover, editors. *New Ideas in Optimization*. McGraw Hill, London, UK, 1999.

[583] David Corne, Joshua D. Knowles, and M. J. Oates. **The Pareto Envelope-Based Selection Algorithm for Multiobjective Optimization**. In Marc Schoenauer et al., editors, *Parallel Problem Solving from Nature – PPSN VI*, volume 1917 of *Lecture Notes in Computer Science*, pages 839–848. Springer, Heidelberg, 2000.

[584] David Corne, Nick R. Jerram, Joshua D. Knowles, and Martin J. Oates. **PESA-II: Region-Based Selection in Evolutionary Multiobjective Optimization**. In Erik D. Goodman, editor, *Proceedings of the 3rd Annual Conference on Genetic and Evolutionary Computation, GECCO 2001*, pages 283–290. Morgan Kaufmann Publishers, San Francisco, CA, 2001. `doi:10.5555/2955239.2955289`.
Keywords: PESA-II.

[585] P. Corry and E. Kozan. **Ant Colony Optimisation for Machine Layout Problems**. *Computational Optimization and Applications*, 28(3):287–310, 2004.

[586] Jeroen Corstjens, Nguyen Dang, Benoît Depaire, An Caris, and Patrick De Causmaecker. **A combined approach for analysing heuristic algorithms**. *Journal of Heuristics*, 25(4): 591–628, 2019. `doi:10.1007/s10732-018-9388-7`.

[587] Jeroen Corstjens, Benoît Depaire, An Caris, and Kenneth Sörensen. **A multilevel evaluation method for heuristics with an application to the VRPTW**. *International Transactions in Operational Research*, 27(1):168–196, 2020. `doi:10.1111/itor.12631`.

[588] Annelies De Corte and Kenneth Sörensen. **Optimisation of gravity-fed water distribution network design: A critical review**. *European Journal of Operational Research*, 228(1):1–10, 2013. `doi:10.1016/j.ejor.2012.11.046`.

[589] Annelies De Corte and Kenneth Sörensen. **An Iterated Local Search Algorithm for Water Distribution Network Design Optimization**. *Networks*, 67(3):187–198, 2016.

[590] Annelies De Corte and Kenneth Sörensen. **An Iterated Local Search Algorithm for multi-period water distribution network design optimization**. *Water*, 8(8):359, 2016. `doi:10.3390/w8080359`.

[591] Corinna Cortes, Neil D. Lawrence, Daniel D. Lee, Masashi Sugiyama, and Roman Garnett, editors. *Advances in Neural Information Processing Systems 28: Annual Conference on Neural Information Processing Systems 2015, December 7-12, 2015, Montreal, Quebec, Canada*, 2015. URL `http://papers.nips.cc/book/advances-in-neural-information-processing-systems-28-2015`.

[592] COSEAL. **COnfiguration and SElection of ALgorithms**. http://www.coseal.net, 2017.

[593] D. Costa and A. Hertz. **Ants can color graphs**. *Journal of the Operational Research Society*, 48:295–305, 1997.

[594] Wagner Emanoel Costa, Marco C. Goldbarg, and Elizabeth F. G. Goldbarg. **Hybridizing VNS and path-relinking on a particle swarm framework to minimize total flowtime**. *Expert Systems with Applications*, 39(18):13118–13126, 2012.

[595] Carlos Cotta and P. Cowling, editors. *Proceedings of EvoCOP 2009 – 9th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 5482 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2009.

[596] Carlos Cotta et al., editors. *Proceedings of EvoCOP 2007 – Seventh European Conference on Evolutionary Computation in Combinatorial Optimisation*, volume 4446 of *Lecture Notes in Computer Science*. Springer, Berlin, Germany, 2007.

[597] J. D. Cowan, G. Tesauro, and J. Alspector, editors. *Advances in Neural Information Processing Systems*, volume 6. Morgan Kaufmann Publishers, San Francisco, CA, 1994.

[598] S. P. Coy, B. L. Golden, G. C. Runger, and E. A. Wasil. **Using Experimental Design to Find Effective Parameter Settings for Heuristics**. *Journal of Heuristics*, 7(1):77–97, 2001.

[599] I. Barry Crabtree. **Resource Scheduling: Comparing Simulated Annealing with Constraint Programming**. *BT Technology Journal*, 13(1):121–127, 1995.

[600] M. J. Crawley. *The R Book*. Wiley, 2nd edition, 2012.

[601] Douglas Edward Critchlow, Michael A. Fligner, and Joseph S. Verducci. **Probability Models on Rankings**. *Journal of Mathematical Psychology*, 35:294–318, 1991.

[602] G. A. Croes. **A Method for Solving Traveling Salesman Problems**. *Operations Research*, 6:791–812, 1958.

[603] W. B. Crowston, F. Glover, G. L. Thompson, and J. D. Trawick. **Probabilistic and Parametric Learning Combinations of Local Job Shop Scheduling Rules**. ONR Research Memorandum No. 117, GSIA, Carnegie-Mellon University, Pittsburgh, PA, USA, 1963.

[604] Carlos Cruz, Juan Ramón González, and David A. Pelta. **Optimization in Dynamic Environments: A Survey on Problems, Methods and Measures**. *Soft Computing*, 15 (7):1427–1448, 2011.

[605] Fábio Cruz, Anand Subramanian, Bruno P. Bruck, and Manuel Iori. **A Heuristic Algorithm for a Single Vehicle Static Bike Sharing Rebalancing Problem**. *Computers & Operations Research*, 79:19–33, 2017.

[606] J. C. Culberson. **Iterated Greedy Graph Coloring and the Difficulty Landscape**. Technical Report 92-07, Department of Computing Science, The University of Alberta, Edmonton, Alberta, Canada, 1992.

[607] J. C. Culberson. **On the Futility of Blind Search: An Algorithmic View of "No Free Lunch"**. *Evolutionary Computation*, 6(2):109–127, 1998. doi:10.1162/evco.1998.6.2.109. *Keywords:* NFL.

[608] J. C. Culberson and F. Luo. **Exploring the k-colorable Landscape with Iterated Greedy**. In David S. Johnson and Michael A. Trick, editors, *Cliques, Coloring, and Satisfiability: Second DIMACS Implementation Challenge*, volume 26 of *DIMACS Series on Discrete Mathematics and Theoretical Computer Science*, pages 245–284. American Mathematical Society, Providence, RI, 1996.

[609] J. C. Culberson, A. Beacham, and D. Papp. **Hiding our Colors**. In *Proceedings of the CP'95 Workshop on Studying and Solving Really Hard Problems*, pages 31–42, Cassis, France, Sept. 1995.

[610] Jeff Cumming. *Understanding the New Statistics – Effect Sizes, Confidence Intervals, and Meta-analysis*. Taylor & Francis, 2012.

[611] P. Czyzżak and Andrzej Jaszkiewicz. **Pareto simulated annealing − a metaheuristic technique for multiple-objective combinatorial optimization**. *Journal of Multi-Criteria Decision Analysis*, 7(1):34–47, 1998.

[612] M. Damas, M. Salmerón, J. Ortega, G. Olivares, and H. Pomares. **Parallel Dynamic Water Supply Scheduling in a Cluster of Computers**. *Concurrency and Computation: Practice and Experience*, 13(15):1281–1302, Dec. 2001. ISSN 1532-0626 (print), 1532-0634 (electronic).

[613] Steven B. Damelin, Fred J. Hickernell, David L. Ragozin, and Xiaoyan Zeng. **On Energy, Discrepancy and Group Invariant Measures on Measurable Subsets of Euclidean Space**. *Journal of Fourier Analysis and Applications*, 16(6):813–839, 2010.
Keywords: Capacity; Cubature; Discrepancy; Distribution; Group invariant kernel; Group invariant measure; Energy minimizer; Equilibrium measure; Numerical integration; Positive definite; Potential field; Riesz kernel; Reproducing Hilbert space; Signed measure.

[614] Graeme C. Dandy and Matthew S. Gibbs. **Optimizing System Operations and Water Quality**. In Paul Bizier and Paul DeBarry, editors, *Proceedings of World Water and Environmental Resources Congress*. ASCE, Philadelphia, USA, 2003. doi:10.1061/40685(2003)127. on CD-ROM.

[615] Nguyen Dang and Carola Doerr. **Hyper-parameter tuning for the $(1 + (\lambda, \lambda))$ GA**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019*, pages 889–897. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6111-8. doi:10.1145/3321707.3321725.
Keywords: irace; theory.

[616] Nguyen Dang Thi Thanh. *Data analytics for algorithm design*. PhD thesis, KU Leuven, Belgium, 2018.
Annotation: Supervised by Patrick De Causmaecker.

[617] Nguyen Dang Thi Thanh and Patrick De Causmaecker. **Motivations for the Development of a Multi-objective Algorithm Configurator**. In Begoña Vitoriano, Eric Pinson, and Fernando Valente, editors, *ICORES 2014 - Proceedings of the 3rd International Conference on Operations Research and Enterprise Systems*, pages 328–333. SciTePress, 2014.

[618] Nguyen Dang Thi Thanh, Leslie Pérez Cáceres, Patrick De Causmaecker, and Thomas Stützle. **Configuring irace Using Surrogate Configuration Benchmarks**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2017*, pages 243–250. ACM Press, New York, NY, 2017. doi:10.1145/3071178.3071238.
Keywords: irace.

[619] Emilie Danna, Edward Rothberg, and Claude Le Pape. **Exploring relaxation induced neighborhoods to improve MIP solutions**. *Mathematical Programming*, 102(1):71–90, 2005.

[620] Augusto Dantas and Aurora Pozo. **On the use of fitness landscape features in meta-learning based algorithm selection for the quadratic assignment problem**. *Theoretical Computer Science*, 805:62–75, 2020. doi:10.1016/j.tcs.2019.10.033.

[621] Augusto Lopez Dantas and Aurora Trinidad Ramirez Pozo. **A Meta-Learning Algorithm Selection Approach for the Quadratic Assignment Problem**. In *Proceedings of the 2018 Congress on Evolutionary Computation (CEC 2018)*, pages 1–8, Piscataway, NJ, 2018. IEEE Press.

[622] George B. Dantzig and Philip Wolfe. **Decomposition Principle for Linear Programs**. *Operations Research*, 8(1):101–111, 1960.

[623] Andrea Pohoreckyj Danyluk, Léon Bottou, and Michael L. Littman, editors. *Proceedings of the 26th Annual International Conference on Machine Learning, ICML 2009, Montreal, Quebec, Canada, June 14-18, 2009*, New York, NY, 2009. ACM Press.

[624] Fabio Daolio, Sébastien Verel, Gabriela Ochoa, and Marco Tomassini. **Local Optima Networks and the Performance of Iterated Local Search**. In Terence Soule and Jason H. Moore, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2012*, pages 369–376. ACM Press, New York, NY, 2012.

[625] Indraneel Das and John E. Dennis. **A closer look at drawbacks of minimizing weighted sums of objectives for Pareto set generation in multicriteria optimization problems**. *Structural Optimization*, 14(1):63–69, 1997. doi:10.1007/BF01197559.

[626] Swagatam Das and Ponnuthurai N. Suganthan. **Differential Evolution: A Survey of the State-of-the-art**. *IEEE Transactions on Evolutionary Computation*, 15(1), Feb. 2011.

[627] Swagatam Das, Sankha Subhra Mullick, and Ponnuthurai N. Suganthan. **Recent advances in differential evolution–An updated survey**. *Swarm and Evolutionary Computation*, 27:1–30, 2016.

[628] Sanjoy Dasgupta and David McAllester, editors. *Proceedings of the 30th International Conference on Machine Learning, ICML 2013, Atlanta, GA, USA, 16-21 June 2013*, volume 28, 2013. URL http://jmlr.org/proceedings/papers/v28/.

[629] Sanjeeb Dash. **Exponential Lower Bounds on the Lengths of Some Classes of Branch-and-Cut Proofs**. *Mathematics of Operations Research*, 30(3):678–700, 2005.

[630] Samuel Daulton, Maximilian Balandat, and Eytan Bakshy. **Differentiable Expected Hypervolume Improvement for Parallel Multi-Objective Bayesian Optimization**. In Hugo Larochelle, Marc'Aurelio Ranzato, Raia Hadsell, Maria-Florina Balcan, and Hsuan-Tien Lin, editors, *Advances in Neural Information Processing Systems (NeurIPS 33)*, pages 9851–9864, 2020.

[631] Jean Daunizeau, Hanneke E. M. den Ouden, Matthias Pessiglione, Stefan J. Kiebel, Karl J. Friston, and Klaas E. Stephan. **Observing the observer (II): deciding when to decide**. *PLoS One*, 5(12):e15555, 2010. doi:10.1371/journal.pone.0015555.

[632] Jean Daunizeau, Hanneke E. M. den Ouden, Matthias Pessiglione, Klaas E. Stephan, Stefan J. Kiebel, and Karl J. Friston. **Observing the observer (I): meta-Bayesian models of learning and decision-making**. *PLoS One*, 5(12):e15554, 2010. doi:10.1371/journal.pone.0015554.

[633] Jean-Charles de Borda. **Mémoire sur les Élections au Scrutin**. *Histoire de l'Académie Royal des Sciences*, 1781.
       Keywords: ranking.

[634] Alan R. R. de Freitas, Peter J. Fleming, and Frederico G. Guimarães. **Aggregation trees for visualization and dimension reduction in many-objective optimization**. *Information Sciences*, 298:288–314, 2015.

[635] Kenneth A. De Jong. *Evolutionary computation: a unified approach*. MIT Press, Cambridge, MA, 2006.

[636] Kenneth A. De Jong and William M. Spears. **A formal analysis of the role of multi-point crossover in genetic algorithms**. *Annals of Mathematics and Artificial Intelligence*, 5(1):1–26, 1992.

[637] Kenneth A. De Jong, Riccardo Poli, and Jonathan E. Rowe, editors. *Foundations of Genetic Algorithms, 7th International Workshop, FOGA 2002, Torremolinos, Spain, September 2-4, 2002, Proceedings*. Morgan Kaufmann Publishers, 2002.

[638] Eduardo Batista de Moraes Barbosa, Edson Luiz Francça Senne, and Messias Borges Silva. **Improving the Performance of Metaheuristics: An Approach Combining Response Surface Methodology and Racing Algorithms**. *International Journal of Engineering Mathematics*, 2015:Article ID 167031, 2015. doi:10.1155/2015/167031.
Keywords: F-race.

[639] Axel de Perthuis de Laillevault, Benjamin Doerr, and Carola Doerr. **Money for Nothing: Speeding Up Evolutionary Algorithms Through Better Initialization**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 815–822. ACM Press, New York, NY, 2015.

[640] Alex Guimarães Cardoso de Sá, Walter José G. S. Pinto, Luiz Otávio Vilas Boas Oliveira, and Gisele L. Pappa. **RECIPE: A Grammar-Based Framework for Automatically Evolving Classification Pipelines**. In James McDermott, Mauro Castelli, Lukás Sekanina, Evert Haasdijk, and Pablo García-Sánchez, editors, *Proceedings of the 20th European Conference on Genetic Programming, EuroGP 2017*, volume 10196 of *Lecture Notes in Computer Science*, pages 246–261. Springer, Heidelberg, 2017. ISBN 978-3-319-55695-6. doi:10.1007/978-3-319-55696-3_16.

[641] Werner de Schaetzen, Dragan A. Savic, and Godfrey A. Walters. **A genetic algorithm approach to pump scheduling in water supply**. In V. Babovic and L. C. Larsen, editors, *Hydroinformatics '98*, pages 897–899, Rotterdam, Balkema, 1998.

[642] Marcelo De Souza and Marcus Ritt. **An Automatically Designed Recombination Heuristic for the Test-Assignment Problem**. In *Proceedings of the 2018 Congress on Evolutionary Computation (CEC 2018)*, pages 1–8, Piscataway, NJ, 2018. IEEE Press. doi:10.1109/CEC.2018.8477801.

[643] Marcelo De Souza and Marcus Ritt. **Automatic Grammar-Based Design of Heuristic Algorithms for Unconstrained Binary Quadratic Programming**. In Arnaud Liefooghe and Manuel López-Ibáñez, editors, *Proceedings of EvoCOP 2018 – 18th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 10782 of *Lecture Notes in Computer Science*, pages 67–84. Springer, Heidelberg, 2018. doi:10.1007/978-3-319-77449-7_5.

[644] Marcelo De Souza and Marcus Ritt. **Hybrid Heuristic for Unconstrained Binary Quadratic Programming − Source Code of HHBQP**. https://github.com/souzamarcelo/hhbqp, 2018.

[645] Marcelo De Souza, Marcus Ritt, and Manuel López-Ibáñez. **CAPOPT: Capping Methods for the Automatic Configuration of Optimization Algorithms**. https://github.com/souzamarcelo/capopt, 2020.

[646] Marcelo De Souza, Marcus Ritt, Manuel López-Ibáñez, and Leslie Pérez Cáceres. **ACVIZ: A Tool for the Visual Analysis of the Configuration of Algorithms with irace − Source Code**. https://github.com/souzamarcelo/acviz, 2020.

[647] Marcelo De Souza, Marcus Ritt, Manuel López-Ibáñez, and Leslie Pérez Cáceres. **ACVIZ: Algorithm Configuration Visualizations for irace: Supplementary material**. http://doi.org/10.5281/zenodo.4714582, Sept. 2020.

[648] Marcelo De Souza, Marcus Ritt, and Manuel López-Ibáñez. **Capping Methods for the Automatic Configuration of Optimization Algorithms − Supplementary Material**. https://github.com/souzamarcelo/supp-cor-capopt, 2021.

[649] Marcelo De Souza, Marcus Ritt, Manuel López-Ibáñez, and Leslie Pérez Cáceres. **ACVIZ: A Tool for the Visual Analysis of the Configuration of Algorithms with irace**. *Operations Research Perspectives*, 8:100186, 2021. `doi:10.1016/j.orp.2021.100186`. Supplementary material: `https://zenodo.org/record/4714582`.

[650] Sven De Vries and Rakesh V. Vohra. **Combinatorial Auctions: A Survey**. *INFORMS Journal on Computing*, 15(3):284–309, 2003.

[651] Angela Dean and Daniel Voss. *Design and Analysis of Experiments.* Springer, London, UK, 1999. `doi:10.1007/b97673`.

[652] Thomas Dean and Mark S. Boddy. **An Analysis of Time-Dependent Planning**. In Howard E. Shrobe, Tom M. Mitchell, and Reid G. Smith, editors, *Proceedings of the 7th National Conference on Artificial Intelligence, AAAI-88*, pages 49–54. AAAI Press/MIT Press, Menlo Park, CA, 1988. URL `http://www.aaai.org/Conferences/AAAI/aaai88.php`.
Keywords: anytime, performance profiles.

[653] Kalyanmoy Deb. **Multi-objective genetic algorithms: problem difficulties and construction of test problems**. *Evolutionary Computation*, 7(3):205–230, 1999.
Annotation: Naive definition of PLO-set.

[654] Kalyanmoy Deb. **An efficient constraint handling method for genetic algorithms**. *Computer Methods in Applied Mechanics and Engineering*, 186(2/4):311–338, 2000. `doi:10.1016/S0045-7825(99)00389-8`.

[655] Kalyanmoy Deb. *Multi-Objective Optimization Using Evolutionary Algorithms.* Wiley, Chichester, UK, 2001.

[656] Kalyanmoy Deb. **Multi-objective optimization**. In Edmund K. Burke and Graham Kendall, editors, *Search Methodologies*, pages 403–449. Springer, Boston, MA, 2005. `doi:10.1007/0-387-28356-0`.

[657] Kalyanmoy Deb. **Introduction to evolutionary multiobjective optimization**. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Słowiński, editors, *Multiobjective Optimization: Interactive and Evolutionary Approaches*, volume 5252 of *Lecture Notes in Computer Science*, pages 59–96. Springer, Heidelberg, 2008. `doi:10.1007/978-3-540-88908-3_3`.

[658] Kalyanmoy Deb and Ram Bhushan Agrawal. **Simulated binary crossover for continuous search spaces**. *Complex Systems*, 9(2):115–148, 1995.
Keywords: SBX.

[659] Kalyanmoy Deb and S. Agrawal. **A Niched-Penalty Approach for Constraint Handling in Genetic Algorithms**. In Andrej Dobnikar, Nigel C. Steele, David W. Pearson, and Rudolf F. Albrecht, editors, *Artificial Neural Nets and Genetic Algorithms (ICANNGA-99)*, pages 235–243. Springer Verlag, 1999. `doi:10.1007/978-3-7091-6384-9`.
Keywords: polynomial mutation.

[660] Kalyanmoy Deb and Debayan Deb. **Analysing mutation schemes for real-parameter genetic algorithms**. *International Journal of Artificial Intelligence and Soft Computing*, 4(1):1–28, 2014.

[661] Kalyanmoy Deb and Sachin Jain. **Multi-Speed Gearbox Design Using Multi-Objective Evolutionary Algorithms**. Technical Report 2002001, KanGAL, Feb. 2002.

[662] Kalyanmoy Deb and Sachin Jain. **An Evolutionary Many-Objective Optimization Algorithm Using Reference-Point-Based Nondominated Sorting Approach, Part I: Solving Problems With Box Constraints**. *IEEE Transactions on Evolutionary Computation*, 18(4):577–601, 2014.
Annotation: Proposed NSGA-III.

[663] Kalyanmoy Deb and Murat Köksalan. **Guest Editorial: Special Issue on Preference-based Multiobjective Evolutionary Algorithms**. *IEEE Transactions on Evolutionary Computation*, 14(5):669–670, Oct. 2010. `doi:10.1109/TEVC.2010.2070371`.

[664] Kalyanmoy Deb and Christie Myburgh. **Breaking the billion-variable barrier in real-world optimization using a customized evolutionary algorithm**. In Tobias Friedrich, Frank Neumann, and Andrew M. Sutton, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2016*, pages 653–660. ACM Press, New York, NY, 2016.

[665] Kalyanmoy Deb and Ankur Sinha. **Solving Bilevel Multi-Objective Optimization Problems Using Evolutionary Algorithms**. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-criterion Optimization, EMO 2009*, volume 5467 of *Lecture Notes in Computer Science*, pages 110–124. Springer, Heidelberg, 2009.

[666] Kalyanmoy Deb and J. Sundar. **Reference point based multi-objective optimization using evolutionary algorithms**. In M. Cattolico et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2006*, pages 635–642. ACM Press, New York, NY, 2006. `doi:10.1145/1143997.1144112`.

[667] Kalyanmoy Deb, S. Agarwal, A. Pratap, and T. Meyarivan. **A fast elitist non-dominated sorting genetic algorithm for multi-objective optimization: NSGA-II**. In Marc Schoenauer et al., editors, *Parallel Problem Solving from Nature – PPSN VI*, volume 1917 of *Lecture Notes in Computer Science*, pages 849–858. Springer, Heidelberg, 2000.

[668] Kalyanmoy Deb, Lothar Thiele, Marco Laumanns, and Eckart Zitzler. **Scalable Test Problems for Evolutionary Multi-Objective Optimization**. Technical Report 112, Computer Engineering and Networks Laboratory (TIK), Swiss Federal Institute of Technology (ETH), Zürich, Switzerland, 2001.
Keywords: DTLZ benchmark, Do not cite this TR! It is incorrect and it is superseeded by [670].

[669] Kalyanmoy Deb, A. Pratap, S. Agarwal, and T. Meyarivan. **A fast and elitist multi-objective genetic algorithm: NSGA-II**. *IEEE Transactions on Evolutionary Computation*, 6(2): 182–197, 2002. `doi:10.1109/4235.996017`.

[670] Kalyanmoy Deb, Lothar Thiele, Marco Laumanns, and Eckart Zitzler. **Scalable Test Problems for Evolutionary Multiobjective Optimization**. In Ajith Abraham, Lakhmi Jain, and Robert Goldberg, editors, *Evolutionary Multiobjective Optimization*, Advanced Information and Knowledge Processing, pages 105–145. Springer, London, UK, Jan. 2005.
Keywords: DTLZ benchmark.

[671] Kalyanmoy Deb, Rahul Tewari, Mayur Dixit, and Joydeep Dutta. **Finding trade-off solutions close to KKT points using evolutionary multi-objective optimization**. In *Proceedings of the 2007 Congress on Evolutionary Computation (CEC 2007)*, pages 2109–2116. IEEE Press, Piscataway, NJ, 2007.

[672] Kalyanmoy Deb, Ling Zhu, and Sandeep Kulkarni. **Handling Multiple Scenarios in Evolutionary Multi-Objective Numerical Optimization**. *IEEE Transactions on Evolutionary Computation*, 22(6):920–933, 2018. `doi:10.1109/TEVC.2017.2776921`.
Keywords: scenario-based.

[673] Kalyanmoy Deb, Erik D. Goodman, Carlos A. Coello Coello, Kathrin Klamroth, Kaisa Miettinen, Sanaz Mostaghim, and Patrick Reed, editors. *Evolutionary Multi-Criterion Optimization – 10th International Conference, EMO 2019, East Lansing, MI, USA, March 10-13, 2019, Proceedings*, volume 11411 of *Lecture Notes in Computer Science*. Springer International Publishing, Cham, Switzerland, 2019. ISBN 978-3-030-12597-4. `doi:10.1007/978-3-030-12598-1`.

[674] Kalyanmoy Deb et al., editors. *Genetic and Evolutionary Computation Conference, GECCO 2004, Seattle, WA, USA, June 26-30, 2004, Proceedings, Part I*, volume 3102 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2004.

[675] Kalyanmoy Deb et al., editors. *Genetic and Evolutionary Computation Conference, GECCO 2004, Seattle, WA, USA, June 26-30, 2004, Proceedings, Part II*, volume 3103 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2004.

[676] Rina Dechter, editor. *Principles and Practice of Constraint Programming, CP 2000, 6th International Conference, Singapore, September 18-21, 2000, Proceedings*, volume 1894 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2000.

[677] William A. Dees, Jr. and Patrick G. Karger. **Automated Rip-up and Reroute Techniques**. In *DAC'82, Proceedings of the 19th Design Automation Workshop*, pages 432–439. IEEE Press, 1982.

[678] V. Dekhtyarenko. **Verification of weight coefficients in multicriteria optimization problems**. *Computer-Aided Design*, 13(6):339–344, 1981.

[679] Robert F. Dell and Mark H. Karwan. **An interactive MCDM weight space reduction method utilizing a Tchebycheff utility function**. *Naval Research Logistics*, 37(2):263–277, 1990.

[680] Federico Della Croce, Thierry Garaix, and Andrea Grosso. **Iterated Local Search and Very Large Neighborhoods for the Parallel-machines Total Tardiness Problem**. *Computers & Operations Research*, 39(6):1213–1217, 2012.

[681] Mauro Dell'Amico and Marco Trubian. **Applying Tabu Search to the Job Shop Scheduling Problem**. *Annals of Operations Research*, 41:231–252, 1993.

[682] Mauro Dell'Amico, Manuel Iori, Silvano Martello, and Michele Monaci. **Heuristic and Exact Algorithms for the Identical Parallel Machine Scheduling Problem**. *INFORMS Journal on Computing*, 20(3):333–344, 2016.

[683] Mauro Dell'Amico, Manuel Iori, Stefano Novellani, and Thomas Stützle. **A destroy and repair algorithm for the Bike sharing Rebalancing Problem**. *Computers & Operations Research*, 71:146–162, 2016. `doi:10.1016/j.cor.2016.01.011`.
       Keywords: irace.

[684] Maxence Delorme, Manuel Iori, and Silvano Martello. **Bin packing and cutting stock problems: Mathematical models and exact algorithms**. *European Journal of Operational Research*, 255(1):1–20, 2016. `doi:10.1016/j.ejor.2016.04.030`.

[685] Maxence Delorme, Manuel Iori, and Silvano Martello. **BPPLIB: a library for bin packing and cutting stock problems**. *Optimization Letters*, 12(2):235–250, 2018. `doi:10.1007/s11590-017-1192-z`.

[686] X. Delorme, Xavier Gandibleux, and F. Degoutin. **Evolutionary, constructive and hybrid procedures for the bi-objective set packing problem**. *European Journal of Operational Research*, 204(2):206–217, 2010.
       Annotation: This paper cannot be found on internet!! Does it exist?

[687] Richard A. DeMillo, editor. *Proceedings of the sixteenth annual ACM Symposium on Theory of Computing*, 1984. ACM Press.

[688] Stephan Dempe, Gabriele Eichfelder, and Jörg Fliege. **On the effects of combining objectives in multi-objective optimization**. *Mathematical Methods of Operations Research*, 82(1):1–18, 2015.

[689] Matthijs L. den Besten. *Simple Metaheuristics for Scheduling*. PhD thesis, FB Informatik, TU Darmstadt, Germany, 2004. URL http://tuprints.ulb.tu-darmstadt.de/516/.

[690] Matthijs L. den Besten, Thomas Stützle, and Marco Dorigo. **Ant Colony Optimization for the Total Weighted Tardiness Problem**. In Marc Schoenauer et al., editors, *Parallel Problem Solving from Nature – PPSN VI*, volume 1917 of *Lecture Notes in Computer Science*, pages 611–620, Heidelberg, 2000. Springer.

[691] Matthijs L. den Besten, Thomas Stützle, and Marco Dorigo. **Design of Iterated Local Search Algorithms: An Example Application to the Single Machine Total Weighted Tardiness Problem**. In E. J. W. Boers et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2001*, volume 2037 of *Lecture Notes in Computer Science*, pages 441–452. Springer, Heidelberg, 2001.

[692] Jean-Louis Deneubourg, S. Aron, S. Goss, and J.-M. Pasteels. **The Self-Organizing Exploratory Pattern of the Argentine Ant**. *Journal of Insect Behavior*, 3(2):159–168, 1990. doi:10.1007/BF01417909.

[693] Jia Deng, Wei Dong, Richard Socher, Li-Jia Li, Kai Li, and Li Fei-Fei. **Imagenet: A large-scale hierarchical image database**. In *Computer Vision and Pattern Recognition, 2009. CVPR 2009. IEEE Conference on*, pages 248–255. IEEE, 2009.

[694] Roman Denysiuk, Lino Costa, and Isabel Espírito Santo. **Many-objective optimization using differential evolution with variable-wise mutation restriction**. In Christian Blum and Enrique Alba, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2013*, pages 591–598. ACM Press, New York, NY, 2013. ISBN 978-1-4503-1963-8.

[695] Ulrich Derigs and Ulrich Vogel. **Experience with a Framework for Developing Heuristics for Solving Rich Vehicle Routing Problems**. *Journal of Heuristics*, 20(1):75–106, 2014.

[696] Joaquín Derrac, Salvador García, Daniel Molina, and Francisco Herrera. **A practical tutorial on the use of nonparametric statistical tests as a methodology for comparing evolutionary and swarm intelligence algorithms**. *Swarm and Evolutionary Computation*, 1(1):3–18, 2011.

[697] Paolo Detti, Francesco Papalini, and Garazi Zabalo Manrique de Lara. **A multi-depot dial-a-ride problem with heterogeneous vehicles and compatibility constraints in healthcare**. *Omega*, 70:1–14, 2017.

[698] Keras development team. **Keras**. https://https://keras.io, 2017.

[699] Sophie Dewez. *On the toll setting problem*. PhD thesis, Faculté de Sciences, Université Libre de Bruxelles, 2014.
      Annotation: Supervised by Dr. Martine Labbé.

[700] Clarisse Dhaenens, Laetitia Jourdan, and Marie-Eléonore Marmion, editors. *9th International Conference, LION 9, Lille, France, January 12-15, 2015. Revised Selected Papers*, volume 8994 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2015.

[701] Inderjit S. Dhillon, Yehuda Koren, Rayid Ghani, Ted E. Senator, Paul Bradley, Rajesh Parekh, Jingrui He, Robert L. Grossman, and Ramasamy Uthurusamy, editors. *The 19th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, KDD 2013*. ACM Press, New York, NY, 2013.

[702] Gianni A. Di Caro and Marco Dorigo. **AntNet: Distributed Stigmergetic Control for Communications Networks**. *Journal of Artificial Intelligence Research*, 9:317–365, 1998.

[703] Gianni A. Di Caro, F. Ducatelle, and L. M. Gambardella. **AntHocNet: An adaptive nature-inspired algorithm for routing in mobile ad hoc networks**. *European Transactions on Telecommunications*, 16(5):443–455, 2005.

[704] Cecillia Di Chio et al., editors. *EvoApplications 2012: EvoCOMNET, EvoCOMPLEX, EvoFIN, EvoGAMES, EvoHOT, EvoIASP, EvoNUM, EvoPAR, EvoRISK, EvoSTIM, and EvoSTOC, Málaga, Spain, April 11-13, 2012, Proceedings*, volume 7248 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[705] Luca Di Gaspero and Andrea Schaerf. **EasyLocal++: An object-oriented framework for flexible design of local search algorithms**. *Software — Practice & Experience*, 33(8): 733–765, July 2003.
Keywords: software engineering, local search, easylocal.

[706] Luca Di Gaspero and Andrea Schaerf. **Easysyn++: A tool for automatic synthesis of stochastic local search algorithms**. In Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors, *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2007*, volume 4638 of *Lecture Notes in Computer Science*, pages 177–181. Springer, Heidelberg, 2007.

[707] Luca Di Gaspero, Marco Chiarandini, and Andrea Schaerf. **A Study on the Short-Term Prohibition Mechanisms in Tabu Search**. In Gerhard Brewka, Silvia Coradeschi, Anna Perini, and Paolo Traverso, editors, *Proceedings of the 17th European Conference on Artificial Intelligence, ECAI 2006, Riva del Garda, Italy, August29 - September 1, 2006*, pages 83–87. IOS Press, 2006.

[708] Luca Di Gaspero, Andrea Schaerf, and Thomas Stützle, editors. *Proceedings of MIC 2011, the 9th Metaheuristics International Conference*, 2011.

[709] Luca Di Gaspero, Andrea Rendl, and Tommaso Urli. **Constraint-Based Approaches for Balancing Bike Sharing Systems**. In Christian Schulte, editor, *Principles and Practice of Constraint Programming*, volume 8124 of *Lecture Notes in Computer Science*, pages 758–773. Springer, Heidelberg, 2013. doi:10.1007/978-3-642-40627-0_56.
Keywords: F-race.

[710] Luca Di Gaspero, Andrea Rendl, and Tommaso Urli. **A Hybrid ACO+CP for Balancing Bicycle Sharing Systems**. In María J. Blesa, Christian Blum, Paola Festa, Andrea Roli, and M. Sampels, editors, *Hybrid Metaheuristics*, volume 7919 of *Lecture Notes in Computer Science*, pages 198–212. Springer, Heidelberg, 2013. ISBN 978-3-642-38515-5. doi:10.1007/978-3-642-38516-2_16.
Keywords: F-race.

[711] Francesco di Pierro, Soon-Thiam Khu, and Dragan A. Savic. **An investigation on preference order ranking scheme for multiobjective evolutionary optimization**. *IEEE Transactions on Evolutionary Computation*, 11(1):17–45, 2007.

[712] L. C. Dias, Vincent Mousseau, José Rui Figueira, and J. N. Clímaco. **An aggregation/disaggregation approach to obtain robust conclusions with ELECTRE TRI**. *European Journal of Operational Research*, 138(2):332–348, Apr. 2002.

[713] Diego Díaz, Pablo Valledor, Paula Areces, Jorge Rodil, and Montserrat Suárez. **An ACO Algorithm to Solve an Extended Cutting Stock Problem for Scrap Minimization in a Bar Mill**. In Marco Dorigo et al., editors, *Swarm Intelligence, 9th International Conference, ANTS 2014*, volume 8667 of *Lecture Notes in Computer Science*, pages 13–24. Springer, Heidelberg, 2014.

[714] Juan Esteban Diaz and Manuel López-Ibáñez. **Incorporating Decision-Maker's Preferences into the Automatic Configuration of Bi-Objective Optimisation Algorithms**. *European Journal of Operational Research*, 289(3):1209–1222, 2021. doi:10.1016/j.ejor.2020.07.059. Supplementary material: https://doi.org/10.5281/zenodo.3749288.

[715] Juan Esteban Diaz, Julia Handl, and Dong-Ling Xu. **Evolutionary robust optimization in production planning: interactions between number of objectives, sample size and choice of robustness measure**. *Computers & Operations Research*, 79:266–278, 2017. doi:10.1016/j.cor.2016.06.020.
Keywords: Evolutionary multi-objective optimization, Production planning, Robust optimization, Simulation-based optimization, Uncertainty modelling.

[716] Juan Esteban Diaz, Julia Handl, and Dong-Ling Xu. **Integrating meta-heuristics, simulation and exact techniques for production planning of a failure-prone manufacturing system**. *European Journal of Operational Research*, 266(3):976–989, 2018. ISSN 0377-2217. doi:10.1016/j.ejor.2017.10.062.
Keywords: Genetic algorithms, Combinatorial optimization, Production planning, Simulation-based optimization, Uncertainty modelling.

[717] J.-Y. Ding, S. Song, J. N. D. Gupta, R. Zhang, R. Chiong, and C. Wu. **An Improved Iterated Greedy Algorithm with a Tabu-based Reconstruction Strategy for the No-wait Flowshop Scheduling Problem**. *Applied Soft Computing*, 30:604–613, 2015.

[718] Andrej Dobnikar, Nigel C. Steele, David W. Pearson, and Rudolf F. Albrecht, editors. *Artificial Neural Nets and Genetic Algorithms (ICANNGA-99), Proceedings of the International Conference in Portorož, Slovenia, 1999*. Springer Verlag, 1999. doi:10.1007/978-3-7091-6384-9.

[719] K. F. Doerner, M. Gendreau, P. Greistorfer, W. J. Gutjahr, R. F. Hartl, and M. Reimann, editors. *Metaheuristics – Progress in Complex Systems Optimization*, volume 39 of *Operations Research/Computer Science Interfaces Series*. Springer, New York, NY, 2006.

[720] Karl F. Doerner, Richard F. Hartl, and Marc Reimann. **Are COMPETants more competent for problem solving? The case of a multiple objective transportation problem**. *Central European Journal for Operations Research and Economics*, 11(2):115–141, 2003.

[721] Karl F. Doerner, Walter J. Gutjahr, Richard F. Hartl, Christine Strauss, and Christian Stummer. **Pareto Ant Colony Optimization: A Metaheuristic Approach to Multiobjective Portfolio Selection**. *Annals of Operations Research*, 131:79–99, 2004.

[722] Karl F. Doerner, Michel Gendreau, Peter Greistorfer, Walter J. Gutjahr, Richard F. Hartl, and Marc Reimann, editors. *6th Metaheuristics International Conference (MIC 2005)*, Vienna, Austria, 2005.

[723] Karl F. Doerner, Guenther Fuellerer, Manfred Gronalt, Richard F. Hartl, and Manuel Iori. **Metaheuristics for the Vehicle Routing Problem with Loading Constraints**. *Networks*, 49(4):294–307, 2006.

[724] Karl F. Doerner, Walter J. Gutjahr, Richard F. Hartl, Christine Strauss, and Christian Stummer. **Pareto ant colony optimization with ILP preprocessing in multiobjective project portfolio selection**. *European Journal of Operational Research*, 171:830–841, 2006.

[725] Karl F. Doerner, Walter J. Gutjahr, Richard F. Hartl, Christine Strauss, and Christian Stummer. **Nature-Inspired Metaheuristics in Multiobjective Activity Crashing**. *Omega*, 36(6): 1019–1037, 2008.

[726] Karl F. Doerner, D. Merkle, and Thomas Stützle. **Special issue on Ant Colony Optimization**. *Swarm Intelligence*, 3(1), 2009.

[727] Benjamin Doerr and Frank Neumann, editors. *Theory of Evolutionary Computation*. Springer International Publishing, 2020. `doi:10.1007/978-3-030-29414-4`.

[728] Benjamin Doerr, Frank Neumann, Dirk Sudholt, and Carsten Witt. **Runtime analysis of the 1-ANT ant colony optimizer**. *Theoretical Computer Science*, 412(1):1629–1644, 2011.

[729] Benjamin Doerr, Timo Kötzing, Johannes Lengler, and Carola Winzen. **Black-box complexities of combinatorial problems**. *Theoretical Computer Science*, 471:84–106, 2013.

[730] Benjamin Doerr, Carola Doerr, and Franziska Ebel. **From black-box complexity to designing new genetic algorithms**. *Theoretical Computer Science*, 567:87–104, 2015. `doi:10.1016/j.tcs.2014.11.028`.

[731] Benjamin Doerr, Christian Gießen, Carsten Witt, and Jing Yang. **The $(1+\lambda)$ evolutionary algorithm with self-adjusting mutation rate**. *Algorithmica*, 81(2):593–631, 2019.

[732] Benjamin Doerr, Carola Doerr, and Jing Yang. **Optimal parameter choices via precise black-box analysis**. *Theoretical Computer Science*, 801:1–34, 2020. `doi:10.1016/j.tcs.2019.06.014`.

[733] Jean-Paul Doignon, Aleksandar Pekeč, and Michel Regenwetter. **The repeated insertion model for rankings: Missing link between two subset choice models**. *Psychometrika*, 69(1):33–54, Mar. 2004. `doi:10.1007/bf02295838`.

[734] Elizabeth D. Dolan and Jorge J. Moré. **Benchmarking optimization software with performance profiles**. *Mathematical Programming*, 91(2):201–213, 2002.
Keywords: performance profiles; convergence.

[735] Pedro Domingos and Geoff Hulten. **Mining high-speed data streams**. In Raghu Ramakrishnan, Salvatore J. Stolfo, Roberto J. Bayardo, and Ismail Parsa, editors, *The 6th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, KDD 2000*, pages 71–80. ACM Press, New York, NY, 2000.
Annotation: `http://dl.acm.org/citation.cfm?id=347090`.

[736] A. V. Donati, Roberto Montemanni, N. Casagrande, A. E. Rizzoli, and L. M. Gambardella. **Time dependent vehicle routing problem with a multi ant colony system**. *European Journal of Operational Research*, 185(3):1174–1191, 2008.

[737] X. Dong, H. Huang, and P. Chen. **An Iterated Local Search Algorithm for the Permutation Flowshop Problem with Total Flowtime Criterion**. *Computers & Operations Research*, 36(5):1664–1669, 2009.

[738] Xingye Dong, Ping, Houkuan Huang, and Maciek Nowak. **A Multi-restart Iterated Local Search Algorithm for the Permutation Flow Shop Problem Minimizing Total Flow Time**. *Computers & Operations Research*, 40(2):627–632, 2013.

[739] Marco Dorigo. *Optimization, Learning and Natural Algorithms*. PhD thesis, Dipartimento di Elettronica, Politecnico di Milano, Italy, 1992. In Italian.

[740] Marco Dorigo. **Ant Colony Optimization**. *Scholarpedia*, 2(3):1461, 2007. `doi:10.4249/scholarpedia.1461`.

[741] Marco Dorigo. **Swarm intelligence: A few things you need to know if you want to publish in this journal**. *Swarm Intelligence*, Nov. 2016. URL https://static.springer.com/sgw/documents/1593723/application/pdf/Additional_submission_instructions.pdf.

[742] Marco Dorigo and Christian Blum. **Ant colony optimization theory: A survey**. *Theoretical Computer Science*, 344(2-3):243–278, 2005.

[743] Marco Dorigo and Gianni A. Di Caro. **The Ant Colony Optimization Meta-Heuristic**. In David Corne, Marco Dorigo, and Fred Glover, editors, *New Ideas in Optimization*, pages 11–32. McGraw Hill, London, UK, 1999.

[744] Marco Dorigo and L. M. Gambardella. **Ant Colony System**. Technical Report IRIDIA/96-05, IRIDIA, Université Libre de Bruxelles, Belgium, 1996.

[745] Marco Dorigo and L. M. Gambardella. **Ant Colonies for the Traveling Salesman Problem**. *BioSystems*, 43(2):73–81, 1997. doi:10.1016/S0303-2647(97)01708-5.

[746] Marco Dorigo and L. M. Gambardella. **Ant Colony System: A Cooperative Learning Approach to the Traveling Salesman Problem**. *IEEE Transactions on Evolutionary Computation*, 1(1):53–66, 1997.

[747] Marco Dorigo and Thomas Stützle. **The Ant Colony Optimization Metaheuristic: Algorithms, Applications and Advances**. In Fred Glover and G. Kochenberger, editors, *Handbook of Metaheuristics*, pages 251–285. Kluwer Academic Publishers, Norwell, MA, 2002.

[748] Marco Dorigo and Thomas Stützle. *Ant Colony Optimization*. MIT Press, Cambridge, MA, 2004.

[749] Marco Dorigo, Vittorio Maniezzo, and Alberto Colorni. **The Ant System: An autocatalytic optimizing process**. Technical Report 91-016 Revised, Dipartimento di Elettronica, Politecnico di Milano, Italy, 1991.

[750] Marco Dorigo, Vittorio Maniezzo, and Alberto Colorni. **Positive Feedback as a Search Strategy**. Technical Report 91-016, Dipartimento di Elettronica, Politecnico di Milano, Italy, 1991.

[751] Marco Dorigo, Vittorio Maniezzo, and Alberto Colorni. **Ant System: Optimization by a Colony of Cooperating Agents**. *IEEE Transactions on Systems, Man, and Cybernetics – Part B*, 26(1):29–41, 1996.

[752] Marco Dorigo, Gianni A. Di Caro, and L. M. Gambardella. **Ant Algorithms for Discrete Optimization**. *Artificial Life*, 5(2):137–172, 1999.

[753] Marco Dorigo, Thomas Stützle, and Gianni A. Di Caro. **Special Issue on "Ant Algorithms"**. *Future Generation Computer Systems*, 16(8), 2000.

[754] Marco Dorigo, L. M. Gambardella, Martin Middendorf, and Thomas Stützle. **Guest Editorial: Special Section on Ant Colony Optimization**. *IEEE Transactions on Evolutionary Computation*, 6(4):317–320, 2002. doi:10.1109/TEVC.2002.802446.

[755] Marco Dorigo, Mauro Birattari, and Thomas Stützle. **Ant Colony Optimization: Artificial Ants as a Computational Intelligence Technique**. *IEEE Computational Intelligence Magazine*, 1(4):28–39, 2006.

[756] Marco Dorigo, Marco A. Montes de Oca, Sabrina Oliveira, and Thomas Stützle. **Ant Colony Optimization**. In J. J. Cochran, editor, *Wiley Encyclopedia of Operations Research and Management Science*, volume 1, pages 114–125. John Wiley & Sons, 2011. doi:10.1002/9780470400531.

[757] Marco Dorigo, Mauro Birattari, Xiaodong Li, Manuel López-Ibáñez, Kazuhiro Ohkura, Carlo Pinciroli, and Thomas Stützle, editors. *Swarm Intelligence, 10th International Conference, ANTS 2016, Brussels, Belgium, September 7-9, 2016, Proceedings*, volume 9882 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2016. `doi:10.1007/978-3-319-44427-7`.

[758] Marco Dorigo, Mauro Birattari, Xiaodong Li, Manuel López-Ibáñez, Kazuhiro Ohkura, Carlo Pinciroli, and Thomas Stützle. **ANTS 2016 Special Issue: Editorial**. *Swarm Intelligence*, Nov. 2017. `doi:10.1007/s11721-017-0146-5`.

[759] Marco Dorigo, Mauro Birattari, Anders L. Christensen, Andreagiovanni Reina, and Vito Trianni, editors. *Swarm Intelligence, 11th International Conference, ANTS 2018, Rome, Italy, October 29-31, 2018, Proceedings*, volume 11172 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2018.

[760] Marco Dorigo et al., editors. *Abstract proceedings of ANTS 2000 – From Ant Colonies to Artificial Ants: Second International Workshop on Ant Algorithms*, Sept., 7–9 2000. IRIDIA, Université Libre de Bruxelles, Belgium.

[761] Marco Dorigo et al., editors. *Ant Algorithms, Third International Workshop, ANTS 2002, Brussels, Belgium, September 12-14, 2002, Proceedings*, volume 2463 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2002.

[762] Marco Dorigo et al., editors. *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2004.

[763] Marco Dorigo et al., editors. *Ant Colony Optimization and Swarm Intelligence, 5th International Workshop, ANTS 2006*, volume 4150 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2006.

[764] Marco Dorigo et al., editors. *Ant Colony Optimization and Swarm Intelligence, 6th International Conference, ANTS 2008*, volume 5217 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[765] Marco Dorigo et al., editors. *Ant Colony Optimization and Swarm Intelligence, 7th International Conference, ANTS 2010*, volume 6234 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2010.

[766] Marco Dorigo et al., editors. *Swarm Intelligence, 8th International Conference, ANTS 2012*, volume 7461 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[767] Marco Dorigo et al., editors. *Swarm Intelligence, 9th International Conference, ANTS 2014*, volume 8667 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2014.

[768] Michael Doumpos and Constantin Zopounidis. **Preference disaggregation and statistical learning for multicriteria decision support: A review**. *European Journal of Operational Research*, 209(3):203–214, 2011.

[769] Erik Dovgan, Tea Tušar, and Bogdan Filipič. **Parameter tuning in an evolutionary algorithm for commodity transportation optimization**. *Evolutionary Computation*, pages 1–8, 2010.

[770] Johann Dréo. **Using performance fronts for parameter setting of stochastic metaheuristics**. In Franz Rothlauf, editor, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2009*, pages 2197–2200. ACM Press, New York, NY, 2009. `doi:10.1145/1570256.1570301`.

[771] Johann Dréo and P. Siarry. **A New Ant Colony Algorithm Using the Heterarchical Concept Aimed at Optimization of Multiminima Continuous Functions**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 216–221. Springer, Heidelberg, 2002.

[772] Johann Dréo and P. Siarry. **Continuous interacting ant colony algorithm based on dense heterarchy**. *Future Generation Computer Systems*, 20(5):841–856, 2004.

[773] Johann Dréo, Carola Doerr, and Yann Semet. **Coupling the design of benchmark with algorithm in landscape-aware solver design**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2019*, pages 1419–1420. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6748-6. doi:10.1145/3319619.

[774] Stefan Droste, Thomas Jansen, and Ingo Wegener. **A new framework for the valuation of algorithms for black-box-optimization**. In Kenneth A. De Jong, Riccardo Poli, and Jonathan E. Rowe, editors, *Proceedings of the Seventh Workshop on Foundations of Genetic Algorithms (FOGA)*, pages 253–270. Morgan Kaufmann Publishers, 2002.

[775] Stefan Droste, Thomas Jansen, and Ingo Wegener. **Upper and lower bounds for randomized search heuristics in black-box optimization**. *Theory of Computing Systems*, 39(4):525–544, 2006.

[776] Mădălina M. Drugan and Dirk Thierens. **Path-Guided Mutation for Stochastic Pareto Local Search Algorithms**. In Robert Schaefer, Carlos Cotta, Joanna Kolodziej, and Günther Rudolph, editors, *Parallel Problem Solving from Nature, PPSN XI*, volume 6238 of *Lecture Notes in Computer Science*, pages 485–495. Springer, Heidelberg, 2010.

[777] Mădălina M. Drugan and Dirk Thierens. **Stochastic Pareto local search: Pareto neighbourhood exploration and perturbation strategies**. *Journal of Heuristics*, 18(5): 727–766, 2012.

[778] Chris Drummond. **Replicability is not Reproducibility: Nor is it Good Science**. In *Proceedings of the Evaluation Methods for Machine Learning Workshop at the 26th ICML*, Montreal, Canada, 2009. URL http://www.site.uottawa.ca/~cdrummon/pubs/ICMLws09.pdf.

[779] J. Du and Joseph Y.-T. Leung. **Minimizing Total Tardiness on One Machine is NP-Hard**. *Mathematics of Operations Research*, 15(3):483–495, 1990.

[780] Jérémie Dubois-Lacoste. **Weight Setting Strategies for Two-Phase Local Search: A Study on Biobjective Permutation Flowshop Scheduling**. Technical Report TR/IRIDIA/2009-024, IRIDIA, Université Libre de Bruxelles, Belgium, 2009.

[781] Jérémie Dubois-Lacoste. **A study of Pareto and Two-Phase Local Search Algorithms for Biobjective Permutation Flowshop Scheduling**. Master's thesis, IRIDIA, Université Libre de Bruxelles, Belgium, 2009.

[782] Jérémie Dubois-Lacoste. **Effective Stochastic Local Search Algorithms For Bi-Objective Permutation Flowshop Scheduling**. Rapport d'avancement de recherches présenté pour la formation doctorale en sciences de l'ingénieur, IRIDIA, Université Libre de Bruxelles, Belgium, 2010.

[783] Jérémie Dubois-Lacoste. *Anytime Local Search for Multi-Objective Combinatorial Optimization: Design, Analysis and Automatic Configuration*. PhD thesis, IRIDIA, École polytechnique, Université Libre de Bruxelles, Belgium, 2014.
Annotation: Supervised by Thomas Stützle and Manuel López-Ibáñez.

[784] Jérémie Dubois-Lacoste and Thomas Stützle. **Tuning of a Stigmergy-based Traffic Light Controller as a Dynamic Optimization Problem**. In *Proceedings of the 2017 Congress on Evolutionary Computation (CEC 2017)*, pages 1–8. IEEE Press, Piscataway, NJ, 2017.

[785] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Effective Hybrid Stochastic Local Search Algorithms for Biobjective Permutation Flowshop Scheduling**. In María J. Blesa, Christian Blum, Luca Di Gaspero, Andrea Roli, M. Sampels, and Andrea Schaerf, editors, *Hybrid Metaheuristics*, volume 5818 of *Lecture Notes in Computer Science*, pages 100–114. Springer, Heidelberg, 2009. `doi:10.1007/978-3-642-04918-7_8`.

[786] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Effective Hybrid Stochastic Local Search Algorithms for Biobjective Permutation Flowshop Scheduling**. Technical Report TR/IRIDIA/2009-020, IRIDIA, Université Libre de Bruxelles, Belgium, June 2009. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2009-020r001.pdf`. Published in the proceedings of Hybrid Metaheuristics 2009 [785].

[787] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Supplementary material: Improving the Anytime Behavior of Two-Phase Local Search**. `http://iridia.ulb.ac.be/supp/IridiaSupp2010-012`, 2010.

[788] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Supplementary material: A Hybrid TP+PLS Algorithm for Bi-objective Flow-shop Scheduling Problems**. `http://iridia.ulb.ac.be/supp/IridiaSupp2010-001`, 2010.

[789] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Adaptive "Anytime" Two-Phase Local Search**. In Christian Blum and Roberto Battiti, editors, *Learning and Intelligent Optimization, 4th International Conference, LION 4*, volume 6073 of *Lecture Notes in Computer Science*, pages 52–67. Springer, Heidelberg, 2010. `doi:10.1007/978-3-642-13800-3_5`.

[790] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Adaptive "Anytime" Two-Phase Local Search**. Technical Report TR/IRIDIA/2009-026, IRIDIA, Université Libre de Bruxelles, Belgium, 2010. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2009-026r001.pdf`. Published in the proceedings of LION 4 [789].

[791] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **A Hybrid TP+PLS Algorithm for Bi-objective Flow-Shop Scheduling Problems**. Technical Report TR/IRIDIA/2010-019, IRIDIA, Université Libre de Bruxelles, Belgium, 2010. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2010-019r001.pdf`. Published in Computers & Operations Research [795].

[792] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Improving the Anytime Behavior of Two-Phase Local Search**. Technical Report TR/IRIDIA/2010-022, IRIDIA, Université Libre de Bruxelles, Belgium, 2010. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2010-022r001.pdf`. Published in Annals of Mathematics and Artificial Intelligence [794].

[793] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Supplementary material: Automatic Configuration of State-of-the-art Multi-objective Optimizers Using the TPLS+PLS Framework**. `http://iridia.ulb.ac.be/supp/IridiaSupp2011-005`, 2011.

[794] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Improving the Anytime Behavior of Two-Phase Local Search**. *Annals of Mathematics and Artificial Intelligence*, 61 (2):125–154, 2011. `doi:10.1007/s10472-011-9235-0`.

[795] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **A Hybrid TP+PLS Algorithm for Bi-objective Flow-Shop Scheduling Problems**. *Computers & Operations Research*, 38(8):1219–1236, 2011. `doi:10.1016/j.cor.2010.10.008`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2010-001/`.

[796] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Configuration of State-of-the-art Multi-Objective Optimizers Using the TP+PLS Framework**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 2019–2026. ACM Press, New York, NY, 2011. `doi:10.1145/2001576.2001847`.

[797] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Supplementary Material: Pareto Local Search Variants for Anytime Bi-Objective Optimization**. `http://iridia.ulb.ac.be/supp/IridiaSupp2012-004`, 2012.

[798] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Pareto Local Search Algorithms for Anytime Bi-objective Optimization**. In Jin-Kao Hao and Martin Middendorf, editors, *Proceedings of EvoCOP 2012 – 12th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 7245 of *Lecture Notes in Computer Science*, pages 206–217. Springer, Heidelberg, 2012. `doi:10.1007/978-3-642-29124-1_18`.

[799] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Combining Two Search Paradigms for Multi-objective Optimization: Two-Phase and Pareto Local Search**. In El-Ghazali Talbi, editor, *Hybrid Metaheuristics*, volume 434 of *Studies in Computational Intelligence*, pages 97–117. Springer Verlag, 2013. `doi:10.1007/978-3-642-30671-6_3`. URL `http://www.springer.com/engineering/computational+intelligence+and+complexity/book/978-3-642-30670-9`.

[800] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Supplementary material: Anytime Pareto Local Search**. `http://iridia.ulb.ac.be/supp/IridiaSupp2013-003`, 2013.

[801] Jérémie Dubois-Lacoste, Holger H. Hoos, and Thomas Stützle. **On the Empirical Scaling Behaviour of State-of-the-art Local Search Algorithms for the Euclidean TSP**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 377–384, New York, NY, 2015. ACM Press. `doi:10.1145/2739480.2754747`.

[802] Jérémie Dubois-Lacoste, Manuel López-Ibáñez, and Thomas Stützle. **Anytime Pareto Local Search**. *European Journal of Operational Research*, 243(2):369–385, 2015. `doi:10.1016/j.ejor.2014.10.062`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2013-003/`.

[803] Jérémie Dubois-Lacoste, Federico Pagnozzi, and Thomas Stützle. **Supplementary material: An iterated greedy algorithm with optimization of partial solutions for the permutation flowshop problem**. `http://iridia.ulb.ac.be/supp/IridiaSupp2013-006`, 2017.

[804] Jérémie Dubois-Lacoste, Federico Pagnozzi, and Thomas Stützle. **An Iterated Greedy Algorithm with Optimization of Partial Solutions for the Permutation Flowshop Problem**. *Computers & Operations Research*, 81:160–166, 2017. `doi:10.1016/j.cor.2016.12.021`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2013-006`.

[805] Gunter Dueck. **New Optimization Heuristics: the Great Deluge Algorithm and the Record-To-Record Travel**. *Journal of Computational Physics*, 104(1):86–92, 1993.

[806] Gunter Dueck and T. Scheuer. **Threshold Accepting: A General Purpose Optimization Algorithm Appearing Superior to Simulated Annealing**. *Journal of Computational Physics*, 90(1):161–175, 1990.

[807] Gunter Dueck, Martin Maehler, Johannes Schneider, Gerhard Schrimpf, and Hermann Stamm-Wilbrandt. **Optimization with Ruin Recreate**. US Patent 6,418,398 B1, July 2002. Filed on October 1, 1999 and granted on July 9, 2002; Assignee is IBM Corporation, Armonk, NY (US).

[808] Cees Duin and Stefan Voß. **The Pilot Method: A Strategy for Heuristic Repetition with Application to the Steiner Problem in Graphs**. *Networks*, 34(3):181–191, 1999.

[809] Rikky R. P. R. Duivenvoorden, Felix Berkenkamp, Nicolas Carion, Andreas Krause, and Angela P. Schoellig. **Constrained Bayesian Optimization with Particle Swarms for Safe Adaptive Controller Tuning**. *IFAC-PapersOnLine*, 50(1):11800–11807, 2017. doi:10.1016/j.ifacol.2017.08.1991.
Keywords: Adaptive Control, Constrained Bayesian Optimization, Safety, Gaussian Process, Particle Swarm Optimization, Policy Search, Reinforcement learning.
Annotation: 20th IFAC World Congress.

[810] Y. Dumas, J. Desrosiers, E. Gelinas, and M. M. Solomon. **An Optimal Algorithm for the Traveling Salesman Problem with Time Windows**. *Operations Research*, 43(2):367–371, 1995.

[811] Irina Dumitrescu and Thomas Stützle. **Combinations of Local Search and Exact Algorithms**. In Günther R. Raidl and Jens Gottlieb, editors, *Proceedings of EvoCOP 2003 – 3rd European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 2611 of *Lecture Notes in Computer Science*, pages 211–223. Springer, Heidelberg, 2003.

[812] Irina Dumitrescu and Thomas Stützle. **Usage of Exact Algorithms to Enhance Stochastic Local Search Algorithms**. In Vittorio Maniezzo, Thomas Stützle, and Stefan Voß, editors, *Matheuristics—Hybridizing Metaheuristics and Mathematical Programming*, volume 10 of *Annals of Information Systems*, pages 103–134. Springer, New York, NY, 2009.

[813] Olive Jean Dunn. **Multiple Comparisons Among Means**. *Journal of the American Statistical Association*, 56(293):52–64, 1961.

[814] Olive Jean Dunn. **Multiple Comparisons Using Rank Sums**. *Technometrics*, 6(3):241–252, 1964.

[815] Juan J. Durillo, Antonio J. Nebro, Francisco Luna, and Enrique Alba. **On the Effect of the Steady-State Selection Scheme in Multi-Objective Genetic Algorithms**. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-criterion Optimization, EMO 2009*, volume 5467 of *Lecture Notes in Computer Science*, pages 183–197. Springer, Heidelberg, 2009.

[816] Cynthia Dwork, Ravi Kumar, Moni Naor, and D. Sivakumar. **Rank aggregation methods for the Web**. In Vincent Y. Shen, Nobuo Saito, Michael R. Lyu, and Mary Ellen Zurko, editors, *Proceedings of the Tenth International World Wide Web Conference, WWW 10*, pages 613–622. ACM Press, New York, NY, 2001. ISBN 1-58113-348-0. doi:10.1145/371920.372165.
Keywords: Kemeny ranking,multi-word queries,rank aggregation,ranking functions,spam.

[817] Jennifer G. Dy and Andreas Krause, editors. *Proceedings of the 35th International Conference on Machine Learning, ICML 2018, Stockholmsmässan, Stockholm, Sweden, July 10-15, 2018*, volume 80 of *Proceedings of Machine Learning Research*, 2018. PMLR.

[818] Hart W. E., Smith J. E., and Krasnogor N., editors. *Recent Advances in Memetic Algorithms*, volume 166 of *Studies in Fuzziness and Soft Computing*. Springer, Berlin/Heidelberg, 2005.

[819] Russell C. Eberhart and J. Kennedy. **A New Optimizer Using Particle Swarm Theory**. In *Proceedings of the Sixth International Symposium on Micro Machine and Human Science*, pages 39–43, 1995.

[820] ECML PKDD. *Machine Learning and Knowledge Discovery in Databases - European Conference, ECML PKDD 2015, Porto, Portugal, September 7-11, 2015, Proceedings, Part III*, volume 9286 of *Lecture Notes in Computer Science*, 2015. Springer.

[821] Katharina Eggensperger, Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Efficient Benchmarking of Hyperparameter Optimizers via Surrogates**. In Blai Bonet and Sven Koenig, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 1114–1120. AAAI Press, 2015.

[822] Richard W. Eglese. **Simulated Annealing: a Tool for Operational Research**. *European Journal of Operational Research*, 46(3):271–281, 1990.

[823] Werner Ehm. **Reproducibility from the perspective of meta-analysis**. In Harald Atmanspacher and Sabine Maasen, editors, *Reproducibility – Principles, problems, practices and prospects*, pages 141–168. Wiley, 2016.

[824] Matthias Ehrgott. *Multicriteria Optimization*, volume 491 of *Lecture Notes in Economics and Mathematical Systems*. Springer, Berlin, Germany, 2000.

[825] Matthias Ehrgott. *Multicriteria Optimization*. Springer, Berlin, Germany, 2nd edition, 2005. doi:10.1007/3-540-27659-9.

[826] Matthias Ehrgott. **A discussion of scalarization techniques for multiple objective integer programming**. *Annals of Operations Research*, 147(1):343–360, 2006.

[827] Matthias Ehrgott and Xavier Gandibleux. **Approximative Solution Methods for Combinatorial Multicriteria Optimization**. *TOP*, 12(1):1–88, 2004.

[828] Matthias Ehrgott and Xavier Gandibleux. **Hybrid Metaheuristics for Multi-objective Combinatorial Optimization**. In Christian Blum, María J. Blesa, Andrea Roli, and M. Sampels, editors, *Hybrid Metaheuristics: An emergent approach for optimization*, volume 114 of *Studies in Computational Intelligence*, pages 221–259. Springer, Berlin, Germany, 2008. doi:10.1007/978-3-540-78295-7_8.

[829] Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors. *Evolutionary Multi-Criterion Optimization. 5th International Conference, EMO 2009*, volume 5467 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2009.

[830] Matthias Ehrgott, José Rui Figueira, and Salvatore Greco, editors. *Trends in Multiple Criteria Decision Analysis*, volume 142 of *International Series in Operations Research & Management Science*. Springer, US, 2010.

[831] Agoston E. Eiben and M. Jelasity. **A critical note on experimental research methodology in EC**. In *Proceedings of the 2002 Congress on Evolutionary Computation (CEC'02)*, pages 582–587, Piscataway, NJ, 2002. IEEE Press. doi:10.1109/cec.2002.1006991. *Annotation:* Discusses reproducibility, generalizability and separation between training (for tuning and experimentation) and testing instances (for comparisons).

[832] Agoston E. Eiben and Selmar K. Smit. **Parameter Tuning for Configuring and Analyzing Evolutionary Algorithms**. *Swarm and Evolutionary Computation*, 1(1):19–31, 2011. doi:10.1016/j.swevo.2011.02.001.

[833] Agoston E. Eiben and James E. Smith. *Introduction to Evolutionary Computing*. Springer, 2003. ISBN 3540401849.

[834] Agoston E. Eiben and James E. Smith. *Introduction to Evolutionary Computing*. Natural Computing Series. Springer, 2nd edition, 2007.

[835] Agoston E. Eiben, Thomas Bäck, Marc Schoenauer, and Hans-Paul Schwefel, editors. *Parallel Problem Solving from Nature – PPSN V, 5th International Conference Amsterdam, The Netherlands September 27-30, 1998 Proceedings*, volume 1498 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 1998.

[836] Agoston E. Eiben, Robert Hinterding, and Zbigniew Michalewicz. **Parameter Control in Evolutionary Algorithms**. *IEEE Transactions on Evolutionary Computation*, 3(2):124–141, 1999.

[837] Agoston E. Eiben, Mark Horvath, Wojtek Kowalczyk, and Martijn C. Schut. **Reinforcement learning for online control of evolutionary algorithms**. In *International Workshop on Engineering Self-Organising Applications*, pages 151–160. Springer, 2006.

[838] Agoston E. Eiben, Zbigniew Michalewicz, Marc Schoenauer, and James E. Smith. **Parameter Control in Evolutionary Algorithms**. In F. Lobo, C. F. Lima, and Zbigniew Michalewicz, editors, *Parameter Setting in Evolutionary Algorithms*, pages 19–46. Springer, Berlin, Germany, 2007.

[839] Sibel Eker and Jan H. Kwakkel. **Including robustness considerations in the search phase of Many-Objective Robust Decision Making**. *Environmental Modelling & Software*, 105: 201–216, 2018.
Keywords: scenario-based.

[840] Mohammed El-Abd. **Opposition-based Artificial Bee Colony Algorithm**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 109–116. ACM Press, New York, NY, 2011.

[841] Jeffrey L Elman. **Distributed representations, simple recurrent networks, and grammatical structure**. *Machine Learning*, 7(2-3):195–225, 1991.

[842] V. A. Emelichev and V. A. Perepelitsa. **Complexity of Vector Optimization Problems on Graphs**. *Optimization*, 22(6):906–918, 1991. `doi:10.1080/02331939108843732`.

[843] V. A. Emelichev and V. A. Perepelitsa. **On the Cardinality of the Set of Alternatives in Discrete Many-criterion Problems**. *Discrete Mathematics and Applications*, 2(5):461–471, 1992.

[844] Michael T. M. Emmerich and Carlos M. Fonseca. **Computing Hypervolume Contributions in Low Dimensions: Asymptotically Optimal Algorithm and Complexity Results**. In R. H. C. Takahashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2011*, volume 6576 of *Lecture Notes in Computer Science*, pages 121–135. Springer, Heidelberg, 2011. `doi:10.1007/978-3-642-19893-9_9`.

[845] Michael T. M. Emmerich, K. C. Giannakoglou, and Boris Naujoks. **Single- and multiobjective evolutionary optimization assisted by Gaussian random field metamodels**. *IEEE Transactions on Evolutionary Computation*, 10(4):421–439, 2006. `doi:10.1109/TEVC.2005.859463`.

[846] Michael T. M. Emmerich, André H. Deutz, and J. W. Klinkenberg. **Hypervolume-based expected improvement: Monotonicity properties and exact computation**. In *Proceedings of the 2011 Congress on Evolutionary Computation (CEC 2011)*, pages 2147–2154, Piscataway, NJ, 2011. IEEE Press. `doi:10.1109/CEC.2011.5949880`.
Annotation: Proposed Expected Hypervolume Improvement (EHVI).

[847] Alexander Engau and Margaret M. Wiecek. **2D decision-making for multicriteria design optimization**. *Structural and Multidisciplinary Optimization*, 34:301–315, 2007. `doi:10.1007/s00158-006-0078-y`.

[848] Alexander Engau and Margaret M. Wiecek. **Interactive coordination of objective decompositions in multiobjective programming**. *Management Science*, 54(7):1350–1363, 2008.

[849] Stefan Eppe, Yves De Smet, and Thomas Stützle. **A bi-objective optimization model to eliciting decision maker's preferences for the PROMETHEE II method**. In Ronen I. Brafman, F. Roberts, and Alexis Tsoukiàs, editors, *Algorithmic Decision Theory, Third International Conference, ADT 2011*, volume 6992 of *Lecture Notes in Artificial Intelligence*, pages 56–66. Springer, Heidelberg, 2011.

[850] Stefan Eppe, Manuel López-Ibáñez, Thomas Stützle, and Yves De Smet. **An Experimental Study of Preference Model Integration into Multi-Objective Optimization Heuristics**. In *Proceedings of the 2011 Congress on Evolutionary Computation (CEC 2011)*, pages 2751–2758. IEEE Press, Piscataway, NJ, 2011. doi:10.1109/CEC.2011.5949963.

[851] David Eriksson, Michael Pearce, Jacob Gardner, Ryan D Turner, and Matthias Poloczek. **Scalable Global Optimization via Local Bayesian Optimization**. In Hanna M. Wallach, Hugo Larochelle, Alina Beygelzimer, Florence d'Alché-Buc, Emily B. Fox, and Roman Garnett, editors, *Advances in Neural Information Processing Systems (NeurIPS 32)*, pages 5496–5507, 2019.
Annotation: Arxiv: https://arxiv.org/abs/1910.01739.

[852] Emre Ertin, Anthony N. Dean, Mathew L. Moore, and Kevin L. Priddy. **Dynamic Optimization for Optimal Control of Water Distribution Systems**. In Kevin L. Priddy, Paul E. Keller, and Peter J. Angeline, editors, *Applications and Science of Computational Intelligence IV, Proceedings of SPIE*, volume 4390, pages 142–149, Mar. 2001.

[853] ESANN. *Proceedings of 22th European Symposium on Artificial Neural Networks, ESANN 2014, Bruges, Belgium, April 23-25, 2014*, 2014.
Annotation: https://www.elen.ucl.ac.be/esann/proceedings/papers.php?ann=2014.

[854] ESANN. *Proceedings of 23rd European Symposium on Artificial Neural Networks, ESANN 2015, Bruges, Belgium, April 22-24, 2015*, 2015.
Annotation: https://www.elen.ucl.ac.be/esann/proceedings/papers.php?ann=2015.

[855] V. Esat and M. Hall. **Water resources system optimization using genetic algorithms**. In A. Verwey, A. Minns, V. Babovic, and C. Maksimović, editors, *Hydroinformatics'94*, pages 225–231, Balkema, Rotterdam, The Netherlands, 1994.

[856] Larry J. Eshelman, editor. *Proceedings of the 6th International Conference on Genetic Algorithms, Pittsburgh, PA, USA, July 15-19, 1995*. Morgan Kaufmann Publishers, San Francisco, CA, 1995.

[857] Larry J. Eshelman and J. David Schaffer. **Real-Coded Genetic Algorithms and Interval-Schemata**. In Darrell Whitley, editor, *Foundations of Genetic Algorithms (FOGA)*, pages 187–202. Morgan Kaufmann Publishers, 1993. ISBN 1-55860-263-1.

[858] Larry J. Eshelman, A. Caruana, and J. David Schaffer. **Biases in the Crossover Landscape**. In J. David Schaffer, editor, *Proc. of the Third Int. Conf. on Genetic Algorithms*, pages 86–91. Morgan Kaufmann Publishers, San Mateo, CA, 1989.

[859] Anna I. Esparcia-Alcázar and Antonio M. Mora, editors. *17th European Conference, EvoApplications 2014, Granada, Spain, April 23-25, 2014, Revised Selected Papers*, volume 8602 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2014.

[860] Imen Essafi, Yazid Mati, and Stéphane Dauzère-Pérés. **A Genetic Local Search Algorithm for Minimizing Total Weighted Tardiness in the Job-shop Scheduling Problem**. *Computers & Operations Research*, 35(8):2599–2616, 2008.

[861] C. J. Eyckelhof and M. Snoek. **Ant Systems for a Dynamic TSP: Ants Caught in a Traffic Jam**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 88–99. Springer, Heidelberg, 2002.

[862] Stefan Falkner, Marius Thomas Lindauer, and Frank Hutter. **SpySMAC: Automated configuration and performance analysis of SAT solvers**. In Marijn Heule and Sean Weaver, editors, *Theory and Applications of Satisfiability Testing – SAT 2015*, volume 9340 of *Lecture Notes in Computer Science*, pages 215–222. Springer, Cham, Switzerland, 2015. `doi:10.1007/978-3-319-24318-4_16`.

[863] Wei Fan and Albert Bifet. **Mining big data: current status, and forecast to the future**. *ACM sIGKDD Explorations Newsletter*, 14(2):1–5, 2013.

[864] G. Fandel and T. Gal, editors. *MCDM theory and Application, Proceedings*. Number 177 in Lecture Notes in Economics and Mathematical Systems. Springer, Heidelberg, 1980.

[865] Daniele Fanelli. **Negative results are disappearing from most disciplines and countries**. *Scientometrics*, 90(3):891–904, 2012. `doi:10.1007/s11192-011-0494-7`.

[866] H. Faria, Jr, S. Binato, Mauricio G. C. Resende, and D. J. Falcão. **Power transmission network design by a greedy randomized adaptive path relinking approach**. *IEEE Transactions on Power Systems*, 20(1):43–49, 2005.

[867] M. Farina and P. Amato. **On the Optimal Solution Definition for Many-criteria Optimization Problems**. In *Proceedings of the NAFIPS-FLINT International Conference'2002*, pages 233–238, Piscataway, New Jersey, June 2002. IEEE Service Center.

[868] R. Farmani, Godfrey A. Walters, and Dragan A. Savic. **Evolutionary multi-objective optimization of the design and operation of water distribution network: total cost vs. reliability vs. water quality**. *Journal of Hydroinformatics*, 8(3):165–179, 2006.

[869] D. Favaretto, E. Moretti, and Paola Pellegrini. **Ant colony system approach for variants of the traveling salesman problem with time windows**. *Journal of Information and Optimization Sciences*, 27(1):35–54, 2006.

[870] D. Favaretto, E. Moretti, and Paola Pellegrini. **Ant Colony System for a VRP with Multiple Time Windows and Multiple Visits**. *Journal of Interdisciplinary Mathematics*, 10(2):263–284, 2007.

[871] D. Favaretto, E. Moretti, and Paola Pellegrini. **On the explorative behavior of $\mathcal{MAX}-\mathcal{MIN}$ Ant System**. In Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors, *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2009*, volume 5752 of *Lecture Notes in Computer Science*, pages 115–119. Springer, Heidelberg, 2009.

[872] Chris Fawcett and Holger H. Hoos. **Analysing Differences between Algorithm Configurations through Ablation**. In *Proceedings of MIC 2013, the 10th Metaheuristics International Conference*, pages 123–132, 2013.

[873] Chris Fawcett and Holger H. Hoos. **Analysing Differences Between Algorithm Configurations through Ablation**. *Journal of Heuristics*, 22(4):431–458, 2016.

[874] Chris Fawcett, Malte Helmert, Holger H. Hoos, Erez Karpas, Gabriele Röger, and Jendrik Seipp. **FD-Autotune: Domain-Specific Configuration using Fast-Downward**. In Erez Karpas, Sergio Jiménez Celorrio, and Subbarao Kambhampati, editors, *Proceedings of ICAPS-PAL11*, 2011.

[875] T. A. Feo and Mauricio G. C. Resende. **A Probabilistic Heuristic for a Computationally Difficult Set Covering Problem**. *Operations Research Letters*, 8(2):67–71, 1989.

[876] T. A. Feo and Mauricio G. C. Resende. **Greedy Randomized Adaptive Search Procedures**. *Journal of Global Optimization*, 6(2):109–113, 1995.

[877] T. A. Feo, Mauricio G. C. Resende, and S. H. Smith. **A Greedy Randomized Adaptive Search Procedure for Maximum Independent Set**. *Operations Research*, 42:860–878, Oct. 1994.

[878] Eduardo Fernandez, Jorge Navarro, and Sergio Bernal. **Multicriteria Sorting Using a Valued Indifference Relation Under a Preference Disaggregation Paradigm**. *European Journal of Operational Research*, 198(2):602–609, 2009.

[879] Silvino Fernández, Segundo Álvarez, Diego Díaz, Miguel Iglesias, and Borja Ena. **Scheduling a Galvanizing Line by Ant Colony Optimization**. In Marco Dorigo et al., editors, *Swarm Intelligence, 9th International Conference, ANTS 2014*, volume 8667 of *Lecture Notes in Computer Science*, pages 146–157. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-09952-1_13`.

[880] Silvino Fernández, Segundo Álvarez, Eneko Malatsetxebarria, Pablo Valledor, and Diego Díaz. **Performance Comparison of Ant Colony Algorithms for the Scheduling of Steel Production Lines**. In Juan Luis Jiménez Laredo, Sara Silva, and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2015*. ACM Press, New York, NY, 2015. `doi:10.1145/2739482.2764658`. *Keywords:* irace.

[881] Silvino Fernández, Pablo Valledor, Diego Díaz, Eneko Malatsetxebarria, and Miguel Iglesias. **Criticality of Response Time in the usage of Metaheuristics in Industry**. In Tobias Friedrich, Frank Neumann, and Andrew M. Sutton, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2016*, pages 937–940. ACM Press, New York, NY, 2016.

[882] Victor Fernandez-Viagas and Jose M. Framiñán. **On Insertion Tie-breaking Rules in Heuristics for the Permutation Flowshop Scheduling Problem**. *Computers & Operations Research*, 45:60–67, 2014.

[883] Victor Fernandez-Viagas and Jose M. Framiñán. **A Beam-search-based Constructive Heuristic for the PFSP to Minimise Total Flowtime**. *Computers & Operations Research*, 81:167–177, 2017.

[884] Victor Fernandez-Viagas and Jose M. Framiñán. **Iterated-greedy-based algorithms with beam search initialization for the permutation flowshop to minimise total tardiness**. *Expert Systems with Applications*, 94:58–69, 2018.

[885] Victor Fernandez-Viagas, Rubén Ruiz, and Jose M. Framiñán. **A New Vision of Approximate Methods for the Permutation Flowshop to Minimise Makespan: State-of-the-art and Computational Evaluation**. *European Journal of Operational Research*, 257(3):707–721, 2017.

[886] Victor Fernandez-Viagas, Jorge M. S. Valente, and Jose M. Framiñán. **Iterated-greedy-based algorithms with Beam Search Initialization for the Permutation Flowshop to Minimise Total Tardiness**. *Expert Systems with Applications*, 94:58–69, 2018.

[887] José C. Ferreira, Carlos M. Fonseca, and António Gaspar-Cunha. **Methodology to select solutions from the Pareto-optimal set: a comparative study**. In Dirk Thierens et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2007*, pages 789–796. ACM Press, New York, NY, 2007.

[888] R. Ferreira da Silva and S. Urrutia. **A general VNS heuristic for the traveling salesman problem with time windows**. *Discrete Optimization*, 7(4):203–211, 2010. *Keywords:* TSPTW.

[889] Alberto Ferrer, Daniel Guimarans, Helena Ramalhinho Lourenço, and Angel A. Juan. **A BRILS Metaheuristic for Non-smooth Flow-shop Problems with Failure-risk Costs**. *Expert Systems with Applications*, 44:177–186, 2016.

[890] Javier Ferrer, José García-Nieto, Enrique Alba, and Francisco Chicano. **Intelligent Testing of Traffic Light Programs: Validation in Smart Mobility Scenarios**. *Mathematical Problems in Engineering*, 2016:1–19, 2016. `doi:10.1155/2016/3871046`.

[891] Javier Ferrer, Manuel López-Ibáñez, and Enrique Alba. **Reliable Simulation-Optimization of Traffic Lights in a Real-World City**. *Applied Soft Computing*, 78:697–711, 2019. `doi:10.1016/j.asoc.2019.03.016`. Supplementary material: `https://github.com/MLopez-Ibanez/irace-sumo`.

[892] Paola Festa, Meinolf Sellmann, and Joaquin Vanschoren, editors. *10th International Conference, LION 10, Ischia, Italy, May 29 - June 1, 2016. Revised Selected Papers*, volume 10079 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2016.

[893] Matthias Feurer, Aaron Klein, Katharina Eggensperger, Jost Springenberg, Manuel Blum, and Frank Hutter. **Efficient and robust automated machine learning**. In Corinna Cortes, Neil D. Lawrence, Daniel D. Lee, Masashi Sugiyama, and Roman Garnett, editors, *Advances in Neural Information Processing Systems (NIPS 28)*, pages 2962–2970, 2015. URL `http://papers.nips.cc/book/advances-in-neural-information-processing-systems-28-2015`.

[894] Álvaro Fialho. *Adaptive operator selection for optimization*. PhD thesis, Université Paris Sud-Paris XI, 2010.

[895] Álvaro Fialho, Luis Da Costa, Marc Schoenauer, and Michèle Sebag. **Analyzing Bandit-based Adaptive Operator Selection Mechanisms**. *Annals of Mathematics and Artificial Intelligence*, 60(1–2):25–64, 2010.

[896] Álvaro Fialho, Raymond Ros, Marc Schoenauer, and Michèle Sebag. **Comparison-based adaptive strategy selection with bandits in differential evolution**. In Robert Schaefer, Carlos Cotta, Joanna Kolodziej, and Günther Rudolph, editors, *Parallel Problem Solving from Nature, PPSN XI*, volume 6238 of *Lecture Notes in Computer Science*, pages 194–203. Springer, Heidelberg, 2010.

[897] Álvaro Fialho, Marc Schoenauer, and Michèle Sebag. **Fitness-AUC bandit adaptive strategy selection vs. the probability matching one within differential evolution: an empirical comparison on the BBOB-2010 noiseless testbed**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2010*, pages 1535–1542. ACM Press, New York, NY, 2010.

[898] Álvaro Fialho, Marc Schoenauer, and Michèle Sebag. **Toward comparison-based adaptive operator selection**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2010*, pages 767–774. ACM Press, New York, NY, 2010.
Annotation: Proposed F-AUC and F-SR.

[899] Mark J. Fielding. **Simulated Annealing with an Optimal Fixed Temperature**. *SIAM Journal on Optimization*, 11(2):289–307, 2000.

[900] Jonathan E. Fieldsend and Richard M. Everson. **Visualising high-dimensional Pareto relationships in two-dimensional scatterplots**. In Robin C. Purshouse, Peter J. Fleming, Carlos M. Fonseca, Salvatore Greco, and Jane Shaw, editors, *Evolutionary Multi-criterion Optimization, EMO 2013*, volume 7811 of *Lecture Notes in Computer Science*, pages 558–572. Springer, Heidelberg, 2013. ISBN 978-3-642-37139-4. `doi:10.1007/978-3-642-37140-0_42`.

[901] Jonathan E. Fieldsend, Richard M. Everson, and Sameer Singh. **Using unconstrained elite archives for multiobjective optimization**. *IEEE Transactions on Evolutionary Computation*, 7(3):305–323, 2003.

[902] José Rui Figueira, Salvatore Greco, and Matthias Ehrgott, editors. *Multiple Criteria Decision Analysis, State of the Art Surveys.* Springer, 2005.

[903] José Rui Figueira, Carlos M. Fonseca, Pascal Halffmann, Kathrin Klamroth, Luís Paquete, Stefan Ruzika, Britta Schulze, Michael Stiglmayr, and David Willems. **Easy to say they are Hard, but Hard to see they are Easy-Towards a Categorization of Tractable Multiobjective Combinatorial Optimization Problems**. *Journal of Multi-Criteria Decision Analysis*, 24 (1-2):82–98, 2017. `doi:10.1002/mcda.1574`.

[904] Richard Fikes and Wendy G. Lehnert, editors. *Proceedings of the 11th National Conference on Artificial Intelligence*, 1993. AAAI Press/MIT Press, Menlo Park, CA.

[905] J. Filipe and J. Kacprzyk, editors. *Proceedings of the International Joint Conference on Computational Intelligence (IJCCI-2010)*, 2010. SciTePress.

[906] Bogdan Filipič and Jurij Šilc, editors. *Bioinspired optimization methods and their applications: Proceedings of the International Conference on Bioinspired Optimization Methods and their Applications - BIOMA 2004, 11-12 October 2004, Ljubljana, Slovenia*, 2004. URL `https://books.google.be/books?id=OZLsAAAACAAJ`.

[907] Andreas Fink and Stefan Voß. **HotFrame: A Heuristic Optimization Framework**. In Stefan Voß and David L. Woodruff, editors, *Optimization Software Class Libraries*, pages 81–154. Kluwer Academic Publishers, Boston, MA, 2002.

[908] Matteo Fischetti and Andrea Lodi. **Local Branching**. *Mathematical Programming Series B*, 98: 23–47, 2003.

[909] Matteo Fischetti and Michele Monaci. **Proximity search for 0-1 mixed-integer convex programming**. *Journal of Heuristics*, 20(6):709–731, 2014.

[910] Matteo Fischetti and Michele Monaci. **Exploiting Erraticism in Search**. *Operations Research*, 62(1):114–122, 2014. `doi:10.1287/opre.2013.1231`.
Annotation: `http://mat.tepper.cmu.edu/blog/?p=1695`.

[911] Matteo Fischetti and Domenico Salvagnin. **Feasibility pump 2.0**. *Mathematical Programming Computation*, 1(2–3):201–222, 2009.

[912] Matteo Fischetti, Fred Glover, and Andrea Lodi. **The feasibility pump**. *Mathematical Programming*, 104(1):91–104, 2005.

[913] Matteo Fischetti, Michele Monaci, and Domenico Salvagnin. **Three Ideas for the Quadratic Assignment Problem**. *Operations Research*, 60(4):954–964, 2012.

[914] Benjamin Fisset, Clarisse Dhaenens, and Laetitia Jourdan. **MO-Mine$_{clust}$: A Framework for Multi-Objective Clustering**. In Clarisse Dhaenens, Laetitia Jourdan, and Marie-Eléonore Marmion, editors, *Learning and Intelligent Optimization, 9th International Conference, LION 9*, volume 8994 of *Lecture Notes in Computer Science*, pages 293–305. Springer, Heidelberg, 2015.
Keywords: irace.

[915] William Fitzgibbon, Yuri A. Kuznetsov, Pekka Neittaanmäki, and Olivier Pironneau, editors. *Modeling, Simulation and Optimization for Science and Technology*, volume 34 of *Computational Methods in Applied Sciences.* Springer, 2014.

[916] M. Fleischer. **The Measure of Pareto Optima. Applications to Multi-objective Metaheuristics**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 519–533. Springer, Heidelberg, 2003.

[917] Peter J. Fleming, Robin C. Purshouse, and Robert J. Lygoe. **Many-objective optimization: An engineering design perspective**. In Carlos A. Coello Coello, A. H. Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-criterion Optimization, EMO 2005*, volume 3410 of *Lecture Notes in Computer Science*, pages 14–32. Springer, Heidelberg, 2005.

[918] R. Fletcher. *Practical methods of optimization*. John Wiley & Sons, New York, NY, 1987. *Annotation:* BFGS.

[919] Charles Fleurent and Fred Glover. **Improved constructive multistart strategies for the quadratic assignment problem using adaptive memory**. *INFORMS Journal on Computing*, 11(2):198–204, 1999.

[920] Jörg Fliege. **The effects of adding objectives to an optimisation problem on the solution set**. *Operations Research Letters*, 35(6):782–790, 2007.

[921] Michael A. Fligner and Joseph S. Verducci. **Distance Based Ranking Models**. *Journal of the Royal Statistical Society: Series B (Methodological)*, 48(3):359–369, 1986. doi:10.1111/j.2517-6161.1986.tb01420.x.
Keywords: Mallows model, ranking, probabilistic models.

[922] M. M. Flood. **The Travelling Salesman Problem**. *Operations Research*, 4:61–75, 1956.

[923] D. Floreano and L. Keller. **Evolution of Adaptive Behaviour in Robots by Means of Darwinian Selection**. *PLoS Biology*, 8(1):e1000292, 2010. doi:10.1371/journal.pbio.1000292.

[924] D. Floreano and J. Urzelai. **Evolutionary robots with on-line self-organization and behavioral fitness**. *Neural Networks*, 13(4-5):431–443, 2000.

[925] Dario Floreano and Francesco Mondada. **Automatic creation of an autonomous agent: Genetic evolution of a neural network driven robot**. In D. Cliff, P. Husbands, J.-A. Meyer, and S. Wilson, editors, *Proceedings of the third international conference on Simulation of adaptive behavior: From Animals to Animats 3*, pages 421–430. MIT Press, Cambridge, MA, 1994.
Annotation: LIS-CONF-1994-003.

[926] Filippo Focacci, François Laburthe, and Andrea Lodi. **Local Search and Constraint Programming**. In Fred Glover and G. Kochenberger, editors, *Handbook of Metaheuristics*, pages 369–403. Kluwer Academic Publishers, Norwell, MA, 2002.

[927] Filippo Focacci, Andrea Lodi, and Michela Milano. **A Hybrid Exact Algorithm for the TSPTW**. *INFORMS Journal on Computing*, 14:403–417, 2002.

[928] T. C. Fogarty, editor. *Evolutionary Computing, AISB Workshop, Sheffield, UK, April 3-4, 1995, Selected Papers*, volume 993 of *Lecture Notes in Computer Science*. Springer, Berlin, Germany, 1995.

[929] David B. Fogel. *Evolutionary Computation. Toward a New Philosophy of Machine Intelligence*. IEEE Press, 1995.

[930] David B. Fogel, Alvin J. Owens, and Michael J. Walsh. *Artificial Intelligence Through Simulated Evolution*. John Wiley & Sons, 1966.

[931] David B. Fogel et al., editors. *Proceedings of the 2002 World Congress on Computational Intelligence (WCCI 2002)*, Piscataway, NJ, 2002. IEEE Press.

[932] Carlos M. Fonseca and Peter J. Fleming. **Genetic Algorithms for Multiobjective Optimization: Formulation, Discussion and Generalization**. In Stephanie Forrest, editor, *ICGA*, pages 416–423. Morgan Kaufmann Publishers, 1993. ISBN 1-55860-299-2.
Annotation: Proposes MOGA.

[933] Carlos M. Fonseca and Peter J. Fleming. **On the Performance Assessment and Comparison of Stochastic Multiobjective Optimizers**. In H.-M. Voigt et al., editors, *Parallel Problem Solving from Nature – PPSN IV*, volume 1141 of *Lecture Notes in Computer Science*, pages 584–593. Springer, Heidelberg, 1996.

[934] Carlos M. Fonseca and Peter J. Fleming. **Multiobjective Optimization and Multiple Constraint Handling with Evolutionary Algorithms (II): Application Example**. *IEEE Transactions on Systems, Man, and Cybernetics – Part A*, 28(1):38–44, Jan. 1998. doi:10.1109/3468.650320.

[935] Carlos M. Fonseca and Peter J. Fleming. **Multiobjective Optimization and Multiple Constraint Handling with Evolutionary Algorithms (I): A Unified Formulation**. *IEEE Transactions on Systems, Man, and Cybernetics – Part A*, 28(1):26–37, Jan. 1998. doi:10.1109/3468.650319.

[936] Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors. *Evolutionary Multi-Criterion Optimization, Second International Conference, EMO 2003, Faro, Portugal, April 2003: proceedings*, volume 2632 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2003.

[937] Carlos M. Fonseca, Viviane Grunert da Fonseca, and Luís Paquete. **Exploring the Performance of Stochastic Multiobjective Optimisers with the Second-Order Attainment Function**. In Carlos A. Coello Coello, A. H. Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-criterion Optimization, EMO 2005*, volume 3410 of *Lecture Notes in Computer Science*, pages 250–264. Springer, Heidelberg, 2005. doi:10.1007/978-3-540-31880-4_18.

[938] Carlos M. Fonseca, Luís Paquete, and Manuel López-Ibáñez. **An improved dimension-sweep algorithm for the hypervolume indicator**. In *Proceedings of the 2006 Congress on Evolutionary Computation (CEC 2006)*, pages 1157–1163. IEEE Press, Piscataway, NJ, July 2006. doi:10.1109/CEC.2006.1688440.

[939] Carlos M. Fonseca, Andreia P. Guerreiro, Manuel López-Ibáñez, and Luís Paquete. **On the Computation of the Empirical Attainment Function**. In R. H. C. Takahashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2011*, volume 6576 of *Lecture Notes in Computer Science*, pages 106–120. Springer, Heidelberg, 2011. doi:10.1007/978-3-642-19893-9_8.

[940] Jorge Ramón Fonseca Cacho and Kazem Taghva. **The State of Reproducible Research in Computer Science**. In Shahram Latifi, editor, *17th International Conference on Information Technology-New Generations (ITNG 2020)*, Advances in Intelligent Systems and Computing, pages 519–524. Springer International Publishing, 2020. doi:10.1007/978-3-030-43020-7_68.
Keywords: Docker, Improving transparency, OCR, Open science, Replicability, Reproducibility.

[941] Stephanie Forrest, editor. *Proceedings of the 5th International Conference on Genetic Algorithms, Urbana-Champaign, IL, USA, June 1993*. Morgan Kaufmann Publishers, 1993. ISBN 1-55860-299-2.

[942] Alexander I. J. Forrester and Andy J. Keane. **Recent advances in surrogate-based optimization**. *Progress in Aerospace Sciences*, 45(1-3):50–79, 2009. doi:10.1016/j.paerosci.2008.11.001.
Keywords: Kriging; Gaussian Process; EGO; Design of Experiments.

[943] Manuel Förster, Bettina Bickel, Bernd Hardung, and Gabriella Kókai. **Self-adaptive ant colony optimisation applied to function allocation in vehicle networks**. In Dirk Thierens et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2007*, pages 1991–1998. ACM Press, New York, NY, 2007.

[944] Michael Foster, Matthew Hughes, George O'Brien, Pietro S. Oliveto, James Pyle, Dirk Sudholt, and James Williams. **Do sophisticated evolutionary algorithms perform better than simple ones?** In Carlos A. Coello Coello, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2020*, pages 184–192, New York, NY, 2020. ACM Press. ISBN 978-1-4503-7128-5. doi:10.1145/3377930.

[945] Robert Fourer, David M. Gay, and Brian W. Kernighan. *AMPL: A Modeling Language for Mathematical Programming*. Duxbury, 2nd edition, 2002.

[946] Bennett L. Fox. **Uniting probabilistic methods for optimization**. In *Proceedings of the 24th conference on Winter simulation*, pages 500–505. ACM, 1992.

[947] Bennett L. Fox. **Integrating and accelerating tabu search, simulated annealing, and genetic algorithms**. *Annals of Operations Research*, 41(2):47–67, 1993.

[948] Bennett L. Fox. **Simulated annealing: folklore, facts, and directions**. In *Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing*, pages 17–48. Springer, 1995.

[949] Maria Fox and David Poole, editors. *Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence, AAAI 2010, Atlanta, Georgia, USA, July 11-15, 2010*, 2010. AAAI Press.

[950] Jose M. Framiñán, Jatinder N.D. Gupta, and Rainer Leisten. **A Review and Classification of Heuristics for Permutation Flow-shop Scheduling with Makespan Objective**. *Journal of the Operational Research Society*, 55(12):1243–1255, 2004.

[951] Jose M. Framiñán, Rainer Leisten, and Rubén Ruiz. *Manufacturing Scheduling Systems: An Integrated View on Models, Methods, and Tools*. Springer, New York, NY, 2014.

[952] G. Francesca, M. Brambilla, A. Brutschy, Vito Trianni, and Mauro Birattari. **AutoMoDe: A Novel Approach to the Automatic Design of Control Software for Robot Swarms**. *Swarm Intelligence*, 8(2):89–112, 2014. doi:10.1007/s11721-014-0092-4.

[953] Gianpiero Francesca, Manuele Brambilla, Arne Brutschy, Lorenzo Garattoni, Roman Miletitch, Gaetan Podevijn, Andreagiovanni Reina, Touraj Soleymani, Mattia Salvaro, Carlo Pinciroli, Franco Mascia, Vito Trianni, and Mauro Birattari. **AutoMoDe-Chocolate: Automatic Design of Control Software for Robot Swarms**. *Swarm Intelligence*, 2015. doi:10.1007/s11721-015-0107-9.
Keywords: Swarm robotics; Automatic design; AutoMoDe.

[954] Alberto Franzin and Thomas Stützle. **Exploration of Metaheuristics through Automatic Algorithm Configuration Techniques and Algorithmic Frameworks**. In Tobias Friedrich, Frank Neumann, and Andrew M. Sutton, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2016*, pages 1341–1347. ACM Press, New York, NY, 2016.

[955] Alberto Franzin and Thomas Stützle. **Comparison of Acceptance Criteria in Randomized Local Searches**. In Evelyne Lutton, Pierrick Legrand, Pierre Parrend, Nicolas Monmarché, and Marc Schoenauer, editors, *EA 2017: Artificial Evolution*, volume 10764 of *Lecture Notes in Computer Science*, pages 16–29, Heidelberg, 2017. Springer.

[956] Alberto Franzin and Thomas Stützle. **Revisiting Simulated Annealing: a Component-Based Analysis: Supplementaty Material**. http://iridia.ulb.ac.be/supp/IridiaSupp2018-001, 2018.

[957] Alberto Franzin and Thomas Stützle. **Revisiting Simulated Annealing: a Component-Based Analysis**. Technical Report TR/IRIDIA/2018-010, IRIDIA, Université Libre de Bruxelles, Belgium, 2018. URL http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2018-010.pdf.

[958] Alberto Franzin and Thomas Stützle. **Revisiting Simulated Annealing: A Component-Based Analysis**. *Computers & Operations Research*, 104:191–206, 2019. doi:10.1016/j.cor.2018.12.015.

[959] Alberto Franzin and Thomas Stützle. **Towards transferring algorithm configurations across problems**. In Marin Vlastelica, Jialin Song, Aaron Ferber, Brandon Amos, Georg Martius, Bistra Dilkina, and Yisong Yue, editors, *Learning Meets Combinatorial Algorithms Workshop at NeurIPS 2020, LMCA 2020, Vancouver, Canada, December 12, 2020*, pages 1–6, 2020.

[960] Alberto Franzin and Thomas Stützle. **A causal framework for understanding optimisation algorithms**. In Fredrik Heintz, Michela Milano, and Barry O'Sullivan, editors, *Trustworthy AI – Integrating Learning, Optimization and Reasoning. TAILOR 2020*, volume 12641 of *Lecture Notes in Computer Science*, pages 140–145. Springer, Cham, Switzerland, 2020.

[961] Alberto Franzin and Thomas Stützle. **A Landscape-based Analysis of Fixed Temperature and Simulated Annealing: Supplementaty Material**. http://iridia.ulb.ac.be/supp/IridiaSupp2021-002, 2021.

[962] Alberto Franzin and Thomas Stützle. **A Landscape-based Analysis of Fixed Temperature and Simulated Annealing**. Technical Report TR/IRIDIA/2021-005, IRIDIA, Université Libre de Bruxelles, Belgium, 2021. URL http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2021-005.pdf.

[963] Alberto Franzin, Francesco Sambo, and Barbara Di Camillo. **bnstruct: an R package for Bayesian Network structure learning in the presence of missing data**. *Bioinformatics*, 33(8):1250–1252, 2016.

[964] Alberto Franzin, Leslie Pérez Cáceres, and Thomas Stützle. **Effect of Transformations of Numerical Parameters in Automatic Algorithm Configuration**. Technical Report TR/IRIDIA/2017-006, IRIDIA, Université Libre de Bruxelles, Belgium, Mar. 2017. URL http://iridia.ulb.ac.be/IridiaTrSeries/link/IridiaTr2017-006.pdf.

[965] Alberto Franzin, Leslie Pérez Cáceres, and Thomas Stützle. **Effect of Transformations of Numerical Parameters in Automatic Algorithm Configuration**. *Optimization Letters*, 12 (8):1741–1753, 2018. doi:10.1007/s11590-018-1240-3.

[966] Alberto Franzin, Raphaël Gyory, Jean-Charles Nadé, Guillaume Aubert, Georges Klenkle, and Hughes Bersini. **Philéas: Anomaly Detection for IoT Monitoring**. In Lu Cao, Walter Kosters, and Jefrey Lijffijt, editors, *Proceedings of the 32nd Benelux Conference on Artificial Intelligence, BNAIC 2020, Leiden, The Netherlands, 19-20 November 2020*, pages 56–70, 2020. URL https://bnaic.liacs.leidenuniv.nl/wordpress/wp-content/uploads/bnaic2020proceedings.pdf.

[967] C. B. Fraser. *Subsequences and Supersequences of Strings*. PhD thesis, University of Glasgow, 1995.

[968] Peter I. Frazier. **A Tutorial on Bayesian Optimization**. *Arxiv preprint arXiv:1807.02811*, 2018. URL http://arxiv.org/abs/1807.02811.

[969] B. Freisleben and P. Merz. **A Genetic Local Search Algorithm for Solving Symmetric and Asymmetric Traveling Salesman Problems**. In Thomas Bäck, T. Fukuda, and Zbigniew Michalewicz, editors, *Proceedings of the 1996 IEEE International Conference on Evolutionary Computation (ICEC'96)*, pages 616–621, Piscataway, NJ, 1996. IEEE Press.

[970] Milton Friedman. **The use of ranks to avoid the assumption of normality implicit in the analysis of variance**. *Journal of the American Statistical Association*, 32(200):675–701, 1937.

[971] Tobias Friedrich, Timo Kötzing, Martin S. Krejca, and Andrew M. Sutton. **Robustness of Ant Colony Optimization to Noise**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 17–24. ACM Press, New York, NY, 2015. doi:10.1145/2739480.2754723.
Keywords: ant colony optimization, noisy fitness, run time analysis, theory.

[972] Tobias Friedrich, Frank Neumann, and Andrew M. Sutton, editors. *Genetic and Evolutionary Computation Conference, GECCO 2016, Proceedings, Denver, CO, USA, July 20-24, 2016*. ACM Press, New York, NY, 2016.

[973] Tobias Friedrich, Frank Neumann, and Andrew M. Sutton, editors. *Genetic and Evolutionary Computation Conference, GECCO 2016, Denver, CO, USA, July 20-24, 2016, Companion Material Proceedings*. ACM Press, New York, NY, 2016.

[974] Tobias Friedrich, Timo Kötzing, and Markus Wagner. **A Generic Bet-and-Run Strategy for Speeding Up Stochastic Local Search**. In Satinder P. Singh and Shaul Markovitch, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 801–807. AAAI Press, Feb. 2017.

[975] Tobias Friedrich, Andreas Göbel, Francesco Quinzan, and Markus Wagner. **Heavy-Tailed Mutation Operators in Single-Objective Combinatorial Optimization**. In Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors, *Parallel Problem Solving from Nature - PPSN XV*, volume 11101 of *Lecture Notes in Computer Science*, pages 134–145. Springer, Cham, Switzerland, 2018.

[976] Tobias Friedrich, Francesco Quinzan, and Markus Wagner. **Escaping Large Deceptive Basins of Attraction with Heavy-tailed Mutation Operators**. In Hernán E. Aguirre and Keiki Takadama, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2018*, pages 293–300. ACM Press, New York, NY, 2018. doi:10.1145/3205455.3205515.
Keywords: combinatorial optimization, heavy-tailed mutation, single-objective optimization, experiments-motivated theory, irace.

[977] Michael Friendly. **Statistical graphics for multivariate data**. In *SAS Conference Proceedings: SAS Users Group International 16 (SUGI 16)*, 1991.
Annotation: February 17-20, 1991, New Orleans, Louisiana, 297 papers.

[978] Matteo Frigo and Steven G. Johnson. **The Design and Implementation of FFTW3**. *Proceedings of the IEEE*, 93(2):216–231, 2005. Special issue on "Program Generation, Optimization, and Platform Adaptation".

[979] Hela Frikha, Habib Chabchoub, and Jean-Marc Martel. **Inferring criteria's relative importance coefficients in PROMETHEE II**. *International Journal of Operational Research*, 7(2):257–275, 2010.

[980] Z Fu, R Eglese, and L Y O Li. **A unified tabu search algorithm for vehicle routing problems with soft time windows**. *Journal of the Operational Research Society*, 59(5): 663–673, 2008.

[981] D. Fudenberg and J. Tirole. *Game Theory*. MIT Press, Cambridge, MA, 1983.

[982] Guenther Fuellerer, Karl F. Doerner, Richard F. Hartl, and Manuel Iori. **Metaheuristics for vehicle routing problems with three-dimensional loading constraints**. *European Journal of Operational Research*, 201(3):751–759, 2009. doi:10.1016/j.ejor.2009.03.046.

[983] Guenther Fuellerer, Karl F. Doerner, Richard F. Hartl, and Manuel Iori. **Ant colony optimization for the two-dimensional loading vehicle routing problem**. *Computers & Operations Research*, 36(3):655–673, 2009.

[984] Alex S. Fukunaga. **Evolving Local Search Heuristics for SAT Using Genetic Programming**. In Kalyanmoy Deb et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2004, Part II*, volume 3103 of *Lecture Notes in Computer Science*, pages 483–494. Springer, Heidelberg, 2004.

[985] Alex S. Fukunaga. **Automated Discovery of Local Search Heuristics for Satisfiability Testing**. *Evolutionary Computation*, 16(1):31–61, Mar. 2008. doi:10.1162/evco.2008.16.1.31.

[986] Nancy E. Furlong, Eugene A. Lovelace, and Kristin L. Lovelace. *Research Methods and Statistics: An Integrated Approach*. Harcourt College Publishers, 2000.

[987] Johannes Fürnkranz and Thorsten Joachims, editors. *Proceedings of the 27th international conference on machine learning (ICML-10)*, New York, NY, 2010. ACM Press.

[988] Johannes Fürnkranz, Tobias Scheffer, and Myra Spiliopoulou, editors. *17th European Conference on Machine Learning, Berlin, Germany, September 18-22, 2006 Proceedings*, volume 4212 of *Lecture Notes in Computer Science*, 2006. ISBN 978-3-540-46056-5.

[989] Grigori Fursin, Yuriy Kashnikov, Abdul Wahid Memon, Zbigniew Chamski, Olivier Temam, Mircea Namolaru, Elad Yom-Tov, Bilha Mendelson, Ayal Zaks, Eric Courtois, Francois Bodin, Phil Barnard, Elton Ashton, Edwin Bonilla, John Thomson, Christopher K. I. Williams, and Michael O'Boyle. **Milepost GCC: Machine Learning Enabled Self-tuning Compiler**. *International Journal of Parallel Programming*, 39(3):296–327, 2011. doi:10.1007/s10766-010-0161-2.

[990] D. Gaertner and K. Clark. **On Optimal Parameters for Ant Colony Optimization Algorithms**. In Hamid R. Arabnia and Rose Joshua, editors, *Proceedings of the 2005 International Conference on Artificial Intelligence, ICAI 2005*, pages 83–89. CSREA Press, 2005. ISBN 1-932415-66-1.

[991] Matteo Gagliolo and Catherine Legrand. **Algorithm Survival Analysis**. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, pages 161–184. Springer, Berlin, Germany, 2010. doi:10.1007/978-3-642-02538-9_7.

[992] Caroline Gagné, W. L. Price, and M. Gravel. **Comparing an ACO algorithm with other heuristics for the single machine scheduling problem with sequence-dependent setup times**. *Journal of the Operational Research Society*, 53:895–906, 2002.

[993] Philippe Galinier and Jin-Kao Hao. **Hybrid evolutionary algorithms for graph coloring**. *Journal of Combinatorial Optimization*, 3(4):379–397, 1999. doi:10.1023/A:1009823419804.

[994] L. M. Gambardella and Marco Dorigo. **Ant-Q: A Reinforcement Learning Approach to the Traveling Salesman Problem**. In A. Prieditis and S. Russell, editors, *Proceedings of the Twelfth International Conference on Machine Learning (ML-95)*, pages 252–260. Morgan Kaufmann Publishers, Palo Alto, CA, 1995.

[995] L. M. Gambardella and Marco Dorigo. **Solving Symmetric and Asymmetric TSPs by Ant Colonies**. In Thomas Bäck, T. Fukuda, and Zbigniew Michalewicz, editors, *Proceedings of the 1996 IEEE International Conference on Evolutionary Computation (ICEC'96)*, pages 622–627, Piscataway, NJ, 1996. IEEE Press.

[996] L. M. Gambardella and Marco Dorigo. **Ant Colony System Hybridized with a New Local Search for the Sequential Ordering Problem**. *INFORMS Journal on Computing*, 12(3): 237–255, 2000.

[997] L. M. Gambardella, Éric D. Taillard, and G. Agazzi. **MACS-VRPTW: A Multiple Ant Colony System for Vehicle Routing Problems with Time Windows**. In David Corne, Marco Dorigo, and Fred Glover, editors, *New Ideas in Optimization*, pages 63–76. McGraw Hill, London, UK, 1999.

[998] L. M. Gambardella, Roberto Montemanni, and Dennis Weyland. **Coupling Ant Colony Systems with Strong Local Searches**. *European Journal of Operational Research*, 220(3): 831–843, 2012. `doi:10.1016/j.ejor.2012.02.038`.

[999] Xavier Gandibleux, N. Mezdaoui, and A. Fréville. **A tabu search procedure to solve multiobjective combinatorial optimization problem**. In R. Caballero, F. Ruiz, and R. Steuer, editors, *Advances in Multiple Objective and Goal Programming*, volume 455 of *Lecture Notes in Economics and Mathematical Systems*, pages 291–300, Heidelberg, 1997. Springer.

[1000] Xavier Gandibleux, Andrzej Jaszkiewicz, A. Fréville, and Roman Słowiński. **Special Issue on Multiple Objective Metaheuristics**. *Journal of Heuristics*, 6(3), 2000.

[1001] Xavier Gandibleux, H. Morita, and N. Katoh. **Use of a genetic heritage for solving the assignment problem with two objectives**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 43–57. Springer, Heidelberg, 2003.

[1002] Xavier Gandibleux, X. Delorme, and V. T'Kindt. **An Ant Colony Optimisation Algorithm for the Set Packing Problem**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 49–60. Springer, Heidelberg, 2004.

[1003] Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and V. T'Kindt, editors. *Metaheuristics for Multiobjective Optimisation*, volume 535 of *Lecture Notes in Economics and Mathematical Systems*. Springer, Berlin, Germany, 2004.

[1004] Huiru Gao, Haifeng Nie, and Ke Li. **Visualisation of Pareto Front Approximation: A Short Survey and Empirical Comparisons**. In *Proceedings of the 2019 Congress on Evolutionary Computation (CEC 2019)*, pages 1750–1757, Piscataway, NJ, 2019. IEEE Press. `doi:10.1109/CEC.2019.8790298`.

[1005] Huiru Gao, Haifeng Nie, and Ke Li. **Visualisation of Pareto Front Approximation: A Short Survey and Empirical Comparisons**. *Arxiv preprint arXiv:1903.01768*, 2019.

[1006] Kaizhou Gao, Yicheng Zhang, Ali Sadollah, and Rong Su. **Optimizing urban traffic light scheduling problem using harmony search with ensemble of local search**. *Applied Soft Computing*, 48:359–372, Nov. 2016. `doi:10.1016/j.asoc.2016.07.029`.
Keywords: harmony search algorithm,traffic light scheduling.

[1007] Javier García and Fernando Fernández. **A comprehensive survey on safe reinforcement learning**. *Journal of Machine Learning Research*, 16(1):1437–1480, 2015.

[1008] Salvador García, Daniel Molina, Manuel Lozano, and Francisco Herrera. **A study on the use of non-parametric tests for analyzing the evolutionary algorithms' behaviour: a case study on the CEC'2005 Special Session on Real Parameter Optimization**. *Journal of Heuristics*, 15(617):617–644, 2009. `doi:10.1007/s10732-008-9080-4`.

[1009] Salvador García, Alberto Fernández, Julián Luengo, and Francisco Herrera. **Advanced nonparametric tests for multiple comparisons in the design of experiments in computational intelligence and data mining: Experimental analysis of power**. *Information Sciences*, 180(10):2044–2064, 2010.

[1010] Carlos García-Martínez, Oscar Cordón, and Francisco Herrera. **A taxonomy and an empirical analysis of multiple objective ant colony optimization algorithms for the bi-criteria TSP**. *European Journal of Operational Research*, 180(1):116–148, 2007.

[1011] Carlos García-Martínez, Francisco J. Rodríguez, and Manuel Lozano. **Arbitrary function optimisation with metaheuristics: No free lunch and real-world problems**. *Soft Computing*, 16(12):2115–2133, 2012. `doi:10.1007/s00500-012-0881-x`.

[1012] Carlos García-Martínez, Fred Glover, Francisco J. Rodríguez, Manuel Lozano, and Rafael Martí. **Strategic Oscillation for the Quadratic Multiple Knapsack Problem**. *Computational Optimization and Applications*, 58(1):161–185, 2014.

[1013] Carlos García-Martínez, Francisco J. Rodríguez, and Manuel Lozano. **Tabu-enhanced Iterated Greedy Algorithm: A Case Study in the Quadratic Multiple Knapsack Problem**. *European Journal of Operational Research*, 232(3):454–463, 2014.

[1014] José García-Nieto, Enrique Alba, and Ana Carolina Olivera. **Swarm intelligence for traffic light scheduling: Application to real urban areas**. *Engineering Applications of Artificial Intelligence*, 25(2):274–283, Mar. 2012.
Keywords: Cycle program optimization,Particle swarm optimization,Realistic traffic instances,SUMO microscopic simulator of urban mobility,Traffic light scheduling.

[1015] José García-Nieto, Ana Carolina Olivera, and Enrique Alba. **Optimal Cycle Program of Traffic Lights With Particle Swarm Optimization**. *IEEE Transactions on Evolutionary Computation*, 17(6):823–839, Dec. 2013. `doi:10.1109/TEVC.2013.2260755`.

[1016] M. R. Garey and David S. Johnson. *Computers and Intractability: A Guide to the Theory of NP-Completeness*. Freeman & Co, San Francisco, CA, 1979.

[1017] M. R. Garey, David S. Johnson, and R. Sethi. **The Complexity of Flowshop and Jobshop Scheduling**. *Mathematics of Operations Research*, 1:117–129, 1976.

[1018] Ivan I. Garibay, Thomas Jansen, R. Paul Wiegand, and Annie S. Wu, editors. *Foundations of Genetic Algorithms, 10th ACM SIGEVO International Workshop, FOGA 2009, Orlando, Florida, USA, January 9-11, 2009, Proceedings*. ACM, 2009. ISBN 978-1-60558-414-0.

[1019] Deon Garrett and Dipankar Dasgupta. **Multiobjective landscape analysis and the generalized assignment problem**. In Vittorio Maniezzo, Roberto Battiti, and Jean-Paul Watson, editors, *Learning and Intelligent Optimization, Second International Conference, LION 2*, volume 5313 of *Lecture Notes in Computer Science*, pages 110–124. Springer, Heidelberg, 2008.

[1020] Beatriz A. Garro, Humberto Sossa, and Roberto A. Vazquez. **Evolving ant colony system for optimizing path planning in mobile robots**. In *Electronics, Robotics and Automotive Mechanics Conference*, pages 444–449, Los Alamitos, CA, 2007. IEEE Computer Society. `doi:10.1109/CERMA.2007.60`.

[1021] António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors. *Evolutionary Multi-Criterion Optimization – 8th International Conference, EMO 2015, Guimarães, Portugal, March 29 – April 1, 2015. Proceedings, Part I*, volume 9018 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2015.

[1022] António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors. *Evolutionary Multi-Criterion Optimization – 8th International Conference, EMO 2015, Guimarães, Portugal, March 29 – April 1, 2015. Proceedings, Part II*, volume 9019 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2015.

[1023] Martin Gebser, Roland Kaminski, Benjamin Kaufmann, Torsten Schaub, Marius Thomas Schneider, and Stefan Ziller. **A portfolio solver for answer set programming: Preliminary report**. In Pedro Calabar and Tran Cao Son, editors, *Logic Programming and Nonmonotonic Reasoning*, volume 8148 of *Lecture Notes in Artificial Intelligence*, pages 352–357. Springer, Heidelberg, 2013.

[1024] Peter Geibel. **Reinforcement Learning for MDPs with Constraints**. In Johannes Fürnkranz, Tobias Scheffer, and Myra Spiliopoulou, editors, *Machine Learning: ECML 2006*, volume 4212 of *Lecture Notes in Computer Science*, pages 646–653, 2006. ISBN 978-3-540-46056-5. doi:10.1007/11871842_63.
Keywords: Safe RL.

[1025] Martin Josef Geiger. **Decision Support for Multi-objective Flow Shop Scheduling by the Pareto Iterated Local Search Methodology**. *Computers and Industrial Engineering*, 61(3):805–812, 2011.

[1026] Martin Josef Geiger. **A Multi-threaded Local Search Algorithm and Computer Implementation for the Multi-mode, Resource-constrained Multi-project Scheduling Problem**. *European Journal of Operational Research*, 256:729–741, 2017.

[1027] Stuart Geman and Donald Geman. **Stochastic Relaxation, Gibbs Distributions, and the Bayesian Restoration of Images**. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 6(6):721–741, 1984.

[1028] Mitsuo Gen and Lin Lin. **Multiobjective evolutionary algorithm for manufacturing scheduling problems: state-of-the-art survey**. *Journal of Intelligent Manufacturing*, 25 (5):849–866, 2014.

[1029] Michel Gendreau and Jean-Yves Potvin. **Tabu Search**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*, pages 41–59. Springer, New York, NY, 2nd edition, 2010.

[1030] Michel Gendreau and Jean-Yves Potvin, editors. *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*. Springer, New York, NY, 2nd edition, 2010.

[1031] Michel Gendreau and Jean-Yves Potvin, editors. *Handbook of Metaheuristics*, volume 272 of *International Series in Operations Research & Management Science*. Springer, 2019.

[1032] Michel Gendreau, A. Hertz, Gilbert Laporte, and M. Stan. **A Generalized Insertion Heuristic for the Traveling Salesman Problem with Time Windows**. *Operations Research*, 46: 330–335, 1998.

[1033] Michel Gendreau, Francois Guertin, Jean-Yves Potvin, and Éric D. Taillard. **Parallel tabu search for real-time vehicle routing and dispatching**. *Transportation Science*, 33(4): 381–390, 1999.

[1034] Michel Gendreau, Francois Guertin, Jean-Yves Potvin, and René Séguin. **Neighborhood search heuristics for a dynamic vehicle dispatching problem with pick-ups and deliveries**. *Transportation Research Part C: Emerging Technologies*, 14(3):157–174, 2006.

[1035] Ian P. Gent, editor. *Principles and Practice of Constraint Programming – CP 2009, 15th International Conference, CP 2009, Lisbon, Portugal, September 20-24, 2009, Proceedings*, volume 5732 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2009. doi:10.1007/978-3-642-04244-7.

[1036] Ian P. Gent, Stuart A. Grant, Ewen MacIntyre, Patrick Prosser, Paul Shaw, Barbara M. Smith, and Toby Walsh. **How Not To Do It**. Technical Report 97.27, School of Computer Studies, University of Leeds, May 1997.

[1037] Ian P. Gent, Holger H. Hoos, P. Prosser, and T. Walsh. **Morphing: Combining Structure and Randomness**. In *Proceedings of the Sixteenth National Conference on Artificial Intelligence*, pages 654–660, 1999.

[1038] Robin Genuer, Jean-Michel Poggi, and Christine Tuleau-Malot. **Variable selection using random forests**. *Pattern Recognition Letters*, 31(14):2225–2236, 2010.

[1039] Samuel J. Gershman, Eric J. Horvitz, and Joshua B. Tenenbaum. **Computational rationality: A converging paradigm for intelligence in brains, minds, and machines**. *Science*, 349 (6245):273–278, 2015. doi:10.1126/science.aac6076.

[1040] Daniel Geschwender, Frank Hutter, Lars Kotthoff, Yuri Malitsky, Holger H. Hoos, and Kevin Leyton-Brown. **Algorithm Configuration in the Cloud: A Feasibility Study**. In Panos M. Pardalos, Mauricio G. C. Resende, Chrysafis Vogiatzis, and Jose L. Walteros, editors, *Learning and Intelligent Optimization, 8th International Conference, LION 8*, volume 8426 of *Lecture Notes in Computer Science*, pages 41–46. Springer, Heidelberg, 2014. doi:10.1007/978-3-319-09584-4_5.

[1041] Sanjay Ghemawat, Howard Gobioff, and Shun-Tak Leung. **The Google File System**. *SIGOPS Oper. Syst. Rev.*, 37(5):29–43, 2003.

[1042] K. Ghoseiri and B. Nadjari. **An ant colony optimization algorithm for the bi-objective shortest path problem**. *Applied Soft Computing*, 10(4):1237–1246, 2010.

[1043] K. C. Giannakoglou, D. T. Tsahalis, J. Periaux, K. D. Papailiou, and T. Fogarty, editors. *Evolutionary Methods for Design, Optimisation and Control with Application to Industrial Problems. Proceedings of the EUROGEN 2001 Conference*, 2002. CIMNE, Barcelona, Spain.

[1044] Matthew S. Gibbs, Graeme C. Dandy, Holger R. Maier, and John B. Nixon. **Calibrating genetic algorithms for water distribution system optimisation**. In *7th Annual Symposium on Water Distribution Systems Analysis*. ASCE, May 2005.

[1045] Nicolas Girerd, Muriel Rabilloud, Philippe Pibarot, Patrick Mathieu, and Pascal Roy. **Quantification of Treatment Effect Modification on Both an Additive and Multiplicative Scale**. *PLoS One*, 11(4):1–14, 4 2016. doi:10.1371/journal.pone.0153010.

[1046] Xavier Glorot and Yoshua Bengio. **Understanding the difficulty of training deep feedforward neural networks**. In *Proceedings of the Thirteenth International Conference on Artificial Intelligence and Statistics*, pages 249–256, 2010.

[1047] Fred Glover. **Heuristics for Integer Programming Using Surrogate Constraints**. *Decision Sciences*, 8:156–166, 1977.

[1048] Fred Glover. **Future Paths for Integer Programming and Links to Artificial Intelligence**. *Computers & Operations Research*, 13(5):533–549, 1986.

[1049] Fred Glover. **Tabu Search − Part I**. *INFORMS Journal on Computing*, 1(3):190–206, 1989. `doi:10.1287/ijoc.1.3.190`.

[1050] Fred Glover. **Tabu Search − Part II**. *INFORMS Journal on Computing*, 2(1):4–32, 1990.

[1051] Fred Glover. **A Template for Scatter Search and Path Relinking**. In Jin-Kao Hao, Evelyne Lutton, Edmund M. A. Ronald, Marc Schoenauer, and Dominique Snyers, editors, *Artificial Evolution*, volume 1363 of *Lecture Notes in Computer Science*, pages 1–51. Springer, Heidelberg, 1998. `doi:10.1007/BFb0026589`.

[1052] Fred Glover and G. Kochenberger, editors. *Handbook of Metaheuristics*. Kluwer Academic Publishers, Norwell, MA, 2002.

[1053] Fred Glover and Gary A. Kochenberger. **Critical Even Tabu Search for Multidimensional Knapsack Problems**. In Ibrahim H. Osman and James P. Kelly, editors, *Metaheuristics: Theory & Applications*, pages 407–427. Kluwer Academic Publishers, Norwell, MA, 1996.

[1054] Fred Glover and Manuel Laguna. *Tabu Search*. Kluwer Academic Publishers, Boston, MA, USA, 1997.

[1055] Fred Glover, Gary A. Kochenberger, and Bahram Alidaee. **Adaptive Memory Tabu Search for Binary Quadratic Programs**. *Management Science*, 44(3):336–345, 1998.

[1056] Fred Glover, Manuel Laguna, and Rafael Martí. **Scatter Search and Path Relinking: Advances and Applications**. In Fred Glover and G. Kochenberger, editors, *Handbook of Metaheuristics*, pages 1–35. Kluwer Academic Publishers, Norwell, MA, 2002.

[1057] Fred Glover, Zhipeng Lü, and Jin-Kao Hao. **Diversification-driven tabu search for unconstrained binary quadratic problems**. *4OR: A Quarterly Journal of Operations Research*, 8(3):239–253, 2010. `doi:10.1007/s10288-009-0115-y`.

[1058] GNU Project, Free Software Foundation. **GCC, the GNU Compiler Collection**. `https://www.gcc.gnu.org`, 1987.

[1059] Marc Goerigk and Anita Schöbel. **Recovery-to-optimality: A new two-stage approach to robustness with an application to aperiodic timetabling**. *Computers & Operations Research*, 52:1–15, 2014.

[1060] Elizabeth F. Gouvêa Goldbarg, Givanaldo R. Souza, and Marco C. Goldbarg. **Particle Swarm for the Traveling Salesman Problem**. In Jens Gottlieb and Günther R. Raidl, editors, *Proceedings of EvoCOP 2006 – 6th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 3906 of *Lecture Notes in Computer Science*, pages 99–110. Springer, Heidelberg, 2006.

[1061] David E. Goldberg. *Genetic Algorithms in Search, Optimization and Machine Learning*. Addison-Wesley, Boston, MA, USA, 1989.

[1062] David E. Goldberg. **Probability matching, the magnitude of reinforcement, and classifier system bidding**. *Machine Learning*, 5(4):407–425, 1990.

[1063] Fred E. Goldman and Larry W. Mays. **The Application of Simulated Annealing to the Optimal Operation of Water Systems**. In *Proceedings of 26th Annual Water Resources Planning and Management Conference*, Tempe, USA, June 2000. ASCE.

[1064] Martin C. Golumbic et al., editors. *Fifth International Symposium on Artificial Intelligence and Mathematics, AIM 1998, Fort Lauderdale, Florida, USA, January 4-6, 1998*, 1998.

[1065] C. Gomes and Meinolf Sellmann, editors. *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 10th International Conference, CPAIOR 2013, Yorktown Heights, NY, USA, May 18-22, 2013. Proceedings*, volume 7874 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2013.

[1066] Ralph E. Gomory. **An algorithm for integer solutions to linear programs**. In R.L. Graves and P. Wolfe, editors, *Recent Advances in Mathematical Programming*, pages 260–302. McGraw Hill, New York, NY, 1963.

[1067] Wenyin Gong, Álvaro Fialho, and Zhihua Cai. **Adaptive strategy selection in differential evolution**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2010*, pages 409–416. ACM Press, New York, NY, 2010. doi:10.1145/1830483.1830559.

[1068] Erik D. Goodman, editor. *Proceedings of the 3rd Annual Conference on Genetic and Evolutionary Computation, GECCO 2001*. Morgan Kaufmann Publishers, San Francisco, CA, 2001.

[1069] Google. **TensorFlow**. https://www.tensorflow.org, 2017.

[1070] M. Gorges-Schleuter. **Asparagos96 and the Travelling Salesman Problem**. In Thomas Bäck, Zbigniew Michalewicz, and Xin Yao, editors, *Proceedings of the 1997 IEEE International Conference on Evolutionary Computation (ICEC'97)*, pages 171–174, Piscataway, NJ, 1997. IEEE Press.

[1071] Abhijit Gosavi. **Reinforcement Learning: A Tutorial Survey and Recent Advances**. *INFORMS Journal on Computing*, 21(2):178–192, 2009. doi:10.1287/ijoc.1080.0305.

[1072] J. Gottlieb, M. Puchta, and Christine Solnon. **A Study of Greedy, Local Search, and Ant Colony Optimization Approaches for Car Sequencing Problems**. In S. Cagnoni et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2003*, volume 2611 of *Lecture Notes in Computer Science*, pages 246–257, Heidelberg, 2003. Springer.

[1073] Jens Gottlieb and Günther R. Raidl, editors. *Proceedings of EvoCOP 2006 – 6th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 3906 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2006.

[1074] N. I. M. Gould, D. Orban, and P. L. Toint. **CUTEr and SifDec: A constrained and unconstrained testing environment, revisited**. *ACM Transactions on Mathematical Software*, 29:373–394, 2003.

[1075] Alex Grasas, Angel A. Juan, and Helena Ramalhinho Lourenço. **SimILS: A Simulation-based Extension of the Iterated Local Search Metaheuristic for Stochastic Combinatorial Optimization**. *Journal of Simulation*, 10(1):69–77, 2016.

[1076] M. Gravel, W. L. Price, and Caroline Gagné. **Scheduling continuous casting of aluminum using a multiple objective ant colony optimization metaheuristic**. *European Journal of Operational Research*, 143(1):218–229, 2002. doi:10.1016/S0377-2217(01)00329-0.

[1077] Alex Graves, Abdel-rahman Mohamed, and Geoffrey Hinton. **Speech recognition with deep recurrent neural networks**. In *Acoustics, speech and signal processing (icassp), 2013 ieee international conference on*, pages 6645–6649. IEEE, 2013.

[1078] R.L. Graves and P. Wolfe, editors. *Recent Advances in Mathematical Programming*. McGraw Hill, New York, NY, 1963.

[1079] Salvatore Greco, Benedetto Matarazzo, and Roman Słowiński. **Interactive evolutionary multiobjective optimization using dominance-based rough set approach**. In Hisao Ishibuchi et al., editors, *Proceedings of the 2010 Congress on Evolutionary Computation (CEC 2010)*, pages 1–8. IEEE Press, Piscataway, NJ, 2010.

[1080] Salvatore Greco, Milosz Kadzinski, Vincent Mousseau, and Roman Słowiński. **ELECTRE**[GKMS]: **Robust ordinal regression for outranking methods**. *European Journal of Operational Research*, 214(1):118–135, 2011.

[1081] Salvatore Greco, Joshua D. Knowles, Kaisa Miettinen, and Eckart Zitzler, editors. *Learning in Multiobjective Optimization (Dagstuhl Seminar 12041)*, volume 2(1) of *Dagstuhl Reports*. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Germany, 2012. `doi:10.4230/DagRep.2.1.50`.

[1082] Salvatore Greco, Vincent Mousseau, and Roman Słowiński. **Robust ordinal regression for value functions handling interacting criteria**. *European Journal of Operational Research*, 239(3):711–730, 2014. `doi:10.1016/j.ejor.2014.05.022`.

[1083] Salvatore Greco, Kathrin Klamroth, Joshua D. Knowles, and Günther Rudolph, editors. *Understanding Complexity in Multiobjective Optimization (Dagstuhl Seminar 15031)*, volume 5(1) of *Dagstuhl Reports*. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Germany, 2015. `doi:10.4230/DagRep.5.1.96`.
Keywords: multiple criteria decision making, evolutionary multiobjective optimization.

[1084] Garrison W. Greenwood, Xiaobo Hu, and Joseph G. D'Ambrosio. **Fitness functions for multiple objective optimization problems: Combining preferences with Pareto rankings**. In Richard K. Belew and Michael D. Vose, editors, *Foundations of Genetic Algorithms (FOGA)*, pages 437–455. Morgan Kaufmann Publishers, 1996.

[1085] J. J. Grefenstette. **Optimization of Control Parameters for Genetic Algorithms**. *IEEE Transactions on Systems, Man, and Cybernetics*, 16(1):122–128, 1986.

[1086] John J. Grefenstette, editor. *Proceedings of the 1st International Conference on Genetic Algorithms, Pittsburgh, PA, USA, July 1985*, 1985. Lawrence Erlbaum Associates. ISBN 0-8058-0426-9.

[1087] Arthur Gretton and Christian C. Robert, editors. *Proceedings of the 19th International Conference on Artificial Intelligence and Statistics, AISTATS 2016, Cadiz, Spain, May 9-11, 2016*, volume 51 of *JMLR Workshop and Conference Proceedings*, 2016. JMLR.org.

[1088] David R. Grimes, Chris T. Bauch, and John P. A. Ioannidis. **Modelling science trustworthiness under publish or perish pressure**. *Royal Society Open Science*, 5:171511, 2018.

[1089] Andrea Grosso, Federico Della Croce, and R. Tadei. **An Enhanced Dynasearch Neighborhood for the Single-Machine Total Weighted Tardiness Scheduling Problem**. *Operations Research Letters*, 32(1):68–72, 2004.

[1090] Andrea Grosso, A. R. M. J. U. Jamali, and Marco Locatelli. **Finding Maximin Latin Hypercube Designs by Iterated Local Search Heuristics**. *European Journal of Operational Research*, 197(2):541–547, 2009.

[1091] Peter Groves, Basel Kayyali, David Knott, and Steve Van Kuiken. **The "big data" revolution in healthcare**. *McKinsey Quarterly*, 2, 2013.

[1092] Viviane Grunert da Fonseca and Carlos M. Fonseca. **A link between the multivariate cumulative distribution function and the hitting function for random closed sets**. *Statistics & Probability Letters*, 57(2):179–182, 2002. `doi:10.1016/S0167-7152(02)00046-9`.

[1093] Viviane Grunert da Fonseca and Carlos M. Fonseca. **A characterization of the outcomes of stochastic multiobjective optimizers through a reduction of the hitting function test sets**. Technical report, CSI, Universidade do Algarve, 2004.
Keywords: high-order EAF.

[1094] Viviane Grunert da Fonseca and Carlos M. Fonseca. **The Attainment-Function Approach to Stochastic Multiobjective Optimizer Assessment and Comparison**. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, pages 103–130. Springer, Berlin, Germany, 2010.

[1095] Viviane Grunert da Fonseca and Carlos M. Fonseca. **The Relationship between the Covered Fraction, Completeness and Hypervolume Indicators**. In Jin-Kao Hao, Pierrick Legrand, Pierre Collet, Nicolas Monmarché, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution: 10th International Conference, Evolution Artificielle, EA, 2011*, volume 7401 of *Lecture Notes in Computer Science*, pages 25–36. Springer, Heidelberg, 2012.

[1096] Viviane Grunert da Fonseca, Carlos M. Fonseca, and Andreia O. Hall. **Inferential Performance Assessment of Stochastic Optimisers and the Attainment Function**. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *Evolutionary Multi-criterion Optimization, EMO 2001*, volume 1993 of *Lecture Notes in Computer Science*, pages 213–225. Springer, Heidelberg, 2001. `doi:10.1007/3-540-44719-9_15`.
Keywords: EAF.
Annotation: Proposed looking at anytime behavior as a multi-objective problem.

[1097] C. Guéret, Nicolas Monmarché, and M. Slimane. **Ants Can Play Music**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 310–317. Springer, Heidelberg, 2004.

[1098] Aldy Gunawan, Kien Ming Ng, and Kim Leng Poh. **A Hybridized Lagrangian Relaxation and Simulated Annealing Method for the Course Timetabling Problem**. *Computers & Operations Research*, 39(12):3074–3088, 2012.

[1099] Odd Erik Gundersen, Yolanda Gil, and David W. Aha. **On Reproducible AI: Towards Reproducible Research, Open Science, and Digital Scholarship in AI Publications**. *AI Magazine*, 39(3):56–68, Sept. 2018. `doi:10.1609/aimag.v39i3.2816`.
Annotation: The reproducibility guidelines can be found here: `https://folk.idi.ntnu.no/odderik/reproducibility_guidelines.pdf` and a short how-to can be found here: `https://folk.idi.ntnu.no/odderik/reproducibility_guidelines_how_to.html`.

[1100] M. Guntsch and Jürgen Branke. **New Ideas for Applying Ant Colony Optimization to the Probabilistic TSP**. In S. Cagnoni et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2003*, volume 2611 of *Lecture Notes in Computer Science*, pages 165–175, Heidelberg, 2003. Springer.

[1101] M. Guntsch and Martin Middendorf. **Pheromone Modification Strategies for Ant Algorithms Applied to Dynamic TSP**. In E. J. W. Boers et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2001*, volume 2037 of *Lecture Notes in Computer Science*, pages 213–222. Springer, Heidelberg, 2001.

[1102] M. Guntsch and Martin Middendorf. **A Population Based Approach for ACO**. In S. Cagnoni et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2002*, volume 2279 of *Lecture Notes in Computer Science*, pages 71–80, Heidelberg, 2002. Springer.

[1103] M. Guntsch and Martin Middendorf. **Applying Population Based ACO to Dynamic Optimization Problems**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 111–122. Springer, Heidelberg, 2002.

[1104] M. Guntsch and Martin Middendorf. **Solving Multi-Objective Permutation Problems with Population Based ACO**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 464–478. Springer, Heidelberg, 2003.

[1105] J. N. D. Gupta. **Flowshop schedules with sequence dependent setup times**. *Journal of Operations Research Society of Japan*, 29:206 – 219, 1986.

[1106] Gurobi. **Gurobi Optimizer**. http://www.gurobi.com/products/gurobi-optimizer, 2017.

[1107] D. Gusfield. **Algorithms on Strings, Trees, and Sequences**. In *Computer Science and Computational Biology*. Cambridge University Press, 1997.

[1108] G. Gutin and A. Punnen, editors. *The Traveling Salesman Problem and its Variations*. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2002.

[1109] Gregory Gutin, Anders Yeo, and Alexey Zverovich. **Traveling salesman should not be greedy: domination analysis of greedy-type heuristics for the TSP**. *Discrete Applied Mathematics*, 117(1–3), 2002.

[1110] Walter J. Gutjahr. **A Graph-based Ant System and its Convergence**. *Future Generation Computer Systems*, 16(8):873–888, 2000.

[1111] Walter J. Gutjahr. **ACO Algorithms with Guaranteed Convergence to the Optimal Solution**. *Information Processing Letters*, 82(3):145–153, 2002.

[1112] Walter J. Gutjahr. **A converging ACO algorithm for stochastic combinatorial optimization**. In Andreas Albrecht and Kathleen Steinhöfel, editors, *Stochastic Algorithms: Foundations and Applications*, volume 2827 of *Lecture Notes in Computer Science*, pages 10–25. Springer Verlag, 2003. doi:10.1007/b13596.

[1113] Walter J. Gutjahr. **S-ACO: An Ant-Based Approach to Combinatorial Optimization Under Uncertainty**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 238–249. Springer, Heidelberg, 2004.

[1114] Walter J. Gutjahr. **On the finite-time dynamics of ant colony optimization**. *Methodology and Computing in Applied Probability*, 8(1):105–133, 2006.

[1115] Walter J. Gutjahr. **Mathematical runtime analysis of ACO algorithms: survey on an emerging issue**. *Swarm Intelligence*, 1(1):59–79, 2007.

[1116] Walter J. Gutjahr. **First steps to the runtime complexity analysis of ant colony optimization**. *Computers & Operations Research*, 35(9):2711–2727, 2008.

[1117] Walter J. Gutjahr and Marion S. Rauner. **An ACO algorithm for a dynamic regional nurse-scheduling problem in Austria**. *Computers & Operations Research*, 34(3):642–666, 2007. doi:10.1016/j.cor.2005.03.018.

[1118] Walter J. Gutjahr and G. Sebastiani. **Runtime analysis of ant colony optimization with best-so-far reinforcement**. *Methodology and Computing in Applied Probability*, 10(3):409–433, 2008.

[1119] Heikki Haario, Eero Saksman, and Johanna Tamminen. **An adaptive Metropolis algorithm**. *Bernoulli*, 7(2):223–242, 2001.

[1120] Evert Haasdijk, Arif Atta-ul Qayyum, and Agoston E. Eiben. **Racing to improve on-line, on-board evolutionary robotics**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 187–194. ACM Press, New York, NY, 2011.

[1121] S. Häckel, M. Fischer, D. Zechel, and T. Teich. **A multi-objective ant colony approach for Pareto-optimization using dynamic programming**. In Conor Ryan, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2008*, pages 33–40. ACM Press, New York, NY, 2008.

[1122] Josef Hadar and William R. Russell. **Rules for ordering uncertain prospects**. *The American Economic Review*, 59(1):25–34, 1969.
Keywords: stochastic dominance.

[1123] David Hadka and Patrick M. Reed. **Diagnostic Assessment of Search Controls and Failure Modes in Many-Objective Evolutionary Optimization**. *Evolutionary Computation*, 20(3): 423–452, 2012.

[1124] David Hadka and Patrick M. Reed. **Borg: An Auto-Adaptive Many-Objective Evolutionary Computing Framework**. *Evolutionary Computation*, 21(2):231–259, 2013.

[1125] David Hadka, Patrick M. Reed, and T. W. Simpson. **Diagnostic assessment of the Borg MOEA for many-objective product family design problems**. In *Proceedings of the 2012 Congress on Evolutionary Computation (CEC 2012)*, pages 1–10, Piscataway, NJ, 2012. IEEE Press.

[1126] Y. Haimes, L. Lasdon, and D. Da Wismer. **On a bicriterion formation of the problems of integrated system identification and system optimization**. *IEEE Transactions on Systems, Man, and Cybernetics*, 1(3):296–297, 1971. doi:10.1109/TSMC.1971.4308298.
Keywords: epsilon-constraint method.

[1127] Bruce Hajek. **Cooling Schedules for Optimal Annealing**. *Mathematics of Operations Research*, 13(2):311–329, 1988.

[1128] Bruce Hajek and Galen Sasaki. **Simulated annealing–to cool or not**. *System & Control Letters*, 12(5):443–447, 1989.

[1129] Prabhat Hajela and C-Y Lin. **Genetic search strategies in multicriterion optimal design**. *Structural Optimization*, 4(2):99–107, 1992.

[1130] George T. Hall, Pietro S. Oliveto, and Dirk Sudholt. **On the impact of the cutoff time on the performance of algorithm configurators**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019*, pages 907–915. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6111-8. doi:10.1145/3321707.3321879.
Keywords: theory, automatic configuration, capping.

[1131] Horst W. Hamacher and Günter Ruhe. **On spanning tree problems with multiple objectives**. *Annals of Operations Research*, 52(4):209–230, 1994.

[1132] Y. Hamadi, E. Monfroy, and F. Saubion, editors. *Autonomous Search*. Springer, Berlin, Germany, 2012.

[1133] Youssef Hamadi and Marc Schoenauer, editors. *6th International Conference, LION 6, Paris, France, January 16-20, 2012. Selected Papers*, volume 7219 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[1134] Hayfa Hammami and Thomas Stützle. **A Computational Study of Neighborhood Operators for Job-Shop Scheduling Problems with Regular Objectives**. In Bin Hu and Manuel López-Ibáñez, editors, *Proceedings of EvoCOP 2017 – 17th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 10197 of *Lecture Notes in Computer Science*, pages 1–17. Springer, Heidelberg, 2017. `doi:10.1007/978-3-319-55453-2`.

[1135] Julia Handl and Joshua D. Knowles. **Modes of Problem Solving with Multiple Objectives: Implications for Interpreting the Pareto Set and for Decision Making**. In Joshua D. Knowles, David Corne, Kalyanmoy Deb, and Deva Raj Chair, editors, *Multiobjective Problem Solving from Nature*, Natural Computing Series, pages 131–151. Springer, 2008. `doi:10.1007/978-3-540-72964-8_7`.

[1136] Julia Handl, Emma Hart, P. R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa, and Ben Paechter, editors. *Parallel Problem Solving from Nature - PPSN XIV 14th International Conference, Edinburgh, UK, September 17-21, 2016, Proceedings*, volume 9921 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2016. ISBN 978-3-319-45822-9. `doi:10.1007/978-3-319-45823-6`.

[1137] Thomas Hanne. **On the convergence of multiobjective evolutionary algorithms**. *European Journal of Operational Research*, 117(3):553–564, 1999.

[1138] Michael Pilegaard Hansen. **Tabu search for multiobjective optimization: MOTS**. In J. Climaco, editor, *Proceedings of the 13th International Conference on Multiple Criteria Decision Making (MCDM'97)*, pages 574–586. Springer Verlag, 1997.

[1139] Michael Pilegaard Hansen. *Metaheuristics for multiple objective combinatorial optimization*. PhD thesis, Institute of Mathematical Modelling, Technical University of Denmark, Mar. 1998.

[1140] Michael Pilegaard Hansen and Andrzej Jaszkiewicz. **Evaluating the quality of approximations to the non-dominated set**. Technical Report IMM-REP-1998-7, Institute of Mathematical Modelling, Technical University of Denmark, Lyngby, Denmark, 1998.

[1141] Nikolaus Hansen. **The CMA evolution strategy: a comparing review**. In *Towards a new evolutionary computation*, pages 75–102. Springer, 2006.

[1142] Nikolaus Hansen. **Benchmarking a BI-population CMA-ES on the BBOB-2009 function testbed**. In Franz Rothlauf, editor, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2009*, pages 2389–2396. ACM Press, New York, NY, 2009.
Keywords: bipop-cma-es.

[1143] Nikolaus Hansen and A. Ostermeier. **Completely derandomized self-adaptation in evolution strategies**. *Evolutionary Computation*, 9(2):159–195, 2001. `doi:10.1162/106365601750190398`.
Keywords: CMA-ES.

[1144] Nikolaus Hansen, Anne Auger, S. Finck, and R. Ros. **Real-Parameter Black-Box Optimization Benchmarking 2009: Experimental setup**. Technical Report RR-6828, INRIA, France, 2009.

[1145] Nikolaus Hansen, S. Finck, R. Ros, and Anne Auger. **Real-Parameter Black-Box Optimization Benchmarking 2009: Noiseless Functions Definitions**. Technical Report RR-6829, INRIA, France, 2009. Updated February 2010.
Annotation: `http://coco.gforge.inria.fr/bbob2012-downloads`.

[1146] Nikolaus Hansen, Raymond Ros, Nikolaus Mauny, Marc Schoenauer, and Anne Auger. **Impacts of invariance in search: When CMA-ES and PSO face ill-conditioned and non-separable problems**. *Applied Soft Computing*, 11(8):5755–5769, 2011.

[1147] Nikolaus Hansen, Anne Auger, Olaf Mersmann, Tea Tušar, and Dimo Brockhoff. **COCO: A platform for comparing continuous optimizers in a black-box setting**. *Arxiv preprint arXiv:1603.08785*, 2016.

[1148] Pierre Hansen and B. Jaumard. **Algorithms for the Maximum Satisfiability Problem**. *Computing*, 44:279–303, 1990.

[1149] Pierre Hansen and Nenad Mladenović. **Variable neighborhood search: Principles and applications**. *European Journal of Operational Research*, 130(3):449–467, 2001.

[1150] Pierre Hansen and Nenad Mladenović. **Variable Neighborhood Search**. In Fred Glover and G. Kochenberger, editors, *Handbook of Metaheuristics*, pages 145–184. Kluwer Academic Publishers, Norwell, MA, 2002.

[1151] Pierre Hansen, Nenad Mladenović, Jack Brimberg, and José A. Moreno Pérez. **Variable Neighborhood Search**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*, pages 61–86. Springer, New York, NY, 2nd edition, 2010.

[1152] Jin-Kao Hao and Martin Middendorf, editors. *Evolutionary Computation in Combinatorial Optimization – 12th European Conference, EvoCOP 2012, Málaga, Spain, April 11-13, 2012, Proceedings*, volume 7245 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[1153] Jin-Kao Hao and Jêrome Pannier. **Simulated Annealing and Tabu Search for Constraint Solving**. In Martin C. Golumbic et al., editors, *Fifth International Symposium on Artificial Intelligence and Mathematics, AIM 1998, Fort Lauderdale, Florida, USA, January 4-6, 1998*, pages 1–15, 1998.

[1154] Jin-Kao Hao, Evelyne Lutton, Edmund M. A. Ronald, Marc Schoenauer, and Dominique Snyers, editors. *Artificial Evolution, Third European Conference, AE'97, Nîmes, France, 22-24 October 1997, Selected Papers*, volume 1363 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 1998. doi:10.1007/BFb0026589.

[1155] Jin-Kao Hao, Pierrick Legrand, Pierre Collet, Nicolas Monmarché, Evelyne Lutton, and Marc Schoenauer, editors. *Artificial Evolution: 10th International Conference, Evolution Artificielle, EA, 2011, Angers, France, October 24-26, 2011. Revised Selected Papers*, volume 7401 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[1156] Zhifeng Hao, Ruichu Cai, and Han Huang. **An Adaptive Parameter Control Strategy for ACO**. In *Proceedings of the International Conference on Machine Learning and Cybernetics*, pages 203–206. IEEE Press, 2006.

[1157] Zhifeng Hao, Han Huang, Yong Qin, and Ruichu Cai. **An ACO Algorithm with Adaptive Volatility Rate of Pheromone Trail**. In Yong Shi, G. Dick van Albada, Jack Dongarra, and Peter M. A. Sloot, editors, *Computational Science – ICCS 2007, 7th International Conference, Proceedings, Part IV*, volume 4490 of *Lecture Notes in Computer Science*, pages 1167–1170. Springer, Heidelberg, 2007.

[1158] Kazuya Haraguchi. **Iterated Local Search with Trellis-Neighborhood for the Partial Latin Square Extension Problem**. *Journal of Heuristics*, 22(5):727–757, 2016.

[1159] Douglas P. Hardin and Edward B. Saff. **Discretizing Manifolds via Minimum Energy Points**. *Notices of the American Mathematical Society*, 51(10):1186–1194, 2004.

[1160] Emma Hart and Kevin Sim. **A Hyper-Heuristic Ensemble Method for Static Job-Shop Scheduling**. *Evolutionary Computation*, 24(4):609–635, 2016. doi:10.1162/EVCO_a_00183.

[1161] J. P. Hart and A. W. Shogan. **Semi-greedy heuristics: An empirical study**. *Operations Research Letters*, 6(3):107–114, 1987.

[1162] William D. Harvey and Matthew L. Ginsberg. **Limited Discrepancy Search**. In Chris S. Mellish, editor, *Proceedings of the Fourteenth International Joint Conference on Artificial Intelligence (IJCAI-95)*, pages 607–615. Morgan Kaufmann Publishers, 1995.

[1163] Hideki Hashimoto, Mutsunori Yagiura, and Toshihide Ibaraki. **An Iterated Local Search Algorithm for the Time-dependent Vehicle Routing Problem with Time Windows**. *Discrete Optimization*, 5(2):434–456, 2008.

[1164] Sameer Hasija and Chandrasekharan Rajendran. **Scheduling in flowshops to minimize total tardiness of jobs**. *International Journal of Production Research*, 42(11):2289–2301, 2004. `doi:10.1080/00207540310001657595`.

[1165] David Haussler, editor. *Proceedings of the Fifth Annual ACM Conference on Computational Learning Theory, COLT 1992, Pittsburgh, PA, USA, July 27-29, 1992*, 1992. ACM Press.

[1166] Simon Haykin. **A comprehensive foundation**. *Neural Networks*, 2:41, 2004.

[1167] Öncü Hazir, Yavuz Günalay, and Erdal Erel. **Customer order scheduling problem: a comparative metaheuristics study**. *International Journal of Advanced Manufacturing Technology*, 37(5):589–598, May 2008. `doi:10.1007/s00170-007-0998-8`.
Keywords: ACO,Customer order scheduling,Genetic algorithms,Meta-heuristics,Simulated annealing,Tabu search.

[1168] Verena Heidrich-Meisner and Christian Igel. **Hoeffding and Bernstein races for selecting policies in evolutionary direct policy search**. In Andrea Pohoreckyj Danyluk, Léon Bottou, and Michael L. Littman, editors, *Proceedings of the 26th International Conference on Machine Learning, ICML 2009*, pages 401–408, New York, NY, 2009. ACM Press. `doi:10.1145/1553374.1553426`.
Keywords: automated algorithm configuration, CMA-ES, racing.

[1169] Fredrik Heintz, Michela Milano, and Barry O'Sullivan, editors. *Trustworthy AI - Integrating Learning, Optimization and Reasoning First International Workshop, TAILOR 2020, Virtual Event, September 4-5, 2020, Revised Selected Papers*, volume 12641 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2020.

[1170] S. Reza Hejazi and S. Saghafian. **Flowshop-scheduling Problems with Makespan Criterion: A Review**. *International Journal of Production Research*, 43(14):2895–2929, 2005.

[1171] Michael Held and Richard M. Karp. **The Traveling-Salesman Problem and Minimum Spanning Trees**. *Operations Research*, 18(6):1138–1162, 1970.

[1172] Christoph Helmberg and Franz Rendl. **Solving quadratic (0,1)-problems by semidefinite programs and cutting planes**. *Mathematical Programming*, 82(3):291–315, 1998.

[1173] Keld Helsgaun. **An Effective Implementation of the Lin-Kernighan Traveling Salesman Heuristic**. *European Journal of Operational Research*, 126:106–130, 2000.

[1174] Keld Helsgaun. **General *k*-opt Submoves for the Lin-Kernighan TSP Heuristic**. *Mathematical Programming Computation*, 1(2–3):119–163, 2009.

[1175] Keld Helsgaun. **Source Code of the Lin-Kernighan-Helsgaun Traveling Salesman Heuristic**. `http://webhotel4.ruc.dk/~keld/research/LKH/`, 2018.

[1176] Keld Helsgaun. **Efficient Recombination in the Lin-Kernighan-Helsgaun Traveling Salesman Heuristic**. In Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors, *Parallel Problem Solving from Nature - PPSN XV*, volume 11101 of *Lecture Notes in Computer Science*, pages 95–107. Springer, Cham, Switzerland, 2018. doi:10.1007/978-3-319-99253-2_8.

[1177] Darrall Henderson, Sheldon H. Jacobson, and Alan W. Johnson. **The Theory and Practice of Simulated Annealing**. In *Handbook of Metaheuristics*, pages 287–319. Springer, 2003.

[1178] J. L. Henning. **SPEC CPU2000: measuring CPU performance in the New Millennium**. *Computer*, 33(7):28–35, 2000. doi:10.1109/2.869367.

[1179] H. Hernández and Christian Blum. **Ant colony optimization for multicasting in static wireless ad-hoc networks**. *Swarm Intelligence*, 3(2):125–148, 2009.

[1180] Michael A. Heroux. **Editorial: ACM TOMS Replicated Computational Results Initiative**. *ACM Transactions on Mathematical Software*, 41(3):1–5, June 2015. doi:10.1145/2743015.

[1181] Francisco Herrera, Manuel Lozano, and J. L. Verdegay. **Tackling Real-Coded Genetic Algorithms: Operators and Tools for Behavioural Analysis**. *Artificial Intelligence Review*, 12:265–319, 1998.
Keywords: genetic algorithms, real coding, continuous search spaces, mutation, recombination.

[1182] Francisco Herrera, Manuel Lozano, and A. M. Sánchez. **A taxonomy for the crossover operator for real-coded genetic algorithms: An experimental study**. *International Journal of Intelligent Systems*, 18(3):309–338, 2003. doi:10.1002/int.10091.

[1183] Francisco Herrera, Manuel Lozano, and Daniel Molina. **Test suite for the special issue of Soft Computing on scalability of evolutionary algorithms and other metaheuristics for large scale continuous optimization problems**. http://sci2s.ugr.es/eamhco/, 2010.
Keywords: SOCO benchmark.

[1184] Marijn Heule and Sean Weaver, editors. *Theory and Applications of Satisfiability Testing – SAT 2015*, volume 9340 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2015.

[1185] Robert Heumüller, Sebastian Nielebock, Jacob Krüger, and Frank Ortmeier. **Publish or perish, but do not forget your software artifacts**. *Empirical Software Engineering*, 25(6):4585–4616, 2020. doi:10.1007/s10664-020-09851-6.

[1186] Daniel P Heyman and Matthew J Sobel. *Stochastic models in operations research: stochastic optimization*, volume 2. Courier Corporation, 2003.

[1187] Christian Hicks. **A Genetic Algorithm tool for optimising cellular or functional layouts in the capital goods industry**. *International Journal of Production Economics*, 104(2):598–614, 2006. doi:10.1016/j.ijpe.2005.03.010.

[1188] Geoffrey E. Hinton and Ruslan R. Salakhutdinov. **Reducing the dimensionality of data with neural networks**. *Science*, 313(5786):504–507, 2006.

[1189] Dorit S. Hochbaum, editor. *Approximation Algorithms For NP-hard Problems*. PWS Publishing Co., 1996.

[1190] Wassily Hoeffding. **Probability inequalities for sums of bounded random variables**. *Journal of the American Statistical Association*, 58(301):13–30, 1963.

[1191] Jorg Hoffmann and Bart Selman, editors. *Proceedings of the Twenty-Sixth AAAI Conference on Artificial Intelligence, AAAI 2012, Toronto, Ontario, Canada, July 22-26, 2012*, 2012. AAAI Press.

[1192] J. Holland. *Adaptation in Natural and Artificial Systems*. University of Michigan Press, 1975.

[1193] Myle Hollander and Douglas A. Wolfe. *Nonparametric statistical inference*. John Wiley & Sons, New York, NY, 1973. Second edition (1999).

[1194] Robert C. Holte and Adele Howe, editors. *Proceedings of the Twenty-Second AAAI Conference on Artificial Intelligence, July 22-26, 2007, Vancouver, British Columbia, Canada*, 2007. AAAI Press/MIT Press, Menlo Park, CA.

[1195] I. Hong, A. B. Kahng, and B. R. Moon. **Improved large-step Markov chain variants for the symmetric TSP**. *Journal of Heuristics*, 3(1):63–81, 1997.

[1196] Giles Hooker. **Generalized functional ANOVA diagnostics for high-dimensional functions of dependent variables**. *Journal of Computational and Graphical Statistics*, 16 (3):709–732, 2012. `doi:10.1198/106186007X237892`.

[1197] John N. Hooker. **Needed: An Empirical Science of Algorithms**. *Operations Research*, 42 (2):201–212, 1994.

[1198] John N. Hooker. **Testing Heuristics: We Have It All Wrong**. *Journal of Heuristics*, 1(1): 33–42, 1996. `doi:10.1007/BF02430364`.

[1199] Holger H. Hoos. **Programming by Optimisation: Towards a new Paradigm for Developing High-Performance Software**. In *MIC 2011, the 9th Metaheuristics International Conference*, 2011. URL `http://mic2011.diegm.uniud.it/uploads/plenaries/Hoos-MIC2011.pdf`. Plenary talk.

[1200] Holger H. Hoos. **Automated Algorithm Configuration and Parameter Tuning**. In Y. Hamadi, E. Monfroy, and F. Saubion, editors, *Autonomous Search*, pages 37–71. Springer, Berlin, Germany, 2012. `doi:10.1007/978-3-642-21434-9_3`.

[1201] Holger H. Hoos. **Programming by optimization**. *Communications of the ACM*, 55(2):70–80, Feb. 2012. `doi:10.1145/2076450.2076469`.

[1202] Holger H. Hoos and Thomas Stützle. **Evaluating Las Vegas Algorithms — Pitfalls and Remedies**. In Gregory F. Cooper and Serafín Moral, editors, *Proceedings of the Fourteenth Conference on Uncertainty in Artificial Intelligence*, pages 238–245. Morgan Kaufmann Publishers, San Francisco, CA, 1998.

[1203] Holger H. Hoos and Thomas Stützle. *Stochastic Local Search: Foundations and Applications*. Elsevier, Amsterdam, The Netherlands, 2004.

[1204] Holger H. Hoos and Thomas Stützle. *Stochastic Local Search—Foundations and Applications*. Morgan Kaufmann Publishers, San Francisco, CA, 2005.

[1205] Holger H. Hoos and Thomas Stützle. **On the Empirical Scaling of Run-time for Finding Optimal Solutions to the Traveling Salesman Problem**. *European Journal of Operational Research*, 238(1):87–94, 2014.

[1206] Holger H. Hoos and Thomas Stützle. **On the Empirical Time Complexity of Finding Optimal Solutions vs. Proving Optimality for Euclidean TSP Instances**. *Optimization Letters*, 9(6):1247–1254, 2015.

[1207] Holger H. Hoos, Marius Thomas Lindauer, and Torsten Schaub. **Claspfolio 2: Advances in Algorithm Selection for Answer Set Programming**. *Theory and Practice of Logic Programming*, 14(4-5):560–585, 2014.

[1208] J. Horn, N. Nafpliotis, and David E. Goldberg. **A niched Pareto genetic algorithm for multiobjective optimization**. In *Proceedings of the 1994 World Congress on Computational Intelligence (WCCI 1994)*, pages 82–87, Piscataway, NJ, June 1994. IEEE Press. doi:10.1109/ICEC.1994.350037.

[1209] Christian Horoba and Frank Neumann. **Benefits and drawbacks for the use of epsilon-dominance in evolutionary multi-objective optimization**. In Conor Ryan, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2008*, pages 641–648, New York, NY, 2008. ACM Press.

[1210] Kenneth Hoste and Lieven Eeckhout. **Cole: Compiler Optimization Level Exploration**. In Mary Lou Soffa and Evelyn Duesterwald, editors, *Proceedings of the 6th Annual IEEE/ACM International Symposium on Code Generation and Optimization*, CGO '08, pages 165–174, New York, NY, 2008. ACM Press. doi:10.1145/1356058.1356080.

[1211] Stela Pudar Hozo, Benjamin Djulbegovic, and Iztok Hozo. **Estimating the mean and variance from the median, range, and the size of a sample**. *BMC Medical Research Methodology*, 5 (1):13, 2005.

[1212] Bin Hu and Manuel López-Ibáñez, editors. *Evolutionary Computation in Combinatorial Optimization – 17th European Conference, EvoCOP 2017, Amsterdam, The Netherlands, April 19-21, 2017, Proceedings*, volume 10197 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2017. doi:10.1007/978-3-319-55453-2.

[1213] T. C. Hu, A. B. Kahng, and C.-W. A. Tsao. **Old Bachelor Acceptance: A New Class of Non-Monotone Threshold Accepting Methods**. *ORSA Journal on Computing*, 7(4): 417–425, 1995.

[1214] Wenbin Hu, Liping Yan, Huan Wang, Bo Du, and Dacheng Tao. **Real-time traffic jams prediction inspired by Biham, Middleton and Levine (BML) model**. *Information Sciences*, 2017.
Keywords: BML model,Prediction,Real-time,Traffic jam,Urban traffic network.

[1215] Wenbin Hu, Huan Wang, Zhenyu Qiu, Cong Nie, and Liping Yan. **A quantum particle swarm optimization driven urban traffic light scheduling model**. *Neural Computing & Applications*, 2018. doi:10.1007/s00521-016-2508-0.
Keywords: BML,Optimization,Simulation,Traffic congestion,Updating rules.

[1216] De-Shuang Huang, Kang Li, and George W. Irwin, editors. *International Conference on Computational Science (3)*, volume 4115 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2006.

[1217] Deng Huang, Theodore T. Allen, William I. Notz, and Ning Zeng. **Global Optimization of Stochastic Black-Box Systems via Sequential Kriging Meta-Models**. *Journal of Global Optimization*, 34(3):441–466, 2006. doi:10.1007/s10898-005-2454-3.

[1218] Han Huang, Xiaowei Yang, Zhifeng Hao, and Ruichu Cai. **A Novel ACO Algorithm with Adaptive Parameter**. In De-Shuang Huang, Kang Li, and George W. Irwin, editors, *International Conference on Computational Science (3)*, volume 4115 of *Lecture Notes in Computer Science*, pages 12–21. Springer, Heidelberg, 2006.

[1219] K. Huang, C. Yang, and K. Tseng. **Fast algorithms for finding the common subsequences of multiple sequences**. In *Proceedings of the International Computer Symposium*, pages 1006–1011. IEEE Press, 2004.

[1220] S. Huband, P. Hingston, L. Barone, and L. While. **A review of multiobjective test problems and a scalable test problem toolkit**. *IEEE Transactions on Evolutionary Computation*, 10 (5):477–506, 2006. doi:10.1109/TEVC.2005.861417.

[1221] B. Huberman, R. Lukose, and T. Hogg. **An Economic Approach to Hard Computational Problems**. *Science*, 275:51–54, 1997.

[1222] D. L. Huerta-Muñoz, R. Z. Ríos-Mercado, and Rubén Ruiz. **An Iterated Greedy Heuristic for a Market Segmentation Problem with Multiple Attributes**. *European Journal of Operational Research*, 261(1):75–87, 2017.

[1223] Evan J. Hughes. **Multiple single objective Pareto sampling**. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC 2003)*, volume 4, pages 2678–2684, Piscataway, NJ, Dec. 2003. IEEE Press.

[1224] Evan J. Hughes. **MSOPS-II: A general-purpose many-objective optimiser**. In *Proceedings of the 2007 Congress on Evolutionary Computation (CEC 2007)*, pages 3944–3951, Piscataway, NJ, 2007. IEEE Press.

[1225] Evan J. Hughes. **Many-objective directed evolutionary line search**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 761–768. ACM Press, New York, NY, 2011.

[1226] Eyke Hüllermeier, Rudolf Kruse, and Frank Hoffmann, editors. *13th International Conference on Information Processing and Management of Uncertainty, IPMU 2010, Germany, June 28-July 2, 2010. Proceedings*, volume 6178 of *Lecture Notes in Artificial Intelligence*. Springer, Heidelberg, 2010.

[1227] Jérémie Humeau, Arnaud Liefooghe, El-Ghazali Talbi, and Sébastien Verel. **ParadisEO-MO: From Fitness Landscape Analysis to Efficient Local Search Algorithms**. Rapport de recherche RR-7871, INRIA, France, 2012.

[1228] Jérémie Humeau, Arnaud Liefooghe, El-Ghazali Talbi, and Sébastien Verel. **ParadisEO-MO: From Fitness Landscape Analysis to Efficient Local Search Algorithms**. *Journal of Heuristics*, 19(6):881–915, June 2013. `doi:10.1007/s10732-013-9228-8`.

[1229] Ying Hung, V. Roshan Joseph, and Shreyes N. Melkote. **Design and Analysis of Computer Experiments With Branching and Nested Factors**. *Technometrics*, 51(4):354–365, 2009. `doi:10.1198/TECH.2009.07097`.

[1230] Maura Hunt and Manuel López-Ibáñez. **Modeling a Decision-Maker in Goal Programming by means of Computational Rationality**. In Iván Palomares, editor, *International Alan Turing Conference on Decision Support and Recommender systems*, pages 17–20, London, UK, Nov., 21–22 2019. Alan Turing Institute. ISBN 978-1-5262-0820-0.

[1231] S. H. Hurlbert. **Pseudoreplication and the Design of Ecological Field Experiments**. *Ecological Monographs*, 54(2):187–211, 1984.

[1232] M. Hurtgen and J.-C. Maun. **Optimal PMU placement using Iterated Local Search**. *International Journal of Electrical Power & Energy Systems*, 32(8):857–860, 2010.

[1233] M. S. Hussin and Thomas Stützle. **Tabu Search vs. Simulated Annealing for Solving Large Quadratic Assignment Instances**. Technical Report TR/IRIDIA/2010-020, IRIDIA, Université Libre de Bruxelles, Belgium, 2010.

[1234] Mohamed Saifullah Hussin and Thomas Stützle. **Hierarchical Iterated Local Search for the Quadratic Assignment Problem**. In María J. Blesa, Christian Blum, Luca Di Gaspero, Andrea Roli, M. Sampels, and Andrea Schaerf, editors, *Hybrid Metaheuristics*, volume 5818 of *Lecture Notes in Computer Science*, pages 115–129. Springer, Heidelberg, 2009. `doi:10.1007/978-3-642-04918-7_9`.

[1235] Mohamed Saifullah Hussin and Thomas Stützle. **Tabu Search vs. Simulated Annealing for Solving Large Quadratic Assignment Instances**. *Computers & Operations Research*, 43: 286–291, 2014.

[1236] Frank Hutter. **SAT benchmarks used in automated algorithm configuration**. http://www.cs.ubc.ca/labs/beta/Projects/AAC/SAT-benchmarks.html, 2007.

[1237] Frank Hutter. *Automated Configuration of Algorithms for Solving Hard Computational Problems*. PhD thesis, University of British Columbia, Department of Computer Science, Vancouver, Canada, Oct. 2009.

[1238] Frank Hutter and Steve Ramage. *Manual for SMAC*. University of British Columbia, 2015. URL http://www.cs.ubc.ca/labs/beta/Projects/SMAC/v2.10.03/manual.pdf. SMAC version 2.10.03.

[1239] Frank Hutter, Domagoj Babić, Holger H. Hoos, and Alan J. Hu. **Boosting Verification by Automatic Tuning of Decision Procedures**. In Jason Baumgartner and Mary Sheeran, editors, *FMCAD'07: Proceedings of the 7th International Conference Formal Methods in Computer Aided Design*, pages 27–34, Austin, Texas, USA, 2007. IEEE Computer Society, Washington, DC, USA.

[1240] Frank Hutter, Holger H. Hoos, and Thomas Stützle. **Automatic Algorithm Configuration Based on Local Search**. In Robert C. Holte and Adele Howe, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 1152–1157. AAAI Press/MIT Press, Menlo Park, CA, 2007.

[1241] Frank Hutter, Holger H. Hoos, Kevin Leyton-Brown, and Kevin P. Murphy. **An experimental investigation of model-based parameter optimisation: SPO and beyond**. In Franz Rothlauf, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2009*, pages 271–278. ACM Press, New York, NY, 2009. doi:10.1145/1569901.1569940.

[1242] Frank Hutter, Holger H. Hoos, Kevin Leyton-Brown, and Thomas Stützle. **ParamILS: An Automatic Algorithm Configuration Framework**. *Journal of Artificial Intelligence Research*, 36:267–306, Oct. 2009. doi:10.1613/jair.2861.

[1243] Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Automated Configuration of Mixed Integer Programming Solvers**. In A. Lodi, M. Milano, and P. Toth, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 7th International Conference, CPAIOR 2010*, volume 6140 of *Lecture Notes in Computer Science*, pages 186–202. Springer, Heidelberg, 2010. doi:10.1007/978-3-642-13520-0_23.

[1244] Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Tradeoffs in the Empirical Evaluation of Competing Algorithm Designs**. *Annals of Mathematics and Artificial Intelligence*, 60(1–2):65–89, 2010.

[1245] Frank Hutter, Holger H. Hoos, Kevin Leyton-Brown, and Kevin Murphy. **Time-Bounded Sequential Parameter Optimization**. In Christian Blum and Roberto Battiti, editors, *Learning and Intelligent Optimization, 4th International Conference, LION 4*, volume 6073 of *Lecture Notes in Computer Science*, pages 281–298. Springer, Heidelberg, 2010. doi:10.1007/978-3-642-13800-3_30.

[1246] Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Sequential Model-Based Optimization for General Algorithm Configuration**. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, volume 6683 of *Lecture Notes in Computer Science*, pages 507–523. Springer, Heidelberg, 2011. doi:10.1007/978-3-642-25566-3_40.
Keywords: SMAC,ROAR.

[1247] Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Parallel Algorithm Configuration**. In Youssef Hamadi and Marc Schoenauer, editors, *Learning and Intelligent Optimization, 6th International Conference, LION 6*, volume 7219 of *Lecture Notes in Computer Science*, pages 55–70. Springer, Heidelberg, 2012.

[1248] Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Bayesian Optimization With Censored Response Data**. *Arxiv preprint arXiv:1310.1947*, 2013. URL http://arxiv.org/abs/1310.1947.

[1249] Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Identifying key algorithm parameters and instance features using forward selection**. In Panos M. Pardalos and G. Nicosia, editors, *Learning and Intelligent Optimization, 7th International Conference, LION 7*, volume 7997 of *Lecture Notes in Computer Science*, pages 364–381. Springer, Heidelberg, 2013. doi:10.1007/978-3-642-44973-4_40.
Keywords: parameter importance.

[1250] Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **An Efficient Approach for Assessing Hyperparameter Importance**. In Eric P. Xing and Tony Jebara, editors, *Proceedings of the 31st International Conference on Machine Learning, ICML 2014*, volume 32, pages 754–762, 2014. URL http://jmlr.org/proceedings/papers/v32/hutter14.html.
Keywords: fANOVA, parameter importance.

[1251] Frank Hutter, Manuel López-Ibáñez, Chris Fawcett, Marius Thomas Lindauer, Holger H. Hoos, Kevin Leyton-Brown, and Thomas Stützle. **AClib: A Benchmark Library for Algorithm Configuration**. In Panos M. Pardalos, Mauricio G. C. Resende, Chrysafis Vogiatzis, and Jose L. Walteros, editors, *Learning and Intelligent Optimization, 8th International Conference, LION 8*, volume 8426 of *Lecture Notes in Computer Science*, pages 36–40. Springer, Heidelberg, 2014. doi:10.1007/978-3-319-09584-4_4.

[1252] Frank Hutter, Lin Xu, Holger H. Hoos, and Kevin Leyton-Brown. **Algorithm runtime prediction: Methods & evaluation**. *Artificial Intelligence*, 206:79–111, 2014.

[1253] Frank Hutter, Holger H. Hoos, Kevin Leyton-Brown, and Thomas Stützle. **ParamILS**. http://www.cs.ubc.ca/labs/beta/Projects/ParamILS/, 2017. Version visited last on July 2017.

[1254] Frank Hutter, Marius Thomas Lindauer, Adrian Balint, Sam Bayless, Holger H. Hoos, and Kevin Leyton-Brown. **The Configurable SAT Solver Challenge (CSSC)**. *Artificial Intelligence*, 243:1–25, 2017. doi:10.1016/j.artint.2016.09.006.

[1255] Claudio Iacopino and Phil Palmer. **The Dynamics of Ant Colony Optimization Algorithms Applied to Binary Chains**. *Swarm Intelligence*, 6(4):343–377, 2012.

[1256] Claudio Iacopino, Phil Palmer, N. Policella, A. Donati, and A. Brewer. **How Ants Can Manage Your Satellites**. *Acta Futura*, 9:59–72, 2014. doi:10.2420/AF09.2014.59.
Keywords: ACO, Space.

[1257] Toshihide Ibaraki. **A Personal Perspective on Problem Solving by General Purpose Solvers**. *International Transactions in Operational Research*, 17(3):303–315, 2010.

[1258] Toshihide Ibaraki, Shinji Imahori, Koji Nonobe, Kensuke Sobue, Takeaki Uno, and Mutsunori Yagiura. **An Iterated Local Search Algorithm for the Vehicle Routing Problem with Convex Time Penalty Functions**. *Discrete Applied Mathematics*, 156(11):2050–2069, 2008.

[1259] IBM. **ILOG CPLEX Optimizer**. http://www.ibm.com/software/integration/optimization/cplex-optimizer/, 2017.

[1260] ICMLC. *Proceedings of the International Conference on Machine Learning and Cybernetics*, 2006. IEEE Press.

[1261] Jonas Ide and Anita Schöbel. **Robustness for uncertain multi-objective optimization: a survey and analysis of different concepts**. *OR Spectrum*, 38(1):235–271, 2016. doi:10.1007/s00291-015-0418-7.

[1262] IEEE CEC. *Proceedings of the 1999 Congress on Evolutionary Computation (CEC 1999)*, Piscataway, NJ, 1999. IEEE Press.

[1263] IEEE CEC. *Proceedings of the 2000 Congress on Evolutionary Computation (CEC 2000)*, Piscataway, NJ, July 2000. IEEE Press.

[1264] IEEE CEC. *Proceedings of the 2001 Congress on Evolutionary Computation (CEC 2001)*, Piscataway, NJ, 2001. IEEE Press.

[1265] IEEE CEC. *Proceedings of the 2002 Congress on Evolutionary Computation (CEC'02)*, Piscataway, NJ, 2002. IEEE Press.

[1266] IEEE CEC. *Proceedings of the 2003 Congress on Evolutionary Computation (CEC 2003)*, volume 4, Piscataway, NJ, Dec. 2003. IEEE Press.

[1267] IEEE CEC. *Proceedings of the 2004 Congress on Evolutionary Computation (CEC 2004)*, Piscataway, NJ, Sept. 2004. IEEE Press.

[1268] IEEE CEC. *Proceedings of the 2005 Congress on Evolutionary Computation (CEC 2005)*, Piscataway, NJ, Sept. 2005. IEEE Press.

[1269] IEEE CEC. *Proceedings of the 2006 Congress on Evolutionary Computation (CEC 2006)*, Piscataway, NJ, July 2006. IEEE Press.

[1270] IEEE CEC. *Proceedings of the 2007 Congress on Evolutionary Computation (CEC 2007)*, Piscataway, NJ, 2007. IEEE Press.

[1271] IEEE CEC. *Proceedings of the IEEE Congress on Evolutionary Computation, CEC 2008, June 1-6, 2008, Hong Kong, China*, Piscataway, NJ, 2008. IEEE Press.

[1272] IEEE CEC. *Proceedings of the 2009 Congress on Evolutionary Computation (CEC 2009)*, Piscataway, NJ, 2009. IEEE Press.

[1273] IEEE CEC. *Proceedings of the 2011 Congress on Evolutionary Computation (CEC 2011), New Orleans, LA, USA*, Piscataway, NJ, 2011. IEEE Press.

[1274] IEEE CEC. *Proceedings of the 2012 Congress on Evolutionary Computation (CEC 2012)*, Piscataway, NJ, 2012. IEEE Press.

[1275] IEEE CEC. *Proceedings of the 2013 Congress on Evolutionary Computation (CEC 2013)*, Piscataway, NJ, 2013. IEEE Press.

[1276] IEEE CEC. *Proceedings of the 2014 Congress on Evolutionary Computation (CEC 2014)*, Piscataway, NJ, 2014. IEEE Press.

[1277] IEEE CEC. *Proceedings of the 2015 Congress on Evolutionary Computation (CEC 2015)*, Piscataway, NJ, 2015. IEEE Press.

[1278] IEEE CEC. *IEEE Congress on Evolutionary Computation, CEC 2016, Vancouver, BC, Canada, July 24-29, 2016*, Piscataway, NJ, 2016. IEEE Press. ISBN 978-1-5090-0623-6.

[1279] IEEE CEC. *Proceedings of the 2017 Congress on Evolutionary Computation (CEC 2017)*, Piscataway, NJ, 2017. IEEE Press.

[1280] IEEE CEC. *Proceedings of the 2018 Congress on Evolutionary Computation (CEC 2018)*, Piscataway, NJ, 2018. IEEE Press.

[1281] IEEE CEC. *Proceedings of the 2019 Congress on Evolutionary Computation (CEC 2019)*, Piscataway, NJ, 2019. IEEE Press.

[1282] IEEE CEC. *Proceedings of the 2020 Congress on Evolutionary Computation (CEC 2020)*, Piscataway, NJ, 2020. IEEE Press.

[1283] Christian Igel and Dirk V. Arnold, editors. *Genetic and Evolutionary Computation Conference, GECCO 2014, Proceedings, Vancouver, BC, Canada, July 12-16, 2014*. ACM Press, New York, NY, 2014.

[1284] Christian Igel, Nikolaus Hansen, and S. Roth. **Covariance Matrix Adaptation for Multi-objective Optimization**. *Evolutionary Computation*, 15(1):1–28, 2007.

[1285] Christian Igel, V. Heidrich-Meisner, and T. Glasmachers. **Shark**. *Journal of Machine Learning Research*, 9:993–996, June 2008. URL http://www.jmlr.org/papers/volume9/igel08a/igel08a.pdf.

[1286] Kokolo Ikeda, Hajime Kita, and Shigenobu Kobayashi. **Failure of Pareto-based MOEAs: Does non-dominated really mean near to optimal?** In *Proceedings of the 2001 Congress on Evolutionary Computation (CEC'01)*, pages 957–962. IEEE Press, Piscataway, NJ, 2001.

[1287] Nesa Ilich and Slobodan P. Simonovic. **Evolutionary Algorithm for minimization of pumping cost**. *Journal of Computing in Civil Engineering, ASCE*, 12(4):232–240, Oct. 1998.

[1288] Janine Illian, Antti Penttinen, Helga Stoyan, and Dietrich Stoyan. *Statistical Analysis and Modelling of Spatial Point Patterns*. Wiley, 2008.

[1289] Takashi Imamichi, Mutsunori Yagiura, and Hiroshi Nagamochi. **An Iterated Local Search Algorithm Based on Nonlinear Programming for the Irregular Strip Packing Problem**. *Discrete Optimization*, 6(4):345–361, 2009.

[1290] Innovation 24. **LocalSolver**. http://www.localsolver.com/product.html, 2016. Last visited, August 15, 2016.

[1291] Alfred Inselberg. **The Plane with Parallel Coordinates**. *The Visual Computer*, 1(2):69–91, 1985.

[1292] Intel. **Intel Software Autotuning Tool**. https://software.intel.com/en-us/articles/intel-software-autotuning-tool/, 2010.

[1293] John P. A. Ioannidis. **Why Most Published Research Findings Are False**. *PLoS Medicine*, 2(8):e124, 2005. doi:10.1371/journal.pmed.0020124.

[1294] S. Iredi, D. Merkle, and Martin Middendorf. **Bi-Criterion Optimization with Multi Colony Ant Algorithms**. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *Evolutionary Multi-criterion Optimization, EMO 2001*, volume 1993 of *Lecture Notes in Computer Science*, pages 359–372. Springer, Heidelberg, 2001.

[1295] Stefan Irnich. **A Unified Modeling and Solution Framework for Vehicle Routing and Local Search-Based Metaheuristics**. *INFORMS Journal on Computing*, 20(2):270–287, 2008.

[1296] Ekhine Irurozki and Manuel López-Ibáñez. **Unbalanced Mallows Models for Optimizing Expensive Black-Box Permutation Problems**. In Francisco Chicano and Krzysztof Krawiec, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2021*. ACM Press, New York, NY, 2021. doi:10.1145/3449639.3459366. Supplementary material: https://zenodo.org/record/4500974.

[1297] Ekhine Irurozki, Borja Calvo, and José A. Lozano. **Sampling and Learning Mallows and Generalized Mallows Models Under the Cayley Distance**. *Methodology and Computing in Applied Probability*, 20(1):1–35, June 2016. `doi:10.1007/s11009-016-9506-7`.

[1298] Ekhine Irurozki, Borja Calvo, and José A. Lozano. **PerMallows: An R Package for Mallows and Generalized Mallows Models**. *Journal of Statistical Software*, 71, 2019. ISSN 15487660. `doi:10.18637/jss.v071.i12`.
Keywords: Cayley,Generalized Mallows,Hamming,Kendall's τ,Learning,Mallows,Permutation,R,Ranking,Sampling,Ulam.

[1299] Ekhine Irurozki, Jesus Lobo, Aritz Perez, and Javier Del Ser. **Rank aggregation for non-stationary data streams**. *Arxiv preprint arXiv:*, 2020.
Keywords: uborda, Submitted.

[1300] Hisao Ishibuchi and T. Murata. **A multi-objective genetic local search algorithm and its application to flowshop scheduling**. *IEEE Transactions on Systems, Man, and Cybernetics – Part C*, 28(3):392–403, 1998.

[1301] Hisao Ishibuchi, Shinta Misaki, and Hideo Tanaka. **Modified simulated annealing algorithms for the flow shop sequencing problem**. *European Journal of Operational Research*, 81(2): 388–398, 1995.

[1302] Hisao Ishibuchi, N. Tsukamoto, and Y. Nojima. **Evolutionary many-objective optimization: A short review**. In *Proceedings of the 2008 Congress on Evolutionary Computation (CEC 2008)*, pages 2419–2426, Piscataway, NJ, 2008. IEEE Press. `doi:10.1109/CEC.2008.4631121`.

[1303] Hisao Ishibuchi, N. Akedo, and Y. Nojima. **Behavior of Multiobjective Evolutionary Algorithms on Many-Objective Knapsack Problems**. *IEEE Transactions on Evolutionary Computation*, 19(2):264–283, 2015. `doi:10.1109/TEVC.2014.2315442`.

[1304] Hisao Ishibuchi, Hiroyuki Masuda, and Yusuke Nojima. **A Study on Performance Evaluation Ability of a Modified Inverted Generational Distance Indicator**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 695–702. ACM Press, New York, NY, 2015.

[1305] Hisao Ishibuchi, Hiroyuki Masuda, Yuki Tanigaki, and Yusuke Nojima. **Modified Distance Calculation in Generational Distance and Inverted Generational Distance**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part I*, volume 9018 of *Lecture Notes in Computer Science*, pages 110–125. Springer, Heidelberg, 2015.
Keywords: Performance metrics, multi-objective, IGD, IGD+.
Annotation: Proposed IGD+.

[1306] Hisao Ishibuchi et al., editors. *Proceedings of the 2010 Congress on Evolutionary Computation (CEC 2010)*, Piscataway, NJ, 2010. IEEE Press.

[1307] Koji Ito, Fumio Harashima, and Kazuo Tanie, editors. *1999 IEEE International Conference on Systems, Man, and Cybernetics October 12915,1999, Tokyo, Japan*, 1999. IEEE Press.

[1308] Srikanth K. Iyer and Barkha Saxena. **Improved genetic algorithm for the permutation flowshop scheduling problem**. *Computers & Operations Research*, 31(4):593–606, 2004. `doi:10.1016/S0305-0548(03)00016-9`.

[1309] Christopher H. Jackson. **Multi-State Models for Panel Data: The msm Package for R**. *Journal of Statistical Software*, 38(8):1–29, 2011. URL `http://www.jstatsoft.org/v38/i08/`.

[1310] Richard H. F. Jackson, Paul T. Boggs, Stephen G. Nash, and Susan Powell. **Guidelines for Reporting Results of Computational Experiments. Report of the Ad Hoc Committee**. *Mathematical Programming*, 49(3):413–425, 1991.

[1311] Warren G. Jackson, Ender Özcan, and Robert I. John. **Move acceptance in local search metaheuristics for cross-domain search**. *Expert Systems with Applications*, 109:131–151, 2018.

[1312] Larry W. Jacobs and Michael J. Brusco. **A Local Search Heuristic for Large Set-Covering Problems**. *Naval Research Logistics*, 42(7):1129–1140, 1995.

[1313] Sophie Jacquin, Laetitia Jourdan, and El-Ghazali Talbi. **Dynamic Programming Based Metaheuristic for Energy Planning Problems**. In Anna I. Esparcia-Alcázar and Antonio M. Mora, editors, *Applications of Evolutionary Computation*, volume 8602 of *Lecture Notes in Computer Science*, pages 165–176. Springer, Heidelberg, 2014. `doi:10.1007/978-3-662-45523-4_14`.
Keywords: irace.

[1314] Daniel M Jaeggi, Geoffrey T Parks, Timoleon Kipouros, and P John Clarkson. **The development of a multi-objective Tabu Search algorithm for continuous optimisation problems**. *European Journal of Operational Research*, 185(3):1192–1212, 2008.

[1315] Sanjay Jain, Rémi Munos, Frank Stephan, and Thomas Zeugmann, editors. *Algorithmic Learning Theory - 24th International Conference, ALT 2013, Singapore, October 6-9, 2013. Proceedings*, volume 8139 of *Lecture Notes in Computer Science*. Springer, Berlin, Germany, 2013. `doi:10.1007/978-3-642-40935-6`.

[1316] Satish Jajodia, Ioannis Minis, George Harhalakis, and Jean-Marie Proth. **CLASS: computerized layout solutions using simulated annealing**. *International Journal of Production Research*, 30(1):95–108, 1992.

[1317] Kevin G. Jamieson and Ameet Talwalkar. **Non-stochastic Best Arm Identification and Hyperparameter Optimization**. In Arthur Gretton and Christian C. Robert, editors, *Proceedings of the 19th International Conference on Artificial Intelligence and Statistics, AISTATS 2016, Cadiz, Spain, May 9-11, 2016*, volume 51 of *JMLR Workshop and Conference Proceedings*, pages 240–248. JMLR.org, 2016. URL `http://proceedings.mlr.press/v51/jamieson16.html`.

[1318] Andrzej Jaszkiewicz. **Genetic local search for multi-objective combinatorial optimization**. *European Journal of Operational Research*, 137(1):50–71, 2002.

[1319] Andrzej Jaszkiewicz. **On the performance of multiple-objective genetic local search on the 0/1 knapsack problem − A comparative experiment**. *IEEE Transactions on Evolutionary Computation*, 6(4):402–412, 2002.

[1320] Andrzej Jaszkiewicz. **Many-Objective Pareto Local Search**. *European Journal of Operational Research*, 271(3):1001–1013, 2018. `doi:10.1016/j.ejor.2018.06.009`.

[1321] Andrzej Jaszkiewicz and Jürgen Branke. **Interactive Multiobjective Evolutionary Algorithms**. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Słowiński, editors, *Multiobjective Optimization: Interactive and Evolutionary Approaches*, volume 5252 of *Lecture Notes in Computer Science*, pages 179–193. Springer, Heidelberg, 2008. `doi:10.1007/978-3-540-88908-3_7`.

[1322] Andrzej Jaszkiewicz, Hisao Ishibuchi, and Qingfu Zhang. **Multiobjective memetic algorithms**. In Ferrante Neri, Carlos Cotta, and Pablo Moscato, editors, *Handbook of Memetic Algorithms*, volume 379 of *Studies in Computational Intelligence*, pages 201–217. Springer, 2011.

[1323] M. T. Jensen. **Reducing the run-time complexity of multiobjective EAs: The NSGA-II and other algorithms**. *IEEE Transactions on Evolutionary Computation*, 7(5):503–515, 2003.

[1324] Mark Jerrum. **Large cliques elude the Metropolis process**. *Random Structures & Algorithms*, 3(4):347–359, 1992.

[1325] Mark Jerrum and Alistair Sinclair. **The Markov chain Monte Carlo method: an approach to approximate counting and integration**. In Dorit S. Hochbaum, editor, *Approximation Algorithms For NP-hard Problems*, pages 482–520. PWS Publishing Co., 1996.

[1326] Mark Jerrum and Gregory Sorkin. **The Metropolis algorithm for graph bisection**. *Discrete Applied Mathematics*, 82(1):155–175, 1998.

[1327] Anant Jhingran et al., editors. *ACM Conference on Electronic Commerce (EC-00)*. ACM Press, New York, NY, 2000.

[1328] S. Jiang, Y. S. Ong, J. Zhang, and L. Feng. **Consistencies and Contradictions of Performance Metrics in Multiobjective Optimization**. *IEEE Transactions on Cybernetics*, 44(12):2391–2404, 2014.

[1329] Juan Luis Jiménez Laredo, Sara Silva, and Anna I. Esparcia-Alcázar, editors. *Genetic and Evolutionary Computation Conference, GECCO 2015, Madrid, Spain, July 11-15, 2015, Companion Material Proceedings*. ACM Press, New York, NY, 2015.

[1330] Yaochu Jin. **A Comprehensive Survey of Fitness Approximation in Evolutionary Computation**. *Soft Computing*, 9(1):3–12, 2005.

[1331] Yaochu Jin and Jürgen Branke. **Evolutionary Optimization in Uncertain Environments—A Survey**. *IEEE Transactions on Evolutionary Computation*, 9(5):303–317, 2005.

[1332] Yaochu Jin, Handing Wang, Tinkle Chugh, Dan Guo, and Kaisa Miettinen. **Data-Driven Evolutionary Optimization: An Overview and Case Studies**. *IEEE Transactions on Evolutionary Computation*, 23(3):442–458, June 2019. doi:10.1109/tevc.2018.2869001.

[1333] Alan W. Johnson and Sheldon H. Jacobson. **On the Convergence of Generalized Hill Climbing Algorithms**. *Discrete Applied Mathematics*, 119(1):37–57, 2002.

[1334] David S. Johnson. **Optimal Two- and Three-stage Production Scheduling with Setup Times Included**. *Naval Research Logistics Quarterly*, 1:61–68, 1954.

[1335] David S. Johnson. **Local Optimization and the Traveling Salesman Problem**. In M. Paterson, editor, *Automata, Languages and Programming, 17th International Colloquium*, volume 443 of *Lecture Notes in Computer Science*, pages 446–461, Heidelberg, 1990. Springer.

[1336] David S. Johnson. **A Theoretician's Guide to the Experimental Analysis of Algorithms**. In M. H. Goldwasser, David S. Johnson, and Catherine C. McGeoch, editors, *Data Structures, Near Neighbor Searches, and Methodology: Fifth and Sixth DIMACS Implementation Challenges*, pages 215–250. American Mathematical Society, Providence, RI, 2002.

[1337] David S. Johnson and Lyle A. McGeoch. **The Traveling Salesman Problem: A Case Study in Local Optimization**. In Emile H. L. Aarts and Jan Karel Lenstra, editors, *Local Search in Combinatorial Optimization*, pages 215–310. John Wiley & Sons, Chichester, UK, 1997.

[1338] David S. Johnson and Lyle A. McGeoch. **Experimental Analysis of Heuristics for the STSP**. In G. Gutin and A. Punnen, editors, *The Traveling Salesman Problem and its Variations*, pages 369–443. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2002.

[1339] David S. Johnson and Michael A. Trick, editors. *Cliques, Coloring, and Satisfiability: Second DIMACS Implementation Challenge*, volume 26 of *DIMACS Series on Discrete Mathematics and Theoretical Computer Science*. American Mathematical Society, Providence, RI, 1996.

[1340] David S. Johnson, Christos H. Papadimitriou, and M. Yannakakis. **How Easy is Local Search?** *Journal of Computer System Science*, 37(1):79–100, 1988.

[1341] David S. Johnson, Cecilia R. Aragon, Lyle A. McGeoch, and Catherine Schevon. **Optimization by Simulated Annealing: An Experimental Evaluation: Part I, Graph Partitioning**. *Operations Research*, 37(6):865–892, 1989.

[1342] David S. Johnson, Cecilia R. Aragon, Lyle A. McGeoch, and Catherine Schevon. **Optimization by Simulated Annealing: An Experimental Evaluation: Part II, Graph Coloring and Number Partitioning**. *Operations Research*, 39(3):378–406, 1991.

[1343] David S. Johnson, Lyle A. McGeoch, C. Rego, and Fred Glover. **8th DIMACS Implementation Challenge: The Traveling Salesman Problem**. http://dimacs.rutgers.edu/archive/Challenges/TSP, 2001.
Keywords: TSP Challenge, RUE, RCE, generators.

[1344] David S. Johnson, G. Gutin, Lyle A. McGeoch, A. Yeo, W. Zhang, and A. Zverovitch. **Experimental Analysis of Heuristics for the ATSP**. In G. Gutin and A. Punnen, editors, *The Traveling Salesman Problem and its Variations*, pages 445–487. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2002.

[1345] Mark E. Johnson, Leslie M. Moore, and Donald Ylvisaker. **Minimax and maximin distance designs**. *Journal of Statistical Planning and Inference*, 26(2):131–148, 1990.
Keywords: Bayesian design.

[1346] Donald R. Jones, Matthias Schonlau, and William J. Welch. **Efficient Global Optimization of Expensive Black-Box Functions**. *Journal of Global Optimization*, 13(4):455–492, 1998.
Keywords: EGO.
Annotation: Proposed EGO algorithm.

[1347] Neil C. Jones and Pavel A. Pevzner. *An introduction to bioinformatics algorithms*. MIT Press, Cambridge, MA, 2004.

[1348] D. E. Joslin and D. P. Clements. **Squeaky Wheel Optimization**. *Journal of Artificial Intelligence Research*, 10:353–373, 1999.

[1349] Journal of Heuristics. **Journal of Heuristics. Policies on Heuristic Search Research**. http://www.springer.com/journal/10732, 2015. Version visited last on June 10, 2015.

[1350] P. W. Jowitt and G. Germanopoulos. **Optimal pump scheduling in water supply networks**. *Journal of Water Resources Planning and Management, ASCE*, 118(4):406–422, 1992.

[1351] Angel A. Juan, Helena R. Lourenço, Manuel Mateo, Rachel Luo, and Quim Castellà. **Using Iterated Local Search for Solving the Flow-shop Problem: Parallelization, Parametrization, and Randomization Issues**. *International Transactions in Operational Research*, 21(1):103–126, 2014.

[1352] Angel A. Juan, Javier Faulin, Scott E. Grasman, Markus Rabe, and Gonçalo Figueira. **A review of simheuristics: Extending metaheuristics to deal with stochastic combinatorial optimization problems**. *Operations Research Perspectives*, 2:62–72, 2015. doi:10.1016/j.orp.2015.03.001.
Keywords: Metaheuristics; Simulation; Combinatorial optimization; Stochastic problems.

[1353] H. Juillé and J. B. Pollack. **A Sampling-Based Heuristic for Tree Search Applied to Grammar Induction**. In Jack Mostow and Chuck Rich, editors, *Proceedings of AAAI 1998 – Fifteenth National Conference on Artificial Intelligence*, pages 776–783. AAAI Press/MIT Press, Menlo Park, CA, 1998.

[1354] Bryant A. Julstrom. **What Have You Done for Me Lately? Adapting Operator Probabilities in a Steady-State Genetic Algorithm**. In Larry J. Eshelman, editor, *ICGA*, pages 81–87. Morgan Kaufmann Publishers, San Francisco, CA, 1995.

[1355] M. Jünger, Gerhard Reinelt, and S. Thienel. **Provably Good Solutions for the Traveling Salesman Problem**. *Zeitschrift für Operations Research*, 40(2):183–217, 1994.

[1356] Elena A. Kabova, Jason C. Cole, Oliver Korb, Manuel López-Ibáñez, Adrian C. Williams, and Kenneth Shankland. **Improved performance of crystal structure solution from powder diffraction data through parameter tuning of a simulated annealing algorithm**. *Journal of Applied Crystallography*, 50(5):1411–1420, Oct. 2017. `doi:10.1107/S1600576717012602`.
Keywords: crystal structure determination, powder diffraction, simulated annealing, parameter tuning, irace.

[1357] Janusz Kacprzyk and Witold Pedrycz, editors. *Springer Handbook of Computational Intelligence.* Springer, Berlin/Heidelberg, 2015.

[1358] Serdar Kadioglu, Yuri Malitsky, Meinolf Sellmann, and Kevin Tierney. **ISAC: Instance-Specific Algorithm Configuration**. In H. Coelho, R. Studer, and M. Wooldridge, editors, *Proceedings of the 19th European Conference on Artificial Intelligence*, pages 751–756. IOS Press, 2010.

[1359] Daniel Kahneman. **Maps of bounded rationality: Psychology for behavioral economics**. *American economic review*, 93(5):1449–1475, 2003.

[1360] Daniel Kahneman and Amos Tversky. **Prospect theory: An analysis of decision under risk**. *Econometrica*, 47(2):263–291, 1979. `doi:10.2307/1914185`.

[1361] H. Kaji, Kokolo Ikeda, and Hajime Kita. **Avoidance of constraint violation for experiment-based evolutionary multi-objective optimization**. In *Proceedings of the 2009 Congress on Evolutionary Computation (CEC 2009)*, pages 2756–2763, Piscataway, NJ, 2009. IEEE Press. `doi:10.1109/CEC.2009.4983288`.
Keywords: evolutionary computation;constraint violation;experiment-based evolutionary multiobjective optimization;evolutionary algorithm;risky-constraint violation;Constraint optimization;Diesel engines;Calibration;Evolutionary computation;Electric breakdown;Optimization methods;Uncertainty;Computational fluid dynamics;Cost function;Temperature.

[1362] Josef Kallrath, editor. *Modeling Languages in Mathematical Optimization*, volume 88 of *Applied Optimization*. Kluwer Academic Publishers, 2004.

[1363] Qinma Kang, Hong He, and Jun Wei. **An Effective Iterated Greedy Algorithm for Reliability-oriented Task Allocation in Distributed Computing Systems**. *Journal of Parallel and Distributed Computing*, 73(8):1106–1115, 2013.

[1364] Dervis Karaboga and Bahriye Akay. **A Survey: Algorithms Simulating Bee Swarm Intelligence**. *Artificial Intelligence Review*, 31(1–4):61–85, 2009.

[1365] Korhan Karabulut. **A hybrid iterated greedy algorithm for total tardiness minimization in permutation flowshops**. *Computers and Industrial Engineering*, 98(Supplement C):300 – 307, 2016.

[1366] Korhan Karabulut and Fatih M. Tasgetiren. **A Variable Iterated Greedy Algorithm for the Traveling Salesman Problem with Time Windows**. *Information Sciences*, 279:383–395, 2014.

[1367] Giorgos Karafotias, Selmar K. Smit, and Agoston E. Eiben. **A generic approach to parameter control**. In Cecillia Di Chio et al., editors, *Applications of Evolutionary Computation*, volume 7248 of *Lecture Notes in Computer Science*, pages 366–375. Springer, Heidelberg, 2012. `doi:10.1007/978-3-642-29178-4_37`.

[1368] Giorgos Karafotias, Agoston E. Eiben, and Mark Hoogendoorn. **Generic parameter control with reinforcement learning**. In Christian Igel and Dirk V. Arnold, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2014*, pages 1319–1326. ACM Press, New York, NY, 2014.

[1369] Giorgos Karafotias, Mark Hoogendoorn, and Agoston E. Eiben. **Parameter Control in Evolutionary Algorithms: Trends and Challenges**. *IEEE Transactions on Evolutionary Computation*, 19(2):167–187, 2015.

[1370] Giorgos Karafotias, Mark Hoogendoorn, and Agoston E. Eiben. **Evaluating reward definitions for parameter control**. In Antonio M. Mora and Giovanni Squillero, editors, *Applications of Evolutionary Computation*, volume 9028 of *Lecture Notes in Computer Science*, pages 667–680. Springer, Heidelberg, 2015. doi:10.1007/978-3-319-16549-3_54.

[1371] İbrahim Karahan and Murat Köksalan. **A territory defining multiobjective evolutionary algorithms and preference incorporation**. *IEEE Transactions on Evolutionary Computation*, 14(4):636–664, 2010. doi:10.1109/TEVC.2009.2033586.
Keywords: TDEA.

[1372] Daniel Karapetyan, Andrew J. Parkes, and Thomas Stützle. **Algorithm Configuration: Learning policies for the quick termination of poor performers**. In Roberto Battiti, Mauro Brunato, Ilias Kotsireas, and Panos M. Pardalos, editors, *Learning and Intelligent Optimization, 12th International Conference, LION 12*, volume 11353 of *Lecture Notes in Computer Science*, pages 220–224. Springer, Cham, Switzerland, 2018. doi:10.1007/978-3-030-05348-2_20.

[1373] Narendra Karmarkar. **A new polynomial-time algorithm for linear programming**. In Richard A. DeMillo, editor, *Proceedings of the sixteenth annual ACM Symposium on Theory of Computing*, pages 302–311. ACM Press, 1984.

[1374] Zohar Karnin, Tomer Koren, and Oren Somekh. **Almost optimal exploration in multi-armed bandits**. In Sanjoy Dasgupta and David McAllester, editors, *Proceedings of the 30th International Conference on Machine Learning, ICML 2013*, volume 28, pages 1238–1246, 2013. URL http://jmlr.org/proceedings/papers/v28/.

[1375] Richard M. Karp. **Reducibility among combinatorial problems**. In Raymond E. Miller and W. Thatcher, James, editors, *Proceedings of a symposium on the Complexity of Computer Computations, held March 20-22, 1972, at the IBM Thomas J. Watson Research Center, Yorktown Heights, New York, USA*, The IBM Research Symposia Series, pages 85–103. Springer, 1972.

[1376] Erez Karpas, Sergio Jiménez Celorrio, and Subbarao Kambhampati, editors. *Proceedings of the 3rd Workshop on Learning and Planning, collocated with the 21st International Conference on Automated Planning and Scheduling (ICAPS-PAL'11)*, 2011.

[1377] Oleksiy Karpenko, Jianming Shi, and Yang Dai. **Prediction of MHC class II binders using the ant colony search strategy**. *Artificial Intelligence in Medicine*, 35(1):147–156, 2005.

[1378] Joseph R. Kasprzyk, Patrick M. Reed, Gregory W. Characklis, and Brian R. Kirsch. **Many-objective de Novo water supply portfolio planning under deep uncertainty**. *Environmental Modelling & Software*, 34:87–104, 2012.
Keywords: scenario-based.

[1379] Joseph R. Kasprzyk, Shanthi Nataraj, Patrick M. Reed, and Robert J. Lempert. **Many objective robust decision making for complex environmental systems undergoing change**. *Environmental Modelling & Software*, 42:55–71, 2013.
Keywords: scenario-based.

[1380] K. Katayama and H. Narihisa. **Iterated Local Search Approach using Genetic Transformation to the Traveling Salesman Problem**. In Wolfgang Banzhaf, Jason M. Daida, A. E. Eiben, Max H. Garzon, Vasant Honavar, Mark J. Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 1999*, volume 1, pages 321–328. Morgan Kaufmann Publishers, San Francisco, CA, 1999.

[1381] S. A. Kauffman. *The Origins of Order*. Oxford University Press, 1993.

[1382] Henry A. Kautz and Bruce W. Porter, editors. *Proceedings of the Seventeenth National Conference on Artificial Intelligence and Twelfth Conference on on Innovative Applications of Artificial Intelligence, July 30 – August 3, 2000, Austin, Texas, USA*, 2000. AAAI Press/MIT Press, Menlo Park, CA.

[1383] Michael D. Kazantzis, Angus R. Simpson, David Kwong, and Shyh Min Tan. **A new methodology for optimizing the daily operations of a pumping plant**. In *Proceedings of 2002 Conference on Water Resources Planning*, Roanoke, USA, May 2002. ASCE.

[1384] Artem Kaznatcheev, David A. Cohen, and Peter Jeavons. **Representing Fitness Landscapes by Valued Constraints to Understand the Complexity of Local Search**. *Journal of Artificial Intelligence Research*, 69:1077–1102, 2020. `doi:10.1613/jair.1.12156`.

[1385] Liangjun Ke, Claudia Archetti, and Zuren Feng. **Ants can solve the team orienteering problem**. *Computers and Industrial Engineering*, 54(3):648–665, 2008. `doi:10.1016/j.cie.2007.10.001`.
Keywords: Ant colony optimization, Ant system, Heuristics, Team orienteering problem.

[1386] Liangjun Ke, Zuren Feng, Zongben Xu, Ke Shang, and Yonggang Wang. **A multiobjective ACO algorithm for rough feature selection**. In *Circuits, Communications and System (PACCS), 2010 Second Pacific-Asia Conference on*, volume 1, pages 207–210, 2010.

[1387] Michael J. Kearns, R. Preston McAfee, and Éva Tardos, editors. *Proceedings of the fourteenth ACM Conference on Electronic Commerce, EC 2013, Philadelphia, PA, USA, June 16-20, 2013*. ACM Press, New York, NY, 2013. `doi:10.1145/2492002`.

[1388] Eric Kee, Sarah Airey, and Walling Cyre. **An adaptive genetic algorithm**. In Erik D. Goodman, editor, *Proceedings of the 3rd Annual Conference on Genetic and Evolutionary Computation, GECCO 2001*, pages 391–397. Morgan Kaufmann Publishers, San Francisco, CA, 2001.

[1389] R. L. Keeney. **Analysis of preference dependencies among objectives**. *Operations Research*, 29:1105–1120, 1981.

[1390] Robert E. Keller and Riccardo Poli. **Linear genetic programming of parsimonious metaheuristics**. In *Proceedings of the 2007 Congress on Evolutionary Computation (CEC 2007)*, pages 4508–4515, Piscataway, NJ, 2007. IEEE Press. `doi:10.1109/CEC.2007.4425062`.

[1391] Robert E. Keller and Riccardo Poli. **Cost-Benefit Investigation of a Genetic-Programming Hyperheuristic**. In Evelyne Lutton, Pierrick Legrand, Pierre Parrend, Nicolas Monmarché, and Marc Schoenauer, editors, *EA 2017: Artificial Evolution*, volume 10764 of *Lecture Notes in Computer Science*, pages 13–24, Heidelberg, 2017. Springer.

[1392] Hans Kellerer, Ulrich Pferschy, and David Pisinger. *Knapsack problems*. Springer, 2004.

[1393] Graham Kendall, Greet Vanden Berghe, and Barry McCollum, editors. *Multidisciplinary International Conference on Scheduling: Theory and Applications (MISTA 2013)*, Gent, Belgium, 2013.

[1394] Graham Kendall, Ruibin Bai, Jacek Błazewicz, Patrick De Causmaecker, Michel Gendreau, Robert John, Jiawei Li, Barry McCollum, Erwin Pesch, Rong Qu, Nasser Sabar, Greet Vanden Berghe, and Angelina Yee. **Good Laboratory Practice for Optimization Research**. *Journal of the Operational Research Society*, 67(4):676–689, 2016. `doi:10.1057/jors.2015.77`.

[1395] Maurice G. Kendall. *Rank correlation methods*. Griffin, London, 1948.

[1396] J. Kennedy and Russell C. Eberhart. **Particle Swarm Optimization**. In *Proceedings of IEEE International Conference on Neural Networks*, pages 1942–1948, Piscataway, NJ, USA, 1995. IEEE Press.

[1397] J. Kennedy and Russell C. Eberhart. **A discrete binary version of the particle swarm algorithm**. In *Proceedings of the 1997 IEEE International Conference on Systems, Man, and Cybernetics*, pages 4104–4108, Piscataway, NJ, USA, 1997. IEEE Press.

[1398] J. Kennedy, Russell C. Eberhart, and Yuhui Shi. *Swarm Intelligence*. Morgan Kaufmann Publishers, San Francisco, CA, 2001.

[1399] B. W. Kernighan and S. Lin. **An Efficient Heuristic Procedure for Partitioning Graphs**. *Bell Systems Technology Journal*, 49(2):213–219, 1970.

[1400] Norbert L. Kerr. **HARKing: Hypothesizing After the Results are Known**. *Personality and Social Psychology Review*, 2(3):196–217, Aug. 1998. `doi:10.1207/s15327957pspr0203_4`.

[1401] M. Kerrisk. **pthreads - POSIX Threads**. In *Linux Programmer's Manual*, Section 7. `http://www.linux-man-pages.org/man7/pthreads/`, 2005. (Last accessed May 15 2008).

[1402] Pascal Kerschke and Heike Trautmann. **The R-package FLACCO for exploratory landscape analysis with applications to multi-objective optimization problems**. In *Proceedings of the 2016 Congress on Evolutionary Computation (CEC 2016)*, pages 5262–5269, Piscataway, NJ, 2016. IEEE Press. ISBN 978-1-5090-0623-6. `doi:10.1109/CEC.2016.7748359`.

[1403] Pascal Kerschke and Heike Trautmann. **Automated Algorithm Selection on Continuous Black-Box Problems by Combining Exploratory Landscape Analysis and Machine Learning**. *Evolutionary Computation*, 27(1):99–127, 2019. `doi:10.1162/evco_a_00236`.

[1404] Pascal Kerschke, Hao Wang, Mike Preuss, Christian Grimme, André H. Deutz, Heike Trautmann, and Michael T. M. Emmerich. **Towards Analyzing Multimodality of Continuous Multiobjective Landscapes**. In Julia Handl, Emma Hart, P. R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa, and Ben Paechter, editors, *Parallel Problem Solving from Nature – PPSN XIV*, volume 9921 of *Lecture Notes in Computer Science*, pages 962–972. Springer, Heidelberg, 2016. ISBN 978-3-319-45822-9. `doi:10.1007/978-3-319-45823-6_90`.

[1405] Pascal Kerschke, Holger H. Hoos, Frank Neumann, and Heike Trautmann. **Automated Algorithm Selection: Survey and Perspectives**. *Evolutionary Computation*, 27(1):3–45, 2019.

[1406] Pascal Kerschke, Hao Wang, Mike Preuss, Christian Grimme, André H. Deutz, Heike Trautmann, and Michael T. M. Emmerich. **Search Dynamics on Multimodal Multiobjective Problems**. *Evolutionary Computation*, 27(4):577–609, 2019. `doi:10.1162/evco_a_00234`.

[1407] V. Khare, X. Yao, and Kalyanmoy Deb. **Performance Scaling of Multi-objective Evolutionary Algorithms**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 376–390. Springer, Heidelberg, 2003.

[1408] M. Khichane, P. Albert, and Christine Solnon. **Integration of ACO in a Constraint Programming Language**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 6th International Conference, ANTS 2008*, volume 5217 of *Lecture Notes in Computer Science*, pages 84–95. Springer, Heidelberg, 2008.

[1409] M. Khichane, P. Albert, and Christine Solnon. **An ACO-Based Reactive Framework for Ant Colony Optimization: First Experiments on Constraint Satisfaction Problems**. In Thomas Stützle, editor, *Learning and Intelligent Optimization, Third International Conference, LION 3*, volume 5851 of *Lecture Notes in Computer Science*, pages 119–133. Springer, Heidelberg, 2009.

[1410] A. R. KhudaBukhsh, Lin Xu, Holger H. Hoos, and Kevin Leyton-Brown. **SATenstein: Automatically Building Local Search SAT Solvers from Components**. In Craig Boutilier, editor, *Proceedings of the Twenty-First International Joint Conference on Artificial Intelligence (IJCAI-09)*, pages 517–524. AAAI Press, Menlo Park, CA, 2009.

[1411] A. R. KhudaBukhsh, Lin Xu, Holger H. Hoos, and Kevin Leyton-Brown. **SATenstein: Automatically Building Local Search SAT Solvers from Components**. *Artificial Intelligence*, 232:20–42, 2016. `doi:10.1016/j.artint.2015.11.002`.

[1412] Philip Kilby and Tommaso Urli. **Fleet design optimisation from historical data using constraint programming and large neighbourhood search**. *Constraints*, pages 1–20, 2015. `doi:10.1007/s10601-015-9203-0`.
Keywords: F-race.

[1413] J.-S. Kim, J.-H. Park, and D.-H. Lee. **Iterated Greedy Algorithms to Minimize the Total Family Flow Time for Job-shop Scheduling with Job Families and Sequence-dependent Set-ups**. *Engineering Optimization*, 49(10):1719–1732, 2017.

[1414] Jungtaek Kim, Michael McCourt, Tackgeun You, Saehoon Kim, and Seungjin Choi. **Bayesian Optimization with Approximate Set Kernels**. *Machine Learning*, 2021. `doi:10.1007/s10994-021-05949-0`.

[1415] Yeong-Dae Kim. **Heuristics for Flowshop Scheduling Problems Minimizing Mean Tardiness**. *Journal of the Operational Research Society*, 44(1):19–28, 1993. `doi:10.1057/jors.1993.3`.

[1416] Youngmin Kim, Richard Allmendinger, and Manuel López-Ibáñez. **Safe Learning and Optimization Techniques: Towards a Survey of the State of the Art**. *Arxiv preprint arXiv:2101.09505 [cs.LG]*, 2020. URL `https://arxiv.org/abs/2101.09505`.

[1417] Youngmin Kim, Richard Allmendinger, and Manuel López-Ibáñez. **Safe Learning and Optimization Techniques: Towards a Survey of the State of the Art**. In Fredrik Heintz, Michela Milano, and Barry O'Sullivan, editors, *Trustworthy AI – Integrating Learning, Optimization and Reasoning. TAILOR 2020*, volume 12641 of *Lecture Notes in Computer Science*, pages 123–139. Springer, Cham, Switzerland, 2020. `doi:10.1007/978-3-030-73959-1_12`.

[1418] Diederik P Kingma and Jimmy Ba. **Adam: A method for stochastic optimization**. *Arxiv preprint arXiv:1412.6980 [cs.LG]*, 2014. URL `https://arxiv.org/abs/1412.6980`.
Annotation: Published as a conference paper at the 3rd International Conference for Learning Representations, San Diego, 2015.

[1419] Scott Kirkpatrick. **Optimization by Simulated Annealing: Quantitative Studies**. *Journal of Statistical Physics*, 34(5-6):975–986, 1984.

[1420] Scott Kirkpatrick and G. Toulouse. **Configuration Space Analysis of Travelling Salesman Problems**. *Journal de Physique*, 46(8):1277–1292, 1985.

[1421] Scott Kirkpatrick, C. D. Gelatt, and M. P. Vecchi. **Optimization by Simulated Annealing**. *Science*, 220:671–680, 1983.

[1422] Kathrin Klamroth, Joshua D. Knowles, Günther Rudolph, and Margaret M. Wiecek, editors. *Personalized Multiobjective Optimization: An Analytics Perspective (Dagstuhl Seminar 18031)*, volume 8(1) of *Dagstuhl Reports*. Schloss Dagstuhl–Leibniz-Zentrum für Informatik, Germany, 2018. `doi:10.4230/DagRep.8.1.33`.
Keywords: multiple criteria decision making, evolutionary multiobjective optimization.

[1423] Anton J. Kleywegt, Alexander Shapiro, and Tito Homem-de-Mello. **The Sample Average Approximation Method for Stochastic Discrete Optimization**. *SIAM Journal on Optimization*, 12(2):479–502, 2002.

[1424] Mirjam J. Knol, Tyler J. VanderWeele, Rolf H. H. Groenwold, Olaf H. Klungel, Maroeska M. Rovers, and Diederick E. Grobbee. **Estimating measures of interaction on an additive scale for preventive exposures**. *European Journal of Epidemiology*, 26(6):433–438, 2011.

[1425] Joshua D. Knowles. *Local-Search and Hybrid Evolutionary Algorithms for Pareto Optimization*. PhD thesis, University of Reading, UK, 2002.
Annotation: (Examiners: Prof. K. Deb and Prof. K. Warwick).

[1426] Joshua D. Knowles. **A summary-attainment-surface plotting method for visualizing the performance of stochastic multiobjective optimizers**. In Ajith Abraham and Marcin Paprzycki, editors, *Proceedings of the 5th International Conference on Intelligent Systems Design and Applications*, pages 552–557, 2005. `doi:10.1109/ISDA.2005.15`. Supplementary material: `http://dbkgroup.org/knowles/plot_attainments/`.

[1427] Joshua D. Knowles. **ParEGO: A hybrid algorithm with on-line landscape approximation for expensive multiobjective optimization problems**. *IEEE Transactions on Evolutionary Computation*, 10(1):50–66, 2006.
Keywords: ParEGO, online, metamodel.

[1428] Joshua D. Knowles. **Closed-loop evolutionary multiobjective optimization**. *IEEE Computational Intelligence Magazine*, 4:77–91, 2009. `doi:10.1109/MCI.2009.933095`.

[1429] Joshua D. Knowles and David Corne. **The Pareto Archived Evolution Strategy: A New Baseline Algorithm for Multiobjective Optimisation**. In *Proceedings of the 1999 Congress on Evolutionary Computation (CEC 1999)*, pages 98–105. IEEE Press, Piscataway, NJ, 1999.
Annotation: first mention of Adaptive Grid Archiving.

[1430] Joshua D. Knowles and David Corne. **Approximating the Nondominated Front Using the Pareto Archived Evolution Strategy**. *Evolutionary Computation*, 8(2):149–172, 2000. `doi:10.1162/106365600568167`.

[1431] Joshua D. Knowles and David Corne. **On Metrics for Comparing Non-Dominated Sets**. In *Proceedings of the 2002 Congress on Evolutionary Computation (CEC'02)*, pages 711–716. IEEE Press, Piscataway, NJ, 2002.

[1432] Joshua D. Knowles and David Corne. **Instance Generators and Test Suites for the Multiobjective Quadratic Assignment Problem**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 295–310, Heidelberg, 2003. Springer.

[1433] Joshua D. Knowles and David Corne. **Properties of an Adaptive Archiving Algorithm for Storing Nondominated Vectors**. *IEEE Transactions on Evolutionary Computation*, 7(2): 100–116, Apr. 2003.

Keywords: S-metric, hypervolume.
Annotation: Proposed to use S-metric (hypervolume metric) for environmental selection.

[1434] Joshua D. Knowles and David Corne. **Bounded Pareto Archiving: Theory and Practice**. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and V. T'Kindt, editors, *Metaheuristics for Multiobjective Optimisation*, volume 535 of *Lecture Notes in Economics and Mathematical Systems*, pages 39–64. Springer, Berlin, Germany, 2004. doi:10.1007/978-3-642-17144-4_2.

[1435] Joshua D. Knowles and David Corne. **Memetic algorithms for multiobjective optimization: issues, methods and prospects**. In Hart W. E., Smith J. E., and Krasnogor N., editors, *Recent Advances in Memetic Algorithms*, volume 166 of *Studies in Fuzziness and Soft Computing*, pages 313–352. Springer, Berlin/Heidelberg, 2005. doi:10.1007/3-540-32363-5_14.

[1436] Joshua D. Knowles, Richard A. Watson, and David Corne. **Reducing Local Optima in Single-Objective Problems by Multi-objectivization**. In Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors, *Evolutionary Multi-criterion Optimization, EMO 2001*, volume 1993 of *Lecture Notes in Computer Science*, pages 269–283. Springer, Heidelberg, 2001. doi:10.1007/3-540-44719-9_19.
Annotation: Proposed multi-objectivization.

[1437] Joshua D. Knowles, David Corne, and Mark Fleischer. **Bounded archiving using the Lebesgue measure**. In *Proceedings of the 2003 Congress on Evolutionary Computation (CEC 2003)*, volume 4, pages 2490–2497. IEEE Press, Piscataway, NJ, Dec. 2003.

[1438] Joshua D. Knowles, Lothar Thiele, and Eckart Zitzler. **A tutorial on the performance assessment of stochastic multiobjective optimizers**. TIK-Report 214, Computer Engineering and Networks Laboratory (TIK), Swiss Federal Institute of Technology (ETH), Zürich, Switzerland, Feb. 2006. Revised version.

[1439] Joshua D. Knowles, David Corne, and Kalyanmoy Deb. **Introduction: Problem solving, EC and EMO**. In Joshua D. Knowles, David Corne, Kalyanmoy Deb, and Deva Raj Chair, editors, *Multiobjective Problem Solving from Nature*, Natural Computing Series, pages 1–28. Springer, 2008. doi:10.1007/978-3-540-72964-8_1.

[1440] Joshua D. Knowles, David Corne, Kalyanmoy Deb, and Deva Raj Chair, editors. *Multiobjective Problem Solving from Nature*. Natural Computing Series. Springer, 2008.

[1441] Joshua D. Knowles, David Corne, and Alan P. Reynolds. **Noisy Multiobjective Optimization on a Budget of 250 Evaluations**. In Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao, and Marc Sevaux, editors, *Evolutionary Multi-criterion Optimization, EMO 2009*, volume 5467 of *Lecture Notes in Computer Science*, pages 36–50. Springer, Heidelberg, 2009.

[1442] Gary A. Kochenberger, Fred Glover, Bahram Alidaee, and Cesar Rego. **A unified modeling and solution framework for combinatorial optimization problems**. *OR Spektrum*, 26(2): 237–250, 2004.

[1443] Gary A. Kochenberger, Jin-Kao Hao, Fred Glover, Mark Lewis, Zhipeng Lü, Haibo Wang, and Yang Wang. **The unconstrained binary quadratic programming problem: a survey**. *Journal of Combinatorial Optimization*, 28(1):58–81, 2014. doi:10.1007/s10878-014-9734-0.

[1444] Murat Köksalan. **Multiobjective Combinatorial Optimization: Some Approaches**. *Journal of Multi-Criteria Decision Analysis*, 15:69–78, 2009. doi:10.1002/mcda.425.

[1445] Murat Köksalan and İbrahim Karahan. **An Interactive Territory Defining Evolutionary Algorithm: iTDEA**. *IEEE Transactions on Evolutionary Computation*, 14(5):702–722, Oct. 2010. doi:10.1109/TEVC.2010.2070070.

[1446] A. Kolen and Erwin Pesch. **Genetic Local Search in Combinatorial Optimization**. *Discrete Applied Mathematics*, 48(3):273–284, 1994.

[1447] Rainer Kolisch and Sönke Hartmann. **Experimental investigation of heuristics for resource-constrained project scheduling: An update**. *European Journal of Operational Research*, 174(1):23–37, Oct. 2006. `doi:10.1016/j.ejor.2005.01.065`.
Keywords: Computational evaluation, Heuristics, Project scheduling, Resource constraints.

[1448] Joshua B. Kollat and Patrick M. Reed. **A framework for visually interactive decision-making and design using evolutionary multi-objective optimization (VIDEO)**. *Environmental Modelling & Software*, 22(12):1691–1704, 2007.
Keywords: glyph plot.

[1449] T. C. Koopmans and M. J. Beckmann. **Assignment Problems and the Location of Economic Activities**. *Econometrica*, 25:53–76, 1957.

[1450] Mario Koppen and Kaori Yoshida. **Visualization of Pareto-sets in evolutionary multi-objective optimization**. In *7th International Conference on Hybrid Intelligent Systems (HIS 2007)*, pages 156–161. IEEE, 2007.

[1451] Oliver Korb, Thomas Stützle, and Thomas E. Exner. **PLANTS: Application of ant colony optimization to structure-based drug design**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 5th International Workshop, ANTS 2006*, volume 4150 of *Lecture Notes in Computer Science*, pages 247–258. Springer, Heidelberg, 2006. `doi:10.1007/11839088_22`.

[1452] Oliver Korb, Thomas Stützle, and Thomas E. Exner. **An Ant Colony Optimization Approach to Flexible Protein–Ligand Docking**. *Swarm Intelligence*, 1(2):115–134, 2007.

[1453] Oliver Korb, Thomas Stützle, and Thomas E. Exner. **Empirical Scoring Functions for Advanced Protein-Ligand Docking with PLANTS**. *Journal of Chemical Information and Modeling*, 49(2):84–96, 2009.

[1454] Oliver Korb, Peter Monecke, Gerhard Hessler, Thomas Stützle, and Thomas E. Exner. **pharmACOphore: Multiple Flexible Ligand Alignment Based on Ant Colony Optimization**. *Journal of Chemical Information and Modeling*, 50(9):1669–1681, 2010.

[1455] Flip Korn, B-U Pagel, and Christos Faloutsos. **On the "dimensionality curse" and the "self-similarity blessing"**. *IEEE Transactions on Knowledge and Data Engineering*, 13(1):96–111, 2001.

[1456] Jsh Kornbluth. **Sequential multi-criterion decision making**. *Omega*, 13(6):569–574, 1985. `doi:10.1016/0305-0483(85)90045-3`.
Keywords: machine decision making.

[1457] P. Korošec, Jurij Šilc, and B. Robič. **Mesh-Partitioning with the Multiple Ant-Colony Algorithm**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 430–431. Springer, Heidelberg, 2004.

[1458] P. Korošec, Jurij Šilc, and B. Robič. **Solving the mesh-partitioning problem with an ant-colony algorithm**. *Parallel Computing*, 30:785–801, 2004.

[1459] P. Korošec, Jurij Šilc, K. Oblak, and F. Kosel. **The differential ant-stigmergy algorithm: an experimental evaluation and a real-world application**. In *Proceedings of the 2007 Congress on Evolutionary Computation (CEC 2007)*, pages 157–164. IEEE Press, Piscataway, NJ, 2007.

[1460] Lars Kotthoff. **Algorithm Selection for Combinatorial Search Problems: A Survey**. *AI Magazine*, 35(3):48–60, 2014.

[1461] Lars Kotthoff, Chris Thornton, Holger H. Hoos, Frank Hutter, and Kevin Leyton-Brown. **Auto-WEKA 2.0: Automatic model selection and hyperparameter optimization in WEKA**. *Journal of Machine Learning Research*, 17:1–5, 2016.

[1462] Timo Kötzing, Frank Neumann, Heiko Röglin, and Carsten Witt. **Theoretical Analysis of Two ACO Approaches for the Traveling Salesman Problem**. *Swarm Intelligence*, 6(1): 1–21, 2012. `doi:10.1007/s11721-011-0059-7`.

[1463] P. Kouvelis and G. Yu. *Robust discrete optimization and its applications*. Nonconvex optimization and its applications. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1997.

[1464] O. Kovářík and M. Skrbek. **Ant Colony Optimization with Castes**. In Vera Kurkova-Pohlova and Jan Koutnik, editors, *ICANN'08: Proceedings of the 18th International Conference on Artificial Neural Networks, Part I*, volume 5163 of *Lecture Notes in Computer Science*, pages 435–442. Springer, Heidelberg, 2008.

[1465] Katharina Kowalski, Sigrid Stagl, Reinhard Madlener, and Ines Omann. **Sustainable energy futures: Methodological challenges in combining scenarios and participatory multi-criteria analysis**. *European Journal of Operational Research*, 197(3):1063–1074, 2009.

[1466] J. Koza. *Genetic Programming: On the Programming of Computers By the Means of Natural Selection*. MIT Press, Cambridge, MA, 1992.

[1467] John R. Koza, editor. *Genetic Programming 1998: Proceedings of the Third Annual Conference, Late Breaking Papers*, Stanford University, California, July 1998. Stanford University Bookstore.

[1468] Slawomir Koziel and Xin-She Yang, editors. *Computational Optimization, Methods and Algorithms*, volume 356 of *Studies in Computational Intelligence*. Springer, Berlin/Heidelberg, 2011.

[1469] Slawomir Koziel, David Echeverría Ciaurri, and Leifur Leifsson. **Surrogate-Based Methods**. In Slawomir Koziel and Xin-She Yang, editors, *Computational Optimization, Methods and Algorithms*, volume 356 of *Studies in Computational Intelligence*, pages 33–59. Springer, Berlin/Heidelberg, 2011.

[1470] Daniel Krajzewicz, Jakob Erdmann, Michael Behrisch, and Laura Bieker. **Recent development and applications of SUMO - Simulation of Urban MObility**. *International Journal On Advances in Systems and Measurements*, 5(3-4):128–138, 2012.

[1471] Daniel Krajzewicz, Marek Heinrich, Michela Milano, Paolo Bellavista, Thomas Stützle, Jérôme Härri, Thrasyvoulos Spyropoulos, Robbin Blokpoel, Stefan Hausberger, and Martin Fellendorf. **COLOMBO: Investigating the Potential of V2X for Traffic Management Purposes assuming low penetration Rates**. In *Proceedings of ITS Europe 2013*, Dublin, Ireland, 2013.

[1472] Daniel Krajzewicz, Andreas Leich, Robbin Blokpoel, Michela Milano, and Thomas Stützle. **COLOMBO: Exploiting Vehicular Communications at Low Equipment Rates for Traffic Management Purposes**. In Tim Schulze, Beate Müller, and Gereon Meyer, editors, *Advanced Microsystems for Automotive Applications 2015: Smart Systems for Green and Automated Driving*, pages 117–130. Springer International Publishing, Cham, Switzerland, 2016.

[1473] Oliver Kramer. **Iterated Local Search with Powell's Method: A Memetic Algorithm for Continuous Global Optimization**. *Memetic Computing*, 2(1):69–83, 2010. `doi:10.1007/s12293-010-0032-9`.

[1474] Oliver Kramer, Bartek Gloger, and Andreas Goebels. **An Experimental Analysis of Evolution Strategies and Particle Swarm Optimisers Using Design of Experiments**. In Dirk Thierens et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2007*, pages 674–681, New York, NY, 2007. ACM Press.

[1475] Jakob Krarup and Peter Mark Pruzan. **Computer-aided Layout Design**. In M. L. Balinski and C. Lemarechal, editors, *Mathematical Programming in Use*, volume 9 of *Mathematical Programming Studies*, pages 75–94. Springer, Berlin/Heidelberg, 1978.

[1476] Natalio Krasnogor and Pier Luca Lanzi, editors. *Genetic and Evolutionary Computation Conference, GECCO 2011, Proceedings, Dublin, Ireland, July 12-16, 2011*. ACM Press, New York, NY, 2011.

[1477] Natalio Krasnogor and Pier Luca Lanzi, editors. *13th Annual Genetic and Evolutionary Computation Conference, GECCO 2011, Companion Material Proceedings, Dublin, Ireland, July 12-16, 2011*. ACM Press, New York, NY, 2011.

[1478] Natalio Krasnogor, Belén Melián-Batista, José Andrés Moreno-Pérez, J. Marcos Moreno-Vega, and David Alejandro Pelta, editors. *Nature Inspired Cooperative Strategies for Optimization (NICSO 2008)*, volume 236 of *Studies in Computational Intelligence*. Springer, Berlin, Germany, 2009. doi:10.1007/978-3-642-03211-0.

[1479] S. Kreipl. **A Large Step Random Walk for Minimizing Total Weighted Tardiness in a Job Shop**. *Journal of Scheduling*, 3(3):125–138, 2000.

[1480] Johannes Krettek, Jan Braun, Frank Hoffmann, and Torsten Bertram. **Interactive Incorporation of User Preferences in Multiobjective Evolutionary Algorithms**. In Jörn Mehnen, Mario Köppen, Ashraf Saad, and Ashutosh Tiwari, editors, *Applications of Soft Computing*, volume 58 of *Advances in Intelligent and Soft Computing*, pages 379–388. Springer, Berlin/Heidelberg, 2009.

[1481] Johannes Krettek, Jan Braun, Frank Hoffmann, and Torsten Bertram. **Preference Modeling and Model Management for Interactive Multi-objective Evolutionary Optimization**. In Eyke Hüllermeier, Rudolf Kruse, and Frank Hoffmann, editors, *Information Processing and Management of Uncertainty, 13th International Conference, IPMU2010*, volume 6178 of *Lecture Notes in Artificial Intelligence*, pages 574–583. Springer, Heidelberg, 2010.

[1482] Stefanie Kritzinger, Fabien Tricoire, Karl F. Doerner, Richard F. Hartl, and Thomas Stützle. **A Unified Framework for Routing Problems with a Fixed Fleet Size**. *International Journal of Metaheuristics*, 6(3):160–209, 2017.

[1483] Joseph B Kruskal. **On the shortest spanning subtree of a graph and the traveling salesman problem**. *Proceedings of the American Mathematical society*, 7(1):48–50, 1956.

[1484] William H. Kruskal and Judith M. Tanur. *Linear Hypotheses*, volume 1. Free Press, 1978.

[1485] Harold W. Kuhn. **The hungarian method for the assignment problem**. *Naval Research Logistics Quarterly*, 2(1–2):83–97, 1955.

[1486] Max Kuhn. **Building Predictive Models in R Using the caret Package**. *Journal of Statistical Software*, 28(5):1–26, 2008.

[1487] J Kuhpfahl and Christian Bierwirth. **A Study on Local Search Neighborhoods for the Job Shop Scheduling Problem with Total Weighted Tardiness Objective**. *Computers & Operations Research*, 66:44–57, 2016.

[1488] Benjamin Kuipers and Bonnie L. Webber, editors. *Proceedings of the Fourteenth National Conference on Artificial Intelligence and Ninth Innovative Applications of Artificial Intelligence Conference, AAAI 97, IAAI 97, July 27-31, 1997, Providence, Rhode Island*, 1997. AAAI Press/MIT Press, Menlo Park, CA.

[1489] S. Kukkonen and J. Lampinen. **GDE3: the third evolution step of generalized differential evolution**. In *Proceedings of the 2005 Congress on Evolutionary Computation (CEC 2005)*, pages 443–450. IEEE Press, Piscataway, NJ, Sept. 2005.

[1490] R. Kumar and P. K. Singh. **Pareto Evolutionary Algorithm Hybridized with Local Search for Biobjective TSP**. *Studies in Computational Intelligence*, 75:361–398, 2007.

[1491] Ravi Kumar and Sergei Vassilvitskii. **Generalized Distances between Rankings**. In Michael Rappa, Paul Jones, Juliana Freire, and Soumen Chakrabarti, editors, *Proceedings of the 19th International Conference on World Wide Web, WWW 2010*. ACM Press, New York, NY, 2010.

[1492] H. T. Kung, F. Luccio, and F. P. Preparata. **On Finding the Maxima of a Set of Vectors**. *Journal of the ACM*, 22(4):469–476, 1975.

[1493] Vera Kurkova-Pohlova and Jan Koutnik, editors. *ICANN'08: Proceedings of the 18th International Conference on Artificial Neural Networks, Part I*, volume 5163 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[1494] Vera Kurkova-Pohlova and Jan Koutnik, editors. *ICANN'08: Proceedings of the 18th International Conference on Artificial Neural Networks, Part II*, volume 5164 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[1495] Frank Kursawe. **A variant of evolution strategies for vector optimization**. In Hans-Paul Schwefel and R. Männer, editors, *Parallel Problem Solving from Nature – PPSN I*, pages 193–197, Berlin/Heidelberg, 1991. Springer. `doi:10.1007/BFb0029752`.

[1496] I. Kurtulus and E. W. Davis. **Multi-Project Scheduling: Categorization of Heuristic Rules Performance**. *Management Science*, 28(2):161–172, 1982. `doi:10.1287/mnsc.28.2.161`. *Keywords:* project management, research and development.

[1497] H. J. Kushner. **A New Method of Locating the Maximum Point of an Arbitrary Multipeak Curve in the Presence of Noise**. *Journal of Basic Engineering*, 86(1):97–106, Mar. 1964. ISSN 0021-9223. `doi:10.1115/1.3653121`.

[1498] Jan H. Kwakkel. **The Exploratory Modeling Workbench: An open source toolkit for exploratory modeling, scenario discovery, and (multi-objective) robust decision making**. *Environmental Modelling & Software*, 96:239–250, 2017.

[1499] Martine Labbé and Alessia Violin. **Bilevel programming and price setting problems**. *4OR: A Quarterly Journal of Operations Research*, 11(1):1–30, 2013. `doi:10.1007/s10288-012-0213-0`.

[1500] Martine Labbé, Patrice Marcotte, and Gilles Savard. **A Bilevel Model of Taxation and Its Application to Optimal Highway Pricing**. *Management Science*, 44(12):1608–1622, 1998. `doi:10.1287/mnsc.44.12.1608`.

[1501] Benjamin Lacroix, Daniel Molina, and Francisco Herrera. **Dynamically updated region based memetic algorithm for the 2013 CEC Special Session and Competition on Real Parameter Single Objective Optimization**. In *Proceedings of the 2013 Congress on Evolutionary Computation (CEC 2013)*, pages 1945–1951. IEEE Press, Piscataway, NJ, 2013.

[1502] Benjamin Lacroix, Daniel Molina, and Francisco Herrera. **Region based memetic algorithm for real-parameter optimisation**. *Information Sciences*, 262:15–31, 2014. `doi:10.1016/j.ins.2013.11.032`.
Keywords: irace.

[1503] Scott Robert Ladd. **ACOVEA (Analysis of Compiler Options via Evolutionary Algorithm)**. `https://github.com/Acovea/libacovea`, 2000.

[1504] Manuel Laguna. **Editor's Note on the MIC 2013 Special Issue of the Journal of Heuristics (Volume 22, Issue 4, August 2016)**. *Journal of Heuristics*, 22(5):665–666, 2016.

[1505] Xiangjing Lai and Jin-Kao Hao. **Iterated Maxima Search for the Maximally Diverse Grouping Problem**. *European Journal of Operational Research*, 254(3):780–800, 2016.

[1506] A. H. Land and A. G. Doig. **An Automatic Method of Solving Discrete Programming Problems**. *Econometrica*, 28(3):497–520, 1960.

[1507] M. Lang, H. Kotthaus, P. Marwedel, C. Weihs, J. Rahnenführer, and Bernd Bischl. **Automatic Model Selection for High-Dimensional Survival Analysis**. *Journal of Statistical Computation and Simulation*, 85(1):62–76, 2014. `doi:10.1080/00949655.2014.929131`.

[1508] W. B. Langdon and M. Harman. **Optimising Software with Genetic Programming**. *IEEE Transactions on Evolutionary Computation*, 19(1):118–135, 2015.

[1509] W. B. Langdon et al., editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2002*. Morgan Kaufmann Publishers, San Francisco, CA, 2002.

[1510] A. Langevin, F. Soumis, and J. Desrosiers. **Classification of travelling salesman problem formulations**. *Operations Research Letters*, 9(2):127–132, 1990.

[1511] A. Langevin, M. Desrochers, J. Desrosiers, Sylvie Gélinas, and F. Soumis. **A Two-Commodity Flow Formulation for the Traveling Salesman and Makespan Problems with Time Windows**. *Networks*, 23(7):631–640, 1993.

[1512] John Langford and Joelle Pineau, editors. *Proceedings of the 29th International Conference on Machine Learning, ICML 2012, Edinburgh, Scotland, UK, June 26 - July 1, 2012*, 2012. Omnipress.

[1513] Kevin E. Lansey and K. Awumah. **Optimal Pump Operations Considering Pump Switches**. *Journal of Water Resources Planning and Management, ASCE*, 120(1):17–35, Jan. / Feb. 1994.

[1514] Gilbert Laporte. **Fifty Years of Vehicle Routing**. *Transportation Science*, 43(4):408–416, 2009.

[1515] R. M. Lark and D. J. Lapworth. **A new statistic to express the uncertainty of kriging predictions for purposes of survey planning**. In *EGU General Assembly Conference Abstracts*, May 2014. URL `https://ui.adsabs.harvard.edu/abs/2014EGUGA..16.2183L`.

[1516] Craig Larman. *Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development*. Prentice Hall, Englewood Cliffs, NJ, 3rd edition, 2004.

[1517] Hugo Larochelle, Marc'Aurelio Ranzato, Raia Hadsell, Maria-Florina Balcan, and Hsuan-Tien Lin, editors. *Advances in Neural Information Processing Systems 33: Annual Conference on Neural Information Processing Systems 2020, NeurIPS 2020, December 6-12, 2020, Virtual*, 2020.

[1518] Pedro Larrañaga and José A. Lozano. *Estimation of Distribution Algorithms: A New Tool for Evolutionary Computation*. Kluwer Academic Publishers, Boston, MA, 2002.

[1519] Antonio LaTorre, Santiago Muelas, and José-María Peña. **A MOS-based dynamic memetic differential evolution algorithm for continuous optimization: a scalability test**. *Soft Computing*, 15(11):2187–2199, 2011.

[1520] Marco Laumanns. **Stochastic convergence of random search to fixed size Pareto set approximations**. *Arxiv preprint arXiv:0711.2949*, 2007.

[1521] Marco Laumanns and R. Zenklusen. **Stochastic convergence of random search methods to fixed size Pareto front approximations**. *European Journal of Operational Research*, 213 (2):414–421, 2011. doi:10.1016/j.ejor.2011.03.039.

[1522] Marco Laumanns and Rico Zenklusen. **Stochastic convergence of random search methods to fixed size Pareto front approximations**. (submitted), Nov. 2010.

[1523] Marco Laumanns, Eckart Zitzler, and Lothar Thiele. **A unified model for multi-objective evolutionary algorithms with elitism**. In *Proceedings of the 2000 Congress on Evolutionary Computation (CEC'00)*, pages 46–53, Piscataway, NJ, July 2000. IEEE Press.

[1524] Marco Laumanns, Lothar Thiele, Kalyanmoy Deb, and Eckart Zitzler. **Combining Convergence and Diversity in Evolutionary Multiobjective Optimization**. *Evolutionary Computation*, 10(3):263–282, 2002.

[1525] Marco Laumanns, Lothar Thiele, and Eckart Zitzler. **Running time analysis of multiobjective evolutionary algorithms on pseudo-boolean functions**. *IEEE Transactions on Evolutionary Computation*, 8(2):170–182, 2004.

[1526] Marco Laumanns, Lothar Thiele, and Eckart Zitzler. **Running time analysis of evolutionary algorithms on a simplified multiobjective knapsack problem**. *Natural Computing*, 3(1): 37–51, 2004.

[1527] Benoît Laurent and Jin-Kao Hao. **Iterated Local Search for the Multiple Depot Vehicle Scheduling Problem**. *Computers and Industrial Engineering*, 57(1):277–286, 2009.

[1528] E. L. Lawler and D. E. Wood. **Branch-and-Bound Methods: A Survey**. *Operations Research*, 14(4):699–719, 1966. doi:10.1287/opre.14.4.699.

[1529] E. L. Lawler, J. K. Lenstra, A. H. G. Rinnooy Kan, and D. B. Shmoys. *The Traveling Salesman Problem*. John Wiley & Sons, Chichester, UK, 1985.

[1530] S. E. Lazic. **The problem of pseudoreplication in neuroscientific studies: is it affecting your analysis?** *BMC Neuroscience*, 11(5):397–407, 2004. doi:10.1186/1471-2202-11-5.

[1531] Vinícius Leal do Forte, Flávio Marcelo Tavares Montenegro, José André de Moura Brito, and Nelson Maculan. **Iterated Local Search Algorithms for the Euclidean Steiner Tree Problem in n Dimensions**. *International Transactions in Operational Research*, 23(6): 1185–1199, 2016.

[1532] Yann LeCun, Yoshua Bengio, et al. **Convolutional networks for images, speech, and time series**. *The handbook of brain theory and neural networks*, 3361(10):1995, 1995.

[1533] Yann LeCun, Yoshua Bengio, and Geoffrey Hinton. **Deep learning**. *Nature*, 521(7553):436–444, 2015.

[1534] D. D. Lee, M. Sugiyama, U. V. Luxburg, I. Guyon, and R. Garnett, editors. *Advances in Neural Information Processing Systems 29: Annual Conference on Neural Information Processing Systems 2016, December 5-10, 2016, Barcelona, Spain*, 2016.

[1535] Guillermo Leguizamón and Enrique Alba. **Ant Colony Based Algorithms for Dynamic Optimization Problems**. In Enrique Alba, Amir Nakib, and Patrick Siarry, editors, *Metaheuristics for Dynamic Optimization*, volume 433 of *Studies in Computational Intelligence*, pages 189–210. Springer, Berlin/Heidelberg, 2013. doi:10.1007/978-3-642-30665-5_9.

[1536] Guillermo Leguizamón and Zbigniew Michalewicz. **A New Version of Ant System for Subset Problems**. In *Proceedings of the 1999 Congress on Evolutionary Computation (CEC 1999)*, pages 1459–1464. IEEE Press, Piscataway, NJ, 1999.

[1537] Per Kristian Lehre and Carsten Witt. **Black-box search by unbiased variation**. *Algorithmica*, 64(4):623–642, 2012.

[1538] Frank Thomson Leighton. **A Graph Coloring Algorithm for Large Scheduling Problems**. *Journal of Research of the National Bureau of Standards*, 84(6):489–506, 1979.

[1539] R. J. Lempert, S. Popper, and Steven C. Bankes. *Shaping the Next One Hundred Years: New Methods for Quantitative, Long Term Policy Analysis*. RAND, 2003.

[1540] Robert J. Lempert, David G. Groves, Steven W. Popper, and Steven C. Bankes. **A general analytic method for generating robust strategies and narrative scenarios**. *Management Science*, 52(4):514–528, 2006.

[1541] C. Leon, S. Martin, J. M. Elena, and J. Luque. **EXPLORE: Hybrid expert system for water networks management**. *Journal of Water Resources Planning and Management, ASCE*, 126 (2):65–74, 2000.

[1542] L. Lessing, I. Dumitrescu, and Thomas Stützle. **A Comparison Between ACO Algorithms for the Set Covering Problem**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 1–12. Springer, Heidelberg, 2004.

[1543] Leonid Levin. **Universal'nyie perebornyie zadachi**. *Problemy Peredachi Informatsii*, 9: 265–266, 1973.

[1544] Rhyd M. R. Lewis. *A Guide to Graph Colouring: Algorithms and Applications*. Springer, Cham, Switzerland, 2016. doi:10.1007/978-3-319-25730-3.
Annotation: Supplementary material available at [1545].

[1545] Rhyd M. R. Lewis. **Suite of Graph Colouring Algorithms – Supplementary Material to the Book "A Guide to Graph Colouring: Algorithms and Applications"**. http://rhydlewis.eu/resources/gCol.zip, 2016.

[1546] Kevin Leyton-Brown, M. Pearson, and Y. Shoham. **Towards a Universal Test Suite for Combinatorial Auction Algorithms**. In Anant Jhingran et al., editors, *ACM Conference on Electronic Commerce (EC-00)*, pages 66–76. ACM Press, New York, NY, 2000. doi:10.1145/352871.352879.
Annotation: CPLEX-regions200 benchmark set, http://www.cs.ubc.ca/labs/beta/Projects/ParamILS/results.html.

[1547] Kevin Leyton-Brown, Eugene Nudelman, and Yoav Shoham. **Learning the Empirical Hardness of Optimization Problems: The Case of Combinatorial Auctions**. In Pascal van Hentenryck, editor, *Principles and Practice of Constraint Programming, CP 2002*, Lecture Notes in Computer Science, pages 556–572. Springer, Heidelberg, 2002.

[1548] Bingdong Li, Jinlong Li, Ke Tang, and Xin Yao. **An Improved Two Archive Algorithm for Many-Objective Optimization**. In *Proceedings of the 2014 Congress on Evolutionary Computation (CEC 2014)*, pages 2869–2876, Piscataway, NJ, 2014. IEEE Press.

[1549] Bingdong Li, Jinlong Li, Ke Tang, and Xin Yao. **Many-Objective Evolutionary Algorithms: A Survey**. *ACM Computing Surveys*, 48(1):1–35, 2015.

[1550] Hui Li and Qingfu Zhang. **Multiobjective Optimization Problems with Complicated Pareto sets, MOEA/D and NSGA-II**. *IEEE Transactions on Evolutionary Computation*, 13 (2):284–302, 2009.

[1551] Jianjun David Li. **A two-step rejection procedure for testing multiple hypotheses**. *Journal of Statistical Planning and Inference*, 138(6):1521–1527, 2008.

[1552] Lisha Li, Kevin Jamieson, Giulia DeSalvo, Afshin Rostamizadeh, and Ameet Talwalkar. **Hyperband: A Novel Bandit-Based Approach to Hyperparameter Optimization**. *Journal of Machine Learning Research*, 18(185):1–52, 2018. URL http://jmlr.org/papers/v18/16-558.html.
Keywords: racing.

[1553] Miqing Li, Shengxiang Yang, Xiaohui Liu, and Ruimin Shen. **A Comparative Study on Evolutionary Algorithms for Many-Objective Optimization**. In Robin C. Purshouse, Peter J. Fleming, Carlos M. Fonseca, Salvatore Greco, and Jane Shaw, editors, *Evolutionary Multi-criterion Optimization, EMO 2013*, volume 7811 of *Lecture Notes in Computer Science*, pages 261–275. Springer, Heidelberg, 2013. ISBN 978-3-642-37139-4.

[1554] X. Li et al., editors. *Simulated Evolution and Learning, 7th International Conference, SEAL 2008*, volume 5361 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[1555] Xiaoping Li, Long Chen, Haiyan Xu, and Jatinder N.D. Gupta. **Trajectory Scheduling Methods for Minimizing Total Tardiness in a Flowshop**. *Operations Research Perspectives*, 2:13–23, 2015. ISSN 2214–7160. doi:10.1016/j.orp.2014.12.001.

[1556] Y. Li and W. Li. **Adaptive Ant Colony Optimization Algorithm Based on Information Entropy: Foundation and Application**. *Fundamenta Informaticae*, 77(3):229–242, 2007.

[1557] Z. Li, Y. Wang, J. Yu, Y. Zhang, and X. Li. **A Novel Cloud-Based Fuzzy Self-Adaptive Ant Colony System**. In *ICNC'08: Proceedings of the 2008 Fourth International Conference on Natural Computation*, volume 7, pages 460–465, Washington, DC, 2008. IEEE Computer Society.

[1558] Zhiyi Li, Mohammad Shahidehpour, Shay Bahramirad, and Amin Khodaei. **Optimizing Traffic Signal Settings in Smart Cities**. *IEEE Transactions on Smart Grid*, 3053(4):1–1, 2016. doi:10.1109/TSG.2016.2526032.

[1559] C.-J. Liao, C.-T. Tseng, and P. Luarn. **A Discrete Version of Particle Swarm Optimization for Flowshop Scheduling Problems**. *Computers & Operations Research*, 34(10):3099–3111, 2007.

[1560] Tianjun Liao. *Population-based Heuristic Algorithms for Continuous and Mixed Discrete-Continuous Optimization Problem*. PhD thesis, IRIDIA, École polytechnique, Université Libre de Bruxelles, Belgium, 2013.

[1561] Tianjun Liao and Thomas Stützle. **Benchmark results for a simple hybrid algorithm on the CEC 2013 benchmark set for real-parameter optimization**. In *Proceedings of the 2013 Congress on Evolutionary Computation (CEC 2013)*, pages 1938–1944. IEEE Press, Piscataway, NJ, 2013.

[1562] Tianjun Liao, Daniel Molina, Marco A. Montes de Oca, and Thomas Stützle. **A Note on the Effects of Enforcing Bound Constraints on Algorithm Comparisons using the IEEE CEC'05 Benchmark Function Suite**. Technical Report TR/IRIDIA/2011-010, IRIDIA, Université Libre de Bruxelles, Belgium, 2011. URL http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2011-010.pdf. Published in Evolutionary Computation [1569].

[1563] Tianjun Liao, Daniel Molina, Marco A. Montes de Oca, and Thomas Stützle. **Computational Results for an Automatically Tuned IPOP-CMA-ES on the CEC'05 Benchmark Set**. Technical Report TR/IRIDIA/2011-022, IRIDIA, Université Libre de Bruxelles, Belgium, 2011.

[1564] Tianjun Liao, Marco A. Montes de Oca, Doğan Aydın, Thomas Stützle, and Marco Dorigo. **An Incremental Ant Colony Algorithm with Local Search for Continuous Optimization**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 125–132. ACM Press, New York, NY, 2011.

[1565] Tianjun Liao, Marco A. Montes de Oca, and Thomas Stützle. **Tuning Parameters across Mixed Dimensional Instances: A Performance Scalability Study of Sep-G-CMA-ES**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2011*, pages 703–706, New York, NY, 2011. ACM Press.
Annotation: Workshop on Scaling Behaviours of Landscapes, Parameters and Algorithms.

[1566] Tianjun Liao, Doğan Aydın, and Thomas Stützle. **Artificial Bee Colonies for Continuous Optimization: Experimental Analysis and Improvements**. *Swarm Intelligence*, 7(4): 327–356, 2013.

[1567] Tianjun Liao, Marco A. Montes de Oca, and Thomas Stützle. **Computational results for an automatically tuned CMA-ES with increasing population size on the CEC'05 benchmark set**. *Soft Computing*, 17(6):1031–1046, 2013. `doi:0.1007/s00500-012-0946-x`.

[1568] Tianjun Liao, Thomas Stützle, Marco A. Montes de Oca, and Marco Dorigo. **A Unified Ant Colony Optimization Algorithm for Continuous Optimization**. Technical Report TR/IRIDIA/2013-002, IRIDIA, Université Libre de Bruxelles, Belgium, 2013.

[1569] Tianjun Liao, Daniel Molina, Marco A. Montes de Oca, and Thomas Stützle. **A Note on the Effects of Enforcing Bound Constraints on Algorithm Comparisons using the IEEE CEC'05 Benchmark Function Suite**. *Evolutionary Computation*, 22(2):351–359, 2014.

[1570] Tianjun Liao, Krzysztof Socha, Marco A. Montes de Oca, Thomas Stützle, and Marco Dorigo. **Ant Colony Optimization for Mixed-Variable Optimization Problems**. *IEEE Transactions on Evolutionary Computation*, 18(4):503–518, 2014.
Keywords: ACOR.

[1571] Tianjun Liao, Thomas Stützle, Marco A. Montes de Oca, and Marco Dorigo. **A Unified Ant Colony Optimization Algorithm for Continuous Optimization**. *European Journal of Operational Research*, 234(3):597–609, 2014.

[1572] Tianjun Liao, Daniel Molina, and Thomas Stützle. **Performance Evaluation of Automatically Tuned Continuous Optimizers on Different Benchmark Sets**. *Applied Soft Computing*, 27:490–503, 2015.

[1573] Arnaud Liefooghe and Manuel López-Ibáñez, editors. *Evolutionary Computation in Combinatorial Optimization – 18th European Conference, EvoCOP 2018, Parma, Italy, April 4-6, 2018, Proceedings*, volume 10782 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2018. `doi:10.1007/978-3-319-77449-7`.

[1574] Arnaud Liefooghe, Salma Mesmoudi, Jérémie Humeau, Laetitia Jourdan, and El-Ghazali Talbi. **A Study on Dominance-based Local Search Approaches for Multiobjective Combinatorial Optimization**. In Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors, *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2009*, volume 5752 of *Lecture Notes in Computer Science*, pages 120–124. Springer, Heidelberg, 2009.

[1575] Arnaud Liefooghe, Laetitia Jourdan, and El-Ghazali Talbi. **A Software Framework Based on a Conceptual Unified Model for Evolutionary Multiobjective Optimization: ParadisEO-MOEO**. *European Journal of Operational Research*, 209(2):104–112, 2011.

[1576] Arnaud Liefooghe, Luís Paquete, Marco Simões, and José Rui Figueira. **Connectedness and Local Search for Bicriteria Knapsack Problems**. In Peter Merz and Jin-Kao Hao, editors, *Proceedings of EvoCOP 2011 – 11th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 6622 of *Lecture Notes in Computer Science*, pages 48–59. Springer, Heidelberg, 2011. `doi:10.1007/978-3-642-20364-0_5`.

[1577] Arnaud Liefooghe, Jérémie Humeau, Salma Mesmoudi, Laetitia Jourdan, and El-Ghazali Talbi. **On dominance-based multiobjective local search: design, implementation and experimental analysis on scheduling and traveling salesman problems**. *Journal of Heuristics*, 18(2):317–352, 2012. `doi:10.1007/s10732-011-9181-3`.

[1578] Arnaud Liefooghe, Bilel Derbel, Sébastien Verel, Hernán E. Aguirre, and Kiyoshi Tanaka. **Towards Landscape-Aware Automatic Algorithm Configuration: Preliminary Experiments on Neutral and Rugged Landscapes**. In Heike Trautmann, Günter Rudolph, Kathrin Klamroth, Oliver Schütze, Margaret M. Wiecek, Yaochu Jin, and Christian Grimme, editors, *Evolutionary Multi-criterion Optimization, EMO 2017*, Lecture Notes in Computer Science, pages 215–232. Springer International Publishing, Cham, Switzerland, 2017.

[1579] Arnaud Liefooghe, Bilel Derbel, Sébastien Verel, Manuel López-Ibáñez, Hernán E. Aguirre, and Kiyoshi Tanaka. **On Pareto Local Optimal Solutions Networks**. In Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors, *Parallel Problem Solving from Nature - PPSN XV*, volume 11102 of *Lecture Notes in Computer Science*, pages 232–244. Springer, Cham, Switzerland, 2018. `doi:10.1007/978-3-319-99259-4_19`.

[1580] Arnaud Liefooghe, Manuel López-Ibáñez, Luís Paquete, and Sébastien Verel. **Dominance, Epsilon, and Hypervolume Local Optimal Sets in Multi-objective Optimization, and How to Tell the Difference**. In Hernán E. Aguirre and Keiki Takadama, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2018*, pages 324–331. ACM Press, New York, NY, 2018. `doi:10.1145/3205455.3205572`.

[1581] Bojan Likar and Juš Kocijan. **Predictive control of a gas–liquid separation plant based on a Gaussian process model**. *Computers & Chemical Engineering*, 31(3):142–152, 2007. `doi:10.1016/j.compchemeng.2006.05.011`.

[1582] David J. Lilja. *Measuring Computer Performance: A Practitioner's Guide*. Cambridge University Press, 2000. `doi:10.1017/CBO9780511612398`.

[1583] S. Lin and B. W. Kernighan. **An Effective Heuristic Algorithm for the Traveling Salesman Problem**. *Operations Research*, 21(2):498–516, 1973.

[1584] Marius Thomas Lindauer, Holger H. Hoos, Frank Hutter, and Torsten Schaub. **AutoFolio: Algorithm Configuration for Algorithm Selection**. In Blai Bonet and Sven Koenig, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*. AAAI Press, 2015.

[1585] Marius Thomas Lindauer, Holger H. Hoos, Frank Hutter, and Torsten Schaub. **AutoFolio: An Automatically Configured Algorithm Selector**. *Journal of Artificial Intelligence Research*, 53:745–778, 2015.

[1586] Marius Thomas Lindauer, Jan N. Van Rijn, and Lars Kotthoff. **The algorithm selection competitions 2015 and 2017**. *Artificial Intelligence*, 272:86–100, 2019.

[1587] W. Ling and H. Luo. **An Adaptive Parameter Control Strategy for Ant Colony Optimization**. In *CIS'07: Proceedings of the 2007 International Conference on Computational Intelligence and Security*, pages 142–146, Washington, DC, 2007. IEEE Computer Society.

[1588] Andrei Lissovoi and Carsten Witt. **Runtime Analysis of Ant Colony Optimization on Dynamic Shortest Path Problems**. *Theoretical Computer Science*, 561(Part A):73–85, 2015. `doi:10.1016/j.tcs.2014.06.035`.

[1589] J. D. C. Little, K. G. Murty, D. W. Sweeney, and C. Karel. **An Algorithm for the Traveling Salesman Problem**. *Operations Research*, 11:972–989, 1963.

[1590] Derong Liu et al., editors. *Proceedings of the International Joint Conference on Neural Networks (IJCNN 2008), Hong Kong, China, June 1-6, 2008*, 2008. IEEE Press.

[1591] Jiyin Liu and Colin R. Reeves. **Constructive and Composite Heuristic Solutions to the P//ΣCi Scheduling Problem**. *European Journal of Operational Research*, 132(2):439–452, 2001. `doi:10.1016/S0377-2217(00)00137-5`.

[1592] Shusen Liu, Dan Maljovec, Bei Wang, Peer-Timo Bremer, and Valerio Pascucci. **Visualizing High-Dimensional Data: Advances in the Past Decade**. *IEEE Transactions on Visualization and Computer Graphics*, 23(3), 2017. `doi:10.1109/TVCG.2016.2640960`.

[1593] Zhiyuan Liu and Jian Tang. **IJCAI 2021 Reproducibility Guidelines, 35th International Joint Conference on Artificial Intelligence**. `https://ijcai-21.org/wp-content/uploads/2020/12/20201226-IJCAI-Reproducibility.pdf`, 2021.

[1594] F. Lobo, C. F. Lima, and Zbigniew Michalewicz, editors. *Parameter Setting in Evolutionary Algorithms*. Springer, Berlin, Germany, 2007.

[1595] A. Lodi, M. Milano, and P. Toth, editors. *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 7th International Conference, CPAIOR 2010*, volume 6140 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2010.

[1596] Andrea Lodi and Andrea Tramontani. **Performance Variability in Mixed-Integer Programming**. In Huseyin Topaluglu, editor, *Theory Driven by Influential Applications*, pages 1–12. INFORMS, 2013.

[1597] Andrea Lodi, Silvano Martello, and Daniele Vigo. **Heuristic and metaheuristic approaches for a class of two-dimensional bin packing problems**. *INFORMS Journal on Computing*, 11(4):345–357, 1999. `doi:10.1287/ijoc.11.4.345`.

[1598] Andrea Lodi, Silvano Martello, and Michele Monaci. **Two-dimensional packing problems: A survey**. *European Journal of Operational Research*, 141(2):241–252, 2002. `doi:10.1016/S0377-2217(02)00123-6`.

[1599] Andrea Lodi, Silvano Martello, and Daniele Vigo. **TSpack: a unified tabu search code for multi-dimensional bin packing problems**. *Annals of Operations Research*, 131(1-4):203–213, 2004. `doi:10.1023/B:ANOR.0000039519.03572.08`.

[1600] Andrea Lodi, Silvano Martello, and Daniele Vigo. **Two- and Three-Dimensional Bin Packing – Source Code of TSpack**. `http://or.dei.unibo.it/research_pages/ORcodes/TSpack.html`, 2004.

[1601] Po-Ling Loh and Sebastian Nowozin. **Faster Hoeffding Racing: Bernstein Races via Jackknife Estimates**. In Sanjay Jain, Rémi Munos, Frank Stephan, and Thomas Zeugmann, editors, *Proceedings of Algorithmic Learning Theory*, volume 8139 of *Lecture Notes in Computer Science*, pages 203–217, Berlin, Germany, 2013. Springer. `doi:10.1007/978-3-642-40935-6`.

[1602] Manuel López-Ibáñez. *Multi-objective Ant Colony Optimization*. Diploma thesis, Intellectics Group, Computer Science Department, Technische Universität Darmstadt, Germany, 2004.

[1603] Manuel López-Ibáñez. **High Performance Ant Colony Optimisation of the Pump Scheduling Problem**. In Paola Alberigo, Giovanni Erbacci, Francesca Garofalo, and Silvia Monfardini, editors, *Science and Sumpercomputing in Europe*, pages 371–375. CINECA, 2007. ISBN 978-88-86037-21-1.

[1604] Manuel López-Ibáñez. *Operational Optimisation of Water Distribution Networks*. PhD thesis, School of Engineering and the Built Environment, Edinburgh Napier University, UK, 2009. URL `http://researchrepository.napier.ac.uk/id/eprint/3044`.

[1605] Manuel López-Ibáñez and Christian Blum. **Beam-ACO Based on Stochastic Sampling: A Case Study on the TSP with Time Windows**. Technical Report LSI-08-28, Department LSI, Universitat Politècnica de Catalunya, 2008. Extended version published in Computers & Operations Research [1607].

[1606] Manuel López-Ibáñez and Christian Blum. **Beam-ACO Based on Stochastic Sampling: A Case Study on the TSP with Time Windows**. In Thomas Stützle, editor, *Learning and Intelligent Optimization, Third International Conference, LION 3*, volume 5851 of *Lecture Notes in Computer Science*, pages 59–73. Springer, Heidelberg, 2009. `doi:10.1007/978-3-642-11169-3_5`.

[1607] Manuel López-Ibáñez and Christian Blum. **Beam-ACO for the travelling salesman problem with time windows**. *Computers & Operations Research*, 37(9):1570–1583, 2010. `doi:10.1016/j.cor.2009.11.015`.
Keywords: Ant colony optimization, Travelling salesman problem with time windows, Hybridization.

[1608] Manuel López-Ibáñez and Joshua D. Knowles. **Machine Decision Makers as a Laboratory for Interactive EMO**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part II*, volume 9019 of *Lecture Notes in Computer Science*, pages 295–309. Springer, Heidelberg, 2015. `doi:10.1007/978-3-319-15892-1_20`.

[1609] Manuel López-Ibáñez and Thomas Stützle. **An Analysis of Algorithmic Components for Multiobjective Ant Colony Optimization: A Case Study on the Biobjective TSP**. Technical Report TR/IRIDIA/2009-019, IRIDIA, Université Libre de Bruxelles, Belgium, June 2009. Published in the proceedings of Evolution Artificielle, 2009 [1610].

[1610] Manuel López-Ibáñez and Thomas Stützle. **An Analysis of Algorithmic Components for Multiobjective Ant Colony Optimization: A Case Study on the Biobjective TSP**. In Pierre Collet, Nicolas Monmarché, Pierrick Legrand, Marc Schoenauer, and Evelyne Lutton, editors, *Artificial Evolution: 9th International Conference, Evolution Artificielle, EA, 2009*, volume 5975 of *Lecture Notes in Computer Science*, pages 134–145. Springer, Heidelberg, 2010. `doi:10.1007/978-3-642-14156-0_12`.

[1611] Manuel López-Ibáñez and Thomas Stützle. **Automatic Configuration of Multi-Objective ACO Algorithms**. In Marco Dorigo et al., editors, *Swarm Intelligence, 7th International Conference, ANTS 2010*, volume 6234 of *Lecture Notes in Computer Science*, pages 95–106. Springer, Heidelberg, 2010. `doi:10.1007/978-3-642-15461-4_9`.

[1612] Manuel López-Ibáñez and Thomas Stützle. **The impact of design choices of multi-objective ant colony optimization algorithms on performance: An experimental study on the biobjective TSP**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2010*, pages 71–78. ACM Press, New York, NY, 2010. `doi:10.1145/1830483.1830494`.

[1613] Manuel López-Ibáñez and Thomas Stützle. **The impact of design choices of multi-objective ant colony optimization algorithms on performance: An experimental study on the biobjective TSP**. `http://iridia.ulb.ac.be/supp/IridiaSupp2010-003/`, 2010. Supplementary material of [1612].

[1614] Manuel López-Ibáñez and Thomas Stützle. **The Automatic Design of Multi-Objective Ant Colony Optimization Algorithms**. Technical Report TR/IRIDIA/2011-003, IRIDIA, Université Libre de Bruxelles, Belgium, 2011. URL http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2011-003.pdf. Published in IEEE Transactions on Evolutionary Computation [1620].

[1615] Manuel López-Ibáñez and Thomas Stützle. **The Automatic Design of Multi-Objective Ant Colony Optimization Algorithms: Supplementary material**, 2011. URL http://iridia.ulb.ac.be/supp/IridiaSupp2011-007/Iridia-2011-007.pdf.

[1616] Manuel López-Ibáñez and Thomas Stützle. **Automatically Improving the Anytime Behaviour of Optimisation Algorithms**. Technical Report TR/IRIDIA/2012-012, IRIDIA, Université Libre de Bruxelles, Belgium, May 2012. Published in European Journal of Operations Research [1621].

[1617] Manuel López-Ibáñez and Thomas Stützle. **Automatically Improving the Anytime Behaviour of Optimisation Algorithms: Supplementary material**. http://iridia.ulb.ac.be/supp/IridiaSupp2012-011/, 2012.

[1618] Manuel López-Ibáñez and Thomas Stützle. **An experimental analysis of design choices of multi-objective ant colony optimization algorithms: Supplementary material**. http://iridia.ulb.ac.be/supp/IridiaSupp2012-006/, 2012.

[1619] Manuel López-Ibáñez and Thomas Stützle. **An experimental analysis of design choices of multi-objective ant colony optimization algorithms**. *Swarm Intelligence*, 6(3):207–232, 2012. doi:10.1007/s11721-012-0070-7. Supplementary material: http://iridia.ulb.ac.be/supp/IridiaSupp2012-006/.

[1620] Manuel López-Ibáñez and Thomas Stützle. **The Automatic Design of Multi-Objective Ant Colony Optimization Algorithms**. *IEEE Transactions on Evolutionary Computation*, 16(6): 861–875, 2012. doi:10.1109/TEVC.2011.2182651.

[1621] Manuel López-Ibáñez and Thomas Stützle. **Automatically Improving the Anytime Behaviour of Optimisation Algorithms**. *European Journal of Operational Research*, 235(3): 569–582, 2014. doi:10.1016/j.ejor.2013.10.043. Supplementary material: http://iridia.ulb.ac.be/supp/IridiaSupp2012-011/.

[1622] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. **On the Design of ACO for the Biobjective Quadratic Assignment Problem**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 214–225. Springer, Heidelberg, 2004. doi:10.1007/978-3-540-28646-2_19.

[1623] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. **Hybrid Population-based Algorithms for the Bi-objective Quadratic Assignment Problem**. Technical Report AIDA–04–11, FG Intellektik, FB Informatik, TU Darmstadt, Dec. 2004. Published in Journal of Mathematical Modelling and Algorithms [1626].

[1624] Manuel López-Ibáñez, T. Devi Prasad, and Ben Paechter. **Multi-objective Optimisation of the Pump Scheduling Problem using SPEA2**. In *Proceedings of the 2005 Congress on Evolutionary Computation (CEC 2005)*, volume 1, pages 435–442. IEEE Press, Piscataway, NJ, Sept. 2005. doi:10.1109/CEC.2005.1554716.

[1625] Manuel López-Ibáñez, T. Devi Prasad, and Ben Paechter. **Optimal Pump Scheduling: Representation and Multiple Objectives**. In Dragan A. Savic, Godfrey A. Walters, Roger King, and Soon Thiam-Khu, editors, *Proceedings of the Eighth International Conference on Computing and Control for the Water Industry (CCWI 2005)*, volume 1, pages 117–122, University of Exeter, UK, Sept. 2005.

[1626] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. **Hybrid Population-based Algorithms for the Bi-objective Quadratic Assignment Problem**. *Journal of Mathematical Modelling and Algorithms*, 5(1):111–137, 2006. `doi:10.1007/s10852-005-9034-x`.

[1627] Manuel López-Ibáñez, T. Devi Prasad, and Ben Paechter. **Solving Optimal Pump Control Problem using $\mathcal{MAX}$–$\mathcal{MIN}$ Ant System**. In Dirk Thierens et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2007*, volume 1, page 176. ACM Press, New York, NY, 2007. `doi:10.1145/1276958.1276990`.

[1628] Manuel López-Ibáñez, T. Devi Prasad, and Ben Paechter. **Parallel Optimisation Of Pump Schedules With A Thread-Safe Variant Of EPANET Toolkit**. In Jakobus E. van Zyl, A. A. Ilemobade, and H. E. Jacobs, editors, *Proceedings of the 10th Annual Water Distribution Systems Analysis Conference (WDSA 2008)*. ASCE, Aug. 2008. `doi:10.1061/41024(340)40`.

[1629] Manuel López-Ibáñez, T. Devi Prasad, and Ben Paechter. **Ant Colony Optimisation for the Optimal Control of Pumps in Water Distribution Networks**. *Journal of Water Resources Planning and Management, ASCE*, 134(4):337–346, 2008. `doi:10.1061/(ASCE)0733-9496(2008)134:4(337)`.

[1630] Manuel López-Ibáñez, Christian Blum, Dhananjay Thiruvady, Andreas T. Ernst, and Bernd Meyer. **Beam-ACO based on stochastic sampling for makespan optimization concerning the TSP with time windows**. In Carlos Cotta and P. Cowling, editors, *Proceedings of EvoCOP 2009 – 9th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 5482 of *Lecture Notes in Computer Science*, pages 97–108. Springer, Heidelberg, 2009. `doi:10.1007/978-3-642-01009-5_9`.

[1631] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. **Exploratory Analysis of Stochastic Local Search Algorithms in Biobjective Optimization**. Technical Report TR/IRIDIA/2009-015, IRIDIA, Université Libre de Bruxelles, Belgium, May 2009. Published as a book chapter [1632].

[1632] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. **Exploratory Analysis of Stochastic Local Search Algorithms in Biobjective Optimization**. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, pages 209–222. Springer, Berlin, Germany, 2010. `doi:10.1007/978-3-642-02538-9_9`.

[1633] Manuel López-Ibáñez, Luís Paquete, and Thomas Stützle. **EAF Graphical Tools**. `http://lopez-ibanez.eu/eaftools`, 2010. These tools are described in the book chapter "*Exploratory analysis of stochastic local search algorithms in biobjective optimization*" [1632].
Annotation: Please cite the book chapter, not this.

[1634] Manuel López-Ibáñez, Jérémie Dubois-Lacoste, Thomas Stützle, and Mauro Birattari. **The irace package, Iterated Race for Automatic Algorithm Configuration**. Technical Report TR/IRIDIA/2011-004, IRIDIA, Université Libre de Bruxelles, Belgium, 2011. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2011-004.pdf`. Published in Operations Research Perspectives [1644].

[1635] Manuel López-Ibáñez, Joshua D. Knowles, and Marco Laumanns. **On Sequential Online Archiving of Objective Vectors**. Technical Report TR/IRIDIA/2011-001, IRIDIA, Université Libre de Bruxelles, Belgium, 2011. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2011-001.pdf`. This is a revised version of the paper published in EMO 2011 [1636].

[1636] Manuel López-Ibáñez, Joshua D. Knowles, and Marco Laumanns. **On Sequential Online Archiving of Objective Vectors**. In R. H. C. Takahashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2011*, volume 6576 of *Lecture Notes in Computer Science*,

pages 46–60. Springer, Heidelberg, 2011. `doi:10.1007/978-3-642-19893-9_4`.
Annotation: Revised version available at `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2011-001.pdf`.

[1637] Manuel López-Ibáñez, T. Devi Prasad, and Ben Paechter. **Representations and Evolutionary Operators for the Scheduling of Pump Operations in Water Distribution Networks**. *Evolutionary Computation*, 19(3):429–467, 2011. `doi:10.1162/EVCO_a_00035`.

[1638] Manuel López-Ibáñez, Tianjun Liao, and Thomas Stützle. **On the anytime behavior of IPOP-CMA-ES**. In Carlos A. Coello Coello et al., editors, *Parallel Problem Solving from Nature, PPSN XII*, volume 7491 of *Lecture Notes in Computer Science*, pages 357–366. Springer, Heidelberg, 2012. `doi:10.1007/978-3-642-32937-1_36`.

[1639] Manuel López-Ibáñez, Tianjun Liao, and Thomas Stützle. **On the anytime behavior of IPOP-CMA-ES: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2012-010/`, 2012.

[1640] Manuel López-Ibáñez, Christian Blum, Jeffrey W. Ohlmann, and Barrett W. Thomas. **The Travelling Salesman Problem with Time Windows: Adapting Algorithms from Travel-time to Makespan Optimization**. *Applied Soft Computing*, 13(9):3806–3815, 2013. `doi:10.1016/j.asoc.2013.05.009`.

[1641] Manuel López-Ibáñez, Franco Mascia, Marie-Eléonore Marmion, and Thomas Stützle. **Automatic Design of a Hybrid Iterated Local Search for the Multi-Mode Resource-Constrained Multi-Project Scheduling Problem**. In Graham Kendall, Greet Vanden Berghe, and Barry McCollum, editors, *Multidisciplinary International Conference on Scheduling: Theory and Applications (MISTA 2013)*, pages 1–6, Gent, Belgium, 2013. *Annotation:* `https://hal.inria.fr/hal-01094681`.

[1642] Manuel López-Ibáñez, Arnaud Liefooghe, and Sébastien Verel. **Local Optimal Sets and Bounded Archiving on Multi-objective NK-Landscapes with Correlated Objectives**. Technical Report TR/IRIDIA/2014-009, IRIDIA, Université Libre de Bruxelles, Belgium, 2014.

[1643] Manuel López-Ibáñez, Arnaud Liefooghe, and Sébastien Verel. **Local Optimal Sets and Bounded Archiving on Multi-objective NK-Landscapes with Correlated Objectives**. In Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič, and Jim Smith, editors, *PPSN 2014*, volume 8672 of *Lecture Notes in Computer Science*, pages 621–630. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-10762-2_61`.

[1644] Manuel López-Ibáñez, Jérémie Dubois-Lacoste, Leslie Pérez Cáceres, Thomas Stützle, and Mauro Birattari. **The irace Package: Iterated Racing for Automatic Algorithm Configuration**. *Operations Research Perspectives*, 3:43–58, 2016. `doi:10.1016/j.orp.2016.09.002`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2016-003/`.

[1645] Manuel López-Ibáñez, Jérémie Dubois-Lacoste, Leslie Pérez Cáceres, Thomas Stützle, and Mauro Birattari. **The irace Package: Iterated Racing for Automatic Algorithm Configuration (Supplementary Material)**. `http://iridia.ulb.ac.be/supp/IridiaSupp2016-003`, 2016.

[1646] Manuel López-Ibáñez, Leslie Pérez Cáceres, Jérémie Dubois-Lacoste, Thomas Stützle, and Mauro Birattari. **The irace package: User Guide**. Technical Report TR/IRIDIA/2016-004, IRIDIA, Université Libre de Bruxelles, Belgium, 2016. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2016-004.pdf`.

[1647] Manuel López-Ibáñez, Marie-Eléonore Kessaci, and Thomas Stützle. **Automatic Design of Hybrid Metaheuristics from Algorithmic Components**. Technical Report TR/IRIDIA/2017-012, IRIDIA, Université Libre de Bruxelles, Belgium, Dec. 2017. URL `http://iridia.ulb.ac.be/IridiaTrSeries/link/IridiaTr2017-012.pdf`.

[1648] Manuel López-Ibáñez, Marie-Eléonore Kessaci, and Thomas Stützle. **Automatic Design of Hybrid Metaheuristics from Algorithmic Components**. *Submitted*, 2017.

[1649] Manuel López-Ibáñez, Thomas Stützle, and Marco Dorigo. **Ant Colony Optimization: A Component-Wise Overview**. In Rafael Martí, Panos M. Pardalos, and Mauricio G. C. Resende, editors, *Handbook of Heuristics*, pages 371–407. Springer International Publishing, 2018. ISBN 978-3-319-07125-1. doi:10.1007/978-3-319-07124-4_21. Supplementary material: http://iridia.ulb.ac.be/aco-tsp-qap/.

[1650] Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019, Prague, Czech Republic, July 13-17, 2019*. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6111-8. doi:10.1145/3321707.

[1651] Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors. *Genetic and Evolutionary Computation Conference Companion, GECCO 2019, Prague, Czech Republic, July 13-17, 2019*. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6748-6. doi:10.1145/3319619.

[1652] Manuel López-Ibáñez, Leslie Pérez Cáceres, and Thomas Stützle. **irace: A Tool for the Automatic Configuration of Algorithms**. *International Federation of Operational Research Societies (IFORS) News*, 14(2):30–32, June 2020. URL https://www.ifors.org/newsletter/ifors-news-june2020.pdf.

[1653] Manuel López-Ibáñez, Jürgen Branke, and Luís Paquete. **Reproducibility in Evolutionary Computation**. *Arxiv preprint arXiv:20102.03380 [cs.AI]*, 2021. URL https://arxiv.org/abs/2102.03380.
Keywords: Evolutionary Computation, Reproducibility, Empirical study, Benchmarking.

[1654] Antonio López Jaimes, Carlos A. Coello Coello, and Debrup Chakraborty. **Objective reduction using a feature selection technique**. In Conor Ryan, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2008*, pages 673–680. ACM Press, New York, NY, 2008.

[1655] Ilya Loshchilov and T. Glasmachers. **Black Box Optimization Competition**, 2017. URL https://bbcomp.ini.rub.de/.

[1656] Ilya Loshchilov, Marc Schoenauer, and Michèle Sebag. **Alternative Restart Strategies for CMA-ES**. In Carlos A. Coello Coello et al., editors, *Parallel Problem Solving from Nature, PPSN XII*, volume 7491 of *Lecture Notes in Computer Science*, pages 296–305. Springer, Heidelberg, 2012. doi:10.1007/978-3-642-32937-1_30.

[1657] A. V. Lotov and Kaisa Miettinen. **Visualizing the Pareto Frontier**. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Słowiński, editors, *Multiobjective Optimization: Interactive and Evolutionary Approaches*, volume 5252 of *Lecture Notes in Computer Science*, pages 213–243. Springer, Heidelberg, 2008.

[1658] Samir Loudni and Patrice Boizumault. **Combining VNS with constraint programming for solving anytime optimization problems**. *European Journal of Operational Research*, 191: 705–735, 2008. doi:10.1016/j.ejor.2006.12.062.

[1659] Helena R. Lourenço. **Job-Shop Scheduling: Computational Study of Local Search and Large-Step Optimization Methods**. *European Journal of Operational Research*, 83(2): 347–364, 1995.

[1660] Helena R. Lourenço, Olivier Martin, and Thomas Stützle. **Iterated Local Search**. In Fred Glover and G. Kochenberger, editors, *Handbook of Metaheuristics*, pages 321–353. Kluwer Academic Publishers, Norwell, MA, 2002. doi:10.1007/0-306-48056-5_11.

[1661] Helena R. Lourenço, Olivier Martin, and Thomas Stützle. **Iterated Local Search: Framework and Applications**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*, chapter 9, pages 363–397. Springer, New York, NY, 2nd edition, 2010. `doi:10.1007/978-1-4419-1665-5_12`.

[1662] Helena R. Lourenço, Olivier Martin, and Thomas Stützle. **Iterated Local Search: Framework and Applications**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 272 of *International Series in Operations Research & Management Science*, chapter 5, pages 129–168. Springer, 2019. `doi:10.1007/978-3-319-91086-4_5`.

[1663] Antonio Lova and Pilar Tormos. **Analysis of Scheduling Schemes and Heuristic Rules Performance in Resource-Constrained Multiproject Scheduling**. *Annals of Operations Research*, 102(1-4):263–286, Feb. 2001. `doi:10.1023/A:1010966401888`.
Keywords: Combinatorics, heuristic based on priority rules, Multiproject scheduling, Operation Research/Decision Theory, Project management, project management software, Resource allocation, Theory of Computation.

[1664] Antonio Lova, Pilar Tormos, Mariamar Cervantes, and Federico Barber. **An efficient hybrid genetic algorithm for scheduling projects with resource constraints and multiple execution modes**. *International Journal of Production Economics*, 117(2):302–316, 2009. `doi:10.1016/j.ijpe.2008.11.002`.
Keywords: genetic algorithm, multi-mode resource-constrained project scheduling.

[1665] Nigel Lovell and Luca Mainardi, editors. *37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC 2015, Proceedings*, Annual International Conference of the IEEE Engineering in Medicine and Biology, 2015. IEEE Press.

[1666] Manuel Lozano, Daniel Molina, and Carlos García-Martínez. **Iterated Greedy for the Maximum Diversity Problem**. *European Journal of Operational Research*, 214(1):31–38, 2011.

[1667] Manuel Lozano, Fred Glover, Carlos García-Martínez, Francisco J. Rodríguez, and Rafael Martí. **Tabu Search with Strategic Oscillation for the Quadratic Minimum Spanning Tree**. *IIE Transactions*, 46(4):414–428, 2014.

[1668] Zhipeng Lü, Fred Glover, and Jin-Kao Hao. **A hybrid metaheuristic approach to solving the UBQP problem**. *European Journal of Operational Research*, 207(3):1254–1262, 2010. `doi:10.1016/j.ejor.2010.06.039`.

[1669] M. Lundy and A. Mees. **Convergence of an Annealing Algorithm**. *Mathematical Programming*, 34(1):111–124, 1986.

[1670] Thibaut Lust and Andrzej Jaszkiewicz. **Speed-up techniques for solving large-scale biobjective TSP**. *Computers & Operations Research*, 37(3):521–533, 2010. `doi:10.1016/j.cor.2009.01.005`.
Keywords: Multiobjective combinatorial optimization, Hybrid metaheuristics, TSP, Local search, Speed-up techniques.

[1671] Thibaut Lust and Jacques Teghem. **Two-phase Pareto local search for the biobjective traveling salesman problem**. *Journal of Heuristics*, 16(3):475–510, 2010. `doi:10.1007/s10732-009-9103-9`.

[1672] Thibaut Lust and Jacques Teghem. **The multiobjective traveling salesman problem: A survey and a new approach**. In Carlos A. Coello Coello, Clarisse Dhaenens, and Laetitia Jourdan, editors, *Advances in Multi-Objective Nature Inspired Computing*, volume 272 of *Studies in Computational Intelligence*, pages 119–141. Springer, 2010.

[1673] Thibaut Lust and Jacques Teghem. **The multiobjective multidimensional knapsack problem: a survey and a new approach**. *Arxiv preprint arXiv:1007.4063*, 2010. *Annotation:* Published as [1674].

[1674] Thibaut Lust and Jacques Teghem. **The multiobjective multidimensional knapsack problem: a survey and a new approach**. *International Transactions in Operational Research*, 19(4):495–520, 2012. `doi:10.1111/j.1475-3995.2011.00840.x`.

[1675] Evelyne Lutton, Pierrick Legrand, Pierre Parrend, Nicolas Monmarché, and Marc Schoenauer, editors. *Artificial Evolution: 13th International Conference, Évolution Artificielle, EA 2017, Paris, France, October 25-27, 2017, Revised Selected*, volume 10764 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2017.

[1676] Eunice López-Camacho, Hugo Terashima-Marin, Peter Ross, and Gabriela Ochoa. **A unified hyper-heuristic framework for solving bin packing problems**. *Expert Systems with Applications*, 41(15):6876–6889, 2014. `doi:10.1016/j.eswa.2014.04.043`.

[1677] Marlos C. Machado, Marc G. Bellemare, Erik Talvitie, Joel Veness, Matthew Hausknecht, and Michael Bowling. **Revisiting the Arcade Learning Environment: Evaluation Protocols and Open Problems for General Agents**. *Journal of Artificial Intelligence Research*, 61(1): 523–562, Jan. 2018. ISSN 1076-9757.

[1678] Gunther Mäckle, Dragan A. Savic, and Godfrey A. Walters. **Application of Genetic Algorithms to Pump Scheduling for Water Supply**. In *Genetic Algorithms in Engineering Systems: Innovations and Applications, GALESIA'95*, volume 414, pages 400–405, Sheffield, UK, Sept. 1995. IEE Conference Publication.

[1679] Nateri K. Madavan. **Multiobjective optimization using a Pareto differential evolution approach**. In David B. Fogel et al., editors, *Proceedings of the 2002 World Congress on Computational Intelligence (WCCI 2002)*, pages 1145–1150, Piscataway, NJ, 2002. IEEE Press.

[1680] Sam Madden. **From Databases to Big Data**. *IEEE Internet Computing*, 16(3), 2012.

[1681] M. Mahdavi, M. Fesanghary, and E. Damangir. **An improved harmony search algorithm for solving optimization problems**. *Applied Mathematics and Computation*, 188(2):1567–1579, 2007. `doi:10.1016/j.amc.2006.11.033`. *Keywords:* Global optimization, Heuristics, Harmony search algorithm, Mathematical programming.

[1682] Michael Maher and Jean-Francois Puget, editors. *Principles and Practice of Constraint Programming, CP98*, volume 1520 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 1998.

[1683] Holger R. Maier, Angus R. Simpson, Aaron C. Zecchin, Wai Kuan Foong, Kuang Yeow Phang, Hsin Yeow Seah, and Chan Lim Tan. **Ant Colony Optimization for Design of Water Distribution Systems**. *Journal of Water Resources Planning and Management, ASCE*, 129(3): 200–209, May / June 2003.

[1684] Guilherme B. Mainieri and Débora P. Ronconi. **New heuristics for total tardiness minimization in a flexible flowshop**. *Optimization Letters*, pages 1–20, 2012.

[1685] C. Maksimović, David Butler, and Fayyaz Ali Memon, editors. *Advances in Water Supply Management: Proceedings of the CCWI '03 Conference, London, 15-17 September 2003*. CRC Press, 2003.

[1686] R. M. Males, R. M. Clark, P. J. Wehrman, and W. E. Gateset. **Algorithm for mixing problems in water systems**. *Journal of Hydraulic Engineering, ASCE*, 111(2):206–219, 1985.

[1687] Yuri Malitsky and Meinolf Sellmann. **Instance-specific algorithm configuration as a method for non-model-based portfolio generation**. In Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors, *Integration of AI and OR Techniques in Contraint Programming for Combinatorial Optimization Problems*, volume 7298 of *Lecture Notes in Computer Science*, pages 244–259. Springer, Heidelberg, 2012. ISBN 978-3-642-29827-1. doi:10.1007/978-3-642-29828-8_16.

[1688] Yuri Malitsky, Deepak Mehta, Barry O'Sullivan, and Helmut Simonis. **Tuning parameters of large neighborhood search for the machine reassignment problem**. In C. Gomes and Meinolf Sellmann, editors, *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, CPAIOR 2010*, volume 7874 of *Lecture Notes in Computer Science*, pages 176–192. Springer, Heidelberg, 2013. doi:10.1007/978-3-642-38171-3_12.

[1689] Vittorio Maniezzo. **Exact and Approximate Nondeterministic Tree-Search Procedures for the Quadratic Assignment Problem**. *INFORMS Journal on Computing*, 11(4):358–369, 1999.

[1690] Vittorio Maniezzo and A. Carbonaro. **An ANTS Heuristic for the Frequency Assignment Problem**. *Future Generation Computer Systems*, 16(8):927–935, 2000.

[1691] Vittorio Maniezzo and Alberto Colorni. **The Ant System Applied to the Quadratic Assignment Problem**. *IEEE Transactions on Knowledge and Data Engineering*, 11(5):769–778, 1999.

[1692] Vittorio Maniezzo and M. Milandri. **An Ant-Based Framework for Very Strongly Constrained Problems**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 222–227. Springer, Heidelberg, 2002.

[1693] Vittorio Maniezzo, M. Boschetti, and M. Jelasity. **An Ant Approach to Membership Overlay Design**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 37–48. Springer, Heidelberg, 2004.

[1694] Vittorio Maniezzo, Roberto Battiti, and Jean-Paul Watson, editors. *Learning and Intelligent Optimization, Second International Conference, LION 2007, Trento, Italy, December 8-12, 2007. Selected Papers*, volume 5313 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[1695] Vittorio Maniezzo, Thomas Stützle, and Stefan Voß, editors. *Matheuristics—Hybridizing Metaheuristics and Mathematical Programming*, volume 10 of *Annals of Information Systems*. Springer, New York, NY, 2009.

[1696] Reinhard Männer and Bernard Manderick, editors. *Parallel Problem Solving from Nature 2, PPSN-II, Brussels, Belgium, September 28-30, 1992*. Elsevier, 1992.

[1697] Christopher D. Manning, Mihai Surdeanu, John Bauer, Jenny Rose Finkel, Steven J. Bethard, and David McClosky. **The Stanford CoreNLP Natural Language Processing Toolkit**. In *Association for Computational Linguistics (ACL) System Demonstrations*, pages 55–60, 2014. *Annotation:* http://www.aclweb.org/anthology/P/P14/P14-5010.

[1698] Hugues Marchand, Alexander Martin, Robert Weismantel, and Laurence Wolsey. **Cutting planes in integer and mixed integer programming**. *Discrete Applied Mathematics*, 123 (1–3):397–446, 2002.

[1699] Elena Marchiori and Adri G. Steenbeek. **An Iterated Heuristic Algorithm for the Set Covering Problem**. In Kurt Mehlhorn, editor, *Algorithm Engineering, 2nd International Workshop, WAE'92*, pages 155–166. Max-Planck-Institut für Informatik, Saarbrücken, Germany, 1998.

[1700] Elena Marchiori and Adri G. Steenbeek. **An Evolutionary Algorithm for Large Scale Set Covering Problems with Application to Airline Crew Scheduling**. In Stefano Cagnoni et al., editors, *Real-World Applications of Evolutionary Computing, EvoWorkshops 2000*, volume 1803 of *Lecture Notes in Computer Science*, pages 367–381, Heidelberg, 2000. Springer.

[1701] C. E. Mariano and E. Morales. **MOAQ: An Ant-Q Algorithm for Multiple Objective Optimization Problems**. In Wolfgang Banzhaf, Jason M. Daida, A. E. Eiben, Max H. Garzon, Vasant Honavar, Mark J. Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 1999*, pages 894–901. Morgan Kaufmann Publishers, San Francisco, CA, 1999.

[1702] R. T. Marler and J. S. Arora. **Survey of multi-objective optimization methods for engineering**. *Structural and Multidisciplinary Optimization*, 26(6):369–395, Apr. 2004. doi:10.1007/s00158-003-0368-6.

[1703] Marie-Eléonore Marmion, Clarisse Dhaenens, Laetitia Jourdan, Arnaud Liefooghe, and Sébastien Verel. **NILS: A Neutrality-Based Iterated Local Search and Its Application to Flowshop Scheduling**. In Peter Merz and Jin-Kao Hao, editors, *Proceedings of EvoCOP 2011 – 11th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 6622 of *Lecture Notes in Computer Science*, pages 191–202. Springer, Heidelberg, 2011.

[1704] Marie-Eléonore Marmion, Franco Mascia, Manuel López-Ibáñez, and Thomas Stützle. **Automatic Design of Hybrid Stochastic Local Search Algorithms**. In María J. Blesa, Christian Blum, Paola Festa, Andrea Roli, and M. Sampels, editors, *Hybrid Metaheuristics*, volume 7919 of *Lecture Notes in Computer Science*, pages 144–158. Springer, Heidelberg, 2013. ISBN 978-3-642-38515-5. doi:10.1007/978-3-642-38516-2_12.

[1705] O. Maron and A. W. Moore. **The Racing Algorithm: Model Selection for Lazy Learners**. *Artificial Intelligence Research*, 11(1–5):193–225, 1997.

[1706] Oded Maron. **Hoeffding Races: Model selection for MRI classification**. Master's thesis, Massachusetts Institute of Technology, 1994.

[1707] Oded Maron and Andrew W. Moore. **Hoeffding races: Accelerating model selection search for classification and function approximation**. In J. D. Cowan, G. Tesauro, and J. Alspector, editors, *Advances in Neural Information Processing Systems*, volume 6, pages 59–66. Morgan Kaufmann Publishers, San Francisco, CA, 1994.

[1708] K. Marriott and P. Stuckey. *Programming With Constraints*. MIT Press, Cambridge, MA, 1998.

[1709] Silvano Martello and Paolo Toth. **Lower bounds and reduction procedures for the bin packing problem**. *Discrete Applied Mathematics*, 28(1):59–70, 1990. doi:10.1016/0166-218X(90)90094-S.

[1710] Silvano Martello and Paolo Toth. *Knapsack Problems: Algorithms and Computer Implementations*. John Wiley & Sons, Chichester, UK, 1990.
Keywords: bin packing.

[1711] Silvano Martello and Daniele Vigo. **Exact solution of the two-dimensional finite bin packing problem**. *Management Science*, 44(3):388–399, 1998. doi:10.1287/mnsc.44.3.388.

[1712] D. Martens, M. De Backer, R. Haesen, J. Vanthienen, M. Snoeck, and B. Baesens. **Classification With Ant Colony Optimization**. *IEEE Transactions on Evolutionary Computation*, 11(5):651–665, 2007.

[1713] Rafael Martí, Gerhard Reinelt, and Abraham Duarte. **A Benchmark Library and a Comparison of Heuristic Methods for the Linear Ordering Problem**. *Computational Optimization and Applications*, 51(3):1297–1317, 2012.

[1714] Rafael Martí, Panos M. Pardalos, and Mauricio G. C. Resende, editors. *Handbook of Heuristics*. Springer International Publishing, 2018. ISBN 978-3-319-07125-1.

[1715] Olivier Martin and S. W. Otto. **Partitioning of Unstructured Meshes for Load Balancing**. *Concurrency: Practice and Experience*, 7(4):303–314, 1995.

[1716] Olivier Martin and S. W. Otto. **Combining Simulated Annealing with Local Search Heuristics**. *Annals of Operations Research*, 63:57–75, 1996.

[1717] Olivier Martin, S. W. Otto, and E. W. Felten. **Large-Step Markov Chains for the Traveling Salesman Problem**. *Complex Systems*, 5(3):299–326, 1991.

[1718] Olivier Martin, S. W. Otto, and E. W. Felten. **Large-step Markov Chains for the TSP Incorporating Local Search Heuristics**. *Operations Research Letters*, 11(4):219–224, 1992.

[1719] Carlos Martín-Vide, Roman Neruda, and Miguel A. Vega-Rodríguez, editors. *Theory and Practice of Natural Computing - 6th International Conference, TPNC 2017*, volume 10687 of *Lecture Notes in Computer Science*. Springer International Publishing, Cham, Switzerland, 2017.

[1720] F. Martínez, V. Bou, V. Hernández, F. Alvarruiz, and J. M. Alonso. **ANN Architectures for Simulating Water Distribution Networks**. In Dragan A. Savic, Godfrey A. Walters, Roger King, and Soon Thiam-Khu, editors, *Proceedings of the Eighth International Conference on Computing and Control for the Water Industry (CCWI 2005)*, volume 1, pages 251–256, University of Exeter, UK, Sept. 2005.

[1721] E. Q. V. Martins. **On a multicritera shortest path problem**. *European Journal of Operational Research*, 16:236–245, 1984.

[1722] Franco Mascia, Mauro Birattari, and Thomas Stützle. **Tuning Algorithms for Tackling Large Instances: An Experimental Protocol**. In Panos M. Pardalos and G. Nicosia, editors, *Learning and Intelligent Optimization, 7th International Conference, LION 7*, volume 7997 of *Lecture Notes in Computer Science*, pages 410–422. Springer, Heidelberg, 2013. `doi:10.1007/978-3-642-44973-4_44`.

[1723] Franco Mascia, Manuel López-Ibáñez, Jérémie Dubois-Lacoste, and Thomas Stützle. **Grammar-based generation of stochastic local search heuristics through automatic algorithm configuration tools**. Technical Report TR/IRIDIA/2013-015, IRIDIA, Université Libre de Bruxelles, Belgium, 2013.

[1724] Franco Mascia, Manuel López-Ibáñez, Jérémie Dubois-Lacoste, and Thomas Stützle. **Grammar-based generation of stochastic local search heuristics through automatic algorithm configuration tools: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2013-009/`, 2013.

[1725] Franco Mascia, Manuel López-Ibáñez, Jérémie Dubois-Lacoste, and Thomas Stützle. **From Grammars to Parameters: Automatic Iterated Greedy Design for the Permutation Flow-shop Problem with Weighted Tardiness**. In Panos M. Pardalos and G. Nicosia, editors, *Learning and Intelligent Optimization, 7th International Conference, LION 7*, volume 7997 of *Lecture Notes in Computer Science*, pages 321–334. Springer, Heidelberg, 2013. `doi:10.1007/978-3-642-44973-4_36`.

[1726] Franco Mascia, Manuel López-Ibáñez, Jérémie Dubois-Lacoste, Marie-Eléonore Marmion, and Thomas Stützle. **Algorithm Comparison by Automatically Configurable Stochastic Local Search Frameworks: A Case Study Using Flow-Shop Scheduling Problems**. In María J. Blesa, Christian Blum, and Stefan Voß, editors, *Hybrid Metaheuristics*, volume 8457 of *Lecture Notes in Computer Science*, pages 30–44. Springer, Heidelberg, 2014. ISBN 978-3-319-07643-0. `doi:10.1007/978-3-319-07644-7_3`.

[1727] Franco Mascia, Manuel López-Ibáñez, Jérémie Dubois-Lacoste, and Thomas Stützle. **Grammar-Based Generation of Stochastic Local Search Heuristics through Automatic Algorithm Configuration Tools**. *Computers & Operations Research*, 51:190–199, 2014. `doi:10.1016/j.cor.2014.05.020`.

[1728] Franco Mascia, Paola Pellegrini, Thomas Stützle, and Mauro Birattari. **An Analysis of Parameter Adaptation in Reactive Tabu Search**. *International Transactions in Operational Research*, 21(1):127–152, 2014.

[1729] Florence Massen, Yves Deville, and Pascal van Hentenryck. **Pheromone-Based Heuristic Column Generation for Vehicle Routing Problems with Black Box Feasibility**. In Nicolas Beldiceanu, Narendra Jussien, and Eric Pinson, editors, *Integration of AI and OR Techniques in Contraint Programming for Combinatorial Optimization Problems*, volume 7298 of *Lecture Notes in Computer Science*, pages 260–274. Springer, Heidelberg, 2012. ISBN 978-3-642-29827-1. `doi:10.1007/978-3-642-29828-8_17`.

[1730] Florence Massen, Manuel López-Ibáñez, Thomas Stützle, and Yves Deville. **Experimental Analysis of Pheromone-Based Heuristic Column Generation Using irace**. In María J. Blesa, Christian Blum, Paola Festa, Andrea Roli, and M. Sampels, editors, *Hybrid Metaheuristics*, volume 7919 of *Lecture Notes in Computer Science*, pages 92–106. Springer, Heidelberg, 2013. ISBN 978-3-642-38515-5. `doi:10.1007/978-3-642-38516-2_8`.

[1731] Renzo Massobrio, Sergio Nesmachnow, and Bernabé Dorronsoro. **Virtual Savant: learning for optimization**. In Marin Vlastelica, Jialin Song, Aaron Ferber, Brandon Amos, Georg Martius, Bistra Dilkina, and Yisong Yue, editors, *Learning Meets Combinatorial Algorithms Workshop at NeurIPS 2020, LMCA 2020, Vancouver, Canada, December 12, 2020*, pages 1–5, 2020.

[1732] Renaud Masson, Thibaut Vidal, Julien Michallet, Puca Huachi Vaz Penna, Vinicius Petrucci, Anand Subramanian, and Hugues Dubedout. **An Iterated Local Search Heuristic for Multi-capacity Bin Packing and Machine Reassignment Problems**. *Expert Systems with Applications*, 40(13):5266–5275, 2013.

[1733] Yazid Mati, Stéphane Dauzère-Pérés, and Chams Lahlou. **A General Approach for Optimizing Regular Criteria in the Job-shop Scheduling Problem**. *European Journal of Operational Research*, 212(1):33–42, 2011.

[1734] Michael Maur, Manuel López-Ibáñez, and Thomas Stützle. **Pre-scheduled and adaptive parameter variation in $\mathcal{MAX}$–$\mathcal{MIN}$ Ant System**. In Hisao Ishibuchi et al., editors, *Proceedings of the 2010 Congress on Evolutionary Computation (CEC 2010)*, pages 3823–3830. IEEE Press, Piscataway, NJ, 2010. `doi:10.1109/CEC.2010.5586332`.

[1735] Atanu Mazumdar, Tinkle Chugh, Kaisa Miettinen, and Manuel López-Ibáñez. **On Dealing with Uncertainties from Kriging Models in Offline Data-Driven Evolutionary Multiobjective Optimization**. In Kalyanmoy Deb, Erik D. Goodman, Carlos A. Coello Coello, Kathrin Klamroth, Kaisa Miettinen, Sanaz Mostaghim, and Patrick Reed, editors, *Evolutionary Multi-criterion Optimization, EMO 2019*, volume 11411 of *Lecture Notes in Computer Science*, pages 463–474. Springer International Publishing, Cham, Switzerland, 2019. ISBN 978-3-030-12597-4. `doi:10.1007/978-3-030-12598-1_37`.

[1736] Barry McCollum, Andrea Schaerf, Ben Paechter, Paul McMullan, Rhyd M. R. Lewis, Andrew J. Parkes, Luca Di Gaspero, Rong Qu, and Edmund K. Burke. **Setting the Research Agenda in Automated Timetabling: The Second International Timetabling Competition**. *INFORMS*, 22(1):120–130, Feb. 2010. `doi:10.1287/ijoc.1090.0320`.

[1737] Ross M. McConnell, Kurt Mehlhorn, Stefan Näher, and Pascal Schweitzer. **Certifying algorithms**. *Computer Science Review*, 5(2):119–161, 2011. ISSN 1574-0137. `doi:10.1016/j.cosrev.2010.09.009`.
Keywords: Algorithms, Software reliability, Certification.

[1738] G. McCormick and R. S. Powell. **Optimal Pump Scheduling in Water Supply Systems with Maximum Demand Charges**. *Journal of Water Resources Planning and Management, ASCE*, 129(5):372–379, 2003. `doi:10.1061/(ASCE)0733-9496(2003)129:5(372)`.
Keywords: water supply; pumps; Markov processes; cost optimal control.

[1739] G. McCormick and R. S. Powell. **A progressive mixed integer-programming method for pump scheduling**. In C. Maksimović, David Butler, and Fayyaz Ali Memon, editors, *Advances in Water Supply Management*, pages 307–313. CRC Press, 2003.

[1740] G. McCormick and R. S. Powell. **Optimal Pump Scheduling in Water Supply Systems with Maximum Demand Charges**. *Journal of Water Resources Planning and Management, ASCE*, 129(5):372–379, Sept. / Oct. 2003.

[1741] G. McCormick and R. S. Powell. **Derivation of near-optimal pump schedules for water distribution by simulated annealing**. *Journal of the Operational Research Society*, 55(7): 728–736, July 2004. `doi:10.1057/palgrave.jors.2601718`.

[1742] James McDermott. **When and Why Metaheuristics Researchers can Ignore "No Free Lunch" Theorems**. *SN Computer Science*, 1(60):1–18, 2020. `doi:10.1007/s42979-020-0063-3`.

[1743] James McDermott, Mauro Castelli, Lukás Sekanina, Evert Haasdijk, and Pablo García-Sánchez, editors. *Genetic Programming - 20th European Conference, EuroGP 2017, Amsterdam, The Netherlands, April 19-21, 2017, Proceedings*, volume 10196 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2017. ISBN 978-3-319-55695-6. `doi:10.1007/978-3-319-55696-3`.

[1744] Catherine C. McGeoch. **Analyzing Algorithms by Simulation: Variance Reduction Techniques and Simulation Speedups**. *ACM Computing Surveys*, 24(2):195–212, 1992. `doi:10.1145/130844.130853`.
Keywords: experimental analysis of algorithms, move-to-front rule, self-organizing sequential search, statistical analysis of algorithms, transpose rule, variance reduction techniques.

[1745] Catherine C. McGeoch. **Toward an Experimental Method for Algorithm Simulation**. *INFORMS Journal on Computing*, 8(1):1–15, 1996. `doi:10.1287/ijoc.8.1.1`.

[1746] Catherine C. McGeoch. *A Guide to Experimental Algorithmics*. Cambridge University Press, 2012.

[1747] Sheila A. McIlraith and Kilian Q. Weinberger, editors. *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence, February 2-7, 2018, New Orleans, Louisiana, USA*. AAAI Press, Feb. 2018.

[1748] Michael D. McKay, Richard J. Beckman, and W. J. Conover. **A Comparison of Three Methods for Selecting Values of Input Variables in the Analysis of Output from a Computer Code**. *Technometrics*, 21(2):239–245, 1979. `doi:10.2307/1268522`.

[1749] Robert I. Mckay, Nguyen Xuan Hoai, Peter Alexander Whigham, Yin Shan, and Michael O'Neill. **Grammar-based Genetic Programming: A Survey**. *Genetic Programming and Evolvable Machines*, 11(3-4):365–396, Sept. 2010. `doi:10.1007/s10710-010-9109-y`.

[1750] Russell McKenna, Valentin Bertsch, Kai Mainzer, and Wolf Fichtner. **Combining local preferences with multi-criteria decision analysis and linear optimization to develop feasible energy concepts in small communities**. *European Journal of Operational Research*, 268(3):1092–1110, 2018.

[1751] Klaus Meer. **Simulated annealing versus Metropolis for a TSP instance**. *Information Processing Letters*, 104(6):216–219, 2007.

[1752] Kurt Mehlhorn, editor. *Algorithm Engineering, 2nd International Workshop, WAE'92*, 1998. Max-Planck-Institut für Informatik, Saarbrücken, Germany.

[1753] Jörn Mehnen, Mario Köppen, Ashraf Saad, and Ashutosh Tiwari, editors. *Applications of Soft Computing*, volume 58 of *Advances in Intelligent and Soft Computing*. Springer, Berlin/Heidelberg, 2009.

[1754] J. Fabian Meier and Uwe Clausen. **A versatile heuristic approach for generalized hub location problems**. Preprint, Provided upon personal request, 2014.

[1755] Gábor Melis, Chris Dyer, and Phil Blunsom. **On the State of the Art of Evaluation in Neural Language Models**. *Arxiv preprint arXiv:1807.02811*, 2017. URL http://arxiv.org/abs/1707.05589.

[1756] Chris S. Mellish, editor. *IJCAI 1995, Proceedings of the 14th International Joint Conference on Artificial Intelligence, IJCAI 95, Montréal Québec, Canada, August 20-25, 1995, 2 Volumes*. Morgan Kaufmann Publishers, 1995.

[1757] L. Melo, F. Pereira, and E. Costa. **MC-ANT: a Multi-colony Ant Algorithm**. In Pierre Collet, Nicolas Monmarché, Pierrick Legrand, Marc Schoenauer, and Evelyne Lutton, editors, *Artificial Evolution: 9th International Conference, Evolution Artificielle, EA, 2009*, volume 5975 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2010.

[1758] Marcos Melo Silva, Anand Subramanian, and Luiz Satoru Ochi. **An Iterated Local Search Heuristic for the Split Delivery Vehicle Routing Problem**. *Computers & Operations Research*, 53:234–249, 2015.

[1759] Gauci Melvin, Tony J. Dodd, and Roderich Groß. **Why 'GSA: a gravitational search algorithm' is not genuinely based on the law of gravity**. *Natural Computing*, 11(4): 719–720, 2012.

[1760] Adriana Menchaca-Mendez and Carlos A. Coello Coello. **GD-MOEA: A New Multi-Objective Evolutionary Algorithm Based on the Generational Distance Indicator**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part I*, volume 9018 of *Lecture Notes in Computer Science*, pages 156–170. Springer, Heidelberg, 2015.

[1761] Adriana Menchaca-Mendez and Carlos A. Coello Coello. **GDE-MOEA: A New MOEA based on the generational distance indicator and ϵ-dominance**. In *Proceedings of the 2015 Congress on Evolutionary Computation (CEC 2015)*, pages 947–955, Piscataway, NJ, 2015. IEEE Press.

[1762] Hector Mendoza, Aaron Klein, Matthias Feurer, Jost Tobias Springenberg, and Frank Hutter. **Towards automatically-tuned neural networks**. In *Workshop on Automatic Machine Learning*, pages 58–65, 2016.

[1763] Ole J. Mengshoel. **Understanding the role of noise in stochastic local search: Analysis and experiments**. *Artificial Intelligence*, 172(8):955–990, 2008.

[1764] Juan-Julián Merelo and Carlos Cotta. **Building bridges: the role of subfields in metaheuristics**. *SIGEVOlution*, 1(4):9–15, 2006. doi:10.1145/1229735.1229737.

[1765] Juan-Julián Merelo et al., editors. *Parallel Problem Solving from Nature – PPSN VII*, volume 2439 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2002.

[1766] D. Merkle and Martin Middendorf. **Prospects for Dynamic Algorithm Control: Lessons from the Phase Structure of Ant Scheduling Algorithms**. In R. B. Heckendorn, editor, *Proceedings of the 2001 Genetic and Evolutionary Computation Conference – Workshop Program. Workshop "The Next Ten Years of Scheduling Research"*, pages 121–126. Morgan Kaufmann Publishers, San Francisco, CA, 2001.

[1767] D. Merkle and Martin Middendorf. **Modeling the Dynamics of Ant Colony Optimization**. *Evolutionary Computation*, 10(3):235–262, 2002.

[1768] D. Merkle and Martin Middendorf. **Ant Colony Optimization with Global Pheromone Evaluation for Scheduling a Single Machine**. *Applied Intelligence*, 18(1):105–111, 2003.

[1769] D. Merkle, Martin Middendorf, and Hartmut Schmeck. **Ant Colony Optimization for Resource-Constrained Project Scheduling**. In Darrell Whitley et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2000*, pages 893–900. Morgan Kaufmann Publishers, San Francisco, CA, 2000.

[1770] D. Merkle, Martin Middendorf, and Hartmut Schmeck. **Ant Colony Optimization for Resource-Constrained Project Scheduling**. *IEEE Transactions on Evolutionary Computation*, 6(4):333–346, 2002.

[1771] Olaf Mersmann. *mco: Multiple Criteria Optimization Algorithms and Related Functions*, 2014. URL http://CRAN.R-project.org/package=mco. R package version 1.0-15.1.

[1772] Olaf Mersmann, Heike Trautmann, Boris Naujoks, and Claus Weihs. **Benchmarking Evolutionary Multiobjective Optimization Algorithms**. In Hisao Ishibuchi et al., editors, *Proceedings of the 2010 Congress on Evolutionary Computation (CEC 2010)*, pages 1–8, Piscataway, NJ, 2010. IEEE Press.
Annotation: TR: http://hdl.handle.net/2003/26671.

[1773] Olaf Mersmann, Bernd Bischl, Heike Trautmann, Mike Preuss, Claus Weihs, and Günther Rudolph. **Exploratory Landscape Analysis**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 829–836. ACM Press, New York, NY, 2011.
Keywords: continuous optimization, landscape analysis, instance features.

[1774] Peter Merz and Bernd Freisleben. **Fitness Landscape Analysis and Memetic Algorithms for the Quadratic Assignment Problem**. *IEEE Transactions on Evolutionary Computation*, 4(4):337–352, 2000.

[1775] Peter Merz and Bernd Freisleben. **Memetic Algorithms for the Traveling Salesman Problem**. *Complex Systems*, 13(4):297–345, 2001.

[1776] Peter Merz and Bernd Freisleben. **Greedy and Local Search Heuristics for Unconstrained Binary Quadratic Programming**. *Journal of Heuristics*, 8(2):197–213, 2002. doi:10.1023/A:1017912624016.

[1777] Peter Merz and Jin-Kao Hao, editors. *Proceedings of EvoCOP 2011 – 11th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 6622 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2011.

[1778] Peter Merz and Jutta Huhse. **An Iterated Local Search Approach for Finding Provably Good Solutions for Very Large TSP Instances**. In Günther Rudolph et al., editors, *Parallel Problem Solving from Nature, PPSN X*, volume 5199 of *Lecture Notes in Computer Science*, pages 929–939. Springer, Heidelberg, 2008.

[1779] Peter Merz and Kengo Katayama. **Memetic algorithms for the unconstrained binary quadratic programming problem**. *Biosystems*, 78(1):99–118, 2004. `doi:10.1016/j.biosystems.2004.08.002`.

[1780] Rafael G. Mesquita, Ricardo M. A. Silva, Carlos A. B. Mello, and Péricles B. C. Miranda. **Parameter tuning for document image binarization using a racing algorithm**. *Expert Systems with Applications*, 42(5):2593–2603, 2015. `doi:10.1016/j.eswa.2014.10.039`. *Keywords:* irace.

[1781] N. Metropolis, A. W. Rosenbluth, M. N. Rosenbluth, A. Teller, and E. Teller. **Equation of State Calculations by Fast Computing Machines**. *Journal of Chemical Physics*, 21:1087–1092, 1953.

[1782] Nicolas Meuleau and Marco Dorigo. **Ant Colony Optimization and Stochastic Gradient Descent**. *Artificial Life*, 8(2):103–121, 2002.

[1783] Bernd Meyer. **Convergence control in ACO**. In *Genetic and Evolutionary Computation Conference (GECCO)*, Seattle, WA, 2004. Late-breaking paper available on CD.

[1784] Bernd Meyer and Andreas T. Ernst. **Integrating ACO and Constraint Propagation**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 166–177. Springer, Heidelberg, 2004.

[1785] Efrén Mezura-Montes, Jesús Velázquez-Reyes, and Carlos A. Coello Coello. **A comparative study of differential evolution variants for global optimization**. In M. Cattolico et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2006*, pages 485–492. ACM Press, New York, NY, 2006. `doi:10.1145/1143997.1144086`.

[1786] Efrén Mezura-Montes, M. Reyes-Sierra, and Carlos A. Coello Coello. **Multi-objective optimization using differential evolution: a survey of the state-of-the-art**. In Uday K. Chakraborty, editor, *Advances in differential evolution*, pages 173–196. Springer, Heidelberg, 2008. `doi:10.1007/978-3-540-68830-3_7`.

[1787] R. M'Hallah. **An iterated local search variable neighborhood descent hybrid heuristic for the total earliness tardiness permutation flow shop**. *International Journal of Production Research*, 52(13):3802–3819, 2014.

[1788] MIC. *Proceedings of MIC 2013, the 10th Metaheuristics International Conference*, 2013.

[1789] Zbigniew Michalewicz. *Genetic Algorithms + Data Structures = Evolution Programs*. Springer, Berlin, Germany, 3rd edition, 1996.

[1790] Zbigniew Michalewicz and David B. Fogel. *How to Solve It: Modern Heuristics*. Springer, 2nd edition, 2004.

[1791] Zbigniew Michalewicz, Dipankar Dasgupta, Rodolphe G. Le Riche, and Marc Schoenauer. **Evolutionary algorithms for constrained engineering problems**. *Computers and Industrial Engineering*, 30(4):851–870, 1996. `doi:10.1016/0360-8352(96)00037-X`.

[1792] Julien Michallet, Christian Prins, Farouk Yalaoui, and Grégoire Vitry. **Multi-start Iterated Local Search for the Periodic Vehicle Routing Problem with Time Windows and Time Spread Constraints on Services**. *Computers & Operations Research*, 41:196–207, 2014.

[1793] Laurent D. Michel and Pascal van Hentenryck. **Iterative Relaxations for Iterative Flattening in Cumulative Scheduling**. In Shlomo Zilberstein, J. Koehler, and S. Koenig, editors, *Proceedings of the Fourteenth International Conference on Automated Planning and Scheduling (ICAPS 2004)*, pages 200–208. AAAI Press/MIT Press, Menlo Park, CA, 2004.

[1794] R. Michel and M. Middendorf. **An Island Model based Ant System with Lookahead for the Shortest Supersequence Problem**. In Agoston E. Eiben, Thomas Bäck, Marc Schoenauer, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature – PPSN V*, volume 1498 of *Lecture Notes in Computer Science*, pages 692–701. Springer, Heidelberg, 1998.

[1795] Martin Middendorf and Christian Blum, editors. *Evolutionary Computation in Combinatorial Optimization – 13th European Conference, EvoCOP 2013, Vienna, Austria, April 3-5, 2013, Proceedings*, volume 7832 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2013.

[1796] Kaisa Miettinen. *Nonlinear Multiobjective Optimization*. Kluwer Academic Publishers, Boston, MA, 1999.

[1797] Kaisa Miettinen. **Survey of methods to visualize alternatives in multiple criteria decision making problems**. *OR Spectrum*, 36(1):3–37, 2014.

[1798] Kaisa Miettinen, Francisco Ruiz, and Andrzej Wierzbicki. **Introduction to Multiobjective Optimization: Interactive Approaches**. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Słowiński, editors, *Multiobjective Optimization: Interactive and Evolutionary Approaches*, volume 5252 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008. `doi:10.1007/978-3-540-88908-3_2`.

[1799] Kaisa Miettinen, Jyri Mustajoki, and T. J. Stewart. **Interactive multiobjective optimization with NIMBUS for decision making under uncertainty**. *OR Spectrum*, 36(1):39–56, 2014.

[1800] R. B. Millar and M. J. Anderson. **Remedies for pseudoreplication**. *Fisheries Research*, 70 (2–3):397–407, 2004. `doi:10.1016/j.fishres.2004.08.016`.

[1801] George A. Miller. **The magical number seven, plus or minus two: Some limits on our capacity for processing information**. *Psychological Review*, 63(2):81–97, 1956. `doi:10.1037/h0043158`.

[1802] Raymond E. Miller and W. Thatcher, James, editors. *Complexity of Computer Computations*, The IBM Research Symposia Series, 1972. Springer.

[1803] Gerardo Minella, Rubén Ruiz, and M. Ciavotta. **A Review and Evaluation of Multiobjective Algorithms for the Flowshop Scheduling Problem**. *INFORMS Journal on Computing*, 20 (3):451–471, 2008.

[1804] Steven Minton. **Automatically configuring constraint satisfaction programs: A case study**. *Constraints*, 1(1):7–43, 1996. `doi:10.1007/BF00143877`.

[1805] Péricles Miranda, Ricardo M. Silva, and Ricardo B. Prudêncio. **Fine-Tuning of Support Vector Machine Parameters Using Racing Algorithms**. In *European Symposium on Artificial Neural Networks, ESSAN*, pages 325–330, 2014.
Annotation: `https://www.elen.ucl.ac.be/esann/proceedings/papers.php?ann=2014`.

[1806] Péricles Miranda, Ricardo M. Silva, and Ricardo B. Prudêncio. **I/S-Race: An Iterative Multi-objective Racing Algorithm for the SVM Parameter Selection Problem**. In *European Symposium on Artificial Neural Networks, ESSAN*, pages 573–578, 2015.
Annotation: `https://www.elen.ucl.ac.be/esann/proceedings/papers.php?ann=2015`.

[1807] Alfonsas Misevičius. **Genetic Algorithm Hybridized with Ruin and Recreate Procedure: Application to the Quadratic Assignment Problem**. *Knowledge Based Systems*, 16(5–6): 261–268, 2003.

[1808] Alfonsas Misevičius. **Ruin and Recreate Principle Based Approach for the Quadratic Assignment Problem**. In E. Cantú-Paz et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2003, Part I*, volume 2723 of *Lecture Notes in Computer Science*, pages 598–609, Heidelberg, 2003. Springer.

[1809] Alfonsas Misevičius. **A modified simulated annealing algorithm for the quadratic assignment problem**. *Informatica*, 14(4):497–514, 2003.

[1810] Alfonsas Misevičius and Dovilė Kuznecovaitė. **Investigating some strategies for construction of initial populations in genetic algorithms**. *Computational Science and Techniques*, 5(1):560–573, 2018.

[1811] Alfonsas Misevičius, Dovilė Kuznecovaitė, and Jūratė Platužienė. **Some Further Experiments with Crossover Operators for Genetic Algorithms**. *Informatica*, 29(3):499–516, 2018.

[1812] David G. Mitchell, Bart Selman, and Hector J. Levesque. **Hard and Easy Distributions of SAT Problems**. In William R. Swartout, editor, *Proceedings of the 10th National Conference on Artificial Intelligence*, pages 459–465. AAAI Press/MIT Press, Menlo Park, CA, 1992.

[1813] Debasis Mitra, Fabio Romeo, and Alberto Sangiovanni-Vincentelli. **Convergence and Finite-Time Behavior of Simulated Annealing**. In *Decision and Control, 1985 24th IEEE Conference on*, pages 761–767. IEEE, 1985.

[1814] ML4AAD Group. **SMAC v3 Project**. https://github.com/automl/SMAC3, 2017. Version visited last on August 2017.

[1815] Nenad Mladenović and Pierre Hansen. **Variable Neighborhood Search**. *Computers & Operations Research*, 24(11):1097–1100, 1997.

[1816] Volodymyr Mnih, Csaba Szepesvári, and Jean-Yves Audibert. **Empirical Bernstein stopping**. In William W. Cohen, Andrew McCallum, and Sam T. Roweis, editors, *Proceedings of the 25th International Conference on Machine Learning, ICML 2008*, pages 672–679. ACM Press, New York, NY, 2008.

[1817] Volodymyr Mnih, Koray Kavukcuoglu, David Silver, Andrei A Rusu, Joel Veness, Marc G Bellemare, Alex Graves, Martin Riedmiller, Andreas K Fidjeland, Georg Ostrovski, et al. **Human-level control through deep reinforcement learning**. *Nature*, 518(7540):529, 2015.

[1818] Jonas Močkus. **On Bayesian Methods for Seeking the Extremum**. In G. I. Marchuk, editor, *Optimization Techniques IFIP Technical Conference Novosibirsk, July 1–7, 1974*, volume 27 of *Lecture Notes in Computer Science*, pages 400–404. Springer, Berlin/Heidelberg, 1975. doi:10.1007/3-540-07165-2_55.
       Annotation: Proposed Bayesian optimization.

[1819] Jonas Mockus. *Bayesian Approach to Global Optimization: Theory and Applications*. Kluwer Academic Publishers, 1989.

[1820] Jonas Močkus, Vytautas Tiesis, and Antanas Zilinskas. **The application of bayesian methods for seeking the extremum**. *Towards global optimization*, pages 117–129, 1978.
       Annotation: Proposed Bayesian optimization.

[1821] Atefeh Moghaddam, Farouk Yalaoui, and Lionel Amodeo. **Lorenz versus Pareto Dominance in a Single Machine Scheduling Problem with Rejection**. In R. H. C. Takahashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2011*, volume 6576 of *Lecture Notes in Computer Science*, pages 520–534. Springer, Heidelberg, 2011.

[1822] Teodor Mihai Moldovan and Pieter Abbeel. **Safe Exploration in Markov Decision Processes**. In John Langford and Joelle Pineau, editors, *Proceedings of the 29th International Conference on Machine Learning, ICML 2012*, pages 1451–1458. Omnipress, 2012.

[1823] Alysson Mondoro, Dan M. Frangopol, and Liang Liu. **Multi-criteria robust optimization framework for bridge adaptation under climate change**. *Structural Safety*, 74:14–23, 2018.

[1824] Jean-Noël Monette, Yves Deville, and Pascal van Hentenryck. **Aeon: Synthesizing Scheduling Algorithms from High-Level Models**. In John W. Chinneck, Bjarni Kristjansson, and Matthew J. Saltzman, editors, *Operations Research and Cyber-Infrastructure*, volume 47 of *Operations Research/Computer Science Interfaces*, pages 43–59. Springer, New York, NY, 2009.

[1825] Nicolas Monmarché, G. Venturini, and M. Slimane. **On how *pachycondyla apicalis* ants suggest a new search algorithm**. *Future Generation Computer Systems*, 16(8):937–946, 2000.

[1826] Nicolas Monmarché, El-Ghazali Talbi, Pierre Collet, Marc Schoenauer, and Evelyne Lutton, editors. *Artificial Evolution, 8th International Conference, Evolution Artificielle, EA 2007, Tours, France, October 29-31, 2007 Revised Selected Papers*, volume 4926 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008. `doi:10.1007/978-3-540-79305-2`.

[1827] Raúl Monroy, Gustavo Arroyo-Figueroa, Luis Enrique Sucar, and Humberto Sossa, editors. *MICAI 2004: Advances in Artificial Intelligence: Third Mexican International Conference on Artificial Intelligence, Mexico City, Mexico, April 26-30, 2004. Proceedings*, volume 2972 of *Lecture Notes in Artificial Intelligence*. Springer, Heidelberg, 2004.

[1828] Roberto Montemanni, L. M. Gambardella, A. E. Rizzoli, and A. V. Donati. **Ant colony system for a dynamic vehicle routing problem**. *Journal of Combinatorial Optimization*, 10:327–343, 2005.

[1829] Elizabeth Montero and María-Cristina Riff. **Towards a Method for Automatic Algorithm Configuration: A Design Evaluation Using Tuners**. In Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič, and Jim Smith, editors, *PPSN 2014*, volume 8672 of *Lecture Notes in Computer Science*, pages 90–99. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-10762-2_9`.

[1830] Elizabeth Montero, María-Cristina Riff, and Bertrand Neveu. **An Evaluation of Off-line Calibration Techniques for Evolutionary Algorithms**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2010*, pages 299–300, New York, NY, 2010. ACM Press.

[1831] Elizabeth Montero, Leslie Pérez Cáceres, María-Cristina Riff, and Carlos A. Coello Coello. **Are State-of-the-Art Fine-Tuning Algorithms Able to Detect a Dummy Parameter?** In Carlos A. Coello Coello et al., editors, *Parallel Problem Solving from Nature, PPSN XII*, volume 7491 of *Lecture Notes in Computer Science*, pages 306–315. Springer, Heidelberg, 2012. `doi:10.1007/978-3-642-32937-1_31`.

[1832] Elizabeth Montero, María-Cristina Riff, and Bertrand Neveu. **A Beginner's Buide to Tuning Methods**. *Applied Soft Computing*, 17:39–51, 2014. `doi:10.1016/j.asoc.2013.12.017`.

[1833] Marco A. Montes de Oca. *Incremental Social Learning in Swarm Intelligence Systems*. PhD thesis, IRIDIA, École polytechnique, Université Libre de Bruxelles, Belgium, 2011. *Annotation:* Supervised by Marco Dorigo.

[1834] Marco A. Montes de Oca, Thomas Stützle, Mauro Birattari, and Marco Dorigo. **Frankenstein's PSO: A Composite Particle Swarm Optimization Algorithm**. *IEEE Transactions on Evolutionary Computation*, 13(5):1120–1132, 2009. `doi:10.1109/TEVC.2009.2021465`.

[1835] Marco A. Montes de Oca, Doğan Aydın, and Thomas Stützle. **An Incremental Particle Swarm for Large-Scale Continuous Optimization Problems: An Example of Tuning-in-the-loop (Re)Design of Optimization Algorithms**. *Soft Computing*, 15(11):2233–2255, 2011. `doi:10.1007/s00500-010-0649-0`.

[1836] Douglas C. Montgomery. *Design and Analysis of Experiments*. John Wiley & Sons, New York, NY, 8th edition, 2012.

[1837] James Montgomery. *Solution Biases and Pheromone Representation Selection in Ant Colony Optimisation*. PhD thesis, School of Information Technology, Bond University, Australia, 2005.

[1838] James Montgomery, Marcus Randall, and Tim Hendtlass. **Solution bias in ant colony optimisation: Lessons for selecting pheromone models**. *Computers & Operations Research*, 35(9):2728–2749, 2008. `doi:10.1016/j.cor.2006.12.014`.

[1839] Gilberto Montibeller and Hugo Yoshizaki. **A Framework for Locating Logistic Facilities with Multi-Criteria Decision Analysis**. In R. H. C. Takahashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2011*, volume 6576 of *Lecture Notes in Computer Science*, pages 505–519. Springer, Heidelberg, 2011.

[1840] Andrew W. Moore and Mary S. Lee. **Efficient Algorithms for Minimizing Cross Validation Error**. In William W. Cohen and Haym Hirsh, editors, *Proceedings of the 11th International Conference on Machine Learning, ICML 1994*, pages 190–198, San Francisco, CA, 1994. Morgan Kaufmann Publishers.

[1841] A. M. Mora, Juan-Julián Merelo, Juan Luis Jiménez Laredo, C. Millan, and J. Torrecillas. **CHAC, a MOACO algorithm for computation of bi-criteria military unit path in the battlefield: Presentation and first results**. *International Journal of Intelligent Systems*, 24 (7):818–843, 2009.

[1842] Antonio M. Mora and Giovanni Squillero, editors. *Applications of Evolutionary Computation - 18th European Conference, EvoApplications 2015, Copenhagen, Denmark, April 8 – 10, 2015, Proceedings*, volume 9028 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2015.

[1843] A. Moraglio and A. Kattan. **Geometric Generalisation of Surrogate Model Based Optimization to Combinatorial Spaces**. In Peter Merz and Jin-Kao Hao, editors, *Proceedings of EvoCOP 2011 – 11th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 6622 of *Lecture Notes in Computer Science*, pages 142–154. Springer, Heidelberg, 2011.

[1844] A. Moraglio, Yong-Hyuk Kim, and Yourim Yoon. **Geometric Surrogate-based Optimisation for Permutation-based Problems**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2011*, pages 133–134. ACM Press, New York, NY, 2011.

[1845] A. Moraglio, Sara Silva, Krzysztof Krawiec, Penousal Machado, and Carlos Cotta, editors. *Proceedings of the 15th European Conference on Genetic Programming, EuroGP 2012*, volume 7244 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2012.

[1846] Peter D. Morgan. **Simulation of an adaptive behavior mechanism in an expert decision-maker**. *IEEE Transactions on Systems, Man, and Cybernetics*, 23(1):65–76, 1993.

[1847] Sara Morin, Caroline Gagné, and Marc Gravel. **Ant colony optimization with a specialized pheromone trail for the car-sequencing problem**. *European Journal of Operational Research*, 197(3):1185–1191, 2009. `doi:10.1016/j.ejor.2008.03.033`.
Keywords: Ant colony optimization,Car-sequencing problem,Pheromone trail,Scheduling.

[1848] Max D. Morris and Toby J. Mitchell. **Exploratory designs for computational experiments**. *Journal of Statistical Planning and Inference*, 43(3):381–402, 1995. `doi:10.1016/0378-3758(94) 00035-T`.
Keywords: Bayesian prediction.

[1849] Pail Morris. **The Breakout Method for Escaping from Local Minima**. In Richard Fikes and Wendy G. Lehnert, editors, *Proceedings of the 11th National Conference on Artificial Intelligence*, pages 40–45. AAAI Press/MIT Press, Menlo Park, CA, 1993.

[1850] J. N. Morse. **Reducing the size of the nondominated set: Pruning by clustering**. *Computers & Operations Research*, 7(1-2):55–66, 1980.

[1851] Pablo Moscato. **On Evolution, Search, Optimization, Genetic Algorithms and Martial Arts: Towards Memetic Algorithms**. Caltech Concurrent Computation Program, C3P Report 826, Caltech, 1989.

[1852] Pablo Moscato. **Memetic algorithms: a short introduction**. In David Corne, Marco Dorigo, and Fred Glover, editors, *New Ideas in Optimization*, pages 219–234. McGraw Hill, London, UK, 1999.

[1853] Pablo Moscato and José F. Fontanari. **Stochastic Versus Deterministic Update in Simulated Annealing**. *Physics Letters A*, 146(4):204–208, 1990.

[1854] J. D. Moss and C. G. Johnson. **An ant colony algorithm for multiple sequence alignment in bioinformatics**. In D. W. Pearson, N. C. Steele, and R. F. Albrecht, editors, *Artificial Neural Networks and Genetic Algorithms*, pages 182–186. Springer Verlag, 2003.

[1855] Jack Mostow and Chuck Rich, editors. *Proceedings of the Fifteenth National Conference on Artificial Intelligence and Tenth Innovative Applications of Artificial Intelligence Conference, AAAI 98, IAAI 98, July 26-30, 1998, Madison, Wisconsin, USA*, 1998. AAAI Press/MIT Press, Menlo Park, CA.

[1856] J. Mote, D. L. Olson, and M. A. Venkataramanan. **A comparative multiobjective programming study**. *Mathematical and Computer Modelling*, 10(10):719–729, 1988. doi:10. 1016/0895-7177(88)90085-4.
Keywords: artificial DM, interactive.
Annotation: The purpose of this study was to systematically evaluate a number of multiobjective programming concepts relative to reflection of utility, assurance of nondominated solutions and practicality for larger problems using conventional software. In the problem used, the nonlinear simulated DM utility function applied resulted in a nonextreme point solution. Very often, the preferred solution could end up being an extreme point solution, in which case the techniques relying upon LP concepts would work as well if not better than utilizing constrained objective attainments. The point is that there is no reason to expect linear or near linear utility.

[1857] Lucien Mousin, Marie-Eléonore Kessaci, and Clarisse Dhaenens. **Exploiting Promising Sub-Sequences of Jobs to solve the No-Wait Flowshop Scheduling Problem**. *Arxiv preprint arXiv:1903.09035*, 2019. URL http://arxiv.org/abs/1903.09035.

[1858] Vincent Mousseau. *Elicitation des préférences pour l'aide multicritère à la décision*. PhD thesis, Université Paris-Dauphine, Paris, France, 2003.

[1859] Vincent Mousseau and Roman Słowiński. **Inferring an ELECTRE TRI model from assignment examples**. *Journal of Global Optimization*, 12(2):157–174, 1998.

[1860] Sébastien Mouthuy, Yves Deville, and Pascal van Hentenryck. **Constraint-based Very Large-Scale Neighborhood Search**. *Constraints*, 17(2):87–122, 2012. doi:10.1007/ s10601-011-9114-7.

[1861] J. Moy. **RFC 1583: Open shortest path first protocol**, 1994.

[1862] Michael Mozer, Michael I. Jordan, and Thomas Petsche, editors. *Advances in Neural Information Processing Systems 9, NIPS, Denver, CO, USA, December 2-5, 1996*. MIT Press, 1996.

[1863] Zongxu Mu, Holger H. Hoos, and Thomas Stützle. **The Impact of Automated Algorithm Configuration on the Scaling Behaviour of State-of-the-Art Inexact TSP Solvers**. In Paola Festa, Meinolf Sellmann, and Joaquin Vanschoren, editors, *Learning and Intelligent*

Optimization, 10th International Conference, LION 10, volume 10079 of *Lecture Notes in Computer Science*, pages 157–172. Springer, Cham, Switzerland, 2016. `doi:10.1007/978-3-319-50349-3_11`.

[1864] Zongxu Mu, Jérémie Dubois-Lacoste, Holger H. Hoos, and Thomas Stützle. **On the Empirical Scaling of Running Time for Finding Optimal Solutions to the TSP: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2017-010/`, 2017.

[1865] Frank Mueller, editor. *Proceedings of the 2011 IEEE International Parallel & Distributed Processing Symposium*, IPDPS '11, 2011. IEEE Computer Society.

[1866] H. Mühlenbein. **Evolution in Time and Space—The Parallel Genetic Algorithm**. In G. Rawlins, editor, *Foundations of Genetic Algorithms (FOGA)*, pages 316–337. Morgan Kaufmann Publishers, San Mateo, CA, 1991.

[1867] H. Mühlenbein and D. Schlierkamp-Voosen. **Predictive models for the breeder genetic algorithm**. *Evolutionary Computation*, 1(1):25–49, 1993.
Keywords: crossover, intermediate, line.

[1868] H. Mühlenbein and Jörg Zimmermann. **Size of neighborhood more important than temperature for stochastic local search**. In *Proceedings of the 2000 Congress on Evolutionary Computation (CEC'00)*, pages 1017–1024, Piscataway, NJ, July 2000. IEEE Press.

[1869] Moritz Mühlenthaler. *Fairness in Academic Course Timetabling*. Springer, 2015. `doi:10.1007/978-3-319-12799-6`.
Keywords: irace.

[1870] Christian L. Müller and Ivos F. Sbalzarini. **Energy Landscapes of Atomic Clusters as Black Box Optimization Benchmarks**. *Evolutionary Computation*, 20(4):543–573, 2012. `doi:10.1162/EVCO_a_00086`.

[1871] Mario A. Muñoz and Kate Smith-Miles. **Generating New Space-Filling Test Instances for Continuous Black-Box Optimization**. *Evolutionary Computation*, 28(3):379–404, Sept. 2020. `doi:10.1162/evco_a_00262`.

[1872] Mario A. Muñoz, Yuan Sun, Michael Kirley, and Saman K. Halgamuge. **Algorithm selection for black-box continuous optimization problems: a survey on methods and challenges**. *Information Sciences*, 317:224–245, 2015.

[1873] L. J. Murphy, Graeme C. Dandy, and Angus R. Simpson. **Optimum Design and Operation of Pumped Water Distribution Systems**. In *1994 International Conference on Hydraulics and Civil Engineering, Hidraulic working with the Environment*, pages 149–155, Brisbane, Australia, Feb. 1994. The Institution of Engineers.

[1874] Iain Murray, Marc'Aurelio Ranzato, and Oriol Vinyals, editors. *6th International Conference on Learning Representations, ICLR 2018, Vancouver, BC, Canada, April 30 - May 3, 2018, Workshop Track Proceedings*, 2018. OpenReview.net.

[1875] John Mylopoulos and Raymond Reiter, editors. *IJCAI 1991, Proceedings of the 12th International Joint Conference on Artificial Intelligence, IJCAI 91, Sydney, Australia, August 24-30, 1991*. Morgan Kaufmann Publishers, 1995.

[1876] NAFIPS. *Proceedings of the NAFIPS-FLINT International Conference'2002*, Piscataway, New Jersey, June 2002. IEEE Service Center.

[1877] Marcelo S. Nagano, Fernando L. Rossi, and Nádia J. Martarelli. **High-performing heuristics to minimize flowtime in no-idle permutation flowshop**. *Engineering Optimization*, 51(2):185–198, 2019.

[1878] Yuichi Nagata and Shigenobu Kobayashi. **Edge Assembly Crossover: A High-power Genetic Algorithm for the Traveling Salesman Problem**. In Thomas Bäck, editor, *ICGA*, pages 450–457. Morgan Kaufmann Publishers, San Francisco, CA, 1997.

[1879] Yuichi Nagata and Shigenobu Kobayashi. **An analysis of edge assembly crossover for the traveling salesman problem**. In Koji Ito, Fumio Harashima, and Kazuo Tanie, editors, *IEEE SMC'99 Conference Proceedings, 1999 IEEE International Conference on Systems, Man, and Cybernetics*, pages 628–633. IEEE Press, 1999. `doi:10.1109/icsmc.1999.823285`.

[1880] Yuichi Nagata and Shigenobu Kobayashi. **A Powerful Genetic Algorithm Using Edge Assembly Crossover for the Traveling Salesman Problem**. *INFORMS Journal on Computing*, 25(2):346–363, 2013. `doi:10.1287/ijoc.1120.0506`.
Keywords: TSP, EAX, evolutionary algorithms.

[1881] Yuichi Nagata and David Soler. **A New Genetic Algorithm for the Asymmetric TSP**. *Expert Systems with Applications*, 39(10):8947–8953, 2012.

[1882] R. Nagy, M. Suciu, and D. Dumitrescu. **Exploring Lorenz Dominance**. In *Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), 2012 14th International Symposium on*, pages 254–259, 2012.

[1883] Vinod Nair and Geoffrey E. Hinton. **Rectified linear units improve restricted boltzmann machines**. In Johannes Fürnkranz and Thorsten Joachims, editors, *Proceedings of the 27th International Conference on Machine Learning, ICML 2010*, pages 807–814, New York, NY, 2010. ACM Press.

[1884] Samadhi Nallaperuma, Markus Wagner, and Frank Neumann. **Parameter Prediction Based on Features of Evolved Instances for Ant Colony Optimization and the Traveling Salesperson Problem**. In Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič, and Jim Smith, editors, *PPSN 2014*, volume 8672 of *Lecture Notes in Computer Science*, pages 100–109. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-10762-2_10`.

[1885] Samadhi Nallaperuma, Pietro S. Oliveto, Jorge Pérez Heredia, and Dirk Sudholt. **On the Analysis of Trajectory-Based Search Algorithms: When is it Beneficial to Reject Improvements?** *Algorithmica*, 81(2):858–885, 2019.

[1886] V. Nannen and Agoston E. Eiben. **A Method for Parameter Calibration and Relevance Estimation in Evolutionary Algorithms**. In M. Cattolico et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2006*, pages 183–190. ACM Press, New York, NY, 2006. `doi:10.1145/1143997.1144029`.
Keywords: REVAC.

[1887] V. Nannen and Agoston E. Eiben. **Relevance Estimation and Value Calibration of Evolutionary Algorithm Parameters**. In Manuela M. Veloso, editor, *Proceedings of the Twentieth International Joint Conference on Artificial Intelligence (IJCAI-07)*, pages 975–980. AAAI Press, Menlo Park, CA, 2007.
Keywords: REVAC.

[1888] K. Naono, K. Teranishi, J. Cavazos, and R. Suda, editors. *Software Automatic Tuning: From Concepts to State-of-the-Art Results*. Springer, 2010.

[1889] John Nash and Ravi Varadhan. **Unifying Optimization Algorithms to Aid Software System Users: optimx for R**. *Journal of Statistical Software*, 43(9):1–14, 2011.

[1890] Youssef S. G. Nashed, Pablo Mesejo, Roberto Ugolotti, Jérémie Dubois-Lacoste, and Stefano Cagnoni. **A Comparative Study of Three GPU-Based Metaheuristics**. In Carlos A. Coello Coello et al., editors, *PPSN 2012, Part II*, volume 7492 of *Lecture Notes in Computer Science*, pages 398–407. Springer, Heidelberg, 2012. `doi:10.1007/978-3-642-32964-7_40`.

[1891] M. Nawaz, E. Enscore, Jr, and I. Ham. **A Heuristic Algorithm for the m-Machine, n-Job Flow-Shop Sequencing Problem**. *Omega*, 11(1):91–95, 1983.

[1892] Bernhard Nebel, editor. *IJCAI 2001, Proceedings of the 17th International Joint Conference on Artificial Intelligence*, 2001. IEEE Press.

[1893] Antonio J. Nebro, Juan J. Durillo, and Matthieu Vergne. **Redesigning the jMetal Multi-Objective Optimization Framework**. In Juan Luis Jiménez Laredo, Sara Silva, and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2015*, pages 1093–1100. ACM Press, New York, NY, 2015.
Keywords: jmetal, multi-objective metaheu- ristics, open source, optimization framework.

[1894] Antonio J. Nebro, Manuel López-Ibáñez, Cristóbal Barba-González, and José García-Nieto. **Automatic Configuration of NSGA-II with jMetal and irace**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2019*, pages 1374–1381. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6748-6. `doi:10.1145/3319619.3326832`.

[1895] G. L. Nemhauser and L. A. Wolsey. *Integer and Combinatorial Optimization*. John Wiley & Sons, New York, NY, 1988.

[1896] Ferrante Neri, Carlos Cotta, and Pablo Moscato, editors. *Handbook of Memetic Algorithms*, volume 379 of *Studies in Computational Intelligence*. Springer, 2011.

[1897] F. Nerri and Carlos Cotta. **Memetic algorithms and memetic computing optimization: A literature review**. *Swarm and Evolutionary Computation*, 2:1–14, 2012. `doi:10.1016/j.swevo.2011.11.003`.

[1898] Frank Neumann and Carsten Witt. **Runtime Analysis of a Simple Ant Colony Optimization Algorithm**. *Electronic Colloquium on Computational Complexity (ECCC)*, 13 (084), 2006.

[1899] Frank Neumann, Dirk Sudholt, and Carsten Witt. **Analysis of different MMAS ACO algorithms on unimodal functions and plateaus**. *Swarm Intelligence*, 3(1):35–68, 2009.

[1900] Allen Newell and Herbert A. Simon. **Computer Science as Empirical Inquiry: Symbols and Search**. *Communications of the ACM*, 19(3):113–126, Mar. 1976. ISSN 0001-0782. `doi:10.1145/360018.360022`.
Keywords: cognition, Turing, search, problem solving, symbols, heuristics, list processing, computer science, artificial intelligence, science, empirical.

[1901] Anh-Tuan Nguyen, Sigrid Reiter, and Philippe Rigo. **A review on simulation-based optimization methods applied to building performance analysis**. *Applied Energy*, 113: 1043–1058, 2014. `doi:10.1016/j.apenergy.2013.08.061`.

[1902] Su Nguyen, Mengjie Zhang, Mark Johnston, and Kay Chen Tan. **Genetic Programming for Evolving Due-Date Assignment Models in Job Shop Environments**. *Evolutionary Computation*, 22(1):105–138, 2014.

[1903] Su Nguyen, Mengjie Zhang, Mark Johnston, and Kay Chen Tan. **Automatic Design of Scheduling Policies for Dynamic Multi-objective Job Shop Scheduling via Cooperative Coevolution Genetic Programming**. *IEEE Transactions on Evolutionary Computation*, 18(2):193–208, 2014.

[1904] Trung Thanh Nguyen, Shengxiang Yang, and Jürgen Branke. **Evolutionary Dynamic Optimization: A Survey of the State of the Art**. *Swarm and Evolutionary Computation*, 6:1–24, 2012.

[1905] Viet-Phuong Nguyen, Christian Prins, and Caroline Prodhon. **A Multi-start Iterated Local Search with Tabu List and Path Relinking for the Two-echelon Location-routing Problem**. *Engineering Applications of Artificial Intelligence*, 25(1):56–71, 2012.

[1906] Peter Nightingale, Özguür Akgün, Ian P. Gent, Christopher Jefferson, Ian Miguel, and Patrick Spracklen. **Automatically Improving Constraint Models in Savile Row**. *Artificial Intelligence*, 251:35–61, 2017.

[1907] Alexander G. Nikolaev and Sheldon H. Jacobson. **Simulated Annealing**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*, pages 1–39. Springer, New York, NY, 2nd edition, 2010.

[1908] Mladen Nikolić, Filip Marić, and Predrag Janičić. **Instance-based selection of policies for SAT solvers**. In *International Conference on Theory and Applications of Satisfiability Testing*, pages 326–340. Springer, 2009.

[1909] Y. Nishio, A. Oyama, Y. Akimoto, Hernán E. Aguirre, and Kiyoshi Tanaka. **Many-objective Optimization of Trajectory Design for DESTINY Mission**. In Panos M. Pardalos, Mauricio G. C. Resende, Chrysafis Vogiatzis, and Jose L. Walteros, editors, *Learning and Intelligent Optimization, 8th International Conference, LION 8*, volume 8426 of *Lecture Notes in Computer Science*, Heidelberg, 2014. Springer.

[1910] Vilas Nitivattananon, Elaine C. Sadowski, and Rafael G. Quimpo. **Optimization of Water Supply System Operation**. *Journal of Water Resources Planning and Management, ASCE*, 122(5):374–384, Sept. / Oct. 1996.

[1911] Mark S. Nixon and Alberto S. Aguado. *Feature extraction & image processing for computer vision*. Academic Press, New York, NY, 2012.

[1912] Jorge Nocedal and Stephen J. Wright. *Numerical Optimization*. Springer Series in Operations Research and Financial Engineering. Springer, 2nd edition, 2006.

[1913] Bruno Nogueira, Rian G. S. Pinheiro, and Anand Subramanian. **A Hybrid Iterated Local Search Heuristic for the Maximum Weight Independent Set Problem**. *Optimization Letters*, 12(3):567–583, 2018. doi:10.1007/s11590-017-1128-7.

[1914] B. A. Nosek, G. Alter, G. C. Banks, D. Borsboom, S. D. Bowman, S. J. Breckler, S. Buck, C. D. Chambers, G. Chin, G. Christensen, M. Contestabile, A. Dafoe, E. Eich, J. Freese, R. Glennerster, D. Goroff, D. P. Green, B. Hesse, M. Humphreys, J. Ishiyama, D. Karlan, A. Kraut, A. Lupia, P. Mabry, T. Madon, N. Malhotra, E. Mayo-Wilson, M. McNutt, E. Miguel, E. L. Paluck, U. Simonsohn, C. Soderberg, B. A. Spellman, J. Turitto, G. VandenBos, S. Vazire, E. J. Wagenmakers, R. Wilson, and T. Yarkoni. **Promoting an open research culture**. *Science*, 348(6242):1422–1425, June 2015. doi:10.1126/science.aab2374.

[1915] Brian A. Nosek, Charles R. Ebersole, Alexander C. DeHaven, and David T. Mellor. **The Preregistration Revolution**. *Proceedings of the National Academy of Sciences*, 115(11): 2600–2606, Mar. 2018. ISSN 0027-8424, 1091-6490. doi:10.1073/pnas.1708274114.

[1916] Yaghout Nourani and Bjarne Andresen. **A Comparison of Simulated Annealing Cooling Strategies**. *Journal of Physics A*, 31(41):8373–8385, 1998.

[1917] Houssem Eddine Nouri, Olfa Belkahla Driss, and Khaled Ghédira. **A Classification Schema for the Job Shop Scheduling Problem with Transportation Resources: State-of-the-Art Review**. In Radek Silhavy, Roman Senkerik, Zuzana Kominkova Oplatkova, Petr Silhavy, and Zdenka Prokopova, editors, *Artificial Intelligence Perspectives in Intelligent Systems*, volume 464 of *Advances in Intelligent Systems and Computing*, pages 1–11. Springer International Publishing, 2016.

[1918] Krzysztof Nowak, Marcus Märtens, and Dario Izzo. **Empirical Performance of the Approximation of the Least Hypervolume Contributor**. In Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič, and Jim Smith, editors, *PPSN 2014*, volume 8672 of *Lecture Notes in Computer Science*, pages 662–671. Springer, Heidelberg, 2014.

[1919] Eugeniusz Nowicki and Czeslaw Smutnicki. **A Fast Taboo Search Algorithm for the Job Shop Problem**. *Management Science*, 42(6):797–813, 1996.

[1920] Eugeniusz Nowicki and Czesław Smutnicki. **A fast tabu search algorithm for the permutation flow-shop problem**. *European Journal of Operational Research*, 91(1):160–175, 1996.

[1921] S. Obayashi et al., editors. *Proceedings of Evolutionary Multi-criterion Optimization, EMO 2007*, volume 4403 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2007.

[1922] Shigeru Obayashi and Daisuke Sasaki. **Visualization and data mining of Pareto solutions using self-organizing map**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 796–809, Heidelberg, 2003. Springer.

[1923] Gabriela Ochoa and Nadarajen Veerapen. **Mapping the global structure of TSP fitness landscapes**. *Journal of Heuristics*, 24(3):265–294, 2018.

[1924] Gabriela Ochoa, Marco Tomassini, Sébastien Verel, and Christian Darabos. **A Study of NK Landscapes' Basins and Local Optima Networks**. In Conor Ryan, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2008*, pages 555–562, New York, NY, 2008. ACM Press.

[1925] Gabriela Ochoa, Matthew Hyde, Tim Curtois, Jose A. Vazquez-Rodriguez, James Walker, Michel Gendreau, Graham Kendall, Barry McCollum, Andrew J. Parkes, Sanja Petrovic, and Edmund K. Burke. **Hyflex: A benchmark framework for cross-domain heuristic search**. In Jin-Kao Hao and Martin Middendorf, editors, *Proceedings of EvoCOP 2012 – 12th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 7245 of *Lecture Notes in Computer Science*, pages 136–147, Heidelberg, 2012. Springer.

[1926] Angelo Oddi, Amadeo Cesta, Nicola Policella, and Stephen F. Smith. **Combining Variants of Iterative Flattening Search**. *Engineering Applications of Artificial Intelligence*, 21(5):683–690, 2008.

[1927] Angelo Oddi, Amadeo Cesta, Nicola Policella, and Stephen F. Smith. **Iterative Flattening Search for Resource Constrained Scheduling**. *Journal of Intelligent Manufacturing*, 21(1): 17–30, 2010.

[1928] Angelo Oddi, Riccardo Rasconi, Amadeo Cesta, and Stephen F. Smith. **Iterative Flattening Search for the Flexible Job Shop Scheduling Problem**. In Toby Walsh, editor, *Proceedings of the Twenty-Second International Joint Conference on Artificial Intelligence (IJCAI-11)*, pages 1991–1996. IJCAI/AAAI Press, Menlo Park, CA, 2011.

[1929] F. A. Ogbu and David K. Smith. **The Application of the Simulated Annealing Algorithm to the Solution of the n/m/C Max Flowshop Problem**. *Computers & Operations Research*, 17(3):243–253, 1990.

[1930] Jeffrey W. Ohlmann and Barrett W. Thomas. **A Compressed-Annealing Heuristic for the Traveling Salesman Problem with Time Windows**. *INFORMS Journal on Computing*, 19 (1):80–90, 2007. ISSN 1526-5528. doi:10.1287/ijoc.1050.0145.

[1931] Vesa Ojalehto, Dmitry Podkopaev, and Kaisa Miettinen. **Towards Automatic Testing of Reference Point Based Interactive Methods**. In Julia Handl, Emma Hart, P. R. Lewis, Manuel López-Ibáñez, Gabriela Ochoa, and Ben Paechter, editors, *Parallel Problem Solving from Nature – PPSN XIV*, volume 9921 of *Lecture Notes in Computer Science*, pages 483–492. Springer, Heidelberg, 2016. ISBN 978-3-319-45822-9. `doi:10.1007/978-3-319-45823-6_45`.
Keywords: artificial DMs.
Annotation: In this research, we proposed to build an automated framework for testing interactive multiobjective optimization methods, without utilizing a value function to represent the DM's preferences. This was achieved by replacing the human DM with an artificial DM constructed from two distinct parts: the steady part and the current context. With the steady part the artificial DM tries to maintain the search towards its preferences, while at the same time the current context allows changing the direction as well as ending the solution process prematurely, mimicking actions of a human DM.

[1932] Sabrina M. Oliveira, Mohamed Saifullah Hussin, Andrea Roli, Marco Dorigo, and Thomas Stützle. **Analysis of the Population-based Ant Colony Optimization Algorithm for the TSP and the QAP**. In *Proceedings of the 2017 Congress on Evolutionary Computation (CEC 2017)*, pages 1734–1741. IEEE Press, Piscataway, NJ, 2017.

[1933] Pietro S. Oliveto and Carsten Witt. **Improved time complexity analysis of the Simple Genetic Algorithm**. *Theoretical Computer Science*, 605:21–41, 2015. `doi:10.1016/j.tcs.2015.01.002`.

[1934] Pietro S. Oliveto, Jun He, and Xin Yao. **Time complexity of evolutionary algorithms for combinatorial optimization: A decade of results**. *International Journal of Automation and Computing*, 4(3):281–293, 2007.

[1935] Randal S. Olson, Nathan Bartley, Ryan J. Urbanowicz, and Jason H. Moore. **Evaluation of a Tree-based Pipeline Optimization Tool for Automating Data Science**. In Tobias Friedrich, Frank Neumann, and Andrew M. Sutton, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2016*, pages 485–492. ACM Press, New York, NY, 2016. `doi:10.1145/2908812.2908918`.

[1936] Randal S. Olson, Ryan J. Urbanowicz, Peter C. Andrews, Nicole A. Lavender, La Creis Kidd, and Jason H. Moore. **Automating Biomedical Data Science Through Tree-Based Pipeline Optimization**. In Giovanni Squillero and Paolo Burelli, editors, *Applications of Evolutionary Computation*, volume 9597 of *Lecture Notes in Computer Science*, pages 123–137. Springer, Heidelberg, 2016. `doi:10.1007/978-3-319-31204-0_9`.

[1937] Roland Olsson and Arne Løkketangen. **Using automatic programming to generate state-of-the-art algorithms for random 3-SAT**. *Journal of Heuristics*, 19(5):819–844, 2013. `doi:10.1007/s10732-013-9226-x`.

[1938] Mihai Oltean. **Evolving Evolutionary Algorithms Using Linear Genetic Programming**. *Evolutionary Computation*, 13(3):387–410, 2005. `doi:10.1162/1063656054794815`.

[1939] Eoin O'Mahony, Emmanuel Hebrard, Alan Holland, Conor Nugent, and Barry O'Sullivan. **Using case-based reasoning in an algorithm portfolio for constraint solving**. In Bridge et al., editors, *Irish Conference on Artificial Intelligence and Cognitive Science*, pages 210–216, 2008.

[1940] Michael O'Neill and Conor Ryan. **Grammatical Evolution**. *IEEE Transactions on Evolutionary Computation*, 5(4):349–358, 2001.

[1941] Open Science Collaboration. **Estimating the reproducibility of psychological science**. *Science*, 349(6251):aac4716, 2015. `doi:10.1126/science.aac4716`.

[1942] Lindell E. Ormsbee and Kevin E. Lansey. **Optimal Control of Water Supply Pumping Systems**. *Journal of Water Resources Planning and Management, ASCE*, 120(2):237–252, 1994.

[1943] Lindell E. Ormsbee and Srinivasa L. Reddy. **Nonlinear Heuristic for Pump Operations**. *Journal of Water Resources Planning and Management, ASCE*, 121(4):302–309, July / Aug. 1995.

[1944] Lindell E. Ormsbee, Thomas M. Walski, Donald V. Chase, and W. W. Sharp. **Methodology for improving pump operation efficiency**. *Journal of Water Resources Planning and Management, ASCE*, 115(2):148–164, 1989.

[1945] Jeffrey E. Orosz and Sheldon H. Jacobson. **Analysis of Static Simulated Annealing Algorithms**. *Journal of Optimization Theory and Applications*, 115(1):165–182, 2002.

[1946] OscaR Team. **OscaR: Scala in OR**, 2012. Available from https://bitbucket.org/oscarlib/oscar.

[1947] Ibrahim H. Osman and Chris N. Potts. **Simulated Annealing for Permutation Flow-Shop Scheduling**. *Omega*, 17(6):551–557, 1989.

[1948] Avi Ostfeld and Elad Salomons. **Optimal Scheduling of Pumping and Chlorine Injections under Unsteady Hydraulics**. In Gerald Sehlke, Donald F. Hayes, and David K. Stevens, editors, *Critical Transitions In Water And Environmental Resources Management*, pages 1–9, July 2004.

[1949] F. E. B. Otero, A. A. Freitas, and C. G. Johnson. **cAnt-Miner: An Ant Colony Classification Algorithm to Cope with Continuous Attributes**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 6th International Conference, ANTS 2008*, volume 5217 of *Lecture Notes in Computer Science*, pages 48–59. Springer, Heidelberg, 2008.

[1950] P. S. Ow and T. E. Morton. **Filtered Beam Search in Scheduling**. *International Journal of Production Research*, 26:297–307, 1988.

[1951] Ender Özcan, Edmund K. Burke, and Barry McCollum, editors. *PATAT 2014: Proceedings of the 10th International Conference of the Practice and Theory of Automated Timetabling*, 2014. PATAT.

[1952] Gül Özerol and Esra Karasakal. **Interactive outranking approaches for multicriteria decision-making problems with imprecise information**. *Journal of the Operational Research Society*, 59:1253–1268, 2007.

[1953] Meltem Öztürk, Alexis Tsoukiàs, and Philippe Vincke. **Preference Modelling**. In José Rui Figueira, Salvatore Greco, and Matthias Ehrgott, editors, *Multiple Criteria Decision Analysis, State of the Art Surveys*, chapter 2, pages 27–72. Springer, 2005.

[1954] PACT. *Proceedings of the 23rd International Conference on Parallel Architectures and Compilation*, New York, NY, 2014. ACM Press.

[1955] Manfred Padberg and Giovanni Rinaldi. **A branch-and-cut algorithm for the resolution of large-scale symmetric traveling salesman problems**. *SIAM Review*, 33(1):60–100, 1991.

[1956] David Padua, editor. *Encyclopedia of Parallel Computing*. Springer, US, 2011. doi:10.1007/978-0-387-09766-4_244.

[1957] Federico Pagnozzi. *Automatic Design of Hybrid Stochastic Local Search Algorithms*. PhD thesis, IRIDIA, École polytechnique, Université Libre de Bruxelles, Belgium, 2019.
Annotation: Supervised by Thomas Stützle.

[1958] Federico Pagnozzi and Thomas Stützle. **Speeding up Local Search for the Insert Neighborhood in the Weighted Tardiness Permutation Flowshop Problem**. *Optimization Letters*, 11:1283–1292, 2017. doi:10.1007/s11590-016-1086-5.

[1959] Federico Pagnozzi and Thomas Stützle. **Automatic Design of Hybrid Stochastic Local Search Algorithms for Permutation Flowshop Problems**. Technical Report TR/IRIDIA/2018-005, IRIDIA, Université Libre de Bruxelles, Belgium, Apr. 2018. URL http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2018-005.pdf.

[1960] Federico Pagnozzi and Thomas Stützle. **Automatic Design of Hybrid Stochastic Local Search Algorithms for Permutation Flowshop Problems: Supplementary Material**. http://iridia.ulb.ac.be/supp/IridiaSupp2018-002/, 2018.

[1961] Federico Pagnozzi and Thomas Stützle. **Automatic Design of Hybrid Stochastic Local Search Algorithms for Permutation Flowshop Problems**. *European Journal of Operational Research*, 276:409–421, 2019. doi:10.1016/j.ejor.2019.01.018.

[1962] Federico Pagnozzi and Thomas Stützle. **Automatic design of hybrid stochastic local search algorithms for permutation flowshop problems with additional constraints**. http://iridia.ulb.ac.be/supp/IridiaSupp2018-002/, 2019.

[1963] Federico Pagnozzi and Thomas Stützle. **Evaluating the impact of grammar complexity in automatic algorithm design**. *International Transactions in Operational Research*, pages 1–26, 2020. doi:10.1111/itor.12902.

[1964] Federico Pagnozzi and Thomas Stützle. **Automatic design of hybrid stochastic local search algorithms for permutation flowshop problems with additional constraints**. *Operations Research Perspectives*, 8, 2021. doi:10.1016/j.orp.2021.100180.

[1965] Daniel Palhazi Cuervo, Peter Goos, Kenneth Sörensen, and Emely Arráiz. **An Iterated Local Search Algorithm for the Vehicle Routing Problem with Backhauls**. *European Journal of Operational Research*, 237(2):454–464, 2014.

[1966] Iván Palomares, editor. *International Alan Turing Conference on Decision Support and Recommender systems (DSRC-Turing'19)*, London, UK, Nov., 21–22 2019. Alan Turing Institute. ISBN 978-1-5262-0820-0.

[1967] Gintaras Palubeckis. **Iterated tabu search for the unconstrained binary quadratic optimization problem**. *Informatica*, 17(2):279–296, 2006. doi:10.15388/Informatica.2006.138.

[1968] Quan-Ke Pan and Rubén Ruiz. **Local Search Methods for the Flowshop Scheduling Problem with Flowtime Minimization**. *European Journal of Operational Research*, 222(1):31–43, 2012.

[1969] Quan-Ke Pan and Rubén Ruiz. **A Comprehensive Review and Evaluation of Permutation Flowshop Heuristics to Minimize Flowtime**. *Computers & Operations Research*, 40(1):117–128, 2013.

[1970] Quan-Ke Pan, Mehmet Fatih Tasgetiren, and Yun-Chia Liang. **A Discrete Differential Evolution Algorithm for the Permutation Flowshop Scheduling Problem**. *Computers and Industrial Engineering*, 55(4):795 – 816, 2008.

[1971] Quan-Ke Pan, Ling Wang, and Bao-Hua Zhao. **An improved iterated greedy algorithm for the no-wait flow shop scheduling problem with makespan criterion**. *International Journal of Advanced Manufacturing Technology*, 38(7-8):778–786, 2008.

[1972] Quan-Ke Pan, Rubén Ruiz, and Pedro Alfaro-Fernández. **Iterated Search Methods for Earliness and Tardiness Minimization in Hybrid Flowshops with Due Windows**. *Computers & Operations Research*, 80:50–60, 2017.

[1973] Sinno Jialin Pan and Qiang Yang. **A survey on transfer learning**. *IEEE Transactions on Knowledge and Data Engineering*, 22(10):1345–1359, 2009.

[1974] B. K. Panigrahi, P. N. Suganthan, S. Das, and S. S. Dash, editors. *International Conference on Swarm, Evolutionary, and Memetic Computing*, volume 8298 of *Theoretical Computer Science and General Issues*, 2013. Springer International Publishing.

[1975] Christos H. Papadimitriou and K. Steiglitz. *Combinatorial Optimization – Algorithms and Complexity*. Prentice Hall, Englewood Cliffs, NJ, 1982.

[1976] Christos H. Papadimitriou and M. Yannakakis. **On the Approximability of Trade-offs and Optimal Access of Web Sources**. In Avrim Blum, editor, *41st Annual Symposium on Foundations of Computer Science*, pages 86–92. IEEE Computer Society Press, 2000. doi:10.1109/SFCS.2000.892068.

[1977] George Angelos Papadopoulos, editor. *26th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2014, Limassol, Cyprus, November 10-12, 2014*, 2014. IEEE Press.

[1978] Luís Paquete. **Algoritmos Evolutivos Multiobjectivo para Afectação de Recursos e sua Aplicação à Geração de Horários em Universidades (Multiobjective Evolutionary Algorithms for Resource Allocation and their Application to University Timetabling)**. Master's thesis, University of Algarve, 2001. In Portuguese.

[1979] Luís Paquete. *Stochastic Local Search Algorithms for Multiobjective Combinatorial Optimization: Methods and Analysis*. PhD thesis, FB Informatik, TU Darmstadt, Germany, 2005.

[1980] Luís Paquete and Thomas Stützle. **An Experimental Investigation of Iterated Local Search for Coloring Graphs**. In S. Cagnoni et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2002*, volume 2279 of *Lecture Notes in Computer Science*, pages 122–131. Springer, Heidelberg, 2002.

[1981] Luís Paquete and Thomas Stützle. **A Two-Phase Local Search for the Biobjective Traveling Salesman Problem**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 479–493. Springer, Heidelberg, 2003.

[1982] Luís Paquete and Thomas Stützle. **A study of stochastic local search algorithms for the biobjective QAP with correlated flow matrices**. *European Journal of Operational Research*, 169(3):943–959, 2006.

[1983] Luís Paquete and Thomas Stützle. **Stochastic Local Search Algorithms for Multiobjective Combinatorial Optimization: A Review**. In T. F. Gonzalez, editor, *Handbook of Approximation Algorithms and Metaheuristics*, pages 29–1—29–15. Chapman & Hall/CRC, Boca Raton, FL, 2007.

[1984] Luís Paquete and Thomas Stützle. **Clusters of non-dominated solutions in multiobjective combinatorial optimization: An experimental analysis**. In V. Barichard, M. Ehrgott, Xavier Gandibleux, and V. T'Kindt, editors, *Multiobjective Programming and Goal Programming: Theoretical Results and Practical Applications*, volume 618 of *Lecture Notes in Economics and Mathematical Systems*, pages 69–77. Springer, Berlin, Germany, 2009. doi:10.1007/978-3-540-85646-7.

[1985] Luís Paquete and Thomas Stützle. **Design and analysis of stochastic local search for the multiobjective traveling salesman problem**. *Computers & Operations Research*, 36(9):2619–2631, 2009. doi:10.1016/j.cor.2008.11.013.

[1986] Luís Paquete, Marco Chiarandini, and Thomas Stützle. **Pareto Local Optimum Sets in the Biobjective Traveling Salesman Problem: An Experimental Study**. In Xavier Gandibleux, Marc Sevaux, Kenneth Sörensen, and V. T'Kindt, editors, *Metaheuristics for Multiobjective Optimisation*, volume 535 of *Lecture Notes in Economics and Mathematical Systems*, pages 177–199. Springer, Berlin, Germany, 2004. `doi:10.1007/978-3-642-17144-4_7`. *Keywords:* Pareto local search, PLS.

[1987] Luís Paquete, Thomas Stützle, and Manuel López-Ibáñez. **On the design and analysis of SLS algorithms for multiobjective combinatorial optimization problems**. Technical Report TR/IRIDIA/2005-029, IRIDIA, Université Libre de Bruxelles, Belgium, 2005. URL `http://iridia.ulb.ac.be/IridiaTrSeries/IridiaTr2005-029r001.pdf`.

[1988] Luís Paquete, Thomas Stützle, and Manuel López-Ibáñez. **Towards the Empirical Analysis of SLS Algorithms for Multiobjective Combinatorial Optimization Problems through Experimental Design**. In Karl F. Doerner, Michel Gendreau, Peter Greistorfer, Walter J. Gutjahr, Richard F. Hartl, and Marc Reimann, editors, *6th Metaheuristics International Conference (MIC 2005)*, pages 739–746, Vienna, Austria, 2005.

[1989] Luís Paquete, Marco Chiarandini, and Dario Basso, editors. *Empirical Methods for the Analysis of Algorithms, Workshop EMAA 2006, Proceedings*, Reykjavik, Iceland, 2006.

[1990] Luís Paquete, Carlos M. Fonseca, and Manuel López-Ibáñez. **An optimal algorithm for a special case of Klee's measure problem in three dimensions**. Technical Report CSI-RT-I-01/2006, CSI, Universidade do Algarve, 2006. Superseded by paper in IEEE Transactions on Evolutionary Computation [244]. *Annotation:* Proof of Theorem 3.1 is incorrect.

[1991] Luís Paquete, Tommaso Schiavinotto, and Thomas Stützle. **On Local Optima in Multiobjective Combinatorial Optimization Problems**. *Annals of Operations Research*, 156:83–97, 2007. `doi:10.1007/s10479-007-0230-0`. *Keywords:* Pareto local search, PLS.

[1992] Luís Paquete, Thomas Stützle, and Manuel López-Ibáñez. **Using experimental design to analyze stochastic local search algorithms for multiobjective problems**. In Karl F. Doerner, Michel Gendreau, Peter Greistorfer, Walter J. Gutjahr, Richard F. Hartl, and Marc Reimann, editors, *Metaheuristics: Progress in Complex Systems Optimization*, volume 39 of *Operations Research / Computer Science Interfaces*, pages 325–344. Springer, New York, NY, 2007. `doi:10.1007/978-0-387-71921-4_17`. *Annotation:* Post-Conference Proceedings of the 6th Metaheuristics International Conference (MIC 2005).

[1993] Panos M. Pardalos and D.-Z. Du, editors. *Handbook of Combinatorial Optimization*, volume 2. Kluwer Academic Publishers, 1998.

[1994] Panos M. Pardalos and G. Nicosia, editors. *7th International Conference, LION 7, Catania, Italy, January 7-11, 2013. Selected Papers*, volume 7997 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2013.

[1995] Panos M. Pardalos, Mauricio G. C. Resende, Chrysafis Vogiatzis, and Jose L. Walteros, editors. *8th International Conference, LION 8, Gainesville, Florida, USA, February 16-21, 2014. Revised Selected Papers*, volume 8426 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2014.

[1996] Moon-Won Park and Yeong-Dae Kim. **A systematic procedure for setting parameters in simulated annealing algorithms**. *Computers & Operations Research*, 25(3):207–217, 1998. `doi:10.1016/S0305-0548(97)00054-3`.

[1997] R. S. Parpinelli, H. S. Lopes, and A. A. Freitas. **Data Mining with an Ant Colony Optimization Algorithm**. *IEEE Transactions on Evolutionary Computation*, 6(4):321–332, 2002.

[1998] S. N. Parragh, Karl F. Doerner, Richard F. Hartl, and Xavier Gandibleux. **A heuristic two-phase solution approach for the multi-objective dial-a-ride problem**. *Networks*, 54(4):227–242, 2009.

[1999] R. O. Parreiras and J. A. Vascocelos. **A multiplicative version of PROMETHEE II applied to multiobjective optimization problems**. *European Journal of Operational Research*, 183: 729–740, 2007.

[2000] Rebecca Parsons and Mark Johnson. **A Case Study in Experimental Design Applied to Genetic Algorithms with Applications to DNA Sequence Assembly**. *American Journal of Mathematical and Management Sciences*, 17(3-4):369–396, 1997. doi:10.1080/01966324. 1997.10737444.

[2001] Gerald Paul. **Comparative performance of tabu search and simulated annealing heuristics for the quadratic assignment problem**. *Operations Research Letters*, 38(6): 577–581, 2010.

[2002] J Paulli. **A computational comparison of simulated annealing and tabu search applied to the quadratic assignment problem**. In René Victor Valqui Vidal, editor, *Applied Simulated Annealing*, pages 85–102. Springer, 1993.

[2003] Lucas Marcondes Pavelski, Myriam Regattieri Delgado, and Marie-Eléonore Kessaci. **Meta-Learning on Flowshop Using Fitness Landscape Analysis**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019*, pages 925–933, New York, NY, 2019. ACM Press. ISBN 978-1-4503-6111-8. doi:10.1145/3321707.

[2004] Glen S. Peace. *Taguchi Methods: A Hands-On Approach*. Addison-Wesley, 1993.

[2005] Judea Pearl. *Heuristics: Intelligent Search Strategies for Computer Problem Solving*. Addison-Wesley, Reading, MA, 1984.

[2006] Judea Pearl. *Causality: Models, Reasoning and Inference*. Cambridge University Press, 2nd edition, 2009.

[2007] Judea Pearl. **The seven tools of causal inference, with reflections on machine learning**. *Communications of the ACM*, 62(3):54–60, 2019.

[2008] Judea Pearl and Elias Bareinboim. **Transportability of causal and statistical relations: A formal approach**. In Wolfram Burgard and Dan Roth, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 247–254. AAAI Press, 2011.

[2009] D. W. Pearson, N. C. Steele, and R. F. Albrecht, editors. *Artificial Neural Networks and Genetic Algorithms*. Springer Verlag, 2003.

[2010] Martín Pedemonte, Sergio Nesmachnow, and Héctor Cancela. **A survey on parallel ant colony optimization**. *Applied Soft Computing*, 11(8):5181–5197, 2011.

[2011] Juan A. Pedraza, Carlos García-Martínez, Alberto Cano, and Sebastián Ventura. **Classification Rule Mining with Iterated Greedy**. In Marios M. Polycarpou, André Carlos Ponce Leon Ferreira de Carvalho, Jeng-Shyang Pan, Michal Wozniak, Héctor Quintián, and Emilio Corchado, editors, *Hybrid Artificial Intelligence Systems - 9th International Conference, HAIS 2014, Salamanca, Spain, June 11-13, 2014. Proceedings*, volume 8480 of *Lecture Notes in Computer Science*, pages 585–596. Springer, Heidelberg, 2014.

[2012] F. Pedregosa, G. Varoquaux, A. Gramfort, V. Michel, B. Thirion, O. Grisel, M. Blondel, P. Prettenhofer, R. Weiss, V. Dubourg, J. Vanderplas, A. Passos, D. Cournapeau, M. Brucher, M. Perrot, and E. Duchesnay. **Scikit-learn: Machine learning in Python**. *Journal of Machine Learning Research*, 12:2825–2830, 2011.

[2013] Martin Pelikan and Jürgen Branke, editors. *Genetic and Evolutionary Computation Conference, GECCO 2010, Proceedings, Portland, Oregon, USA, July 7-11, 2010*. ACM Press, New York, NY, 2010.

[2014] Martin Pelikan and Jürgen Branke, editors. *Genetic and Evolutionary Computation Conference, GECCO 2010, Companion Material Proceedings, Portland, Oregon, USA, July 7-11, 2010*. ACM Press, New York, NY, 2010.

[2015] Paola Pellegrini and Mauro Birattari. **Implementation Effort and Performance**. In Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors, *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2007*, volume 4638 of *Lecture Notes in Computer Science*, pages 31–45. Springer, Heidelberg, 2007.

[2016] Paola Pellegrini, D. Favaretto, and E. Moretti. **On $\mathcal{MAX}$–$\mathcal{MIN}$ Ant System's Parameters**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 5th International Workshop, ANTS 2006*, volume 4150 of *Lecture Notes in Computer Science*, pages 203–214. Springer, Heidelberg, 2006.

[2017] Paola Pellegrini, D. Favaretto, and E. Moretti. **Exploration in stochastic algorithms: An application on $\mathcal{MAX}$–$\mathcal{MIN}$ Ant System**. In Natalio Krasnogor, Belén Melián-Batista, José Andrés Moreno-Pérez, J. Marcos Moreno-Vega, and David Alejandro Pelta, editors, *Nature Inspired Cooperative Strategies for Optimization (NICSO 2008)*, volume 236 of *Studies in Computational Intelligence*, pages 1–13. Springer, Berlin, Germany, 2009. `doi:10.1007/978-3-642-03211-0`.

[2018] Paola Pellegrini, Thomas Stützle, and Mauro Birattari. **Off-line vs. On-line Tuning: A Study on $\mathcal{MAX}$–$\mathcal{MIN}$ Ant System for the TSP**. In Marco Dorigo et al., editors, *Swarm Intelligence, 7th International Conference, ANTS 2010*, volume 6234 of *Lecture Notes in Computer Science*, pages 239–250. Springer, Heidelberg, 2010. `doi:10.1007/978-3-642-15461-4_21`.

[2019] Paola Pellegrini, Mauro Birattari, and Thomas Stützle. **A Critical Analysis of Parameter Adaptation in Ant Colony Optimization**. *Swarm Intelligence*, 6(1):23–48, 2012. `doi:10.1007/s11721-011-0061-0`.

[2020] Paola Pellegrini, L. Castelli, and R. Pesenti. **Metaheuristic algorithms for the simultaneous slot allocation problem**. *IET Intelligent Transport Systems*, 6(4):453–462, Dec. 2012. `doi:10.1049/iet-its.2011.0179`.

[2021] Paola Pellegrini, Franco Mascia, Thomas Stützle, and Mauro Birattari. **On the Sensitivity of Reactive Tabu Search to its Meta-parameters**. *Soft Computing*, 18(11):2177–2190, 2014. `doi:10.1007/s00500-013-1192-6`.

[2022] Matias Péres, Germán Ruiz, Sergio Nesmachnow, and Ana C. Olivera. **Multiobjective evolutionary optimization of traffic flow and pollution in Montevideo, Uruguay**. *Applied Soft Computing*, 70:472–485, 2018.
Keywords: Multiobjective evolutionary algorithms,Pollution,Simulation,Traffic flow.

[2023] Leslie Pérez Cáceres and Thomas Stützle. **Exploring Variable Neighborhood Search for Automatic Algorithm Configuration**. *Electronic Notes in Discrete Mathematics*, 58:167–174, 2017. `doi:10.1016/j.endm.2017.03.022`.

[2024] Leslie Pérez Cáceres and Thomas Stützle. *Automatic Algorithm Configuration: Analysis, Improvements and Applications*. PhD thesis, IRIDIA, École polytechnique, Université Libre de Bruxelles, Belgium, 2017.
Annotation: Supervised by Thomas Stützle and Manuel López-Ibáñez.

[2025] Leslie Pérez Cáceres, Manuel López-Ibáñez, and Thomas Stützle. **Ant Colony Optimization on a Budget of 1000**. In Marco Dorigo et al., editors, *Swarm Intelligence, 9th International Conference, ANTS 2014*, volume 8667 of *Lecture Notes in Computer Science*, pages 50–61. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-09952-1_5`.

[2026] Leslie Pérez Cáceres, Manuel López-Ibáñez, and Thomas Stützle. **An Analysis of Parameters of irace**. In Christian Blum and Gabriela Ochoa, editors, *Proceedings of EvoCOP 2014 – 14th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 8600 of *Lecture Notes in Computer Science*, pages 37–48. Springer, Heidelberg, 2014. `doi:10.1007/978-3-662-44320-0_4`.

[2027] Leslie Pérez Cáceres, Manuel López-Ibáñez, and Thomas Stützle. **Ant Colony Optimization on a Budget of 1000: Supplementary material**, 2015. URL `http://iridia.ulb.ac.be/supp/IridiaSupp2015-004`.

[2028] Leslie Pérez Cáceres, Manuel López-Ibáñez, and Thomas Stützle. **Ant colony optimization on a limited budget of evaluations**. *Swarm Intelligence*, 9(2-3):103–124, 2015. `doi:10.1007/s11721-015-0106-x`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2015-004`.

[2029] Leslie Pérez Cáceres, Bernd Bischl, and Thomas Stützle. **Evaluating random forest models for irace**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2017*, pages 1146–1153, New York, NY, 2017. ACM Press. `doi:10.1145/3067695.3082057`.

[2030] Leslie Pérez Cáceres, Manuel López-Ibáñez, Holger H. Hoos, and Thomas Stützle. **An Experimental Study of Adaptive Capping in irace**. In Roberto Battiti, Dmitri E. Kvasov, and Yaroslav D. Sergeyev, editors, *Learning and Intelligent Optimization, 11th International Conference, LION 11*, volume 10556 of *Lecture Notes in Computer Science*, pages 235–250. Springer, Cham, Switzerland, 2017. `doi:10.1007/978-3-319-69404-7_17`. Supplementary material: `http://iridia.ulb.ac.be/supp/IridiaSupp2016-007/`.

[2031] Leslie Pérez Cáceres, Manuel López-Ibáñez, Holger H. Hoos, and Thomas Stützle. **An experimental study of adaptive capping in irace: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2016-007/`, 2017.

[2032] Leslie Pérez Cáceres, Federico Pagnozzi, Alberto Franzin, and Thomas Stützle. **Automatic Configuration of GCC Using irace**. In Evelyne Lutton, Pierrick Legrand, Pierre Parrend, Nicolas Monmarché, and Marc Schoenauer, editors, *EA 2017: Artificial Evolution*, volume 10764 of *Lecture Notes in Computer Science*, pages 202–216. Springer, Heidelberg, 2017. `doi:10.1007/978-3-319-78133-4_15`.

[2033] Leslie Pérez Cáceres, Federico Pagnozzi, Alberto Franzin, and Thomas Stützle. **Automatic configuration of GCC using irace: Supplementary material**. `http://iridia.ulb.ac.be/supp/IridiaSupp2017-009/`, 2017.

[2034] Jeffrey M. Perkel. **Challenge to scientists: does your ten-year-old code still run?** *Nature*, 584:556–658, 2020. `doi:10.1038/d41586-020-02462-7`.
Keywords: reproducibility; software engineering; ReScience C; Ten Years Reproducibility Challenge; code reusability.
Annotation: `https://www.nature.com/articles/d41586-020-02462-7`.

[2035] Gilles Pesant, Michel Gendreau, Jean-Yves Potvin, and J.-M. Rousseau. **An Exact Constraint Logic Programming Algorithm for the Traveling Salesman Problem with Time Windows**. *Transportation Science*, 32:12–29, 1998.

[2036] A. Pessoa, E. Uchoa, M. Aragão, and R. Rodrigues. **Exact Algorithm over an Arc-time-indexed formulation for Parallel Machine Scheduling Problems**. *Mathematical Programming Computation*, 2(3–4):259–290, 2010.

[2037] James E. Pettinger and Richard M. Everson. **Controlling genetic algorithms with reinforcement learning**. In W. B. Langdon et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2002*, pages 692–692. Morgan Kaufmann Publishers, San Francisco, CA, 2002.

[2038] S. Pezeshk and O. J. Helweg. **Adaptative Search Optimisation in reducing pump operation costs**. *Journal of Water Resources Planning and Management, ASCE*, 122(1):57–63, Jan. / Feb. 1996.

[2039] Selcen Phelps and Murat Köksalan. **An interactive evolutionary metaheuristic for multiobjective combinatorial optimization**. *Management Science*, 49(12):1726–1738, 2003.

[2040] Josef Pihera and Nysret Musliu. **Application of Machine Learning to Algorithm Selection for TSP**. In George Angelos Papadopoulos, editor, *26th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2014, Limassol, Cyprus, November 10-12, 2014*, pages 47–54. IEEE Press, 2014.

[2041] M. L. Pilat and T. White. **Using Genetic Algorithms to optimize ACS-TSP**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 282–287. Springer, Heidelberg, 2002.

[2042] Joelle Pineau and Koustuv Sinha. **The Machine Learning Reproducibility Checklist (v2.0)**. https://www.cs.mcgill.ca/~jpineau/ReproducibilityChecklist-v2.0.pdf, 2020. *Annotation:* Used in NeurIPS 2020.

[2043] Joelle Pineau, Philippe Vincent-Lamarre, Koustuv Sinha, Vincent Larivière, Alina Beygelzimer, Florence d'Alché Buc, Emily Fox, and Hugo Larochelle. **Improving Reproducibility in Machine Learning Research (A Report from the NeurIPS 2019 Reproducibility Program)**. *Arxiv preprint arXiv:2003.12206 [cs.LG]*, 2020.

[2044] Michael L. Pinedo. *Scheduling: Theory, Algorithms, and Systems.* Springer, New York, NY, 4th edition, 2012.

[2045] Pedro Pinto, Thomas Runkler, and João Sousa. **Ant Colony Optimization and its Application to Regular and Dynamic MAX-SAT Problems**. In *Advances in Biologically Inspired Information Systems*, volume 69 of *Studies in Computational Intelligence*, pages 285–304. Springer, Berlin, Germany, 2007. doi:10.1007/978-3-540-72693-7_15.

[2046] David Pisinger and Stefan Ropke. **A General Heuristic for Vehicle Routing Problems**. *Computers & Operations Research*, 34(8):2403–2435, 2007.

[2047] David Pisinger and Stefan Ropke. **Large Neighborhood Search**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*, pages 399–419. Springer, New York, NY, 2nd edition, 2010.

[2048] Rapeepan Pitakaso, Christian Almeder, Karl F. Doerner, and Richard F. Hartl. **Combining exact and population-based methods for the Constrained Multilevel Lot Sizing Problem**. *International Journal of Production Research*, 44(22):4755–4771, 2006.

[2049] Rapeepan Pitakaso, Christian Almeder, Karl F. Doerner, and Richard F. Hartl. **A $\mathcal{MAX}$–$\mathcal{MIN}$ Ant System for unconstrained multi-level lot-sizing problems**. *Computers & Operations Research*, 34(9):2533–2552, 2007. doi:10.1016/j.cor.2005.09.022. *Keywords:* Ant colony optimization, Material requirements planning, Multi-level lot-sizing, Wagner-Whitin algorithm.

[2050] Erik Pitzer, Andreas Beham, and Michael Affenzeller. **Automatic Algorithm Selection for the Quadratic Assignment Problem Using Fitness Landscape Analysis**. In Martin Middendorf and Christian Blum, editors, *Proceedings of EvoCOP 2013 – 13th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 7832 of *Lecture Notes in Computer Science*, pages 109–120, Heidelberg, 2013. Springer.

[2051] Hans E. Plesser. **Reproducibility vs. Replicability: A Brief History of a Confused Terminology**. *Frontiers in Neuroinformatics*, 11, Jan. 2018. `doi:10.3389/fninf.2017.00076`.

[2052] Dmitry Plotnikov, Dmitry Melnik, Mamikon Vardanyan, Ruben Buchatskiy, Roman Zhuykov, and Je-Hyung Lee. **Automatic Tuning of Compiler Optimizations and Analysis of their Impact**. In Vassil Alexandrov, Michael Lees, Valeria Krzhizhanovskaya, Jack Dongarra, and Peter M.A. Sloot, editors, *2013 International Conference on Computational Science*, volume 18 of *Procedia Computer Science*, pages 1312–1321. Elsevier, 2013. `doi:10.1016/j.procs.2013.05.298`.

[2053] Martha E. Pollack, editor. *IJCAI 1997, Proceedings of the 15th International Joint Conference on Artificial Intelligence, IJCAI 97, Nagoya, Japan, August 23-29, 1997, 2 Volumes*. Morgan Kaufmann Publishers, 1997.

[2054] Juan Porta, Jorge Parapar, Ramón Doallo, Vasco Barbosa, Inés Santé, Rafael Crecente, and Carlos Díaz. **A Population-based Iterated Greedy Algorithm for the Delimitation and Zoning of Rural Settlements**. *Computers, Environment and Urban Systems*, 39:12–26, 2013.

[2055] V. W. Porto, N. Saravanan, D. Waagen, and Agoston E. Eiben, editors. *7th International Conference, EP98 San Diego, California, USA, March 25–27, 1998 Proceedings*, volume 1447 of *Lecture Notes in Computer Science*, Heidelberg, 1998. Springer. `doi:10.1007/BFb0040753`.

[2056] Daniel Porumbel, Gilles Goncalves, Hamid Allaoui, and Tienté Hsu. **Iterated Local Search and Column Generation to solve Arc-Routing as a Permutation Set-Covering Problem**. *European Journal of Operational Research*, 256(2):349–367, 2017.

[2057] Jean-Yves Potvin and S. Bengio. **The Vehicle Routing Problem with Time Windows Part II: Genetic Search**. *INFORMS Journal on Computing*, 8:165–172, 1996.

[2058] M. Powell. **The BOBYQA algorithm for bound constrained optimization without derivatives**. Technical Report Cambridge NA Report NA2009/06, University of Cambridge, UK, 2009.
       Annotation: `http://www6.cityu.edu.hk/rcms/publications/preprint26.pdf`.

[2059] Kata Praditwong and Xin Yao. **A new multi-objective evolutionary optimisation algorithm: the two-archive algorithm**. In *Computational intelligence and security, 2006 international conference on*, volume 1, pages 286–291. IEEE, 2006.

[2060] Raphael Patrick Prager, Heike Trautmann, Hao Wang, Thomas Bäck, and Pascal Kerschke. **Per-Instance Configuration of the Modularized CMA-ES by Means of Classifier Chains and Exploratory Landscape Analysis**. In Carlos A. Coello Coello, editor, *2020 IEEE Symposium Series on Computational Intelligence, SSCI 2020, Canberra, Australia, December 1-4, 2020*, pages 996–1003. IEEE Press, 2020.

[2061] Marco Pranzo and D. Pacciarelli. **An Iterated Greedy Metaheuristic for the Blocking Job Shop Scheduling Problem**. *Journal of Heuristics*, 22(4):587–611, 2016. `doi:10.1007/s10732-014-9279-5`.

[2062] T. Devi Prasad. **Design of pumped water distribution networks with storage**. *Journal of Water Resources Planning and Management, ASCE*, 136(4):129–136, 2009.

[2063] T. Devi Prasad and Godfrey A. Walters. **Optimal rerouting to minimise residence times in water distribution networks**. In C. Maksimović, David Butler, and Fayyaz Ali Memon, editors, *Advances in Water Supply Management*, pages 299–306. CRC Press, 2003.

[2064] F. P. Preparata and M. I. Shamos. *Computational Geometry. An Introduction*. Springer, Berlin, Germany, 2nd edition, 1988.

[2065] Kenneth Price, Rainer M. Storn, and Jouni A. Lampinen. *Differential Evolution: A Practical Approach to Global Optimization*. Springer, New York, NY, 2005. doi:10.1007/3-540-31306-0.

[2066] A. Prieditis and S. Russell, editors. *Proceedings of the Twelfth International Conference on Machine Learning (ML-95)*. Morgan Kaufmann Publishers, Palo Alto, CA, 1995.

[2067] Robert Clay Prim. **Shortest connection networks and some generalizations**. *Bell System Technical Journal*, 36(6):1389–1401, 1957.

[2068] Philipp Probst, Bernd Bischl, and Anne-Laure Boulesteix. **Tunability: Importance of Hyperparameters of Machine Learning Algorithms**. *Arxiv preprint arXiv:1802.09596*, 2018.
        Keywords: parameter importance.

[2069] Luc Pronzato and Werner G. Müller. **Design of computer experiments: space filling and beyond**. *Statistics and Computing*, 22(3):681–701, 2012.
        Keywords: Kriging; Entropy; Design of experiments; Space-filling; Sphere packing; Maximin design; Minimax design.

[2070] Andy Pryke, Sanaz Mostaghim, and Alireza Nazemi. **Heatmap visualization of population based multi objective algorithms**. In S. Obayashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2007*, volume 4403 of *Lecture Notes in Computer Science*, pages 361–375. Springer, Heidelberg, 2007.

[2071] Harilaos N. Psaraftis. **Dynamic Vehicle Routing: Status and Prospects**. *Annals of Operations Research*, 61:143–164, 1995.

[2072] José M. Puerta, José A. Gámez, Bernabe Dorronsoro, Edurne Barrenechea, Alicia Troncoso, Bruno Baruque, and Mikel Galar, editors. *Advances in Artificial Intelligence: 16th Conference of the Spanish Association for Artificial Intelligence, CAEPIA 2015 Albacete, Spain, November 9-12, 2015 Proceedings*, volume 9422 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2015.

[2073] Timo Pukkala and Tero Heinonen. **Optimizing heuristic search in forest planning**. *Nonlinear Analysis: Real World Applications*, 7(5):1284–1297, 2006.

[2074] Luca Pulina and Armando Tacchella. **A self-adaptive multi-engine solver for quantified Boolean formulas**. *Constraints*, 14(1):80–116, 2009.

[2075] Robin C. Purshouse and Peter J. Fleming. **On the Evolutionary Optimization of Many Conflicting Objectives**. *IEEE Transactions on Evolutionary Computation*, 11(6):770–784, 2007. doi:10.1109/TEVC.2007.910138.

[2076] Robin C. Purshouse, Peter J. Fleming, Carlos M. Fonseca, Salvatore Greco, and Jane Shaw, editors. *Evolutionary Multi-Criterion Optimization – 7th International Conference, EMO 2013, Sheffield, UK, March 19-22, 2013. Proceedings*, volume 7811 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2013. ISBN 978-3-642-37139-4.

[2077] Robin C. Purshouse, Kalyanmoy Deb, Maszatul M. Mansor, Sanaz Mostaghim, and Rui Wang. **A review of hybrid evolutionary multiple criteria decision making methods**. COIN Report 2014005, Computational Optimization and Innovation (COIN) Laboratory, University of Michigan, USA, Jan. 2014.

[2078] Markus Püschel, Franz Franchetti, and Yevgen Voronenko. **Spiral**. In David Padua, editor, *Encyclopedia of Parallel Computing*, pages 1920–1933. Springer, US, 2011. `doi:10.1007/978-0-387-09766-4_244`.

[2079] Yasha Pushak and Holger H. Hoos. **Algorithm Configuration Landscapes: More Benign Than Expected?** In Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors, *Parallel Problem Solving from Nature - PPSN XV*, volume 11101 of *Lecture Notes in Computer Science*, pages 271–283. Springer, Cham, Switzerland, 2018. `doi:10.1007/978-3-319-99259-4_22`. Supplementary material: `http://www.cs.ubc.ca/labs/beta/Projects/ACLandscapes/`.
Annotation: Best paper award at PPSN2018.

[2080] Yasha Pushak and Holger H. Hoos. **Golden parameter search: exploiting structure to quickly configure parameters in parallel**. In Carlos A. Coello Coello, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2020*, pages 245–253. ACM Press, New York, NY, 2020. ISBN 978-1-4503-7128-5. `doi:10.1145/3377930`.
Keywords: algorithm configuration.

[2081] Julianne D. Quinn, Patrick M. Reed, and Klaus Keller. **Direct policy search for robust multi-objective management of deeply uncertain socio-ecological tipping points**. *Environmental Modelling & Software*, 92:125–141, 2017.

[2082] L. Rachmawati and D. Srinivasan. **Preference incorporation in multiobjective evolutionary algorithms: A survey**. In *Proceedings of the 2006 Congress on Evolutionary Computation (CEC 2006)*, pages 3385–3391. IEEE Press, Piscataway, NJ, July 2006.

[2083] Shahriar Farahmand Rad, Rubén Ruiz, and Naser Boroojerdian. **New High Performing Heuristics for Minimizing Makespan in Permutation Flowshops**. *Omega*, 37(2):331–345, 2009.

[2084] Andreea Radulescu, Manuel López-Ibáñez, and Thomas Stützle. **Automatically Improving the Anytime Behaviour of Multiobjective Evolutionary Algorithms**. Technical Report TR/IRIDIA/2012-019, IRIDIA, Université Libre de Bruxelles, Belgium, 2012. Published in the proceedings of EMO 2013 [2085].

[2085] Andreea Radulescu, Manuel López-Ibáñez, and Thomas Stützle. **Automatically Improving the Anytime Behaviour of Multiobjective Evolutionary Algorithms**. In Robin C. Purshouse, Peter J. Fleming, Carlos M. Fonseca, Salvatore Greco, and Jane Shaw, editors, *Evolutionary Multi-criterion Optimization, EMO 2013*, volume 7811 of *Lecture Notes in Computer Science*, pages 825–840. Springer, Heidelberg, 2013. ISBN 978-3-642-37139-4. `doi:10.1007/978-3-642-37140-0_61`.

[2086] Alma A. M. Rahat, Richard M. Everson, and Jonathan E. Fieldsend. **Alternative infill strategies for expensive multi-objective optimisation**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2017*, pages 873–880, New York, NY, 2017. ACM Press.

[2087] Günther R. Raidl and Jens Gottlieb, editors. *Proceedings of EvoCOP 2003 – 3rd European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 2611 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2003.

[2088] Günther R. Raidl and Jens Gottlieb, editors. *Proceedings of EvoCOP 2005 – 5th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 3448 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2005.

[2089] Günther R. Raidl et al., editors. *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2004*, volume 3005 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2004.

[2090] C. Rajendran. **Heuristic algorithm for scheduling in a flowshop to minimize total flowtime**. *International Journal of Production Economics*, 29(1):65–73, 1993.

[2091] C. Rajendran and H. Ziegler. **An efficient heuristic for scheduling in a flowshop to minimize total weighted flowtime of jobs**. *European Journal of Operational Research*, 103 (1):129–138, 1997. ISSN 0377 – 2217. doi:10.1016/S0377-2217(96)00273-1.

[2092] C. Rajendran and H. Ziegler. **Ant-colony algorithms for permutation flowshop scheduling to minimize makespan/total flowtime of jobs**. *European Journal of Operational Research*, 155(2):426–438, 2004.

[2093] Camelia Ram, Gilberto Montibeller, and Alec Morton. **Extending the use of scenario planning and MCDA for the evaluation of strategic options**. *Journal of the Operational Research Society*, 62(5):817–829, 2011.

[2094] Raghu Ramakrishnan, Salvatore J. Stolfo, Roberto J. Bayardo, and Ismail Parsa, editors. *Proceedings of the sixth ACM SIGKDD international conference on Knowledge discovery and data mining, Boston, MA, USA, August 20-23, 2000.* ACM Press, New York, NY, 2000. *Annotation:* http://dl.acm.org/citation.cfm?id=347090.

[2095] David Garzón Ramos and Mauro Birattari. **Automatic Design of Collective Behaviors for Robots that Can Display and Perceive Colors**. *Applied Sciences*, 10(13):4654, 2020.

[2096] Marcus Randall. **Near Parameter Free Ant Colony Optimisation**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 374–381. Springer, Heidelberg, 2004.

[2097] Marcus Randall and James Montgomery. **Candidate Set Strategies for Ant Colony Optimisation**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 243–249. Springer, Heidelberg, 2002.

[2098] Marcus Randall, Hussein A. Abbass, and Janet Wiles, editors. *Progress in Artificial Life, Third Australian Conference, ACAL 2007*, volume 4828 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2007.

[2099] Zhengfu Rao and Elad Salomons. **Development of a real-time, near-optimal control process for water-distribution networks**. *Journal of Hydroinformatics*, 9(1):25–37, 2007. doi:10.2166/hydro.2006.015.

[2100] Zhengfu Rao, Jon Wicks, and Sue West. **ENCOMS - An Energy Cost Minimisation System for Real-Time, Operational Control of Water Distribution Networks**. In Dragan A. Savic, Godfrey A. Walters, Roger King, and Soon Thiam-Khu, editors, *Proceedings of the Eighth International Conference on Computing and Control for the Water Industry (CCWI 2005)*, volume 1, pages 85–90, University of Exeter, UK, Sept. 2005.

[2101] J. Rapin and O. Teytaud. **Nevergrad: A gradient-free optimization platform**. https://GitHub.com/FacebookResearch/Nevergrad, 2018.

[2102] Michael Rappa, Paul Jones, Juliana Freire, and Soumen Chakrabarti, editors. *World Wide Web Conference, WWW 2010, Proceedings, Raleigh, North Carolina, USA, April 26-30, 2010*. ACM Press, New York, NY, 2010.

[2103] Ronald L. Rardin and Reha Uzsoy. **Experimental Evaluation of Heuristic Optimization Algorithms: A Tutorial**. *Journal of Heuristics*, 7(3):261–304, 2001.

[2104] Jussi Rasku, Nysret Musliu, and Tommi Kärkkäinen. **Automating the Parameter Selection in VRP: An Off-line Parameter Tuning Tool Comparison**. In William Fitzgibbon, Yuri A. Kuznetsov, Pekka Neittaanmäki, and Olivier Pironneau, editors, *Modeling, Simulation and Optimization for Science and Technology*, volume 34 of *Computational Methods in Applied Sciences*, pages 191–209. Springer, 2014. `doi:10.1007/978-94-017-9054-3_11`.
Keywords: irace.

[2105] Carl Edward Rasmussen and Christopher K. I. Williams. *Gaussian Processes for Machine Learning*. MIT Press, Cambridge, MA, 2006. ISBN 026218253X.
Keywords: Gaussian processes, data processing.

[2106] G. Rawlins, editor. *Foundations of Genetic Algorithms*. Morgan Kaufmann Publishers, San Mateo, CA, 1991.

[2107] N. Rayner. **Maverick Research: Judgment Day, or Why We Should Let Machines Automate Decision Making**. Gartner research note, Gartner, Inc, Oct. 2011.

[2108] R Development Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2008. URL `http://www.R-project.org`.

[2109] Ingo Rechenberg. *Evolutionsstrategie: Optimierung technischer Systeme nach Prinzipien der biologischen Evolution*. PhD thesis, Department of Process Engineering, Technical University of Berlin, 1971.

[2110] Ingo Rechenberg. *Evolutionsstrategie: Optimierung technischer Systeme nach Prinzipien der biologischen Evolution*. Frommann-Holzboog, Stuttgart, Germany, 1973.

[2111] Ingo Rechenberg. **Case studies in evolutionary experimentation and computation**. *Computer Methods in Applied Mechanics and Engineering*, 186(2-4):125–140, 2000. `doi:10.1016/S0045-7825(99)00381-3`.

[2112] Patrick M. Reed. **Many-Objective Visual Analytics: Rethinking the Design of Complex Engineered Systems**. In Robin C. Purshouse, Peter J. Fleming, Carlos M. Fonseca, Salvatore Greco, and Jane Shaw, editors, *Evolutionary Multi-criterion Optimization, EMO 2013*, volume 7811 of *Lecture Notes in Computer Science*, pages 1–1. Springer, Heidelberg, 2013. ISBN 978-3-642-37139-4.

[2113] Patrick M. Reed, David Hadka, Jonathan D. Herman, Joseph R. Kasprzyk, and Joshua B. Kollat. **Evolutionary multiobjective optimization in water resources: The past, present, and future**. *Advances in Water Resources*, 51:438–456, 2013.

[2114] Colin R. Reeves. **Genetic algorithms**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*, chapter 5, pages 109–140. Springer, New York, NY, 2nd edition, 2010.

[2115] Colin R. Reeves and A. V. Eremeev. **Statistical analysis of local search landscapes**. *Journal of the Operational Research Society*, 55(7):687–693, 2004.

[2116] Gary R. Reeves and Juan J. Gonzalez. **A comparison of two interactive MCDM procedures**. *European Journal of Operational Research*, 41(2):203–209, 1989. `doi:10.1016/0377-2217(89)90385-8`.
Keywords: artificial DM, interactive.

[2117] Marc Reimann. **Guiding ACO by Problem Relaxation: A Case Study on the Symmetric TSP**. In Thomas Bartz-Beielstein, María J. Blesa, Christian Blum, Boris Naujoks, Andrea Roli, Günther Rudolph, and M. Sampels, editors, *Hybrid Metaheuristics*, volume 4771 of *Lecture Notes in Computer Science*, pages 45–56. Springer, Heidelberg, 2007.

[2118] Marc Reimann and Marco Laumanns. **Savings based ant colony optimization for the capacitated minimum spanning tree problem**. *Computers & Operations Research*, 33(6): 1794–1822, 2006. doi:10.1016/j.cor.2004.11.019.
Keywords: Ant colony Optimization, Capacitated minimum spanning tree problem.

[2119] Marc Reimann, Karl F. Doerner, and Richard F. Hartl. **D-ants: Savings based ants divide and conquer the vehicle routing problems**. *Computers & Operations Research*, 31(4): 563–591, 2004.

[2120] Gerhard Reinelt. **TSPLIB — A Traveling Salesman Problem Library**. *ORSA Journal on Computing*, 3(4):376–384, 1991.

[2121] Gerhard Reinelt. *The Traveling Salesman: Computational Solutions for TSP Applications*, volume 840 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 1994.

[2122] Gerhard Reinelt. **TSPLIB**. http://www.iwr.uni-heidelberg.de/groups/comopt/software/ TSPLIB95, 1995. Version visited last on 15 June 2012.

[2123] Zhi-Gang Ren, Zu-Ren Feng, Liang-Jun Ke, and Zhao-Jun Zhang. **New Ideas for Applying Ant Colony Optimization to the Set Covering Problem**. *Computers & Industrial Engineering*, 58(4):774–784, 2010.

[2124] Mauricio G. C. Resende and Jorge Pinho de Souza, editors. *Proceedings of MIC 1997, the 2nd Metaheuristics International Conference, Sophia-Antipolis, France, July 21-24, 1997*, 1997.

[2125] Mauricio G. C. Resende and Celso C. Ribeiro. **Greedy Randomized Adaptive Search Procedures**. In Fred Glover and G. Kochenberger, editors, *Handbook of Metaheuristics*, pages 219–249. Kluwer Academic Publishers, Norwell, MA, 2002.

[2126] Mauricio G. C. Resende and Celso C. Ribeiro. **Greedy Randomized Adaptive Search Procedures: Advances, Hybridizations, and Applications**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 146 of *International Series in Operations Research & Management Science*, pages 283–319. Springer, New York, NY, 2nd edition, 2010.

[2127] M. Reyes-Sierra and Carlos A. Coello Coello. **Multi-objective particle swarm optimizers: A survey of the state-of-the-art**. *International Journal of Computational Intelligence Research*, 2(3):287–308, 2006.

[2128] Craig W. Reynolds. **Flocks, Herds, and Schools: A Distributed Behavioral Model**. *ACM Computer Graphics*, 21(4):25–34, 1987.

[2129] Mona Riabacke, Mats Danielson, Love Ekenberg, and Aron Larsson. **A Prescriptive Approach for Eliciting Imprecise Weight Statements in an MCDA Process**. In Francesca Rossi and Alexis Tsoukiàs, editors, *Algorithmic Decision Theory, First International Conference, ADT 2009*, volume 5783 of *Lecture Notes in Computer Science*, pages 168–179. Springer, Heidelberg, 2009.

[2130] Imma Ribas, Ramon Companys, and Xavier Tort-Martorell. **An iterated greedy algorithm for the flowshop scheduling problem with blocking**. *Omega*, 39(3):293 – 301, 2011.

[2131] Imma Ribas, Ramon Companys, and Xavier Tort-Martorell. **An Efficient Iterated Local Search Algorithm for the Total Tardiness Blocking Flow Shop Problem**. *International Journal of Production Research*, 51(17):5238–5252, 2013.

[2132] Celso C. Ribeiro and Sebastián Urrutia. **Heuristics for the Mirrored Traveling Tournament Problem**. *European Journal of Operational Research*, 179(3):775–787, 2007.

[2133] John R. Rice. **The Algorithm Selection Problem**. *Advances in Computers*, 15:65–118, 1976.

[2134] A. J. Richmond and John E. Beasley. **An Iterative Construction Heuristic for the Ore Selection Problem**. *Journal of Heuristics*, 10(2):153–167, 2004.

[2135] Enda Ridge and Daniel Kudenko. **Tuning the Performance of the MMAS Heuristic**. In Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors, *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2007*, volume 4638 of *Lecture Notes in Computer Science*, pages 46–60. Springer, Heidelberg, 2007.

[2136] Enda Ridge and Daniel Kudenko. **Tuning an Algorithm Using Design of Experiments**. In Thomas Bartz-Beielstein, Marco Chiarandini, Luís Paquete, and Mike Preuss, editors, *Experimental Methods for the Analysis of Optimization Algorithms*, pages 265–286. Springer, Berlin, Germany, 2010.

[2137] María-Cristina Riff and Elizabeth Montero. **A new algorithm for reducing metaheuristic design effort**. In *Proceedings of the 2013 Congress on Evolutionary Computation (CEC 2013)*, pages 3283–3290. IEEE Press, Piscataway, NJ, 2013. doi:10.1109/CEC.2013.6557972.

[2138] Lucía Rivadeneira, Jian-Bo Yang, and Manuel López-Ibáñez. **Predicting tweet impact using a novel evidential reasoning prediction method**. *Expert Systems with Applications*, 2021. doi:10.1016/j.eswa.2020.114400.
Keywords: Evidential reasoning rule,Belief rule-based inference,Maximum likelihood data analysis,Twitter,Retweet,Prediction.

[2139] Juan Carlos Rivera, H. Murat Afsar, and Christian Prins. **A Multistart Iterated Local Search for the Multitrip Cumulative Capacitated Vehicle Routing Problem**. *Computational Optimization and Applications*, 61(1):159–187, 2015.

[2140] C. P. Robert. **Simulation of truncated normal variables**. *Statistics and Computing*, 5(2): 121–125, June 1995.

[2141] Tea Robič and Bogdan Filipič. **DEMO: Differential Evolution for Multiobjective Optimization**. In Carlos A. Coello Coello, A. H. Aguirre, and Eckart Zitzler, editors, *Evolutionary Multi-criterion Optimization, EMO 2005*, volume 3410 of *Lecture Notes in Computer Science*, pages 520–533, Heidelberg, 2005. Springer.

[2142] Francisco J. Rodríguez, Christian Blum, Manuel Lozano, and Carlos García-Martínez. **Iterated Greedy Algorithms for the Maximal Covering Location Problem**. In Jin-Kao Hao and Martin Middendorf, editors, *Proceedings of EvoCOP 2012 – 12th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 7245 of *Lecture Notes in Computer Science*, pages 172–181. Springer, Heidelberg, 2012.

[2143] Cynthia A. Rodríguez Villalobos and Carlos A. Coello Coello. **A new multi-objective evolutionary algorithm based on a performance assessment indicator**. In Terence Soule and Jason H. Moore, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2012*, pages 505–512. ACM Press, New York, NY, 2012.

[2144] Fabio Romeo and Alberto Sangiovanni-Vincentelli. **A Theoretical Framework for Simulated Annealing**. *Algorithmica*, 6(1-6):302–345, 1991.

[2145] P. A. Romero, A. Krause, and F. H. Arnold. **Navigating the Protein Fitness Landscape with Gaussian Processes**. *Proceedings of the National Academy of Sciences*, 110(3):E193–E201, Dec. 2012. doi:10.1073/pnas.1215251110.
Keywords: Combinatorial Black-box Expensive.

[2146] David S. Roos. **Bioinformatics–trying to swim in a sea of data**. *Science*, 291(5507): 1260–1261, 2001.

[2147] Stefan Ropke and David Pisinger. **A Unified Heuristic for a Large Class of Vehicle Routing Problems with Backhauls**. *European Journal of Operational Research*, 171(3):750–775, 2006.

[2148] Stefan Ropke and David Pisinger. **An Adaptive Large Neighborhood Search Heuristic for the Pickup and Delivery Problme with Time Windows**. *Transportation Science*, 40 (4):455–472, 2006.

[2149] Jonathan Rose, Wolfgang Klebsch, and Jürgen Wolf. **Temperature measurement and equilibrium dynamics of simulated annealing placements**. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 9(3):253–259, 1990.

[2150] Peter Ross. **Hyper-Heuristics**. In Edmund K. Burke and Graham Kendall, editors, *Search Methodologies*, pages 529–556. Springer, Boston, MA, 2005. `doi:10.1007/0-387-28356-0_17`.

[2151] Francesca Rossi and Alexis Tsoukiàs, editors. *Algorithmic Decision Theory, First International Conference, ADT 2009, Venice, Italy, October 20-23, 2009*, volume 5783 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2009.

[2152] L. A. Rossman. *EPANET User's Guide*. Risk Reduction Engineering Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, USA, 1994.

[2153] L. A. Rossman. **The EPANET Programmer's Toolkit for Analysis of Water Distribution Systems**. In *Proceedings of the Annual Water Resources Planning and Management Conference*, Reston, USA, 1999. ASCE.

[2154] L. A. Rossman. *EPANET 2 Users Manual*. U.S. Environmental Protection Agency, Cincinnati, USA, 2000.

[2155] Edward Rothberg. **An evolutionary algorithm for polishing mixed integer programming solutions**. *INFORMS Journal on Computing*, 19(4):534–541, 2007.

[2156] Franz Rothlauf, editor. *Genetic and Evolutionary Computation Conference, GECCO 2009, Proceedings, Montreal, Québec, Canada, July 8-12, 2009*. ACM Press, New York, NY, 2009.

[2157] Franz Rothlauf, editor. *Genetic and Evolutionary Computation Conference, GECCO 2009, Proceedings, Montreal, Québec, Canada, July 8-12, 2009, Companion Material*. ACM Press, New York, NY, 2009.

[2158] Daniel H. Rothman. **Nonlinear inversion, statistical mechanics, and residual statics estimation**. *Geophysics*, 50(12):2784–2796, 1985.

[2159] Daniel H. Rothman. **Automatic estimation of large residual statics corrections**. *Geophysics*, 51(2):332–346, 1986.

[2160] Bernard Roy. **Robustness in operational research and decision aiding: A multi-faceted issue**. *European Journal of Operational Research*, 200(3):629–638, 2010. `doi:10.1016/j.ejor.2008.12.036`. URL `http://www.sciencedirect.com/science/article/B6VCT-4VJ06GW-1/2/21c4eadd5f4aa90cba9294ffd07eff34`.

[2161] Frank Rubin. **An Iterative Technique for Printed Wire Routing**. In *DAC'74, Proceedings of the 11th Design Automation Workshop*, pages 308–313. IEEE Press, 1974.

[2162] Günther Rudolph. **On Correlated Mutations in Evolution Strategies**. In Reinhard Männer and Bernard Manderick, editors, *Parallel Problem Solving from Nature – PPSN II*, pages 107–116. Elsevier, 1992.

[2163] Günther Rudolph and Alexandru Agapie. **Convergence Properties of Some Multi-Objective Evolutionary Algorithms**. In *Proceedings of the 2000 Congress on Evolutionary Computation (CEC'00)*, volume 2, pages 1010–1016, Piscataway, NJ, July 2000. IEEE Press.

[2164] Günther Rudolph, Oliver Schütze, Christian Grimme, Christian Domínguez-Medina, and Heike Trautmann. **Optimal averaged Hausdorff archives for bi-objective problems: theoretical and numerical results**. *Computational Optimization and Applications*, 64(2): 589–618, 2016.

[2165] Günther Rudolph et al., editors. *Proceedings of PPSN-X, Tenth International Conference on Parallel Problem Solving from Nature*, volume 5199 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2008.

[2166] Ana B. Ruiz, Mariano Luque, Kaisa Miettinen, and Rubén Saborido. **An Interactive Evolutionary Multiobjective Optimization Method: Interactive WASF-GA**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part II*, volume 9019 of *Lecture Notes in Computer Science*, pages 249–263. Springer International Publishing, Heidelberg, 2015. doi:10.1007/978-3-319-15892-1_17.

[2167] Rubén Ruiz and C. Maroto. **A Comprehensive Review and Evaluation of Permutation Flowshop Heuristics**. *European Journal of Operational Research*, 165(2):479–494, 2005.

[2168] Rubén Ruiz and Thomas Stützle. **A Simple and Effective Iterated Greedy Algorithm for the Permutation Flowshop Scheduling Problem**. *European Journal of Operational Research*, 177(3):2033–2049, 2007.

[2169] Rubén Ruiz and Thomas Stützle. **An Iterated Greedy heuristic for the sequence dependent setup times flowshop problem with makespan and weighted tardiness objectives**. *European Journal of Operational Research*, 187(3):1143 – 1159, 2008.

[2170] Rubén Ruiz, C. Maroto, and Javier Alcaraz. **Two new robust genetic algorithms for the flowshop scheduling problem**. *Omega*, 34(5):461–476, 2006. doi:10.1016/j.omega.2004.12.006.

[2171] Rubén Ruiz, Eva Vallada, and Carlos Fernández-Martínez. **Scheduling in flowshops with no-idle machines**. In *Computational intelligence in flow shop and job shop scheduling*, pages 21–51. Springer, 2009.

[2172] W. Ruml. **Incomplete Tree Search using Adaptive Probing**. In Bernhard Nebel, editor, *Proceedings of the Seventeenth International Joint Conference on Artificial Intelligence (IJCAI-01)*, pages 235–241. IEEE Press, 2001.

[2173] T. P. Runarsson, Hans-Georg Beyer, Edmund K. Burke, Juan-Julián Merelo, Darrell Whitley, and Xin Yao, editors. *Proceedings of PPSN-IX, Ninth International Conference on Parallel Problem Solving from Nature*, volume 4193 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2006.

[2174] Robert A. Russell. **Hybrid Heuristics for the Vehicle Routing Problem with Time Windows**. *Transportation Science*, 29(2):156–166, 1995.

[2175] Stuart J. Russell and Peter Norvig. *Artificial Intelligence: A Modern Approach*, volume 2. Prentice Hall, Englewood Cliffs, NJ, 2003.

[2176] John Rust. **Structural estimation of Markov decision processes**. In *Handbook of Econometrics*, volume 4, pages 3081–3143. Elsevier, 1994. doi:10.1016/S1573-4412(05)80020-0.

[2177] Conor Ryan, editor. *Genetic and Evolutionary Computation Conference, GECCO 2008, Proceedings, Atlanta, Georgia, USA July 12-16, 2008*. ACM Press, New York, NY, 2008.

[2178] N. R. Sabar, M. Ayob, Graham Kendall, and R. Qu. **Grammatical Evolution Hyper-Heuristic for Combinatorial Optimization Problems**. *IEEE Transactions on Evolutionary Computation*, 17(6):840–861, 2013.

[2179] N. R. Sabar, M. Ayob, Graham Kendall, and R. Qu. **A Dynamic Multiarmed Bandit-Gene Expression Programming Hyper-Heuristic for Combinatorial Optimization Problems**. *IEEE Transactions on Cybernetics*, 45(2):217–228, 2015.

[2180] N. R. Sabar, M. Ayob, Graham Kendall, and R. Qu. **Automatic Design of a Hyper-Heuristic Framework With Gene Expression Programming for Combinatorial Optimization Problems**. *IEEE Transactions on Evolutionary Computation*, 19(3):309–325, 2015.

[2181] Matthieu Sacher, Régis Duvigneau, Olivier Le Maitre, Mathieu Durand, Elisa Berrini, Frédéric Hauville, and Jacques-André Astolfi. **A classification approach to efficient global optimization in presence of non-computable domains**. *Structural and Multidisciplinary Optimization*, 58(4):1537–1557, 2018. `doi:10.1007/s00158-018-1981-8`.
Keywords: Safe optimization; CMA-ES, Gaussian processes; Least-Squares Support Vector Machine.
Annotation: Proposed EGO-LS-SVM.

[2182] Pramod J. Sadalage and Martin Fowler. **NoSQL distilled**. *AddisonWesley Professional*, 2012.

[2183] Bhupinder Singh Saini, Manuel López-Ibáñez, and Kaisa Miettinen. **Automatic Surrogate Modelling Technique Selection based on Features of Optimization Problems**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2019*, pages 1765–1772. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6748-6. `doi:10.1145/3319619.3326890`.

[2184] A. Burcu Altan Sakarya and Larry W. Mays. **Optimal Operation of Water Distribution Pumps Considering Water Quality**. *Journal of Water Resources Planning and Management, ASCE*, 126(4):210–220, July / Aug. 2000.

[2185] A. Burcu Altan Sakarya, Fred E. Goldman, and Larry W. Mays. **Models for the optimal scheduling of pumps to meet water quality**. In Dragan A. Savic and Godfrey A. Walters, editors, *Water Industry Systems: Modelling and Optimization Applications*, volume 2, pages 379–391. Research Studies Press Ltd., Baldock, United Kingdom, 1999.

[2186] Yoshitaka Sakurai, Kouhei Takada, Takashi Kawabe, and Setsuo Tsuruta. **A method to control parameters of evolutionary algorithms by using reinforcement learning**. In *2010 Sixth International Conference on Signal-Image Technology and Internet Based Systems*, pages 74–79. IEEE, 2010.

[2187] Marcela Samà, Paola Pellegrini, Andrea D'Ariano, Joaquin Rodriguez, and Dario Pacciarelli. **Ant colony optimization for the real-time train routing selection problem**. *Transportation Research Part B: Methodological*, 85:89–108, 2016. `doi:10.1016/j.trb.2016.01.005`.
Keywords: irace.

[2188] Francesco Sambo, Barbara Di Camillo, Alberto Franzin, Andrea Facchinetti, Liisa Hakaste, Jasmina Kravic, Giuseppe Fico, Jaakko Tuomilehto, Leif Groop, Rafael Gabriel, Tiinamaija Tuomi, and Claudio Cobelli. **A Bayesian Network analysis of the probabilistic relations between risk factors in the predisposition to type 2 diabetes**. In Nigel Lovell and Luca Mainardi, editors, *37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC 2015, Proceedings*, Annual International Conference of the IEEE Engineering in Medicine and Biology, pages 2119–2122. IEEE Press, 2015.

[2189] Malcolm Sambridge. **Geophysical inversion with a neighbourhood algorithm–I. Searching a parameter space**. *Geophysical Journal International*, 138(2):479–494, 1999.

[2190] Javier Sánchez, Manuel Galán, and Enrique Rubio. **Applying a traffic lights evolutionary optimization technique to a real case: "Las Ramblas" area in Santa Cruz de Tenerife**. *IEEE Transactions on Evolutionary Computation*, 12(1):25–40, 2008.
Keywords: Cellular automata (CA),Combinatorial optimization,Ggenetic algorithms (GAs),Microscopic traffic simulator,Traffic lights optimization.

[2191] J. J. Sánchez-Medina, M. J. Galán-Moreno, and E. Rubio-Royo. **Traffic Signal Optimization in "La Almozara" District in Saragossa Under Congestion Conditions, Using Genetic Algorithms, Traffic Microsimulation, and Cluster Computing**. *IEEE Transactions on Intelligent Transportation Systems*, 11(1):132–141, Mar. 2010. ISSN 1524-9050. doi:10.1109/TITS.2009.2034383.
Keywords: cellular automata;genetic algorithms;road traffic;road vehicles;traffic engineering computing;Beowulf cluster;La Almozara district;Saragossa;cellular automata;cluster computing;genetic algorithm;multiple-instruction multiple data;traffic light programming;traffic microsimulation;traffic signal optimization;urban traffic congestion;Cellular automata (CA);genetic algorithms (GAs);intelligent transportation systems;microsimulation;traffic congestion;traffic modeling.

[2192] E. Sandgren. **Nonlinear integer and discrete programming in mechanical design optimization**. *Journal of Mechanical Design*, 112(2):223–229, 1990. doi:10.1115/1.2912596.

[2193] Nathan Sankary and Avi Ostfeld. **Stochastic Scenario Evaluation in Evolutionary Algorithms Used for Robust Scenario-Based Optimization**. *Water Resources Research*, 54(4):2813–2833, 2018.

[2194] Alberto Santini, Stefan Ropke, and Lars Magnus Hvattum. **A comparison of acceptance criteria for the adaptive large neighbourhood search metaheuristic**. *Journal of Heuristics*, 24:783–815, 2018. doi:10.1007/s10732-018-9377-x.

[2195] Thomas J. Santner, Brian J. Williams, and William I. Notz. *The Design and Analysis of Computer Experiments*. Springer Verlag, New York, NY, 2003. doi:10.1007/978-1-4757-3799-8.

[2196] Kaz Sato, Cliff Young, and David Patterson. **An in-depth look at Google's first Tensor Processing Unit (TPU)**. https://cloud.google.com/blog/big-data/2017/05/an-in-depth-look-at-googles-first-tensor-processing-unit-tpu, 2017.

[2197] Martin W. P. Savelsbergh. **Local search in routing problems with time windows**. *Annals of Operations Research*, 4(1):285–305, Dec. 1985. doi:10.1007/BF02022044.

[2198] Dragan A. Savic and Godfrey A. Walters, editors. *Water Industry Systems: Modelling and Optimization Applications*, volume 2. Research Studies Press Ltd., Baldock, United Kingdom, 1999.

[2199] Dragan A. Savic, Godfrey A. Walters, and Martin Schwab. **Multiobjective Genetic Algorithms for Pump Scheduling in Water Supply**. In David Corne and J. L. Shapiro, editors, *Evolutionary Computing Workshop, AISB'97*, volume 1305 of *Lecture Notes in Computer Science*, pages 227–236. Berlin, Germany, 1997.

[2200] Dragan A. Savic, Godfrey A. Walters, Roger King, and Soon Thiam-Khu, editors. *Proceedings of the Eighth International Conference on Computing and Control for the Water Industry (CCWI 2005)*, volume 1, University of Exeter, UK, Sept. 2005.

[2201] Y. Sawaragi, H. Nakayama, and T. Tanino. *Theory of multiobjective optimization*. Elsevier, 1985.

[2202] Dhish Kumar Saxena, Joao A Duro, Anish Tiwari, Kaushik Deb, and Qingfu Zhang. **Objective reduction in many-objective optimization: Linear and nonlinear algorithms**. *IEEE Transactions on Evolutionary Computation*, 17(1):77–99, 2013.

[2203] Robert Schaefer, Carlos Cotta, Joanna Kolodziej, and Günther Rudolph, editors. *Parallel Problem Solving from Nature, PPSN XI*, volume 6238 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2010.

[2204] Andrea Schaerf. **Combining Local Search and Look-Ahead for Scheduling and Constraint Satisfaction Problems**. In Martha E. Pollack, editor, *Proceedings of the Fifteenth International Joint Conference on Artificial Intelligence (IJCAI-97)*, volume 2, pages 1254–1259. Morgan Kaufmann Publishers, 1997.

[2205] J. David Schaffer. **Multiple Objective Optimization with Vector Evaluated Genetic Algorithms**. In John J. Grefenstette, editor, *ICGA*, pages 93–100. Lawrence Erlbaum Associates, 1985. ISBN 0-8058-0426-9.
Keywords: VEGA.

[2206] J. David Schaffer, editor. *Proceedings of the 3rd International Conference on Genetic Algorithms, George Mason University, Fairfax, Virginia, USA, June 1989*. Morgan Kaufmann Publishers, San Mateo, CA, 1989.

[2207] Jeffrey C. Schank and Thomas J. Koehnle. **Pseudoreplication is a pseudoproblem**. *Journal of Comparative Psychology*, 123(4):421–433, 2009.

[2208] Henry Scheffe. *The Analysis of Variance*. John Wiley & Sons, New York, NY, 1st edition, 1959.

[2209] Tommaso Schiavinotto and Thomas Stützle. **The Linear Ordering Problem: Instances, Search Space Analysis and Algorithms**. *Journal of Mathematical Modelling and Algorithms*, 3(4):367–402, 2004.

[2210] Tommaso Schiavinotto and Thomas Stützle. **A Review of Metrics on Permutations for Search Space Analysis**. *Computers & Operations Research*, 34(10):3143–3153, 2007.

[2211] Michael Schilde, Karl F. Doerner, Richard F. Hartl, and Guenter Kiechle. **Metaheuristics for the bi-objective orienteering problem**. *Swarm Intelligence*, 3(3):179–201, 2009. doi:10.1007/s11721-009-0029-5.

[2212] Mark Schillinger, Benjamin Hartmann, Patric Skalecki, Mona Meister, Duy Nguyen-Tuong, and Oliver Nelles. **Safe active learning and safe Bayesian optimization for tuning a PI-controller**. *IFAC-PapersOnLine*, 50(1):5967–5972, 2017. doi:10.1016/j.ifacol.2017.08.1258.

[2213] Mark Schillinger, Benedikt Ortelt, Benjamin Hartmann, Jens Schreiter, Mona Meister, Duy Nguyen-Tuong, and Oliver Nelles. **Safe active learning of a high pressure fuel supply system**. In *Proceedings of the 9th EUROSIM Congress on Modelling and Simulation, EUROSIM 2016 and the 57th SIMS Conference on Simulation and Modelling SIMS 2016*, pages 286–292. Linköping University Electronic Press, 2018. doi:10.3384/ecp17142286.

[2214] Martin Schlüter, Jose A. Egea, and Julio R. Banga. **Extended ant colony optimization for non-convex mixed integer nonlinear programming**. *Computers & Operations Research*, 36(7):2217–2229, 2009. doi:10.1016/j.cor.2008.08.015.

[2215] Josef Schmee and Gerald J. Hahn. **A Simple Method for Regression Analysis with Censored Data**. *Technometrics*, 21(4):417–432, 1979. doi:10.2307/1268280.

[2216] Marie Schmidt, Anita Schöbel, and Lisa Thom. **Min-ordering and max-ordering scalarization methods for multi-objective robust optimization**. *European Journal of Operational Research*, 275(2):446–459, 2019.

[2217] Jeff G. Schneider. **Exploiting model uncertainty estimates for safe dynamic control learning**. In Michael Mozer, Michael I. Jordan, and Thomas Petsche, editors, *Advances in Neural Information Processing Systems (NIPS 9)*, pages 1047–1053. MIT Press, 1996.

[2218] Marius Schneider and Holger H. Hoos. **Quantifying Homogeneity of Instance Sets for Algorithm Configuration**. In Youssef Hamadi and Marc Schoenauer, editors, *Learning and Intelligent Optimization, 6th International Conference, LION 6*, volume 7219 of *Lecture Notes in Computer Science*, pages 190–204. Springer, Heidelberg, 2012. doi:10.1007/978-3-642-34413-8_14.
Keywords: Quantifying Homogeneity; Empirical Analysis; Parameter Optimization; Algorithm Configuration.

[2219] Marc Schoenauer et al., editors. *Parallel Problem Solving from Nature – PPSN VI*, volume 1917 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2000.

[2220] Matthias Schonlau, William J. Welch, and Donald R. Jones. **Global versus Local Search in Constrained Optimization of Computer Models**. *Lecture Notes-Monograph Series*, 34:11–25, 1998. doi:10.2307/4356058.

[2221] G. R. Schreiber and Olivier Martin. **Cut Size Statistics of Graph Bisection Heuristics**. *SIAM Journal on Optimization*, 10(1):231–251, 1999.

[2222] Jens Schreiter, Duy Nguyen-Tuong, Mona Eberts, Bastian Bischoff, Heiner Markert, and Marc Toussaint. **Safe Exploration for Active Learning with Gaussian Processes**. In *Machine Learning and Knowledge Discovery in Databases, ECML PKDD 2015*, volume 9286 of *Lecture Notes in Computer Science*, pages 133–149. Springer, 2015. doi:10.1007/978-3-319-23461-8_9.
Annotation: Proposed Safe Active Learning (SAL) algorithm.

[2223] Tom Schrijvers, Guido Tack, Pieter Wuille, Horst Samulowitz, and Peter J. Stuckey. **Search Combinators**. *Constraints*, 18(2):269–305, 2013.

[2224] Gerhard Schrimpf, Johannes Schneider, Hermann Stamm-Wilbrandt, and Gunter Dueck. **Record Breaking Optimization Results Using the Ruin and Recreate Principle**. *Journal of Computational Physics*, 159(2):139–171, 2000.

[2225] Florian Schroff, Dmitry Kalenichenko, and James Philbin. **Facenet: A unified embedding for face recognition and clustering**. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, pages 815–823, 2015.

[2226] Christian Schulte, editor. *Principles and Practice of Constraint Programming – CP 2013, 19th International Conference, CP 2013, Uppsala, Sweden, September 16-20, 2013, Proceedings*, volume 8124 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2013. doi:10.1007/978-3-642-40627-0.

[2227] Eric Schulz, Maarten Speekenbrink, and Andreas Krause. **A tutorial on Gaussian process regression: Modelling, exploring, and exploiting functions**. *Journal of Mathematical Psychology*, 85:1–16, Aug. 2018. doi:10.1016/j.jmp.2018.03.001.

[2228] Oliver Schütze, Marco Laumanns, Carlos A. Coello Coello, Michael Dellnitz, and El-Ghazali Talbi. **Convergence of stochastic search algorithms to finite size Pareto set approximations**. *Journal of Global Optimization*, 41(4):559–577, 2008.

[2229] Oliver Schütze, X. Esquivel, A. Lara, and Carlos A. Coello Coello. **Some Comments on GD and IGD and Relations to the Hausdorff Distance**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2010*, pages 1971–1974. ACM Press, New York, NY, 2010.

[2230] Oliver Schütze, Marco Laumanns, Emilia Tantar, Carlos A. Coello Coello, and El-Ghazali Talbi. **Computing gap free Pareto front approximations with stochastic search algorithms**. *Evolutionary Computation*, 18(1):65–96, 2010.

[2231] Oliver Schütze, A. Lara, and Carlos A. Coello Coello. **On the Influence of the Number of Objectives on the Hardness of a Multiobjective Optimization Problem**. *IEEE Transactions on Evolutionary Computation*, 15(4):444–455, 2011.

[2232] Oliver Schütze, X. Esquivel, A. Lara, and Carlos A. Coello Coello. **Using the Averaged Hausdorff Distance as a Performance Measure in Evolutionary Multiobjective Optimization**. *IEEE Transactions on Evolutionary Computation*, 16(4):504–522, 2012.

[2233] Dale Schuurmans and Michael P. Wellman, editors. *Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence, AAAI 2016, February 12-17, 2016, Phoenix, Arizona, USA.* AAAI Press, 2016.

[2234] Hans-Paul Schwefel. *Numerische Optimierung von Computer–Modellen mittels der Evolutionsstrategie.* Birkhäuser, Basel, Switzerland, 1977.

[2235] Hans-Paul Schwefel and R. Männer, editors. *Parallel Problem Solving from Nature – PPSN I.* Springer, Berlin/Heidelberg, 1991. doi:10.1007/BFb0029723.

[2236] Sam Scott and Stan Matwin. **Feature engineering for text classification**. In *ICML*, volume 99, pages 379–388, 1999.

[2237] D. Sculley, Jasper Snoek, Ali Rahimi, and Alexander B. Wiltschko. **Winner's Curse? On Pace, Progress and Empirical Rigor**. In Iain Murray, Marc'Aurelio Ranzato, and Oriol Vinyals, editors, *6th International Conference on Learning Representations, ICLR 2018, Vancouver, BC, Canada, April 30 - May 3, 2018, Workshop Track Proceedings*, pages 1–4. OpenReview.net, 2018. URL https://openreview.net/pdf?id=rJWF0Fywf.

[2238] Haitham Seada and Kalyanmoy Deb. **U-NSGA-III: A Unified Evolutionary Optimization Procedure for Single, Multiple, and Many Objectives: Proof-of-Principle Results**. In António Gaspar-Cunha, Carlos Henggeler Antunes, and Carlos A. Coello Coello, editors, *Evolutionary Multi-criterion Optimization, EMO 2015 Part I*, volume 9018 of *Lecture Notes in Computer Science*, pages 34–49. Springer, Heidelberg, 2015.

[2239] Moritz Seiler, Janina Pohl, Jakob Bossek, Pascal Kerschke, and Heike Trautmann. **Deep Learning as a Competitive Feature-Free Approach for Automated Algorithm Selection on the Traveling Salesperson Problem**. In Thomas Bäck, Mike Preuss, André Deutz, Hao Wang, Carola Doerr, Michael T. M. Emmerich, and Heike Trautmann, editors, *Parallel Problem Solving from Nature - PPSN XVI*, volume 12269 of *Lecture Notes in Computer Science*, pages 48–64, Cham, Switzerland, 2020. Springer.

[2240] Jendrik Seipp, Silvan Sievers, Malte Helmert, and Frank Hutter. **Automatic Configuration of Sequential Planning Portfolios**. In Blai Bonet and Sven Koenig, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 3364–3370. AAAI Press, 2015.

[2241] P. Serafini. **Some Considerations About Computational Complexity for Multiobjective Combinatorial Problems**. In J. Jahn and W. Krabs, editors, *Recent Advances and Historical Development of Vector Optimization*, volume 294 of *Lecture Notes in Economics and Mathematical Systems*, pages 222–231. Springer, Berlin, Germany, 1986.

[2242] P. Serafini. **Simulated annealing for multiple objective optimization problems**. In G. H. Tzeng and P. L. Yu, editors, *Proceedings of the 10th International Conference on Multiple Criteria Decision Making (MCDM'91)*, volume 1, pages 87–96. Springer Verlag, 1992.

[2243] B. Shahriari, K. Swersky, Z. Wang, R. P. Adams, and Nando de Freitas. **Taking the human out of the loop: A review of Bayesian optimization**. *Proceedings of the IEEE*, 104(1): 148–175, 2016.

[2244] Bobak Shahriari, Kevin Swersky, Ziyu Wang, Ryan P. Adams, and Nando de Freitas. **Taking the Human Out of the Loop: A Review of Bayesian Optimization**. *Proceedings of the IEEE*, 104(1):148–175, 2016.

[2245] Weishi Shao, Dechang Pi, and Zhongshi Shao. **Memetic algorithm with node and edge histogram for no-idle flow shop scheduling problem to minimize the makespan criterion**. *Applied Soft Computing*, 54:164–182, 2017.

[2246] Weishi Shao, Dechang Pi, and Zhongshi Shao. **A hybrid discrete teaching-learning based meta-heuristic for solving no-idle flow shop scheduling problem with total tardiness criterion**. *Computers & Operations Research*, 94:89–105, 2018.

[2247] Mudita Sharma, Manuel López-Ibáñez, and Dimitar Kazakov. **Performance Assessment of Recursive Probability Matching for Adaptive Operator Selection in Differential Evolution**. In Anne Auger, Carlos M. Fonseca, N. Lourenço, P. Machado, Luís Paquete, and Darrell Whitley, editors, *Parallel Problem Solving from Nature - PPSN XV*, volume 11102 of *Lecture Notes in Computer Science*, pages 321–333. Springer, Cham, Switzerland, 2018. doi:10.1007/978-3-319-99259-4_26. Supplementary material: https://github.com/mudita11/AOS-comparisons. *Keywords:* Rec-PM.

[2248] Mudita Sharma, Manuel López-Ibáñez, and Dimitar Kazakov. **Performance Assessment of Recursive Probability Matching for Adaptive Operator Selection in Differential Evolution: Supplementary material**. https://github.com/mudita11/AOS-comparisons, 2018.

[2249] Mudita Sharma, Alexandros Komninos, Manuel López-Ibáñez, and Dimitar Kazakov. **Deep Reinforcement Learning-Based Parameter Control in Differential Evolution**. In Manuel López-Ibáñez, Anne Auger, and Thomas Stützle, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019*. ACM Press, New York, NY, 2019. ISBN 978-1-4503-6111-8. doi:10.1145/3321707.3321813. Supplementary material: https://dx.doi.org/10.5281/zenodo.2628228. *Keywords:* DE-DDQN.

[2250] Mudita Sharma, Manuel López-Ibáñez, and Dimitar Kazakov. **Deep Reinforcement Learning Based Parameter Control in Differential Evolution: Supplementary material**. https://github.com/mudita11/DE-DDQN, 2019.

[2251] Seyed Mahdi Shavarani, Manuel López-Ibáñez, and Joshua D. Knowles. **Realistic Utility Functions Prove Difficult for State-of-the-ArtInteractive Multiobjective Optimization Algorithms**. In Francisco Chicano and Krzysztof Krawiec, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2021*. ACM Press, New York, NY, 2021. doi:10.1145/3449639.3459373.

[2252] Babooshka Shavazipour. *Multi-Objective Optimisation under Deep Uncertainty*. PhD thesis, UCT Statistical sciences, South Africa, 2018.

[2253] Babooshka Shavazipour and T. J. Stewart. **Multi-objective optimisation under deep uncertainty**. *Operational Research*, Sept. 2019. doi:10.1007/s12351-019-00512-1.

[2254] Babooshka Shavazipour, Jonas Stray, and T. J. Stewart. **Sustainable planning in sugar-bioethanol supply chain under deep uncertainty: A case study of South African sugarcane industry**. *Computers & Chemical Engineering*, 143:107091, 2020. `doi:10.1016/j.compchemeng.2020.107091`.
Keywords: Supply chain management, Multi-objective optimisation, Deep uncertainty, Scenario planning, Renewable energy,.

[2255] Babooshka Shavazipour, Manuel López-Ibáñez, and Kaisa Miettinen. **Visualizations for Decision Support in Scenario-based Multiobjective Optimization**. *Information Sciences*, 2021. `doi:10.1016/j.ins.2021.07.025`. Supplementary material: `https://doi.org/10.5281/zenodo.5040421`.

[2256] K. J. Shaw, Carlos M. Fonseca, A. L. Nortcliffe, M. Thompson, J. Love, and Peter J. Fleming. **Assessing the performance of multiobjective genetic algorithms for optimization of a batch process scheduling problem**. In *Proceedings of the 1999 Congress on Evolutionary Computation (CEC 1999)*, volume 1, pages 34–75. IEEE Press, Piscataway, NJ, 1999.

[2257] Paul Shaw. **Using Constraint Programming and Local Search Methods to Solve Vehicle Routing Problems**. In Michael Maher and Jean-Francois Puget, editors, *Principles and Practice of Constraint Programming, CP98*, volume 1520 of *Lecture Notes in Computer Science*, pages 417–431. Springer, Heidelberg, 1998.

[2258] J. Shawe-Taylor, R. S. Zemel, P. L. Bartlett, F. Pereira, and K. Q. Weinberger, editors. *Advances in Neural Information Processing Systems 24: Annual Conference on Neural Information Processing Systems 2011*. Curran Associates, Red Hook, NY, 2011.

[2259] Vincent Y. Shen, Nobuo Saito, Michael R. Lyu, and Mary Ellen Zurko, editors. *Proceedings of the Tenth International World Wide Web Conference, WWW 10, Hong Kong, China, May 1-5, 2001*. ACM Press, New York, NY, 2001. ISBN 1-58113-348-0.

[2260] David J. Sheskin. *Handbook of Parametric and Nonparametric Statistical Procedures*. Chapman & Hall/CRC, 2nd edition, 2000.

[2261] David J. Sheskin. *Handbook of Parametric and Nonparametric Statistical Procedures*. Chapman & Hall/CRC, 5th edition, 2011.

[2262] Yong Shi, G. Dick van Albada, Jack Dongarra, and Peter M. A. Sloot, editors. *Computational Science – ICCS 2007, 7th International Conference, Proceedings, Part IV*, volume 4490 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2007.

[2263] Yuhui Shi and Russell C. Eberhart. **Parameter selection in particle swarm optimization**. In V. W. Porto, N. Saravanan, D. Waagen, and Agoston E. Eiben, editors, *Evolutionary Programming VII*, volume 1447 of *Lecture Notes in Computer Science*, pages 591–600. Springer, Heidelberg, 1998. `doi:10.1007/BFb0040753`.

[2264] Michael D. Shields and Jiaxin Zhang. **The generalization of Latin hypercube sampling**. *Reliability Engineering & System Safety*, 148:96–108, 2016.

[2265] David Shilane, Jarno Martikainen, Sandrine Dudoit, and Seppo J. Ovaska. **A general framework for statistical performance comparison of evolutionary computation algorithms**. *Information Sciences*, 178(14):2870–2879, 2008. `doi:10.1016/j.ins.2008.03.007`.

[2266] B. Shipley. *Cause and Correlation in Biology: a User's Guide to Path Analysis, Structural Equations and Causal Inference*. Cambridge University Press, 1st edition, 2000.

[2267] Ofer M. Shir and Thomas Bäck. **Niching with derandomized evolution strategies in artificial and real-world landscapes**. *Natural Computing*, 8(1):171–196, 2009. `doi:10.1007/s11047-007-9065-5`.

[2268] A. Shmygelska and Holger H. Hoos. **An Ant Colony Optimisation Algorithm for the 2D and 3D Hydrophobic Polar Protein Folding Problem**. *BMC Bioinformatics*, 6:30, 2005. `doi:10.1186/1471-2105-6-30`.

[2269] A. Shmygelska, R. Aguirre-Hernández, and Holger H. Hoos. **An Ant Colony Optimization Algorithm for the 2D HP Protein Folding Problem**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 40–52, Heidelberg, 2002. Springer.

[2270] Howard E. Shrobe, Tom M. Mitchell, and Reid G. Smith, editors. *Proceedings of the 7th National Conference on Artificial Intelligence, St. Paul, MN, August 21-26, AAAI-88*, 1988. AAAI Press/MIT Press, Menlo Park, CA. URL `http://www.aaai.org/Conferences/AAAI/aaai88.php`.

[2271] James N. Siddall. *Optimal Engineering Design: Principles and Applications*. Marcel Dekker Inc., New York, NY, 1982.

[2272] Sydney Siegel and N. John Castellan, Jr. *Non Parametric Statistics for the Behavioral Sciences*. McGraw Hill, New York, NY, 2nd edition, 1988.

[2273] Radek Silhavy, Roman Senkerik, Zuzana Kominkova Oplatkova, Petr Silhavy, and Zdenka Prokopova, editors. *Artificial Intelligence Perspectives in Intelligent Systems*, volume 464 of *Advances in Intelligent Systems and Computing*. Springer International Publishing, 2016.

[2274] C. A. Silva, T. A. Runkler, J. M. Sousa, and R. Palm. **Ant Colonies as Logistic Processes Optimizers**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 76–87, Heidelberg, 2002. Springer.

[2275] Sara Silva and Anna I. Esparcia-Alcázar, editors. *Genetic and Evolutionary Computation Conference, GECCO 2015, Proceedings, Madrid, Spain, July 11-15, 2015*. ACM Press, New York, NY, 2015.

[2276] Moisés Silva-Muñoz, Gonzalo Calderon, Alberto Franzin, and Hughes Bersini. **Determining a consistent experimental setup for benchmarking and optimizing databases**. In Francisco Chicano and Krzysztof Krawiec, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2021*, pages 1614–1621. ACM Press, New York, NY, 2021. `doi:10.1145/3449726.3463180`.

[2277] Paulo Vitor Silvestrin and Marcus Ritt. **An Iterated Tabu Search for the Multi-compartment Vehicle Routing Problem**. *Computers & Operations Research*, 81: 192–202, 2017.

[2278] Kevin Sim, Emma Hart, and Ben Paechter. **A Lifelong Learning Hyper-heuristic Method for Bin Packing**. *Evolutionary Computation*, 23(1):37–67, 2015. `doi:10.1162/EVCO_a_00121`.

[2279] Joseph P. Simmons, Leif D. Nelson, and Uri Simonsohn. **False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything as Significant**. *Psychological Science*, 2011. URL `https://ssrn.com/abstract=1850704`. *Annotation:* Proposed the term p-hacking.

[2280] Herbert A. Simon. **A Behavioral Model of Rational Choice**. *The Quarterly Journal of Economics*, 69(1):99–118, 1955.

[2281] Olivier Simonin, François Charpillet, and Eric Thierry. **Revisiting wavefront construction with collective agents: an approach to foraging**. *Swarm Intelligence*, 9(2):113–138, 2014. `doi:10.1007/s11721-014-0093-3`. *Keywords:* irace.

[2282] Angus R. Simpson, D. C. Sutton, D. S. Keane, and S. J. Sherriff. **Optimal control of pumping at a water filtration plant using genetic algorithms**. In Dragan A. Savic and Godfrey A. Walters, editors, *Water Industry Systems: Modelling and Optimization Applications*, volume 2. Research Studies Press Ltd., Baldock, United Kingdom, 1999.

[2283] Marcos Singer and Michael L. Pinedo. **A Computational Study of Branch and Bound Techniques for Minimizing the Total Weighted Tardiness in Job Shops**. *IIE Transactions*, 30(2):109–118, 1998.

[2284] Satinder P. Singh and Shaul Markovitch, editors. *Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence, February 4-9, 2017, San Francisco, California, USA*. AAAI Press, Feb. 2017.

[2285] Aymen Sioud and Caroline Gagné. **Enhanced migrating birds optimization algorithm for the permutation flow shop problem with sequence dependent setup times**. *European Journal of Operational Research*, 264(1):66–73, 2018.

[2286] Roman Słowiński. **Inducing preference models from pairwise comparisons: implications for preference-guided EMO**. Evolutionary Multi-Criterion Optimization, EMO 2011, 2011. Keynote talk.

[2287] Ben G. Small, Barry W. McColl, Richard Allmendinger, Jürgen Pahle, Gloria López-Castejón, Nancy J. Rothwell, Joshua D. Knowles, Pedro Mendes, David Brough, and Douglas B. Kell. **Efficient discovery of anti-inflammatory small-molecule combinations using evolutionary computing**. *Nature Chemical Biology*, 7(12):902–908, 2011.

[2288] Selmar K. Smit and Agoston E. Eiben. **Comparing Parameter Tuning Methods for Evolutionary Algorithms**. In *Proceedings of the 2009 Congress on Evolutionary Computation (CEC 2009)*, pages 399–406. IEEE Press, Piscataway, NJ, 2009.

[2289] Selmar K. Smit and Agoston E. Eiben. **Beating the 'world champion' evolutionary algorithm via REVAC tuning**. In Hisao Ishibuchi et al., editors, *Proceedings of the 2010 Congress on Evolutionary Computation (CEC 2010)*, pages 1–8. IEEE Press, Piscataway, NJ, 2010. doi:10.1109/CEC.2010.5586026.

[2290] Selmar K. Smit and Agoston E. Eiben. **Parameter Tuning of Evolutionary Algorithms: Generalist vs. Specialist**. In Cecilia Di Chio, Stefano Cagnoni, Carlos Cotta, Marc Ebner, Anikó Ekárt, Anna I. Esparcia-Alcázar, Chi Keong Goh, Juan-Julián Merelo, Ferrante Neri, Mike Preuss, Julian Togelius, and Georgios N. Yannakakis, editors, *Applications of Evolutionary Computation*, volume 6024 of *Lecture Notes in Computer Science*, pages 542–551. Springer, Heidelberg, 2010. doi:10.1007/978-3-642-12239-2_56.

[2291] Selmar K. Smit and Agoston E. Eiben. **Multi-Problem Parameter Tuning using BONESA**. In Jin-Kao Hao, Pierrick Legrand, Pierre Collet, Nicolas Monmarché, Evelyne Lutton, and Marc Schoenauer, editors, *Artificial Evolution: 10th International Conference, Evolution Artificielle, EA, 2011*, volume 7401 of *Lecture Notes in Computer Science*, pages 222–233, Heidelberg, 2012. Springer.
Annotation: For some reason, this was not actually published in the LNCS Proceedings of EA.

[2292] Selmar K. Smit, Agoston E. Eiben, and Z. Szlávik. **An MOEA-based Method to Tune EA Parameters on Multiple Objective Functions**. In J. Filipe and J. Kacprzyk, editors, *Proceedings of the International Joint Conference on Computational Intelligence (IJCCI-2010)*, pages 261–268. SciTePress, 2010.

[2293] Jim Smith, Christopher Stone, and Martin Serpell. **Exploiting Diverse Distance Metrics for Surrogate-Based Optimisation of Ordering Problems**. In Tobias Friedrich, Frank Neumann, and Andrew M. Sutton, editors, *Proceedings of the Genetic and Evolutionary*

Computation Conference, GECCO 2016, pages 701–708, New York, NY, 2016. ACM Press. doi:10.1145/2908812.2908854.

[2294] Tobiah E. Smith and Dorothy E. Setliff. **Knowledge-based constraint-driven software synthesis**. In *Proceedings of the Seventh Knowledge-Based Software Engineering Conference*, pages 18–27. IEEE, 1992. doi:10.1109/KBSE.1992.252912.

[2295] Kate Smith-Miles. **Cross-disciplinary Perspectives on Meta-learning for Algorithm Selection**. *ACM Computing Surveys*, 41(1):1–25, 2008.

[2296] Kate Smith-Miles. **Towards insightful algorithm selection for optimisation using meta-learning concepts**. In Derong Liu et al., editors, *Proceedings of the International Joint Conference on Neural Networks (IJCNN 2008), Hong Kong, China, June 1-6, 2008*, pages 4118–4124. IEEE Press, 2008.

[2297] Kate Smith-Miles and Simon Bowly. **Generating New Test Instances by Evolving in Instance Space**. *Computers & Operations Research*, 63:102–113, 2015.

[2298] Kate Smith-Miles and Leo Lopes. **Measuring instance difficulty for combinatorial optimization problems**. *Computers & Operations Research*, 39:875–889, 2012.

[2299] Kate Smith-Miles, Jano I. van Hemert, and Xin Yu Lim. **Understanding TSP difficulty by Learning from evolved instances**. In Christian Blum and Roberto Battiti, editors, *Learning and Intelligent Optimization, 4th International Conference, LION 4*, volume 6073 of *Lecture Notes in Computer Science*, pages 266–280, Heidelberg, 2010. Springer. doi:10.1007/978-3-642-13800-3.

[2300] George W. Snedecor and William G. Cochran. *Statistical Methods.* Iowa State University Press, Ames, IA, USA, 6th edition, 1967.

[2301] Jasper Snoek, Hugo Larochelle, and Ryan P. Adams. **Practical Bayesian Optimization of Machine Learning Algorithms**. In Peter L. Bartlett, Fernando C. N. Pereira, Christopher J. C. Burges, Léon Bottou, and Kilian Q. Weinberger, editors, *Advances in Neural Information Processing Systems (NIPS 25)*, pages 2960–2968. Curran Associates, Red Hook, NY, 2012.

[2302] Jasper Snoek, Kevin Swersky, Richard Zemel, and Ryan P. Adams. **Input Warping for Bayesian Optimization of Non-Stationary Functions**. In Eric P. Xing and Tony Jebara, editors, *Proceedings of the 31st International Conference on Machine Learning, ICML 2014*, volume 32, pages 1674–1682, 2014. URL http://jmlr.org/proceedings/papers/v32/.

[2303] Krzysztof Socha. **ACO for Continuous and Mixed-Variable Optimization**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 4th International Workshop, ANTS 2004*, volume 3172 of *Lecture Notes in Computer Science*, pages 25–36. Springer, Heidelberg, 2004.

[2304] Krzysztof Socha and Christian Blum. **An ant colony optimization algorithm for continuous optimization: An application to feed-forward neural network training**. *Neural Computing & Applications*, 16(3):235–247, 2007.

[2305] Krzysztof Socha and Marco Dorigo. **Ant Colony Optimization for Mixed-Variable Optimization Problems**. Technical Report TR/IRIDIA/2007-019, IRIDIA, Université Libre de Bruxelles, Belgium, Oct. 2007.

[2306] Krzysztof Socha and Marco Dorigo. **Ant Colony Optimization for Continuous Domains**. *European Journal of Operational Research*, 185(3):1155–1173, 2008. doi:10.1016/j.ejor.2006.06.046.
Keywords: ACOR.
Annotation: Proposed ACOR (ACO$_\mathbb{R}$).

[2307] Krzysztof Socha, Joshua D. Knowles, and M. Sampels. **A $\mathcal{MAX}$–$\mathcal{MIN}$ Ant System for the University Course Timetabling Problem**. In Marco Dorigo et al., editors, *Ant Algorithms, Third International Workshop, ANTS 2002*, volume 2463 of *Lecture Notes in Computer Science*, pages 1–13. Springer, Heidelberg, 2002.

[2308] Krzysztof Socha, M. Sampels, and M. Manfrin. **Ant algorithms for the university course timetabling problem with regard to the state-of-the-art**. In S. Cagnoni et al., editors, *Applications of Evolutionary Computing, Proceedings of EvoWorkshops 2003*, volume 2611 of *Lecture Notes in Computer Science*, pages 334–345, Heidelberg, 2003. Springer.

[2309] Mary Lou Soffa and Evelyn Duesterwald, editors. *Proceedings of the 6th Annual IEEE/ACM International Symposium on Code Generation and Optimization*, CGO '08, New York, NY, 2008. ACM Press.

[2310] D. Soler, E. Martínez, and J. C. Micó. **A Transformation for the Mixed General Routing Problem with Turn Penalties**. *Journal of the Operational Research Society*, 59:540–547, 2008.

[2311] Christine Solnon. **Ants Can Solve Constraint Satisfaction Problems**. *IEEE Transactions on Evolutionary Computation*, 6(4):347–357, 2002.

[2312] Christine Solnon. *Ant Colony Optimization and Constraint Programming*. Wiley, 2010. `doi:10.1002/9781118557563`.

[2313] M. M. Solomon. **Algorithms for the Vehicle Routing and Scheduling Problems with Time Windows**. *Operations Research*, 35:254–265, 1987.

[2314] Kenneth Sörensen. **Metaheuristics—the metaphor exposed**. *International Transactions in Operational Research*, 22(1):3–18, 2015. `doi:10.1111/itor.12001`.

[2315] Kenneth Sörensen, Florian Arnold, and Daniel Palhazi Cuervo. **A critical analysis of the "improved Clarke and Wright savings algorithm"**. *International Transactions in Operational Research*, 26(1):54–63, 2017. `doi:10.1111/itor.12443`.
        Keywords: reproducibility, vehicle routing.

[2316] Kenneth Sörensen, Marc Sevaux, and Fred Glover. **A history of metaheuristics**. In Rafael Martí, Panos M. Pardalos, and Mauricio G. C. Resende, editors, *Handbook of Heuristics*, pages 1–27. Springer International Publishing, 2018. ISBN 978-3-319-07125-1.

[2317] Jorge A. Soria-Alcaraz, Gabriela Ochoa, Marco A. Sotelo-Figeroa, and Edmund K. Burke. **A Methodology for Determining an Effective Subset of Heuristics in Selection Hyper-heuristics**. *European Journal of Operational Research*, 260:972–983, 2017.

[2318] Aldo Sotelo, Julio Basulado, Pedro Doldán, and Benjamín Barán. **Algoritmos Evolutivos Multiobjetivo Combinados para la Optimización de la Programación de Bombeo en Sistemas de Suministro de Agua**. In *Congreso Internacional de Tecnologías y Aplicaciones Informáticas, JIT-CITA 2001, Asunción, Paraguay*, 2001. (In Spanish).

[2319] Aldo Sotelo, C. von Lücken, and Benjamín Barán. **Multiobjective Evolutionary Algorithms in Pump Scheduling Optimisation**. In Barry H. V. Topping and Zdenéek Bittnar, editors, *Proceedings of the Third International Conference on Engineering Computational Technology*. Civil-Comp Press, Stirling, Scotland, 2002.

[2320] Abdelghani Souilah. **Simulated annealing for manufacturing systems layout design**. *European Journal of Operational Research*, 82(3):592–614, 1995.

[2321] Terence Soule and Jason H. Moore, editors. *Genetic and Evolutionary Computation Conference, GECCO 2012, Proceedings, Philadelphia, PA, USA, July 7-11, 2012*. ACM Press, New York, NY, 2012.

[2322] Terence Soule and Jason H. Moore, editors. *Genetic and Evolutionary Computation Conference, GECCO 2012, Companion Material Proceedings, Philadelphia, PA, USA, July 7-11, 2012*. ACM Press, New York, NY, 2012.

[2323] Charles Spearman. **The proof and measurement of association between two things**. *The American journal of psychology*, 15(1):72–101, 1904.

[2324] Daniel A. Spielman and Shang-Hua Teng. **Smoothed analysis of algorithms: Why the simplex algorithm usually takes polynomial time**. *Journal of the ACM*, 51(3):385–463, 2004.

[2325] Arno Sprecher, Rainer Kolisch, and Andreas Drexl. **Semi-active, active, and non-delay schedules for the resource-constrained project scheduling problem**. *European Journal of Operational Research*, 80(1):94–102, 1995. `doi:10.1016/0377-2217(93)E0294-8`.
Keywords: active schedules, Branch-and-bound methods, non-delay schedules, Resource-constrained project scheduling, Semi-active schedules.

[2326] Arno Sprecher, Sönke Hartmann, and Andreas Drexl. **An exact algorithm for project scheduling with multiple modes**. *OR Spektrum*, 19(3):195–203, 1997. `doi:10.1007/BF01545587`.
Keywords: branch-and-bound, multi-mode resource-constrained project scheduling, project scheduling.

[2327] Giovanni Squillero and Paolo Burelli, editors. *Applications of Evolutionary Computation: 19th European Conference, EvoApplications 2016, Porto, Portugal, March 30 – April 1, 2016, Proceedings, Part I*, volume 9597 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2016. `doi:10.1007/978-3-319-31204-0`.

[2328] Suvrit Sra, Sebastian Nowozin, and Stephen J. Wright. *Optimization for machine learning*. MIT Press, Cambridge, MA, 2012.

[2329] N. Srinivas and Kalyanmoy Deb. **Multiobjective Optimization Using Nondominated Sorting in Genetic Algorithms**. *Evolutionary Computation*, 2(3):221–248, 1994.

[2330] Steffen Staab and Rudi Studer, editors. *Handbook on Ontologies*. International Handbooks on Information Systems. Springer, 2009.

[2331] P. F. Stadler. **Toward a theory of landscapes**. In R. López-Peña, R. Capovilla, R. García-Pelayo, H. Waelbroeck, and F. Zertruche, editors, *Complex Systems and Binary Networks*, pages 77–163. Springer, 1995.

[2332] Martin Kenneth Starr. *Product design and decision theory*. Prentice-Hall Series in Engineering Design, Fundamentals of Engineering Design. Prentice-Hall, Englewood, Cliffs, NJ, 1963.

[2333] Fernando Stefanello, Vaneet Aggarwal, Luciana Salete Buriol, José Fernando Gonçalves, and Mauricio G. C. Resende. **A Biased Random-key Genetic Algorithm for Placement of Virtual Machines Across Geo-Separated Data Centers**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 919–926, New York, NY, 2015. ACM Press. `doi:10.1145/2739480.2754768`.
Keywords: irace.

[2334] Bernhard Steffen and Gerhard Woeginger, editors. *Computing and Software Science: State of the Art and Perspectives*, volume 10000 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2019.

[2335] Helena Stegherr, Michael Heider, and Jörg Hähner. **Classifying Metaheuristics: Towards a unified multi-level classification system**. *Natural Computing*, 2020. `doi:10.1007/s11047-020-09824-0`.

[2336] R. E. Steuer. *Multiple Criteria Optimization: Theory, Computation and Application.* Wiley Series in Probability and Mathematical Statistics. John Wiley & Sons, New York, NY, 1986.

[2337] R. E. Steuer and Lorraine Gardiner. **On the Computational Testing of Procedures for Interactive Multiple Objective Linear Programming**. In Günter Fandel and Hermann Gehring, editors, *Operations Research*, pages 121–131. Springer, Berlin/Heidelberg, 1991. ISBN 978-3-642-76537-7. doi:10.1007/978-3-642-76537-7_8.
Annotation: Proposed difference between ad hoc and non-ad hoc interactive multi-objective optimization methods.

[2338] T. J. Stewart. **Robustness of Additive Value Function Methods in MCDM**. *Journal of Multi-Criteria Decision Analysis*, 5(4):301–309, 1996.
Keywords: machine decision-making.

[2339] T. J. Stewart. **Evaluation and refinement of aspiration-based methods in MCDM**. *European Journal of Operational Research*, 113(3):643–652, 1999.
Keywords: machine decision-making.

[2340] T. J. Stewart. **Goal programming and cognitive biases in decision-making**. *Journal of the Operational Research Society*, 56(10):1166–1175, 2005. doi:10.1057/palgrave.jors.2601948.
Keywords: machine decision making.

[2341] T. J. Stewart, Simon French, and Jesus Rios. **Integrating multicriteria decision analysis and scenario planning: Review and extension**. *Omega*, 41(4):679–688, 2013. doi:10.1016/j.omega.2012.09.003.
Keywords: Multicriteria decision analysis.

[2342] Victoria Stodden. **What scientific idea is ready for retirement? Reproducibility**. *Edge*, 2014. URL https://www.edge.org/annual-question/2014/response/25340.
Annotation: Introduces computational reproducibility, empirical reproducibility and statistical reproducibility.

[2343] Victoria Stodden, Marcia McNutt, David H. Bailey, Ewa Deelman, Yolanda Gil, Brooks Hanson, Michael A. Heroux, John P. A. Ioannidis, and Michela Taufer. **Enhancing reproducibility for computational methods**. *Science*, 354(6317):1240–1241, Dec. 2016. doi:10.1126/science.aah6168.

[2344] Victoria Stodden, Jennifer Seiler, and Zhaokun Ma. **An empirical analysis of journal policy effectiveness for computational reproducibility**. *Proceedings of the National Academy of Sciences*, 115(11):2584–2589, Mar. 2018. doi:10.1073/pnas.1708290115.

[2345] Daniel H. Stolfi and Enrique Alba. **Red Swarm: Reducing travel times in smart cities by using bio-inspired algorithms**. *Applied Soft Computing*, 24:181–195, 2014. doi:10.1016/j.asoc.2014.07.014.
Keywords: Evolutionary algorithm,Road traffic,Smart city,Smart mobility,Traffic light,WiFi connections.

[2346] Daniel H. Stolfi and Enrique Alba. **An Evolutionary Algorithm to Generate Real Urban Traffic Flows**. In José M. Puerta, José A. Gámez, Bernabe Dorronsoro, Edurne Barrenechea, Alicia Troncoso, Bruno Baruque, and Mikel Galar, editors, *Advances in Artificial Intelligence, CAEPIA 2015*, volume 9422 of *Lecture Notes in Computer Science*, pages 332–343. Springer, Heidelberg, 2015. doi:10.1007/978-3-319-24598-0_30.
Keywords: Evolutionary algorithm,SUMO,Smart city,Smart mobility,Traffic simulation.

[2347] Rainer Storn and Kenneth Price. **Differential Evolution − A Simple and Efficient Heuristic for Global Optimization over Continuous Spaces**. *Journal of Global Optimization*, 11(4): 341–359, 1997.

[2348] David Stracuzzi et al., editors. *Proceedings of the Twenty-Eighth AAAI Conference on Artificial Intelligence, AAAI 2014, Québec City, Québec, Canada, July 27-31, 2014*, 2014. AAAI Press.

[2349] Philip N. Strenski and Scott Kirkpatrick. **Analysis of Finite Length Annealing Schedules**. *Algorithmica*, 6(1-6):346–366, 1991.

[2350] Patrycja Strycharczuk, Manuel López-Ibáñez, Georgina Brown, and Adrian Leemann. **General Northern English: Exploring regional variation in the North of England with machine learning**. *Frontiers in Artificial Intelligence*, 2020. doi:10.3389/frai.2020.00048.
Keywords: vowels, accent features, dialect leveling, Random forest (bagging), Feature selecion.

[2351] Thomas Stützle. $\mathcal{MAX}$–$\mathcal{MIN}$ **Ant System for the Quadratic Assignment Problem**. Technical Report AIDA–97–4, FG Intellektik, FB Informatik, TU Darmstadt, Germany, July 1997.

[2352] Thomas Stützle. **Applying Iterated Local Search to the Permutation Flow Shop Problem**. Technical Report AIDA–98–04, FG Intellektik, FB Informatik, TU Darmstadt, Germany, Aug. 1998.

[2353] Thomas Stützle. **An Ant Approach to the Flow Shop Problem**. In *Proceedings of the 6th European Congress on Intelligent Techniques & Soft Computing (EUFIT'98)*, volume 3, pages 1560–1564. Verlag Mainz, Aachen, Germany, 1998.

[2354] Thomas Stützle. *Local Search Algorithms for Combinatorial Problems — Analysis, Improvements, and New Applications*. PhD thesis, FB Informatik, TU Darmstadt, Germany, 1998.

[2355] Thomas Stützle. **ACOTSP: A Software Package of Various Ant Colony Optimization Algorithms Applied to the Symmetric Traveling Salesman Problem**, 2002. URL http://www.aco-metaheuristic.org/aco-code.
Annotation: http://www.aco-metaheuristic.org/aco-code.

[2356] Thomas Stützle. **Iterated Local Search for the Quadratic Assignment Problem**. *European Journal of Operational Research*, 174(3):1519–1539, 2006.

[2357] Thomas Stützle, editor. *Third International Conference, LION 3, Trento, Italy, January 14-18, 2009. Selected Papers*, volume 5851 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2009.

[2358] Thomas Stützle. **Some Thoughts on Engineering Stochastic Local Search Algorithms**. In Ana Viana et al., editors, *Proceedings of the EU/MEeting 2009: Debating the future: new areas of application and innovative approaches*, pages 47–52, 2009.

[2359] Thomas Stützle and Marco Dorigo. **ACO Algorithms for the Quadratic Assignment Problem**. In David Corne, Marco Dorigo, and Fred Glover, editors, *New Ideas in Optimization*, pages 33–50. McGraw Hill, London, UK, 1999.

[2360] Thomas Stützle and Marco Dorigo. **A Short Convergence Proof for a Class of ACO Algorithms**. *IEEE Transactions on Evolutionary Computation*, 6(4):358–365, 2002.

[2361] Thomas Stützle and Holger H. Hoos. **Improving the Ant System: A Detailed Report on the** $\mathcal{MAX}$–$\mathcal{MIN}$ **Ant System**. Technical Report AIDA–96–12, FG Intellektik, FB Informatik, TU Darmstadt, Germany, Aug. 1996.

[2362] Thomas Stützle and Holger H. Hoos. **The** $\mathcal{MAX}$–$\mathcal{MIN}$ **Ant System and Local Search for the Traveling Salesman Problem**. In Thomas Bäck, Zbigniew Michalewicz, and Xin Yao, editors, *Proceedings of the 1997 IEEE International Conference on Evolutionary Computation (ICEC'97)*, pages 309–314. IEEE Press, Piscataway, NJ, 1997.

[2363] Thomas Stützle and Holger H. Hoos. $\mathcal{MAX-MIN}$ **Ant System and Local Search for Combinatorial Optimization Problems**. In Stefan Voß, Silvano Martello, Ibrahim H. Osman, and C. Roucairol, editors, *Meta-Heuristics: Advances and Trends in Local Search Paradigms for Optimization*, pages 137–154. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1999.

[2364] Thomas Stützle and Holger H. Hoos. $\mathcal{MAX-MIN}$ **Ant System**. *Future Generation Computer Systems*, 16(8):889–914, 2000.

[2365] Thomas Stützle and Holger H. Hoos. **Analysing the Run-time Behaviour of Iterated Local Search for the Travelling Salesman Problem**. In P. Hansen and C. Ribeiro, editors, *Essays and Surveys on Metaheuristics*, Operations Research/Computer Science Interfaces Series, pages 589–611. Kluwer Academic Publishers, Boston, MA, 2001.

[2366] Thomas Stützle and Manuel López-Ibáñez. **Automatic (Offline) Configuration of Algorithms**. In Juan Luis Jiménez Laredo, Sara Silva, and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2015*, pages 681–702. ACM Press, New York, NY, 2015. `doi:10.1145/2739482.2756581`.

[2367] Thomas Stützle and Manuel López-Ibáñez. **Automated Offline Design of Algorithms**. In Peter A. N. Bosman, editor, *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO Companion 2017*, pages 1038–1065. ACM Press, New York, NY, 2017. `doi:10.1145/3067695.3067722`.

[2368] Thomas Stützle and Manuel López-Ibáñez. **Automated Design of Metaheuristic Algorithms**. In Michel Gendreau and Jean-Yves Potvin, editors, *Handbook of Metaheuristics*, volume 272 of *International Series in Operations Research & Management Science*, pages 541–579. Springer, 2019. `doi:10.1007/978-3-319-91086-4_17`.

[2369] Thomas Stützle and Rubén Ruiz. **Iterated Greedy**. In Rafael Martí, Panos M. Pardalos, and Mauricio G. C. Resende, editors, *Handbook of Heuristics*, pages 1–31. Springer International Publishing, 2018. ISBN 978-3-319-07125-1. `doi:10.1007/978-3-319-07153-4_10-1`.

[2370] Thomas Stützle and Rubén Ruiz. **Iterated Local Search**. In Rafael Martí, Panos M. Pardalos, and Mauricio G. C. Resende, editors, *Handbook of Heuristics*, pages 1–27. Springer International Publishing, 2018. ISBN 978-3-319-07125-1. `doi:10.1007/978-3-319-07153-4_8-1`.

[2371] Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors. *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2007*, volume 4638 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2007.

[2372] Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors. *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2009*, volume 5752 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2009.

[2373] Thomas Stützle, Manuel López-Ibáñez, Paola Pellegrini, Michael Maur, Marco A. Montes de Oca, Mauro Birattari, and Marco Dorigo. **Parameter Adaptation in Ant Colony Optimization**. Technical Report TR/IRIDIA/2010-002, IRIDIA, Université Libre de Bruxelles, Belgium, Jan. 2010. Published as a book chapter [2375].

[2374] Thomas Stützle, Manuel López-Ibáñez, and Marco Dorigo. **A Concise Overview of Applications of Ant Colony Optimization**. In J. J. Cochran, editor, *Wiley Encyclopedia of Operations Research and Management Science*, volume 2, pages 896–911. John Wiley & Sons, 2011. `doi:10.1002/9780470400531.eorms0001`.

[2375] Thomas Stützle, Manuel López-Ibáñez, Paola Pellegrini, Michael Maur, Marco A. Montes de Oca, Mauro Birattari, and Marco Dorigo. **Parameter Adaptation in Ant Colony Optimization**. In Y. Hamadi, E. Monfroy, and F. Saubion, editors, *Autonomous Search*, pages 191–215. Springer, Berlin, Germany, 2012. `doi:10.1007/978-3-642-21434-9_8`.

[2376] James Styles and Holger H. Hoos. **Ordered racing protocols for automatically configuring algorithms for scaling performance**. In Christian Blum and Enrique Alba, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2013*, pages 551–558. ACM Press, New York, NY, 2013. ISBN 978-1-4503-1963-8. `doi:10.1145/2463372.2463438`.

[2377] James Styles, Holger H. Hoos, and Martin Müller. **Automatically Configuring Algorithms for Scaling Performance**. In Youssef Hamadi and Marc Schoenauer, editors, *Learning and Intelligent Optimization, 6th International Conference, LION 6*, volume 7219 of *Lecture Notes in Computer Science*, pages 205–219. Springer, Heidelberg, 2012.

[2378] Anand Subramanian and Maria Battarra. **An Iterated Local Search Algorithm for the Travelling Salesman Problem with Pickups and Deliveries**. *Journal of the Operational Research Society*, 64(3):402–409, 2013.

[2379] Anand Subramanian, Maria Battarra, and Chris N. Potts. **An Iterated Local Search Heuristic for the Single Machine Total Weighted Tardiness Scheduling Problem with Sequence-dependent Setup Times**. *International Journal of Production Research*, 52(9): 2729–2742, 2014.

[2380] Ponnuthurai N. Suganthan, Nikolaus Hansen, J. J. Liang, Kalyanmoy Deb, Y. P. Chen, Anne Auger, and S. Tiwari. **Problem definitions and evaluation criteria for the CEC 2005 special session on real-parameter optimization**. Technical report, Nanyang Technological University, Singapore, 2005.
Keywords: CEC'05 benchmark.
Annotation: Also known as KanGAL Report Number 2005005 (Kanpur Genetic Algorithms Laboratory, IIT Kanpur).

[2381] Yanan Sui, Alkis Gotovos, Joel W. Burdick, and Andreas Krause. **Safe Exploration for Optimization with Gaussian Processes**. In Francis Bach and David Blei, editors, *Proceedings of the 32nd International Conference on Machine Learning, ICML 2015*, volume 37, pages 997–1005, 2015.
Keywords: SafeOpt.

[2382] Yanan Sui, Vincent Zhuang, Joel W. Burdick, and Yisong Yue. **Stagewise Safe Bayesian Optimization with Gaussian Processes**. *Arxiv preprint arXiv:1806.07555*, 2018.
Keywords: StageOpt.
Annotation: Published as [2383].

[2383] Yanan Sui, Vincent Zhuang, Joel W. Burdick, and Yisong Yue. **Stagewise Safe Bayesian Optimization with Gaussian Processes**. In Jennifer G. Dy and Andreas Krause, editors, *Proceedings of the 35th International Conference on Machine Learning, ICML 2018*, volume 80 of *Proceedings of Machine Learning Research*, pages 4788–4796. PMLR, 2018.
Keywords: StageOpt.

[2384] Zhaoxu Sun and Min Han. **Multi-criteria Decision Making Based on PROMETHEE Method**. In *Proceedings of the 2010 International Conference on Computing, Control and Industrial Engineering*, pages 416–418, Los Alamitos, CA, 2010. IEEE Computer Society Press.

[2385] A. Suppapitnarm, K. A. Seffen, G. T. Parks, and P. J. Clarkson. **A simulated annealing algorithm for multiobjective optimization**. *Engineering Optimization*, 33(1):59–85, 2000.

[2386] D. C. Sutton, D. S. Keane, and S. J. Sherriff. **Optimizing the Real Time Operation of a Pumping Station at a Water Filtration Plant using Genetic Algorithms**. Honors thesis, Department of Civil and Environmental Engineering, The University of Adelaide, 1998.

[2387] Richard S. Sutton and Andrew G. Barto. *Reinforcement Learning: An Introduction*. MIT Press, Cambridge, MA, 1998.

[2388] Richard S. Sutton and Andrew G. Barto. *Reinforcement Learning: An Introduction*. MIT Press, Cambridge, MA, 2nd edition, 2018.

[2389] Johan A. K. Suykens and Joos Vandewalle. **Least Squares Support Vector Machine Classifiers**. *Neural Processing Letters*, 9(3):293–300, 1999. `doi:10.1023/A:1018628609742`. *Keywords:* LS-SVM.

[2390] Jerry Swan, Ender Özcan, and Graham Kendall. **Hyperion - a recursive hyper-heuristic framework**. In Carlos A. Coello Coello, editor, *Learning and Intelligent Optimization, 5th International Conference, LION 5*, volume 6683 of *Lecture Notes in Computer Science*, pages 616–630. Springer, Heidelberg, 2011.

[2391] Jerry Swan, John R. Woodward, Ender Özcan, Graham Kendall, and Edmund K. Burke. **Searching the Hyper-heuristic Design Space**. *Cognitive Computation*, 6(1):66–73, Mar. 2014. `doi:10.1007/s12559-013-9201-8`.

[2392] Jerry Swan et al. **A Research Agenda for Metaheuristic Standardization**. In El-Ghazali Talbi, editor, *Proceedings of MIC 2015, the 11th Metaheuristics International Conference*, 2015.

[2393] William R. Swartout, editor. *Proceedings of the 10th National Conference on Artificial Intelligence*, 1992. AAAI Press/MIT Press, Menlo Park, CA.

[2394] Gilbert Syswerda. **Uniform Crossover in Genetic Algorithms**. In J. David Schaffer, editor, *Proc. of the Third Int. Conf. on Genetic Algorithms*, pages 2–9. Morgan Kaufmann Publishers, San Mateo, CA, 1989.
Keywords: uniform crossover.

[2395] Harold Szu and Ralph Hartley. **Fast Simulated Annealing**. *Physics Letters A*, 122(3):157–162, 1987.

[2396] Kiyoharu Tagawa, Hidehito Shimizu, and Hiroyuki Nakamura. **Indicator-based Differential Evolution Using Exclusive Hypervolume Approximation and Parallelization for Multi-core Processors**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 657–664. ACM Press, New York, NY, 2011.

[2397] Yaniv Taigman, Ming Yang, Marc'Aurelio Ranzato, and Lior Wolf. **Deepface: Closing the gap to human-level performance in face verification**. In *Proceedings of the IEEE conference on computer vision and pattern recognition*, pages 1701–1708, 2014.

[2398] Éric D. Taillard. **Some Efficient Heuristic Methods for the Flow Shop Sequencing Problem**. *European Journal of Operational Research*, 47(1):65–74, 1990.

[2399] Éric D. Taillard. **Robust Taboo Search for the Quadratic Assignment Problem**. *Parallel Computing*, 17(4-5):443–455, 1991.
Annotation: faster 2-exchange delta evaluation in QAP.

[2400] Éric D. Taillard. **Benchmarks for Basic Scheduling Problems**. *European Journal of Operational Research*, 64(2):278–285, 1993.

[2401] Éric D. Taillard. **Comparison of Iterative Searches for the Quadratic Assignment Problem**. *Location Science*, 3(2):87–105, 1995.

[2402] R. H. C. Takahashi et al., editors. *Evolutionary Multi-Criterion Optimization. 6th International Conference, EMO 2011*, volume 6576 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2011.

[2403] El-Ghazali Talbi. **A Taxonomy of Hybrid Metaheuristics**. *Journal of Heuristics*, 8(5): 541–564, 2002.

[2404] El-Ghazali Talbi, editor. *Hybrid Metaheuristics*, volume 434 of *Studies in Computational Intelligence*. Springer Verlag, 2013. URL http://www.springer.com/engineering/computational+intelligence+and+complexity/book/978-3-642-30670-9.

[2405] El-Ghazali Talbi, editor. *Proceedings of MIC 2015, the 11th Metaheuristics International Conference*, 2015.

[2406] El-Ghazali Talbi, Pierre Liardet, Pierre Collet, Evelyne Lutton, and Marc Schoenauer, editors. *Artificial Evolution: 7th International Conference, Evolution Artificielle, EA 2005, Lille, France*, volume 3871 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2005.

[2407] Kar Yan Tam. **A Simulated Annealing Algorithm for Allocating Space to Manufacturing Cells**. *International Journal of Production Research*, 30(1):63–87, 1992.

[2408] R. Tanabe, Hisao Ishibuchi, and A. Oyama. **Benchmarking Multi- and Many-Objective Evolutionary Algorithms Under Two Optimization Scenarios**. *IEEE Access*, 5: 19597–19619, 2017.

[2409] Shunji Tanaka and Mituhiko Araki. **An Exact Algorithm for the Single-machine Total Weighted Tardiness Problem with Sequence-dependent Setup Times**. *Computers & Operations Research*, 40(1):344–352, 2013.

[2410] Lixin Tang and Xianpeng Wang. **Iterated local search algorithm based on very large-scale neighborhood for prize-collecting vehicle routing problem**. *International Journal of Advanced Manufacturing Technology*, 29(11):1246–1258, 2006.

[2411] A. J. Tarquin and J. Dowdy. **Optimal pump operation in water distribution**. *Journal of Hydraulic Engineering, ASCE*, 115(2):158–169 or 496–501, Feb. 1989.

[2412] M. F. Tasgetiren, D. Kizilay, Quan-Ke Pan, and Ponnuthurai N. Suganthan. **Iterated Greedy Algorithms for the Blocking Flowshop Scheduling Problem with Makespan Criterion**. *Computers & Operations Research*, 77:111–126, 2017.

[2413] M. Fatih Tasgetiren, Yun-Chia Liang, Mehmet Sevkli, and Gunes Gencyilmaz. **A particle swarm optimization algorithm for makespan and total flowtime minimization in the permutation flowshop sequencing problem**. *European Journal of Operational Research*, 177 (3):1930 – 1947, 2007. doi:10.1016/j.ejor.2005.12.024.

[2414] M. Fatih Tasgetiren, Ozge Buyukdagli, Quan-Ke Pan, and Ponnuthurai N. Suganthan. **A general variable neighborhood search algorithm for the no-idle permutation flowshop scheduling problem**. In B. K. Panigrahi, P. N. Suganthan, S. Das, and S. S. Dash, editors, *Swarm, Evolutionary, and Memetic Computing*, volume 8298 of *Theoretical Computer Science and General Issues*, pages 24–34. Springer International Publishing, 2013.

[2415] M. Fatih Tasgetiren, Quan-Ke Pan, Ponnuthurai N. Suganthan, and Ozge Buyukdagli. **A variable iterated greedy algorithm with differential evolution for the no-idle permutation flowshop scheduling problem**. *Computers & Operations Research*, 40(7): 1729–1743, 2013.

[2416] Jorge Tavares and Francisco B. Pereira. **Automatic Design of Ant Algorithms with Grammatical Evolution**. In A. Moraglio, Sara Silva, Krzysztof Krawiec, Penousal Machado, and Carlos Cotta, editors, *Proceedings of the 15th European Conference on Genetic Programming, EuroGP 2012*, volume 7244 of *Lecture Notes in Computer Science*, pages 206–217. Springer, Heidelberg, 2012.

[2417] Joc Cing Tay and Nhu Binh Ho. **Evolving dispatching rules using genetic programming for solving multi-objective flexible job-shop problems**. *Computers and Industrial Engineering*, 54(3):453 – 473, 2008. `doi:10.1016/j.cie.2007.08.008`.

[2418] Cristina Teixeira, José Covas, Thomas Stützle, and António Gaspar-Cunha. **Application of Pareto Local Search and Multi-Objective Ant Colony Algorithms to the Optimization of Co-Rotating Twin Screw Extruders**. In Ana Viana et al., editors, *Proceedings of the EU/MEeting 2009: Debating the future: new areas of application and innovative approaches*, pages 115–120, 2009.

[2419] Cristina Teixeira, José Covas, Thomas Stützle, and António Gaspar-Cunha. **Engineering an Efficient Two-Phase Local Search for the Co-Rotating Twin-Screw Configuration Problem**. *International Transactions in Operational Research*, 18(2):271–291, 2011.

[2420] Cristina Teixeira, José Covas, Thomas Stützle, and António Gaspar-Cunha. **Multi-Objective Ant Colony Optimization for Solving the Twin-Screw Extrusion Configuration Problem**. *Engineering Optimization*, 44(3):351–371, 2012.

[2421] Cristina Teixeira, José Covas, Thomas Stützle, and António Gaspar-Cunha. **Hybrid Algorithms for the Twin-Screw Extrusion Configuration Problem**. *Applied Soft Computing*, 23:298–307, 2014.

[2422] Fitsum Teklu, Agachai Sumalee, and David Watling. **A Genetic Algorithm Approach for Optimizing Traffic Control Signals Considering Routing**. *Computer-Aided Civil and Infrastructure Engineering*, 22(1):31–43, Jan. 2007. `doi:10.1111/j.1467-8667.2006.00468.x`.

[2423] J. B. Tenenbaum, V. D. Silva, and J. C. Langford. **A global geometric framework for nonlinear dimensionality reduction**. *Science*, 290(5500):2319–2323, 2000.

[2424] J. Teo and Hussein A. Abbass. **Automatic generation of controllers for embodied legged organisms: A Pareto evolutionary multi-objective approach**. *Evolutionary Computation*, 12(3):355–394, 2004. `doi:10.1162/1063656041774974`.

[2425] K. T. K. Teo, W. Y. Kow, and Y. K. Chin. **Optimization of traffic flow within an urban traffic light intersection with genetic algorithm**. In *Proceedings - 2nd International Conference on Computational Intelligence, Modelling and Simulation, CIMSim 2010*, pages 172–177. IEEE, IEEE Press, 2010.
Keywords: Genetic algorithm,T-junction,Traffic control system,Traffic flows.

[2426] Hugo Terashima-Marín, Peter Ross, and Manuel Valenzuela-Rendón. **Evolution of Constraint Satisfaction Strategies in Examination Timetabling**. In Wolfgang Banzhaf, Jason M. Daida, A. E. Eiben, Max H. Garzon, Vasant Honavar, Mark J. Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 1999*, pages 635–642. Morgan Kaufmann Publishers, San Francisco, CA, 1999.

[2427] The Turing Way Community, Becky Arnold, Louise Bowler, Sarah Gibson, Patricia Herterich, Rosie Higman, Anna Krystalli, Alexander Morley, Martin O'Reilly, and Kirstie Whitaker. *The Turing Way: A Handbook for Reproducible Data Science*. Zenodo, Mar. 2019. `doi:10.5281/zenodo.3233986`.
Annotation: Available from `https://the-turing-way.netlify.app`. This work was supported by The UKRI Strategic Priorities Fund under the EPSRC Grant EP/T001569/1, particularly the "Tools, Practices

and Systems" theme within that grant, and by The Alan Turing Institute under the EPSRC grant EP/N510129/1.

[2428] Patrick Thibodeau. **Machine-based decision-making is coming**. *Computer World*, Nov. 2011. URL http://www.computerworld.com/s/article/359630/Machine_Based_Decision_Making_Is_Coming. Last accessed: 15 January 2014.

[2429] Dirk Thierens. **Population-based Iterated Local Search: Restricting the Neighborhood Search by Crossover**. In Kalyanmoy Deb et al., editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2004, Part II*, volume 3103 of *Lecture Notes in Computer Science*, pages 234–245. Springer, Heidelberg, 2004.

[2430] Dirk Thierens. **An Adaptive Pursuit Strategy for Allocating Operator Probabilities**. In Hans-Georg Beyer and Una-May O'Reilly, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2005*, pages 1539–1546. ACM Press, New York, NY, 2005.

[2431] Dirk Thierens. **Adaptive strategies for operator allocation**. In F. Lobo, C. F. Lima, and Zbigniew Michalewicz, editors, *Parameter Setting in Evolutionary Algorithms*, pages 77–90. Springer, Berlin, Germany, 2007.

[2432] Dirk Thierens. **Adaptive operator selection for iterated local search**. In Thomas Stützle, Mauro Birattari, and Holger H. Hoos, editors, *Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics. SLS 2009*, volume 5752 of *Lecture Notes in Computer Science*, pages 140–144. Springer, Heidelberg, 2009.

[2433] Dirk Thierens et al., editors. *Genetic and Evolutionary Computation Conference, GECCO 2007, Proceedings, London, England, UK, July 7-11, 2007*. ACM Press, New York, NY, 2007.

[2434] Chris Thornton, Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Auto-WEKA: Combined Selection and Hyperparameter Optimization of Classification Algorithms**. In Inderjit S. Dhillon, Yehuda Koren, Rayid Ghani, Ted E. Senator, Paul Bradley, Rajesh Parekh, Jingrui He, Robert L. Grossman, and Ramasamy Uthurusamy, editors, *The 19th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, KDD 2013*, pages 847–855. ACM Press, New York, NY, 2013.

[2435] Sebastian Thrun and Lorien Pratt. *Learning to learn*. springer, 1998.

[2436] Tiew-On Ting, M. V. C. Rao, C. K. Loo, and S. S. Ngu. **Solving Unit Commitment Problem Using Hybrid Particle Swarm Optimization**. *Journal of Heuristics*, 9(6):507–520, 2003. doi:10.1023/B:HEUR.0000012449.84567.1a.

[2437] Renato Tinós, Darrell Whitley, and Gabriela Ochoa. **Generalized Asymmetric Partition Crossover (GAPX) for the Asymmetric TSP**. In Christian Igel and Dirk V. Arnold, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2014*, pages 501–508. ACM Press, New York, NY, 2014.

[2438] V. T'Kindt, Nicolas Monmarché, F. Tercinet, and D. Laügt. **An ant colony optimization algorithm to solve a 2-machine bicriteria flowshop scheduling problem**. *European Journal of Operational Research*, 142(2):250–257, 2002.

[2439] Michał K Tomczyk and Milosz Kadzinski. **Decomposition-based interactive evolutionary algorithm for multiple objective optimization**. *IEEE Transactions on Evolutionary Computation*, 24(2):320–334, 2019. doi:10.1109/TEVC.2019.2915767.
Keywords: interactive multi-objective; decision-making;.

[2440] Huseyin Topaluglu, editor. *Theory Driven by Influential Applications*. INFORMS, 2013.

[2441] C. E. Torres, L. F. Rossi, J. Keffer, K. Li, and C.-C. Shen. **Modeling, analysis and simulation of ant-based network routing protocols**. *Swarm Intelligence*, 4(3):221–244, 2010.

[2442] Gregorio Toscano Pulido and Carlos A. Coello Coello. **The Micro Genetic Algorithm 2: Towards Online Adaptation in Evolutionary Multiobjective Optimization**. In Carlos M. Fonseca, Peter J. Fleming, Eckart Zitzler, Kalyanmoy Deb, and Lothar Thiele, editors, *Evolutionary Multi-criterion Optimization, EMO 2003*, volume 2632 of *Lecture Notes in Computer Science*, pages 252–266. Springer, Heidelberg, 2003. `doi:10.1007/3-540-36970-8_18`.

[2443] Paolo Toth and Daniele Vigo. *The vehicle routing problem*. Society for Industrial and Applied Mathematics, Philadelphia, PA, USA, 2002.

[2444] F. Toyama, K. Shoji, H. Mori, and J. Miyamichi. **An Iterated Greedy Algorithm for the Binary Quadratic Programming Problem**. In *Joint 6th International Conference on Soft Computing and Intelligent Systems (SCIS) and 13th International Symposium on Advanced Intelligent Systems (ISIS), 2012*, pages 2183–2188. IEEE Press, 2012.

[2445] Heike Trautmann and Jörn Mehnen. **Preference-based Pareto optimization in certain and noisy environments**. *Engineering Optimization*, 41(1):23–38, Jan. 2009.

[2446] Heike Trautmann, Olaf Mersmann, and David Arnu. *cmaes: Covariance Matrix Adapting Evolutionary Strategy*, 2011. URL `http://cran.r-project.org/package=cmaes`. R package.

[2447] Heike Trautmann, Günter Rudolph, Kathrin Klamroth, Oliver Schütze, Margaret M. Wiecek, Yaochu Jin, and Christian Grimme, editors. *Evolutionary Multi-Criterion Optimization – 9th International Conference, EMO 2017, Münster, Germany, March 19 - 22, 2017. Proceedings*. Lecture Notes in Computer Science. Springer International Publishing, Cham, Switzerland, 2017.

[2448] Christoph Treude and Markus Wagner. **Predicting Good Configurations for GitHub and Stack Overflow Topic Models**. In *Proceedings of the 16th International Conference on Mining Software Repositories*, MSR '19, pages 84–95, Piscataway, NJ, USA, 2019. IEEE Press. `doi:10.1109/MSR.2019.00022`.
Keywords: algorithm portfolio, corpus features, topic modelling.

[2449] Vito Trianni and Manuel López-Ibáñez. **Advantages of Multi-Objective Optimisation in Evolutionary Robotics: Survey and Case Studies**. Technical Report TR/IRIDIA/2014-014, IRIDIA, Université Libre de Bruxelles, Belgium, 2014. URL `http://iridia.ulb.ac.be/IridiaTrSeries/link/IridiaTr2014-014.pdf`.

[2450] Vito Trianni and Manuel López-Ibáñez. **Advantages of Task-Specific Multi-Objective Optimisation in Evolutionary Robotics**. *PLoS One*, 10(8):e0136406, 2015. `doi:10.1371/journal.pone.0136406`.

[2451] Vito Trianni and S. Nolfi. **Engineering the evolution of self-organizing behaviors in swarm robotics: A case study**. *Artificial Life*, 17(3):183–202, 2011.

[2452] Michael A. Trick. **Graph Coloring Instances**. `https://mat.gsia.cmu.edu/COLOR/instances.html`, 2018.

[2453] L.-Y. Tseng and Y.-T. Lin. **A hybrid genetic local search algorithm for the permutation flowshop scheduling problem**. *European Journal of Operational Research*, 198(1):84–92, 2009.

[2454] S. Tsutsui. **An Enhanced Aggregation Pheromone System for Real-Parameter Optimization in the ACO Metaphor**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 5th International Workshop, ANTS 2006*, volume 4150 of *Lecture Notes in Computer Science*, pages 60–71. Springer, Heidelberg, 2006.

[2455] S. Tsutsui. **cAS: Ant Colony Optimization with Cunning Ants**. In T. P. Runarsson, Hans-Georg Beyer, Edmund K. Burke, Juan-Julián Merelo, Darrell Whitley, and Xin Yao, editors, *Parallel Problem Solving from Nature – PPSN IX*, volume 4193 of *Lecture Notes in Computer Science*, pages 162–171. Springer, Heidelberg, 2006.

[2456] S. Tsutsui. **Ant Colony Optimization with Cunning Ants**. *Transactions of the Japanese Society for Artificial Intelligence*, 22:29–36, 2007. `doi:10.1527/tjsai.22.29`.
Keywords: ant colony optimization, traveling salesman problem, cunning ant, donor ant, local search.

[2457] Edward R. Tufte. *The Visual Display of Quantitative Information*. Graphics Press, Cheshire, CT, 2nd edition, 2001. ISBN 0-9613921-4-2.
Keywords: data visualization, information graphics, cognitive science.

[2458] Alexis Tugilimana, Ashley P. Thrall, and Rajan Filomeno Coelho. **Conceptual Design of Modular Bridges Including Layout Optimization and Component Reusability**. *Journal of Bridge Engineering*, 22(11):04017094, 2017. `doi:10.1061/(ASCE)BE.1943-5592.0001138`.
Keywords: scenario-based.

[2459] Matteo Turchetta, Felix Berkenkamp, and Andreas Krause. **Safe Exploration in Finite Markov Decision Processes with Gaussian Processes**. In D. D. Lee, M. Sugiyama, U. V. Luxburg, I. Guyon, and R. Garnett, editors, *Advances in Neural Information Processing Systems (NIPS 29)*, pages 4312–4320, 2016. `doi:10.1109/TEVC.2014.2313407`.
Keywords: SafeMDP.

[2460] Matteo Turchetta, Felix Berkenkamp, and Andreas Krause. **Safe Exploration for Interactive Machine Learning**. In Hanna M. Wallach, Hugo Larochelle, Alina Beygelzimer, Florence d'Alché-Buc, Emily B. Fox, and Roman Garnett, editors, *Advances in Neural Information Processing Systems (NeurIPS 32)*, pages 2887–2897, 2019.
Keywords: Reinforcement Learning; Markov Decision Process; SafeML.

[2461] Renata Turkeš, Kenneth Sörensen, and Lars Magnus Hvattum. **Meta-analysis of metaheuristics: Quantifying the effect of adaptiveness in adaptive large neighborhood search**. *European Journal of Operational Research*, 292(2):423–42, 2021. `doi:10.1016/j.ejor.2020.10.045`.
Keywords: Metaheuristics, Meta-analysis, Adaptive large neighborhood search.

[2462] Tea Tušar. **Design of an Algorithm for Multiobjective Optimization with Differential Evolution**. M.sc. thesis, Faculty of Computer and Information Science, University of Ljubljana, 2007.

[2463] Tea Tušar and Bogdan Filipič. **Differential Evolution versus Genetic Algorithms in Multiobjective Optimization**. In S. Obayashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2007*, volume 4403 of *Lecture Notes in Computer Science*, pages 257–271, Heidelberg, 2007. Springer.

[2464] Tea Tušar and Bogdan Filipič. **Visualizing 4D approximation sets of multiobjective optimizers with prosections**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 737–744, New York, NY, 2011. ACM Press.

[2465] Tea Tušar and Bogdan Filipič. **Visualizing Exact and Approximated 3D Empirical Attainment Functions**. *Mathematical Problems in Engineering*, 2014, 2014. `doi:10.1155/2014/569346`. Article ID 569346, 18 pages.

[2466] Tea Tušar and Bogdan Filipič. **Visualization of Pareto front approximations in evolutionary multiobjective optimization: A critical review and the prosection method**. *IEEE Transactions on Evolutionary Computation*, 19(2):225–245, 2015. `doi:10.1109/TEVC.2014.2313407`.

[2467] D. Tuyttens, Jacques Teghem, Philippe Fortemps, and K. Van Nieuwenhuyze. **Performance of the MOSA Method for the Bicriteria Assignment Problem**. *Journal of Heuristics*, 6: 295–310, 2000.

[2468] Amos Tversky. **Choice by elimination**. *Journal of Mathematical Psychology*, 9(4):341–367, 1972.

[2469] Amos Tversky and Daniel Kahneman. **Judgment under uncertainty: Heuristics and biases**. *Science*, 185(4157):1124–1131, 1974.

[2470] Amos Tversky and Daniel Kahneman. **Loss aversion in riskless choice: a reference-dependent model**. *The Quarterly Journal of Economics*, 106(4):1039–1061, 1991.

[2471] Colin Twomey, Thomas Stützle, Marco Dorigo, Max Manfrin, and Mauro Birattari. **An Analysis of Communication Policies for Homogeneous Multi-colony ACO Algorithms**. *Information Sciences*, 180(12):2390–2404, 2010. `doi:10.1016/j.ins.2010.02.017`.

[2472] G. H. Tzeng and P. L. Yu, editors. *Proceedings of the 10th International Conference on Multiple Criteria Decision Making (MCDM'91)*. Springer Verlag, 1992.

[2473] Dariusz Ucinski, Anthony C. Atkinson, and Maciej Patan, editors. *mODa 10 – Advances in Model-Oriented Design and Analysis, Proceedings of the 10th International Workshop in Model-Oriented Design and Analysis Held in Łagów Lubuski, Poland, June 10-14, 2013*. Springer International Publishing, Heidelberg, 2013.

[2474] N. L. J. Ulder, Emile H. L. Aarts, H.-J. Bandelt, Peter J. M. van Laarhoven, and Erwin Pesch. **Genetic Local Search Algorithms for the Travelling Salesman Problem**. In Hans-Paul Schwefel and R. Männer, editors, *Parallel Problem Solving from Nature – PPSN I*, pages 109–116. Springer, Berlin/Heidelberg, 1991. `doi:10.1007/BFb0029723`.

[2475] E. Ulungu and Jacques Teghem. **The two phases method: An efficient procedure to solve bi-objective combinatorial optimization problems**. *Foundations of Computing and Decision Sciences*, 20(2):149–165, 1995.

[2476] E. Ulungu, Jacques Teghem, P. H. Fortemps, and D. Tuyttens. **MOSA method: a tool for solving multiobjective combinatorial optimization problems**. *Journal of Multi-Criteria Decision Analysis*, 8(4):221–236, 1999.

[2477] Simon Urbanek. *multicore: Parallel Processing of R Code on Machines with Multiple Cores or CPUs*, 2010. URL `http://www.rforge.net/multicore/`. R package version 0.1-3.

[2478] Thijs Urlings, Rubén Ruiz, and F. Sivrikaya-Şerifoğlu. **Genetic Algorithms for Complex Hybrid Flexible Flow Line Problems**. *International Journal of Metaheuristics*, 1(1):30–54, 2010.

[2479] Thijs Urlings, Rubén Ruiz, and Thomas Stützle. **Shifting Representation Search for Hybrid Flexible Flowline Problems**. *European Journal of Operational Research*, 207(2):1086–1095, 2010. `doi:10.1016/j.ejor.2010.05.041`.

[2480] Rob J. M. Vaessens, Emile H. L. Aarts, and Jan Karel Lenstra. **A Local Search Template**. *Computers & Operations Research*, 25(11):969–979, 1998. `doi:10.1016/S0305-0548(97)00093-2`.

[2481] Eva Vallada and Rubén Ruiz. **Genetic algorithms with path relinking for the minimum tardiness permutation flowshop problem**. *Omega*, 38(1–2):57–67, 2010. `doi:10.1016/j.omega.2009.04.002`.

[2482] Eva Vallada, Rubén Ruiz, and Gerardo Minella. **Minimising total tardiness in the m-machine flowshop problem: A review and evaluation of heuristics and metaheuristics**. *Computers & Operations Research*, 35(4):1350–1373, 2008.

[2483] Eva Vallada, Rubén Ruiz, and Jose M. Framiñán. **New hard benchmark for flowshop scheduling problems minimising makespan**. *European Journal of Operational Research*, 240(3):666–677, 2015. `doi:10.1016/j.ejor.2014.07.033`.

[2484] Mauro Vallati, Chris Fawcett, Alfonso E. Gerevini, Holger H. Hoos, and Alessandro Saetti. **Generating Fast Domain-Optimized Planners by Automatically Configuring a Generic Parameterised Planner**. In Erez Karpas, Sergio Jiménez Celorrio, and Subbarao Kambhampati, editors, *Proceedings of ICAPS-PAL11*, 2011.

[2485] Andrea Valsecchi, Jérémie Dubois-Lacoste, Thomas Stützle, Sergio Damas, José Santamaría, and Linda Marrakchi-Kacem. **Evolutionary Medical Image Registration using Automatic Parameter Tuning**. In *Proceedings of the 2013 Congress on Evolutionary Computation (CEC 2013)*, pages 1326–1333. IEEE Press, Piscataway, NJ, 2013.

[2486] Hado van Hasselt, Arthur Guez, and David Silver. **Deep Reinforcement Learning with Double Q-Learning**. In Dale Schuurmans and Michael P. Wellman, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*. AAAI Press, 2016.

[2487] Jano I. van Hemert. **Evolving Combinatorial Problem Instances That Are Difficult to Solve**. *Evolutionary Computation*, 14(4):433–462, 2006. `doi:10.1162/evco.2006.14.4.433`.

[2488] Pascal van Hentenryck. *The OPL optimization programming language*. MIT Press, Cambridge, MA, 1999.

[2489] Pascal van Hentenryck, editor. *Principles and Practice of Constraint Programming, CP 2002*. Lecture Notes in Computer Science. Springer, Heidelberg, 2002.

[2490] Pascal van Hentenryck and Laurent D. Michel. *Constraint-based Local Search*. MIT Press, Cambridge, MA, 2005.

[2491] Pascal van Hentenryck and Laurent D. Michel. **Synthesis of constraint-based local search algorithms from high-level models**. In Robert C. Holte and Adele Howe, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 273–278. AAAI Press/MIT Press, Menlo Park, CA, 2007.

[2492] Peter J. M. van Laarhoven and Emile H. L. Aarts. *Simulated Annealing: Theory and Applications*, volume 37. Springer, 1987.

[2493] Peter J. M. van Laarhoven, Emile H. L. Aarts, and Jan Karel Lenstra. **Job Shop Scheduling by Simulated Annealing**. *Operations Research*, 40(1):113–125, 1992.

[2494] Sander van Rijn, Hao Wang, Matthijs van Leeuwen, and Thomas Bäck. **Evolving the structure of evolution strategies**. In Xuewen Chen and Andreas Stafylopatis, editors, *Computational Intelligence (SSCI), 2016 IEEE Symposium Series on*, pages 1–8, 2016.
Keywords: automated design, automatic configuration, cma-es.

[2495] David A. Van Veldhuizen and Gary B. Lamont. **Evolutionary Computation and Convergence to a Pareto Front**. In John R. Koza, editor, *Late Breaking Papers at the Genetic Programming 1998 Conference*, pages 221–228, Stanford University, California, July 1998. Stanford University Bookstore.
Keywords: generational distance.

[2496] David A. Van Veldhuizen and Gary B. Lamont. **Multiobjective Evolutionary Algorithms: Analyzing the State-of-the-art**. *Evolutionary Computation*, 8(2):125–147, 2000. `doi:10.1162/106365600568158`.

[2497] Elia Van Wolputte, Evgeniya Korneva, and Hendrik Blockeel. **MERCS: multi-directional ensembles of regression and classification trees**. In Sheila A. McIlraith and Kilian Q. Weinberger, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 4276–4283. AAAI Press, Feb. 2018.

[2498] Jakobus E. van Zyl. *A Methodology for Improved Operational Optimization of Water Distribution Systems*. PhD thesis, School of Engineering and Computer Science, University of Exeter, UK, 2001.

[2499] Jakobus E. van Zyl, Dragan A. Savic, and Godfrey A. Walters. **Operational Optimization of Water Distribution Systems using a Hybrid Genetic Algorithm**. *Journal of Water Resources Planning and Management, ASCE*, 130(2):160–170, Mar. 2004.

[2500] Pieter Vansteenwegen and Manuel Mateo. **An Iterated Local Search Algorithm for the Single-vehicle Cyclic Inventory Routing Problem**. *European Journal of Operational Research*, 237(3):802–813, 2014.

[2501] Pieter Vansteenwegen, Wouter Souffriau, Greet Vanden Berghe, and Dirk Van Oudheusden. **Iterated Local Search for the Team Orienteering Problem with Time Tindows**. *Computers & Operations Research*, 36(12):3281–3290, 2009.

[2502] T. K. Varadharajan and C. Rajendran. **A multi-objective simulated-annealing algorithm for scheduling in flowshops to minimize the makespan and total flowtime of jobs**. *European Journal of Operational Research*, 167(3):772–795, 2005.

[2503] F. J. Varela and P. Bourgine, editors. *Proceedings of the First European Conference on Artificial Life*, 1992. MIT Press, Cambridge, MA.

[2504] A. Vargha and H. D. Delaney. **A critique and improvement of the CL common language effect size statistics of McGraw and Wong**. *Journal of Educational and Behavioral Statistics*, 25(2):101–132, 2000.
       Keywords: effect size test, A12 test.

[2505] A. Vasan and Slobodan P. Simonovic. **Optimization of Water Distribution Network Design Using Differential Evolution**. *Journal of Water Resources Planning and Management, ASCE*, 136(2):279–287, 2010.

[2506] Ashish Vaswani, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N. Gomez, Lukasz Kaiser, and Illia Polosukhin. **Attention Is All You Need**. *Arxiv preprint arXiv:1706.03762*, 2017. URL http://arxiv.org/abs/1706.03762.

[2507] Puca Huachi Vaz Penna, Anand Subramanian, and Luiz Satoru Ochi. **An Iterated Local Search Heuristic for the Heterogeneous Fleet Vehicle Routing Problem**. *Journal of Heuristics*, 19(2):201–232, 2013.

[2508] J. A. Vázquez-Rodríguez and Gabriela Ochoa. **On the Automatic Discovery of Variants of the NEH Procedure for Flow Shop Scheduling Using Genetic Programming**. *Journal of the Operational Research Society*, 62(2):381–396, 2010.

[2509] Vladimír Černý. **A Thermodynamical Approach to the Traveling Salesman Problem: An Efficient Simulation Algorithm**. *Journal of Optimization Theory and Applications*, 45 (1):41–51, 1985.

[2510] Andrea Vedaldi and Brian Fulkerson. **VLFeat: An open and portable library of computer vision algorithms**. In *Proceedings of the 18th ACM international conference on Multimedia*, pages 1469–1472. ACM, 2010.

[2511] Manuela M. Veloso, editor. *IJCAI 2007, Proceedings of the 20th International Joint Conference on Artificial Intelligence, Hyderabad, India, January 6-12, 2007*, 2007. AAAI Press, Menlo Park, CA.

[2512] Sébastien Verel, Arnaud Liefooghe, and Clarisse Dhaenens. **Set-based Multiobjective Fitness Landscapes: A Preliminary Study**. In Natalio Krasnogor and Pier Luca Lanzi, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2011*, pages 769–776. ACM Press, New York, NY, 2011. doi:10.1145/2001576.2001681.

[2513] Sébastien Verel, Arnaud Liefooghe, Laetitia Jourdan, and Clarisse Dhaenens. **On the Structure of Multiobjective Combinatorial Search Space: MNK-landscapes with Correlated Objectives**. *European Journal of Operational Research*, 227(2):331–342, 2013. doi:10.1016/j.ejor.2012.12.019.

[2514] Ana Viana et al., editors. *Proceedings of the EU/MEeting 2009: Debating the future: new areas of application and innovative approaches*, 2009.

[2515] Paolo Viappiani, Boi Faltings, and Pearl Pu. **Preference-based Search using Example-Critiquing with Suggestions**. *Journal of Artificial Intelligence Research*, 27: 465–503, 2006.

[2516] Paolo Viappiani, Pearl Pu, and Boi Faltings. **Preference-based Search with Adaptive Recommendations**. *AI Communications*, 21(2):155–175, 2008.

[2517] René Victor Valqui Vidal, editor. *Applied Simulated Annealing.* Springer, 1993.

[2518] Thibaut Vidal, Teodor Gabriel Crainic, Michel Gendreau, and Christian Prins. **Heuristics for Multi-attribute Vehicle Routing Problems: A Survey and Synthesis**. *European Journal of Operational Research*, 231(1):1–21, 2013.

[2519] Thibaut Vidal, Teodor Gabriel Crainic, Michel Gendreau, and Christian Prins. **A Unified Solution Framework for Multi-attribute Vehicle Routing Problems**. *European Journal of Operational Research*, 234(3):658–673, 2014.

[2520] Alessia Violin. *Mathematical Programming Approaches to Pricing Problems*. PhD thesis, Faculté de Sciences, Université Libre de Bruxelles and Dipartimento di Ingegneria e Architettura, Università degli studi di Trieste, 2014.
Annotation: Supervised by Dr. Martine Labbé and Dr. Lorenzo Castelli.

[2521] Begoña Vitoriano, Eric Pinson, and Fernando Valente, editors. *ICORES 2014 - Proceedings of the 3rd International Conference on Operations Research and Enterprise Systems, Angers, Loire Valley, France.* SciTePress, 2014.

[2522] Marin Vlastelica, Jialin Song, Aaron Ferber, Brandon Amos, Georg Martius, Bistra Dilkina, and Yisong Yue, editors. *Learning Meets Combinatorial Algorithms Workshop at NeurIPS 2020, LMCA 2020, Vancouver, Canada, December 12, 2020*, 2020.

[2523] H.-M. Voigt et al., editors. *The 4th International Conference on Parallel Problem Solving from Nature Berlin, Germany, September 22 - 26, 1996. Proceedings*, volume 1141 of *Lecture Notes in Computer Science.* Springer, Heidelberg, 1996.

[2524] C. von Lücken, Benjamín Barán, and Carlos Brizuela. **A survey on multi-objective evolutionary algorithms for many-objective problems**. *Computational Optimization and Applications*, 58(3):707–756, 2014.

[2525] Stefan Voß and David L. Woodruff, editors. *Optimization Software Class Libraries.* Kluwer Academic Publishers, Boston, MA, 2002.

[2526] Thomas Voß, Nikolaus Hansen, and Christian Igel. **Improved Step Size Adaptation for the MO-CMA-ES**. In Martin Pelikan and Jürgen Branke, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2010*, pages 487–494. ACM Press, New York, NY, 2010.

[2527] Christos Voudouris and Edward P. K. Tsang. **Guided Local Search and its Application to the Travelling Salesman Problem**. *European Journal of Operational Research*, 113(2): 469–499, 1999.

[2528] Christos Voudouris and Edward P. K. Tsang. **Guided Local Search**. In Fred Glover and G. Kochenberger, editors, *Handbook of Metaheuristics*, pages 185–218. Kluwer Academic Publishers, Norwell, MA, 2002.

[2529] Akifumi Wachi, Yanan Sui, Yisong Yue, and Masahiro Ono. **Safe Exploration and Optimization of Constrained MDPs Using Gaussian Processes**. In Sheila A. McIlraith and Kilian Q. Weinberger, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*, pages 6548–6556. AAAI Press, Feb. 2018.
Keywords: Markov Decision Process, Gaussian Processes.

[2530] Markus Wagner and Frank Neumann. **A Fast Approximation-guided Evolutionary Multi-objective Algorithm**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 687–694. ACM Press, New York, NY, 2015.

[2531] Markus Wagner, Tobias Friedrich, and Marius Thomas Lindauer. **Improving local search in a minimum vertex cover solver for classes of networks**. In *Proceedings of the 2017 Congress on Evolutionary Computation (CEC 2017)*, pages 1704–1711, Piscataway, NJ, 2017. IEEE Press. doi:10.1109/CEC.2017.7969507.
Keywords: graph theory;search problems;local search;minimum vertex cover solver;network classes;straightforward alternative approach;benchmark sets;graphs;algorithm portfolio;single integrated approach;Training;Portfolios;Algorithm design and analysis;Prediction algorithms;Machine learning algorithms;Optimization;Benchmark testing,smac,paramils.

[2532] Tobias Wagner, Nicola Beume, and Boris Naujoks. **Pareto-, Aggregation-, and Indicator-Based Methods in Many-Objective Optimization**. In S. Obayashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2007*, volume 4403 of *Lecture Notes in Computer Science*, pages 742–756. Springer, Heidelberg, 2007.

[2533] Benjamin W. Wah and Yi Xin Chen. **Optimal Anytime Constrained Simulated Annealing for Constrained Global Optimization**. In Rina Dechter, editor, *Principles and Practice of Constraint Programming, CP 2000*, volume 1894 of *Lecture Notes in Computer Science*, pages 425–440. Springer, Heidelberg, 2000. doi:10.1007/3-540-45349-0_31.

[2534] David J. Walker, Richard M. Everson, and Jonathan E. Fieldsend. **Visualizing mutually nondominating solution sets in many-objective optimization**. *IEEE Transactions on Evolutionary Computation*, 17(2):165–184, 2012.

[2535] Hanna M. Wallach, Hugo Larochelle, Alina Beygelzimer, Florence d'Alché-Buc, Emily B. Fox, and Roman Garnett, editors. *Advances in Neural Information Processing Systems 32: Annual Conference on Neural Information Processing Systems 2019, NeurIPS 2019, 8-14 December 2019, Vancouver, BC, Canada*, 2019.

[2536] Jyrki Wallenius. **Comparative Evaluation of Some Interactive Approaches to Multicriterion Optimization**. *Management Science*, 21(12):1387–1396, 1975.

[2537] J. P. Walser. **Solving Linear Pseudo-Boolean Constraint Problems with Local Search**. In Benjamin Kuipers and Bonnie L. Webber, editors, *Proceedings of AAAI 1997 – Fourteenth National Conference on Artificial Intelligence*, pages 269–274. AAAI Press/MIT Press, Menlo Park, CA, 1997.

[2538] J. P. Walser. *Integer Optimization by Local Search: A Domain-Independent Approach*, volume 1637 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 1999.

[2539] J. P. Walser, R. Iyer, and N. Venkatasubramanyan. **An Integer Local Search Method with Application to Capacitated Production Planning**. In Jack Mostow and Chuck Rich, editors, *Proceedings of AAAI 1998 – Fifteenth National Conference on Artificial Intelligence*, pages 373–379. AAAI Press/MIT Press, Menlo Park, CA, 1998.

[2540] Toby Walsh. **Depth-bounded Discrepancy Search**. In Martha E. Pollack, editor, *Proceedings of the Fifteenth International Joint Conference on Artificial Intelligence (IJCAI-97)*, pages 1388–1395. Morgan Kaufmann Publishers, 1997.

[2541] Toby Walsh, editor. *IJCAI 2011, Proceedings of the 22nd International Joint Conference on Artificial Intelligence, Barcelona, Spain, July 16-22, 2011*, 2011. IJCAI/AAAI Press, Menlo Park, CA.

[2542] C. Walshaw and M. Cross. **Mesh Partitioning: A Multilevel Balancing and Refinement Algorithm**. *SIAM Journal on Scientific Computing*, 22(1):63–80, 2000. `doi:10.1137/S1064827598337373`.

[2543] Thomas M. Walski, Donald V. Chase, Dragan A. Savic, Walter Grayman, Stephen Beckwith, and Edmundo Koelle. *Advanced Water Distribution Modeling and Management*. Haestad Methods, Inc., Haestad Press, 1st edition, 2003.

[2544] Chengen Wang, Chengbin Chu, and Jean-Marie Proth. **Heuristic Approaches for n/m/F/ΣCi Scheduling Problems**. *European Journal of Operational Research*, 96(3):636–644, 1997. `doi:10.1016/0377-2217(95)00347-9`.

[2545] Handing Wang, John Doherty, and Yaochu Jin. **Hierarchical surrogate-assisted evolutionary multi-scenario airfoil shape optimization**. In *Proceedings of the 2018 Congress on Evolutionary Computation (CEC 2018)*, pages 1–8, Piscataway, NJ, 2018. IEEE Press.
Keywords: scenario-based.

[2546] Rui Wang, Robin C. Purshouse, and Peter J. Fleming. **Preference-Inspired Coevolutionary Algorithms for Many-Objective Optimization**. *IEEE Transactions on Evolutionary Computation*, 17(4):474–494, 2013.

[2547] Rui Wang, Jian Xiong, Min-fan He, Liang Gao, and Ling Wang. **Multi-objective optimal design of hybrid renewable energy system under multiple scenarios**. *Renewable Energy*, 151:226–237, 2020. `doi:10.1016/j.renene.2019.11.015`.

[2548] Yang Wang, Zhipeng Lü, Fred Glover, and Jin-Kao Hao. **Path relinking for unconstrained binary quadratic programming**. *European Journal of Operational Research*, 223(3):595–604, 2012. `doi:10.1016/j.ejor.2012.07.012`.

[2549] Yang Wang, Zhipeng Lü, Fred Glover, and Jin-Kao Hao. **Probabilistic GRASP-Tabu Search algorithms for the UBQP problem**. *Computers & Operations Research*, 40(12):3100–3107, 2013. `doi:10.1016/j.cor.2011.12.006`.

[2550] Yang Wang, Zhipeng Lü, Fred Glover, and Jin-Kao Hao. **Backbone Guided Tabu Search for Solving the UBQP Problem**. *Journal of Heuristics*, 19(4):679–695, 2013. `doi:10.1007/s10732-011-9164-4`.

[2551] Yanqi Wang, Xingye Dong, Ping Chen, and Youfang Lin. **Iterated local search algorithms for the sequence-dependent setup times flow shop scheduling problem minimizing makespan**. In *Foundations of Intelligent Systems*, pages 329–338. Springer, 2014.

[2552] Matthew O. Ward. **Multivariate data glyphs: Principles and practice**. In Chun-houh Chen, Wolfgang Karl Härdle, and Antony Unwin, editors, *Handbook of Data Visualization*, pages 179–198. Springer, 2008.

[2553] Abigail A. Watson and Joseph R. Kasprzyk. **Incorporating deeply uncertain factors into the many objective search process**. *Environmental Modelling & Software*, 89:159–171, 2017. *Keywords:* scenario-based.

[2554] Jean-Paul Watson, L. Barbulescu, Darrell Whitley, and Adele E. Howe. **Contrasting Structured and Random Permutation Flow-Shop Scheduling Problems: Search Space Topology and Algorithm Performance**. *INFORMS Journal on Computing*, 14(2):98–123, 2002.

[2555] Jean-Paul Watson, J. C. Beck, A. E. Howe, and Darrell Whitley. **Problem Difficulty for Tabu Search in Job-Shop Scheduling**. *Artificial Intelligence*, 143(2):189–217, 2003.

[2556] Jean-Paul Watson, Adele E Howe, and Darrell Whitley. **Deconstructing Nowicki and Smutnicki's i-TSAB tabu search algorithm for the job-shop scheduling problem**. *Computers & Operations Research*, 33(9):2623–2644, 2006.

[2557] Tony Wauters. **10 years of Eternity II–from \$2 million puzzle to challenging optimization problem**. In *International Workshop on Cutting, Packing and Related Topics*, Gent, Belgium, 2017. URL https://lirias.kuleuven.be/1675982?limo=0.

[2558] WCCI. *Proceedings of the First IEEE Conference on Evolutionary Computation, IEEE World Congress on Computational Intelligence, Orlando, Florida, USA, June 27-29, 1994*, Piscataway, NJ, June 1994. IEEE Press.

[2559] Ingo Wegener. **Simulated annealing beats metropolis in combinatorial optimization**. In Luís Caires, Giuseppe F. Italiano, Luís Monteiro, Catuscia Palamidessi, and Moti Yung, editors, *Proceedings of the 32nd International Colloquium on Automata, Languages and Programming, ICALP 2005*, volume 3580 of *Lecture Notes in Computer Science*, pages 589–601, Heidelberg, 2005. Springer.

[2560] Chad Wegley, Muzaffar Eusuff, and Kevin E. Lansey. **Determining Pump Operations Using Particle Swarm Optimization**. In Rollin H. Hotchkiss and Michael Glade, editors, *Building Partnerships, Proceedings of the Joint Conference on Water Resources Engineering and Water Resources Planning and Management*, Minneapolis, USA, 2000.

[2561] Edward J. Wegman. **Hyperdimensional data analysis using parallel coordinates**. *Journal of the American Statistical Association*, 85(411):664–675, 1990.

[2562] Peter Wegner. **Research paradigms in computer science**. In *ICSE'76: Proceedings of the 2nd international conference on Software engineering*, pages 322–330, Oct. 1976.

[2563] Bernard L. Welch. **The significance of the difference between two means when the population variances are unequal**. *Biometrika*, 29(3/4):350–362, 1938.

[2564] Simon Wessing and Manuel López-Ibáñez. **Latin Hypercube Designs with Branching and Nested Factors for Initialization of Automatic Algorithm Configuration**. *Evolutionary Computation*, 27(1):129–145, 2018. doi:10.1162/evco_a_00241.

[2565] Simon Wessing, Nicola Beume, Günther Rudolph, and Boris Naujoks. **Parameter Tuning Boosts Performance of Variation Operators in Multiobjective Optimization**. In Robert Schaefer, Carlos Cotta, Joanna Kolodziej, and Günther Rudolph, editors, *Parallel Problem Solving from Nature, PPSN XI*, volume 6238 of *Lecture Notes in Computer Science*, pages 728–737. Springer, Heidelberg, 2010. doi:10.1007/978-3-642-15844-5_73.

[2566] Dennis Weyland. **A Rigorous Analysis of the Harmony Search Algorithm: How the Research Community can be misled by a "novel" Methodology**. *International Journal of Applied Metaheuristic Computing*, 12(2):50–60, 2010.

[2567] Dennis Weyland. **A critical analysis of the harmony search algorithm: How not to solve Sudoku**. *Operations Research Perspectives*, 2:97–105, 2015.

[2568] Clint R. Whaley. **ATLAS: Automatically Tuned Linear Algebra Software**. In David Padua, editor, *Encyclopedia of Parallel Computing*, pages 95–101. Springer, US, 2011. doi:10.1007/978-0-387-09766-4_244.

[2569] L. While and L. Bradstreet. **Applying the WFG Algorithm to Calculate Incremental Hypervolumes**. In *Proceedings of the 2012 Congress on Evolutionary Computation (CEC 2012)*, pages 1–8, Piscataway, NJ, 2012. IEEE Press.

[2570] L. While, L. Bradstreet, and L. Barone. **A Fast Way of Calculating Exact Hypervolumes**. *IEEE Transactions on Evolutionary Computation*, 16(1):86–95, 2012.

[2571] D. R. White, A. Arcuri, and J. A. Clark. **Evolutionary Improvement of Programs**. *IEEE Transactions on Evolutionary Computation*, 15(4):515–538, 2011.

[2572] T. White, B. Pagurek, and F. Oppacher. **Connection Management Using Adaptive Mobile Agents**. In H. R. Arabnia, editor, *Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'98)*, pages 802–809. CSREA Press, 1998.

[2573] Darrell Whitley, editor. *Proceedings of the Second Workshop on Foundations of Genetic Algorithms*. Morgan Kaufmann Publishers, 1993. ISBN 1-55860-263-1.

[2574] Darrell Whitley, Soraya Rana, John Dzubera, and Keith E. Mathias. **Evaluating Evolutionary Algorithms**. *Artificial Intelligence*, 85:245–296, 1996.

[2575] Darrell Whitley et al., editors. *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2000*. Morgan Kaufmann Publishers, San Francisco, CA, 2000.

[2576] Angelika Wiegele. **Biq Mac Library − A collection of Max-Cut and quadratic 0-1 programming instances of medium size**. Technical report, Institut für Mathematik, Alpen-Adria-Universität Klagenfurt, 2007. URL http://biqmac.aau.at/biqmaclib.pdf.

[2577] Angelika Wiegele. **Biq Mac Library − Binary Quadratic and Max Cut Library**. http://biqmac.aau.at/biqmaclib.html, 2007.

[2578] A. P. Wierzbicki. **The Use of Reference Objectives in Multiobjective Optimisation**. In G. Fandel and T. Gal, editors, *MCDM theory and Application, Proceedings, Hagen*, number 177 in Lecture Notes in Economics and Mathematical Systems, pages 468–486. Springer, Heidelberg, 1980.

[2579] W. Wiesemann and Thomas Stützle. **Iterated Ants: An Experimental Study for the Quadratic Assignment Problem**. In Marco Dorigo et al., editors, *Ant Colony Optimization and Swarm Intelligence, 5th International Workshop, ANTS 2006*, volume 4150 of *Lecture Notes in Computer Science*, pages 179–190. Springer, Heidelberg, 2006.

[2580] R. J. Williams. **Simple Statistical Gradient-Following Algorithms for Connectionist Reinforcement Learning**. *Machine Learning*, 8(3):229–256, 1992.

[2581] David P. Williamson and David B. Shmoys. *The design of approximation algorithms*. Cambridge University Press, 2011.

[2582] Carsten Witt. **Analysis of an Iterated Local Search Algorithm for Vertex Cover in Sparse Random Graphs**. *Theoretical Computer Science*, 425:117–125, 2012.

[2583] Steffen Wolf and Peter Merz. **Iterated Local Search for Minimum Power Symmetric Connectivity in Wireless Networks**. In Carlos Cotta and P. Cowling, editors, *Proceedings of EvoCOP 2009 – 9th European Conference on Evolutionary Computation in Combinatorial Optimization*, volume 5482 of *Lecture Notes in Computer Science*, pages 192–203. Springer, Heidelberg, 2009.

[2584] Roberto Wolfler Calvo. **A New Heuristic for the Traveling Salesman Problem with Time Windows**. *Transportation Science*, 34(1):113–124, 2000. `doi:10.1287/trsc.34.1.113.12284`.

[2585] D. H. Wolpert and W. G. Macready. **No Free Lunch Theorems for Optimization**. *IEEE Transactions on Evolutionary Computation*, 1(1):67–82, 1997.

[2586] H. S. Woo and D. S. Yim. **A Heuristic Algorithm for Mean Flowtime Objective in Flowshop Scheduling**. *Computers & Operations Research*, 25(3):175–182, 1998.

[2587] David L. Woodruff, Ulrike Ritzinger, and Johan Oppen. **Research Note: The Point of Diminishing Returns in Heuristic Search**. *International Journal of Metaheuristics*, 1(3): 222–231, 2011. `doi:10.1504/IJMHeur.2011.041195`.
Keywords: anytime.

[2588] Matthew J. Woodruff, Patrick M. Reed, and Timothy W. Simpson. **Many objective visual analytics: rethinking the design of complex engineered systems**. *Structural and Multidisciplinary Optimization*, 48(1):201–219, 2013. `doi:10.1007/s00158-013-0891-z`.

[2589] Marvin N. Wright and Andreas Ziegler. **ranger: A Fast Implementation of Random Forests for High Dimensional Data in C++ and R**. *Arxiv preprint arXiv:1508.04409 [stat.ML]*, 2015. URL `https://arxiv.org/abs/1508.04409`.

[2590] Marvin N. Wright and Andreas Ziegler. **ranger: A Fast Implementation of Random Forests for High Dimensional Data in C++ and R**. *Journal of Statistical Software*, 77(1):1–17, 2017. `doi:10.18637/jss.v077.i01`.

[2591] Xindong Wu, Xingquan Zhu, Gong-Qing Wu, and Wei Ding. **Data mining with big data**. *IEEE Transactions on Knowledge and Data Engineering*, 26(1):97–107, 2014.

[2592] Yonghui Wu, Mike Schuster, Zhifeng Chen, Quoc V Le, Mohammad Norouzi, Wolfgang Macherey, Maxim Krikun, Yuan Cao, Qin Gao, Klaus Macherey, et al. **Google's neural machine translation system: Bridging the gap between human and machine translation**. *Arxiv preprint arXiv:1609.08144 [cs.CL]*, 2016.

[2593] B. Xin, L. Chen, J. Chen, Hisao Ishibuchi, K. Hirota, and B. Liu. **Interactive Multiobjective Optimization: A Review of the State-of-the-Art**. *IEEE Access*, 6:41256–41279, 2018. `doi:10.1109/ACCESS.2018.2856832`.

[2594] Eric P. Xing and Tony Jebara, editors. *Proceedings of the 31st International Conference on Machine Learning, ICML 2014, Beijing, China, 21-26 June 2014*, volume 32, 2014. URL `http://jmlr.org/proceedings/papers/v32/`.

[2595] Hongyun Xu, Zhipeng Lü, and T. C. E. Cheng. **Iterated Local Search for Single-machine Scheduling with Sequence-dependent Setup Times to Minimize Total Weighted Tardiness**. *Journal of Scheduling*, 17(3):271–287, 2014.

[2596] Jiefeng Xu, Steve Y. Chiu, and Fred Glover. **Fine-tuning a tabu search algorithm with statistical tests**. *International Transactions in Operational Research*, 5(3):233–244, 1998. `doi:10.1016/S0969-6016(98)00017-3`.

[2597] Lin Xu, Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **SATzilla: Portfolio-based Algorithm Selection for SAT**. *Journal of Artificial Intelligence Research*, 32:565–606, June 2008. `doi:10.1613/jair.2490`.

[2598] Lin Xu, Holger H. Hoos, and Kevin Leyton-Brown. **Hydra: Automatically Configuring Algorithms for Portfolio-Based Selection**. In Maria Fox and David Poole, editors, *Proceedings of the AAAI Conference on Artificial Intelligence*. AAAI Press, 2010.
Keywords: automated algorithm design; portfolio-based algorithm selection; automated algorithm configuration; SAT; stochastic local search.

[2599] Lin Xu, Frank Hutter, Holger H. Hoos, and Kevin Leyton-Brown. **Hydra-MIP: Automated Algorithm Configuration and Selection for Mixed Integer Programming**. Technical Report TR-2011-01, Department of Computer Science, University of British Columbia, Canada, 2011. URL `http://www.cs.ubc.ca/cgi-bin/tr/2011/TR-2011-01.pdf`.

[2600] Lin Xu, A. R. KhudaBukhsh, Holger H. Hoos, and Kevin Leyton-Brown. **Quantifying the similarity of algorithm configurations**. In Paola Festa, Meinolf Sellmann, and Joaquin Vanschoren, editors, *Learning and Intelligent Optimization, 10th International Conference, LION 10*, volume 10079 of *Lecture Notes in Computer Science*, pages 203–217, Cham, Switzerland, 2016. Springer.

[2601] Mutsunori Yagiura, M. Kishida, and Toshihide Ibaraki. **A 3-Flip Neighborhood Local Search for the Set Covering Problem**. *European Journal of Operational Research*, 172(2):472–499, 2006.

[2602] Kaifeng Yang, Michael T. M. Emmerich, André H. Deutz, and Thomas Bäck. **Multi-Objective Bayesian Global Optimization using Expected Hypervolume Improvement Gradient**. *Swarm and Evolutionary Computation*, 44:945–956, Feb. 2019. `doi:10.1016/j.swevo.2018.10.007`.
Keywords: Bayesian Optimisation with preferences.

[2603] Qiang Yang and Michael Wooldridge, editors. *IJCAI 2015, Proceedings of the 24th International Joint Conference on Artificial Intelligence, Buenos Aires, Argentina, July 25-31, 2015*, 2015. IJCAI/AAAI Press, Menlo Park, CA.

[2604] S. Yang, M. Li, X. Liu, and J. Zheng. **A Grid-Based Evolutionary Algorithm for Many-Objective Optimization**. *IEEE Transactions on Evolutionary Computation*, 17(5):721–736, 2013.

[2605] Y. Yang, S. Kreipl, and M. L. Pinedo. **Heuristics for Minimizing Total Weighted Tardiness in Flexible Flow Shops**. *Journal of Scheduling*, 3(2):89–108, 2000.

[2606] Xin Yao. *Evolutionary Computation: Theory and Applications*. World Scientific Singapore, River Edge, NJ, 1999. ISBN 9810223064.
Keywords: Evolutionary programming (Computer science); Neural networks (Computer science); Evolutionary computation.

[2607] Xin Yao et al., editors. *Proceedings of PPSN-VIII, Eighth International Conference on Parallel Problem Solving from Nature, Birmingham, UK*, volume 3242 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2004.

[2608] A. Yarimcam, S. Asta, Ender Özcan, and Andrew J. Parkes. **Heuristic Generation via Parameter Tuning for Online Bin Packing**. In Plamen Angelov et al., editors, *Evolving and Autonomous Learning Systems (EALS), 2014 IEEE Symposium on*, pages 102–108. IEEE, 2014. doi:10.1109/EALS.2014.7009510.
Keywords: irace.

[2609] Carlos Yasojima, Tiago Araújo, Bianchi Meiguins, Nelson Neto, and Jefferson Morais. **A Comparison of Genetic Algorithms and Particle Swarm Optimization to Estimate Cluster-Based Kriging Parameters**. In Paulo Moura Oliveira, Paulo Novais, and Luís Paulo Reis, editors, *Progress in Artificial Intelligence*, pages 750–761. Springer International Publishing, Cham, Switzerland, 2019. ISBN 978-3-030-30241-2.

[2610] Gürcan Yavuz, Doğan Aydın, and Thomas Stützle. **Self-adaptive Search Equation-based Artificial Bee Colony Algorithm on the CEC 2014 Benchmark Functions**. In *Proceedings of the 2016 Congress on Evolutionary Computation (CEC 2016)*, pages 1173–1180. IEEE Press, Piscataway, NJ, 2016. ISBN 978-1-5090-0623-6.

[2611] Cliff Young, David S. Johnson, David R. Karger, and Michael D. Smith. **Near-optimal Intraprocedural Branch Alignment**. In Marina C. Chen, Ron K. Cytron, and A. Michael Berman, editors, *Proceedings of the ACM SIGPLAN'97 Conference on Programming Language Design and Implementation (PLDI), Las Vegas, Nevada*, pages 183–193. ACM Press, 1997.

[2612] G. Yu, R. S. Powell, and M. J. H. Sterling. **Optimized Pump Scheduling in Water Distribution Systems**. *Journal of Optimization Theory and Applications*, 83(3):463–488, 1994.

[2613] Hao Yu. *Rmpi: Interface (Wrapper) to MPI (Message-Passing Interface)*, 2010. URL http://cran.r-project.org/package=Rmpi. R package version 0.5-8.

[2614] Vincent F. Yu and Shih-Wei Lin. **Iterated Greedy Heuristic for the Time-dependent Prize-collecting Arc Routing Problem**. *Computers and Industrial Engineering*, 90:54–66, 2015.

[2615] Bo Yuan and Marcus Gallagher. **Statistical Racing Techniques for Improved Empirical Evaluation of Evolutionary Algorithms**. In Xin Yao et al., editors, *Parallel Problem Solving from Nature – PPSN VIII*, volume 3242 of *Lecture Notes in Computer Science*, pages 172–181. Springer, Heidelberg, 2004.

[2616] Zhi Yuan, Armin Fügenschuh, Henning Homfeld, Prasanna Balaprakash, Thomas Stützle, and Michael Schoch. **Iterated Greedy Algorithms for a Real-World Cyclic Train Scheduling Problem**. In María J. Blesa, Christian Blum, Carlos Cotta, Antonio J. Fernández, José E. Gallardo, Andrea Roli, and M. Sampels, editors, *Hybrid Metaheuristics*, volume 5296 of *Lecture Notes in Computer Science*, pages 102–116. Springer, Heidelberg, 2008.

[2617] Zhi Yuan, Marco A. Montes de Oca, Thomas Stützle, and Mauro Birattari. **Continuous Optimization Algorithms for Tuning Real and Integer Algorithm Parameters of Swarm Intelligence Algorithms**. *Swarm Intelligence*, 6(1):49–75, 2012.

[2618] Zhi Yuan, Marco A. Montes de Oca, Thomas Stützle, Hoong Chuin Lau, and Mauro Birattari. **An Analysis of Post-selection in Automatic Configuration**. In Christian Blum and Enrique Alba, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2013*, pages 1557–1564. ACM Press, New York, NY, 2013. ISBN 978-1-4503-1963-8.

[2619] Lin Yuefeng, Wenli Du, and Thomas Stützle. **Three L-SHADE Based Algorithms on Mixed-variables Optimization Problems**. In *Proceedings of the 2017 Congress on Evolutionary Computation (CEC 2017)*, pages 2274–2281. IEEE Press, Piscataway, NJ, 2017.

[2620] Martin Zaefferer, J. Stork, and Thomas Bartz-Beielstein. **Distance Measures for Permutations in Combinatorial Efficient Global Optimization**. In Thomas Bartz-Beielstein, Jürgen Branke, Bogdan Filipič, and Jim Smith, editors, *PPSN 2014*, volume 8672 of *Lecture Notes in Computer Science*, pages 373–383. Springer, Heidelberg, 2014. `doi:10.1007/978-3-319-10762-2_37`.
Keywords: CEGO, Bayesian optimization.

[2621] Martin Zaefferer, J. Stork, M. Friese, A. Fischbach, Boris Naujoks, and Thomas Bartz-Beielstein. **Efficient Global Optimization for Combinatorial Problems**. In Christian Igel and Dirk V. Arnold, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2014*, pages 871–878. ACM Press, New York, NY, 2014. `doi:10.1145/2576768.2598282`.
Keywords: CEGO, Bayesian optimization.
Annotation: Proposed CEGO algorithm.

[2622] Christine Zarges and Sébastien Verel, editors. *Evolutionary Computation in Combinatorial Optimization – 21st European Conference, EvoCOP 2021, Held as Part of EvoStar 2021, Virtual Event, April 7-9, 2021, Proceedings*, volume 12692 of *Lecture Notes in Computer Science*. Springer, Cham, Switzerland, 2021.

[2623] Emmanuel Zarpas. **Benchmarking SAT solvers for bounded model checking**. In Fahiem Bacchus and Toby Walsh, editors, *International Conference on Theory and Applications of Satisfiability Testing*, volume 3569, pages 340–354, 2005.

[2624] Q. Zeng and Z. Yang. **Integrating Simulation and Optimization to Schedule Loading Operations in Container Terminals**. *Computers & Operations Research*, 36(6):1935–1944, 2009. `doi:10.1016/j.cor.2008.06.010`.

[2625] Jingqiao Zhang and Arthur C. Sanderson. **JADE: adaptive differential evolution with optional external archive**. *IEEE Transactions on Evolutionary Computation*, 13(5):945–958, 2009. `doi:10.1109/TEVC.2009.2014613`.

[2626] Qingfu Zhang. **MOEA/D homepage**. `https://dces.essex.ac.uk/staff/zhang/webofmoead.htm`, 2007.

[2627] Qingfu Zhang and Hui Li. **MOEA/D: A Multiobjective Evolutionary Algorithm Based on Decomposition**. *IEEE Transactions on Evolutionary Computation*, 11(6):712–731, 2007. `doi:10.1109/TEVC.2007.892759`.
Annotation: Introduces penalty-based boundary intersection (PBI) function.

[2628] Qingfu Zhang and Ponnuthurai N. Suganthan. **Special Session on Performance Assessment of Multiobjective Optimization Algorithms/CEC'09 MOEA Competition**. `http://dces.essex.ac.uk/staff/qzhang/moeacompetition09.htm`, 2009.

[2629] Qingfu Zhang, Wudong Liu, and Hui Li. **The Performance of a New Version of MOEA/D on CEC09 Unconstrained MOP Test Instances**. In *Proceedings of the 2009 Congress on Evolutionary Computation (CEC 2009)*, pages 203–208, Piscataway, NJ, 2009. IEEE Press.

[2630] Tiantian Zhang, Michael Georgiopoulos, and Georgios C. Anagnostopoulos. **S-Race: A Multi-Objective Racing Algorithm**. In Christian Blum and Enrique Alba, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2013*, pages 1565–1572. ACM Press, New York, NY, 2013. ISBN 978-1-4503-1963-8.

[2631] Tiantian Zhang, Michael Georgiopoulos, and Georgios C. Anagnostopoulos. **SPRINT: Multi-Objective Model Racing**. In Sara Silva and Anna I. Esparcia-Alcázar, editors, *Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2015*, pages 1383–1390. ACM Press, New York, NY, 2015. `doi:10.1145/2739480.2754791`.
Keywords: model selection, multi-objective optimization, racing algorithm, sequential probability ratio test.

[2632] Tiantian Zhang, Michael Georgiopoulos, and Georgios C. Anagnostopoulos. **Multi-Objective Model Selection via Racing**. *IEEE Transactions on Cybernetics*, 46(8):1863–1876, 2016.

[2633] Lu Zhen and Dao-Fang Chang. **A bi-objective model for robust berth allocation scheduling**. *Computers and Industrial Engineering*, 63(1):262–273, 2012.

[2634] A. Zhou, Qingfu Zhang, and Yaochu Jin. **Approximating the set of Pareto-optimal solutions in both the decision and objective spaces by an estimation of distribution algorithm**. *IEEE Transactions on Evolutionary Computation*, 13(5):1167–1189, 2009. doi:10. 1109/TEVC.2009.2021467.
Keywords: multi-modal, IGDX.

[2635] Shlomo Zilberstein. **Using Anytime Algorithms in Intelligent Systems**. *AI Magazine*, 17 (3):73–83, 1996. doi:10.1609/aimag.v17i3.1232.
Keywords: performance profiles.

[2636] Shlomo Zilberstein, J. Koehler, and S. Koenig, editors. *Proceedings of the Fourteenth International Conference on Automated Planning and Scheduling (ICAPS 2004)*. AAAI Press/MIT Press, Menlo Park, CA, 2004.

[2637] Stanley Zionts and Jyrki Wallenius. **An interactive multiple objective linear programming method for a class of underlying nonlinear utility functions**. *Management Science*, 29 (5):519–529, 1983.

[2638] Eckart Zitzler. *Evolutionary Algorithms for Multiobjective Optimization: Methods and Applications*. PhD thesis, ETH Zürich, Switzerland, 1999.

[2639] Eckart Zitzler and Simon Künzli. **Indicator-based Selection in Multiobjective Search**. In Xin Yao et al., editors, *Parallel Problem Solving from Nature – PPSN VIII*, volume 3242 of *Lecture Notes in Computer Science*, pages 832–842. Springer, Heidelberg, 2004.
Keywords: IBEA.

[2640] Eckart Zitzler and Lothar Thiele. **Multiobjective Optimization Using Evolutionary Algorithms - A Comparative Case Study**. In Agoston E. Eiben, Thomas Bäck, Marc Schoenauer, and Hans-Paul Schwefel, editors, *Parallel Problem Solving from Nature – PPSN V*, volume 1498 of *Lecture Notes in Computer Science*, pages 292–301, Heidelberg, 1998. Springer. doi:10.1007/BFb0056872.
Annotation: Introduces hypervolume measure.

[2641] Eckart Zitzler and Lothar Thiele. **Multiobjective Evolutionary Algorithms: A Comparative Case Study and the Strength Pareto Evolutionary Algorithm**. *IEEE Transactions on Evolutionary Computation*, 3(4):257–271, 1999.
Annotation: Introduces SPEA, http://www.tik.ee.ethz.ch/sop/publicationListFiles/zt1999a.pdf.

[2642] Eckart Zitzler, Lothar Thiele, and Kalyanmoy Deb. **Comparison of Multiobjective Evolutionary Algorithms: Empirical Results**. *Evolutionary Computation*, 8(2):173–195, 2000. doi:10.1162/106365600568202.
Keywords: ZDT benchmark.

[2643] Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos A. Coello Coello, and David Corne, editors. *Evolutionary Multi-Criterion Optimization, First International Conference, EMO 2001, Zurich, Switzerland, March 7-9, 2001, Proceedings*, volume 1993 of *Lecture Notes in Computer Science*. Springer, Heidelberg, 2001.

[2644] Eckart Zitzler, Marco Laumanns, and Lothar Thiele. **SPEA2: Improving the Strength Pareto Evolutionary Algorithm**. Technical Report 103, Computer Engineering and Networks Laboratory (TIK), Swiss Federal Institute of Technology (ETH), Zürich, Switzerland, 2001.

[2645] Eckart Zitzler, Marco Laumanns, and Lothar Thiele. **SPEA2: Improving the Strength Pareto Evolutionary Algorithm for Multiobjective Optimization**. In K. C. Giannakoglou, D. T. Tsahalis, J. Periaux, K. D. Papaliliou, and T. Fogarty, editors, *Evolutionary Methods for Design, Optimisation and Control*, pages 95–100. CIMNE, Barcelona, Spain, 2002.

[2646] Eckart Zitzler, Lothar Thiele, Marco Laumanns, Carlos M. Fonseca, and Viviane Grunert da Fonseca. **Performance Assessment of Multiobjective Optimizers: an Analysis and Review**. *IEEE Transactions on Evolutionary Computation*, 7(2):117–132, 2003. `doi:10.1109/TEVC.2003.810758`.
Annotation: Proposed the combination of quality indicators and epsilon-indicator.

[2647] Eckart Zitzler, Dimo Brockhoff, and Lothar Thiele. **The Hypervolume Indicator Revisited: On the Design of Pareto-compliant Indicators Via Weighted Integration**. In S. Obayashi et al., editors, *Evolutionary Multi-criterion Optimization, EMO 2007*, volume 4403 of *Lecture Notes in Computer Science*, pages 862–876. Springer, Heidelberg, 2007. `doi:10.1007/978-3-540-70928-2_64`. Supplementary material: `http://www.tik.ee.ethz.ch/sop/download/supplementary/weightedHypervolume/`.

[2648] Eckart Zitzler, Joshua D. Knowles, and Lothar Thiele. **Quality Assessment of Pareto Set Approximations**. In Jürgen Branke, Kalyanmoy Deb, Kaisa Miettinen, and Roman Słowiński, editors, *Multiobjective Optimization: Interactive and Evolutionary Approaches*, volume 5252 of *Lecture Notes in Computer Science*, pages 373–404. Springer, Heidelberg, 2008. `doi:10.1109/TEVC.2009.2016569`.

[2649] Eckart Zitzler, Lothar Thiele, and Johannes Bader. **SPAM: Set Preference Algorithm for Multiobjective Optimization**. In Günther Rudolph et al., editors, *Parallel Problem Solving from Nature, PPSN X*, volume 5199 of *Lecture Notes in Computer Science*, pages 847–858. Springer, Heidelberg, 2008.

[2650] Eckart Zitzler, Lothar Thiele, and Johannes Bader. **On Set-Based Multiobjective Optimization**. *IEEE Transactions on Evolutionary Computation*, 14(1):58–79, 2010. `doi:10.1109/TEVC.2009.2016569`.
Keywords: Performance assessment; Preference articulation; refinement; Set Partitioning; Set-preference.
Annotation: Proposed SPAM and explores combination of quality indicators.

[2651] M. Zlochin, Mauro Birattari, N. Meuleau, and Marco Dorigo. **Model-Based Search for Combinatorial Optimization: A Critical Survey**. *Annals of Operations Research*, 131 (1–4):373–395, 2004.

[2652] Andrejs Zujevs and Janis Eiduks. **New decision maker model for multiobjective optimization interactive methods**. In *17th International Conference on Information and Software Technologies, Kaunas, Lithuania*, pages 51–58, 2011.
Keywords: Machine Decision Maker.
Annotation: `https://isd.ktu.lt/it2011/material/menu/proceedings.html`.