# Oliver Schutze

List of Publications by Year
in descending order

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| 97 | 2,342 | 279778 | 223791 |
|---|---|---|---|
| papers | citations | 23 h-index | 46 g-index |

| 102 | 102 | 102 | 1425 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Using the Averaged Hausdorff Distance as a Performance Measure in Evolutionary Multiobjective Optimization. IEEE Transactions on Evolutionary Computation, 2012, 16, 504-522. | 10.0 | 508 |
| 2 | On the Influence of the Number of Objectives on the Hardness of a Multiobjective Optimization Problem. IEEE Transactions on Evolutionary Computation, 2011, 15, 444-455. | 10.0 | 191 |
| 3 | HCS: A New Local Search Strategy for Memetic Multiobjective Evolutionary Algorithms. IEEE Transactions on Evolutionary Computation, 2010, 14, 112-132. | 10.0 | 163 |
| 4 | Computing the Set of Epsilon-Efficient Solutions in Multiobjective Space Mission Design. Journal of Aerospace Computing, Information, and Communication, 2011, 8, 53-70. | 0.8 | 63 |
| 5 | Simple cell mapping method for multi-objective optimal feedback control design. International Journal of Dynamics and Control, 2013, 1, 231-238. | 2.5 | 62 |
| 6 | Locating all the zeros of an analytic function in one complex variable. Journal of Computational and Applied Mathematics, 2002, 138, 325-333. | 2.0 | 59 |
| 7 | Computing Gap Free Pareto Front Approximations with Stochastic Search Algorithms. Evolutionary Computation, 2010, 18, 65-96. | 3.0 | 57 |
| 8 | Convergence of stochastic search algorithms to finite size pareto set approximations. Journal of Global Optimization, 2008, 41, 559-577. | 1.8 | 54 |
| 9 | Designing optimal low-thrust gravity-assist trajectories using space pruning and a multi-objective approach. Engineering Optimization, 2009, 41, 155-181. | 2.6 | 53 |
| 10 | Parallel Cell Mapping Method for Global Analysis of High-Dimensional Nonlinear Dynamical Systems1. Journal of Applied Mechanics, Transactions ASME, 2015, 82, . | 2.2 | 50 |
| 11 | A neural network-evolutionary computational framework for remaining useful life estimation of mechanical systems. Neural Networks, 2019, 116, 178-187. | 5.9 | 42 |
| 12 | The directed search method for multi-objective memetic algorithms. Computational Optimization and Applications, 2016, 63, 305-332. | 1.6 | 41 |
| 13 | Covering Pareto Sets by Multilevel Evolutionary Subdivision Techniques. Lecture Notes in Computer Science, 2003, , 118-132. | 1.3 | 41 |
| 14 | Hybridizing evolutionary strategies with continuation methods for solving multi-objective problems. Engineering Optimization, 2008, 40, 383-402. | 2.6 | 40 |
| 15 | Optimal averaged Hausdorff archives for bi-objective problems: theoretical and numerical results. Computational Optimization and Applications, 2016, 64, 589-618. | 1.6 | 40 |
| 16 | Optimizing the location of ambulances in Tijuana, Mexico. Computers in Biology and Medicine, 2017, 80, 107-115. | 7.0 | 40 |
| 17 | Multi-objective optimal design of feedback controls for dynamical systems with hybrid simple cell mapping algorithm. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 1465-1473. | 3.3 | 35 |
| 18 | Pareto Tracer: a predictorâ€“corrector method for multi-objective optimization problems. Engineering Optimization, 2018, 50, 516-536. | 2.6 | 33 |

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|---|---|---|---|
| 19 | A benchmark for equality constrained multi-objective optimization. Swarm and Evolutionary Computation, 2020, 52, 100619. | 8.1 | 28 |
| 20 | Multi-objective and many objective design of plastic injection molding process. International Journal of Advanced Manufacturing Technology, 2019, 102, 3165-3180. | 3.0 | 27 |
| 21 | Finding zeros by multilevel subdivision techniques. IMA Journal of Numerical Analysis, 2002, 22, 167-185. | 2.9 | 25 |
| 22 | A multi-objective approach to the design of low thrust space trajectories using optimal control. Celestial Mechanics and Dynamical Astronomy, 2009, 105, 33-59. | 1.4 | 24 |
| 23 | Handling high-dimensional problems with multi-objective continuation methods via successive approximation of the tangent space. Engineering Optimization, 2012, 44, 1117-1146. | 2.6 | 24 |
| 24 | The Averaged Hausdorff Distances in Multi-Objective Optimization: A Review. Mathematics, 2019, 7, 894. | 2.2 | 21 |
| 25 | Cell Mapping Techniques for Exploratory Landscape Analysis. Advances in Intelligent Systems and Computing, 2014, , 115-131. | 0.6 | 21 |
| 26 | Set Oriented Methods for the Numerical Treatment of Multiobjective Optimization Problems. Studies in Computational Intelligence, 2013, , 187-219. | 0.9 | 21 |
| 27 | Multi-objective optimal design of sliding mode control with parallel simple cell mapping method. JVC/Journal of Vibration and Control, 2017, 23, 46-54. | 2.6 | 20 |
| 28 | Gradient subspace approximation: a direct search method for memetic computing. Soft Computing, 2017, 21, 6331-6350. | 3.6 | 20 |
| 29 | RDS-NSGA-II: a memetic algorithm for reference point based multi-objective optimization. Engineering Optimization, 2017, 49, 828-845. | 2.6 | 20 |
| 30 | Pareto Explorer: a global/local exploration tool for many-objective optimization problems. Engineering Optimization, 2020, 52, 832-855. | 2.6 | 20 |
| 31 | A New Hybrid Evolutionary Algorithm for the Treatment of Equality Constrained MOPs. Mathematics, 2020, 8, 7. | 2.2 | 20 |
| 32 | Convergence of stochastic search algorithms to gap-free pareto front approximations. , 2007, , . | | 19 |
| 33 | New analysis of the optimization of electromagnetic shielding properties using conducting polymers and a multiâ€objective approach. Polymers for Advanced Technologies, 2008, 19, 762-769. | 3.2 | 16 |
| 34 | Finding zeros of nonlinear functions using the hybrid parallel cell mapping method. Communications in Nonlinear Science and Numerical Simulation, 2016, 34, 23-37. | 3.3 | 16 |
| 35 | The Set-Based Hypervolume Newton Method for Bi-Objective Optimization. IEEE Transactions on Cybernetics, 2020, 50, 2186-2196. | 9.5 | 16 |
| 36 | Evenly Spaced Pareto Front Approximations for Tricriteria Problems Based on Triangulation. Lecture Notes in Computer Science, 2013, , 443-458. | 1.3 | 16 |

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|---|---|---|---|
| 37 | A (p,q)-Averaged Hausdorff Distance for Arbitrary Measurable Sets. Mathematical and Computational Applications, 2018, 23, 51. | 1.3 | 15 |
| 38 | Local Search is Underused in Genetic Programming. Genetic and Evolutionary Computation, 2018, , 119-137. | 1.0 | 15 |
| 39 | Automatic model selection for fully connected neural networks. International Journal of Dynamics and Control, 2020, 8, 1063-1079. | 2.5 | 15 |
| 40 | Pareto Explorer for Finding the Knee for Many Objective Optimization Problems. Mathematics, 2020, 8, 1651. | 2.2 | 15 |
| 41 | An Analysis of the Effect of Multiple Layers in the Multi-Objective Design of Conducting Polymer Composites. Materials and Manufacturing Processes, 2009, 24, 350-357. | 4.7 | 14 |
| 42 | A Hybrid Algorithm for the Simple Cell Mapping Method in Multi-objective Optimization. Advances in Intelligent Systems and Computing, 2013, , 207-223. | 0.6 | 14 |
| 43 | Parallel simple cell mapping for multi-objective optimization. Engineering Optimization, 2016, 48, 1845-1868. | 2.6 | 14 |
| 44 | The hypervolume based directed search method for multi-objective optimization problems. Journal of Heuristics, 2016, 22, 273-300. | 1.4 | 14 |
| 45 | A Memetic PSO Algorithm for Scalar Optimization Problems. , 2007, , . | | 13 |
| 46 | Direct Calibration by Fitting of Cuboids to a Single Image Using Differential Evolution. International Journal of Computer Vision, 2009, 81, 119-127. | 15.6 | 13 |
| 47 | The Gradient Free Directed Search Method as Local Search within Multi-Objective Evolutionary Algorithms. Advances in Intelligent Systems and Computing, 2013, , 153-168. | 0.6 | 13 |
| 48 | A scalar optimization approach for averaged Hausdorff approximations of the Pareto front. Engineering Optimization, 2016, 48, 1593-1617. | 2.6 | 12 |
| 49 | On the efficient computation and use of multi-objective descent directions within constrained MOEAs. Swarm and Evolutionary Computation, 2020, 52, 100617. | 8.1 | 12 |
| 50 | Evenly spaced Pareto fronts of quad-objective problems using PSA partitioning technique. , 2013, , . | | 11 |
| 51 | A hybrid method of evolutionary algorithm and simple cell mapping for multi-objective optimization problems. International Journal of Dynamics and Control, 2017, 5, 570-582. | 2.5 | 11 |
| 52 | Approximating the Îµ-Efficient Set of an MOP with Stochastic Search Algorithms. Lecture Notes in Computer Science, 2007, , 128-138. | 1.3 | 11 |
| 53 | PSA â€“ A New Scalable Space Partition Based Selection Algorithm for MOEAs. Advances in Intelligent Systems and Computing, 2013, , 137-151. | 0.6 | 11 |
| 54 | Comparison of a genetic programming approach with ANFIS for power amplifier behavioral modeling and FPGA implementation. Soft Computing, 2019, 23, 2463-2481. | 3.6 | 10 |

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|---|---|---|---|
| 55 | An Aspiration Set EMOA Based on Averaged Hausdorff Distances. Lecture Notes in Computer Science, 2014, , 153-156. | 1.3 | 10 |
| 56 | Computing the Set of Approximate Solutions of a Multi-objective Optimization Problem by Means of Cell Mapping Techniques. Advances in Intelligent Systems and Computing, 2013, , 171-188. | 0.6 | 9 |
| 57 | A multi-objective optimal PID control for a nonlinear system with time delay. Theoretical and Applied Mechanics Letters, 2013, 3, 063006. | 2.8 | 8 |
| 58 | Towards fast approximations for the hypervolume indicator for multi-objective optimization problems by Genetic Programming. Applied Soft Computing Journal, 2022, 125, 109103. | 7.2 | 8 |
| 59 | A predictor corrector method for the computation of boundary points of a multi-objective optimization problem. , 2010, , . | | 7 |
| 60 | A new gradient free local search mechanism for constrained multi-objective optimization problems. Swarm and Evolutionary Computation, 2021, 67, 100938. | 8.1 | 7 |
| 61 | A painless gradient-assisted multi-objective memetic mechanism for solving continuous bi-objective optimization problems. , 2010, , . | | 5 |
| 62 | Global Multi-objective Optimization by Means of Cell Mapping Techniques. Studies in Computational Intelligence, 2017, , 25-56. | 0.9 | 5 |
| 63 | On the choice of neighborhood sampling to build effective search operators for constrained MOPs. Memetic Computing, 2019, 11, 155-173. | 4.0 | 5 |
| 64 | A New Predictor Corrector Variant for Unconstrained Bi-objective Optimization Problems. Advances in Intelligent Systems and Computing, 2014, , 165-179. | 0.6 | 5 |
| 65 | Variation Rate to Maintain Diversity in Decision Space within Multi-Objective Evolutionary Algorithms. Mathematical and Computational Applications, 2019, 24, 82. | 1.3 | 4 |
| 66 | Enhanced directed search: a continuation method for mixed-integer multi-objective optimization problems. Annals of Operations Research, 2019, 279, 343-365. | 4.1 | 4 |
| 67 | Non-Epsilon Dominated Evolutionary Algorithm for the Set of Approximate Solutions. Mathematical and Computational Applications, 2020, 25, 3. | 1.3 | 4 |
| 68 | Parallel Cell Mapping for Unconstrained Multi-Objective Optimization Problems. Advances in Intelligent Systems and Computing, 2014, , 133-146. | 0.6 | 4 |
| 69 | An Approach for the Local Exploration of Discrete Many Objective Optimization Problems. Lecture Notes in Computer Science, 2017, , 135-150. | 1.3 | 4 |
| 70 | Fitness function evaluation for the detection of multiple ellipses using a genetic algorithm. , 2011, , . | | 3 |
| 71 | Homogene Approximation der Paretofront bei mehrkriteriellen Kontrollproblemen. Automatisierungstechnik, 2012, 60, 612-621. | 0.8 | 3 |
| 72 | Many-Objective Optimal and Robust Design of Proportional-Integral-Derivative Controls With a State Observer. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, . | 1.6 | 3 |

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|---|---|---|---|
| 73 | The Pareto Tracer for General Inequality Constrained Multi-Objective Optimization Problems. Mathematical and Computational Applications, 2020, 25, 80. | 1.3 | 3 |
| 74 | PSA Based Multi Objective Evolutionary Algorithms. Studies in Computational Intelligence, 2014, , 233-259. | 0.9 | 3 |
| 75 | Computing and Selecting Îµ-Efficient Solutions of {0, 1}-Knapsack Problems. Lecture Notes in Economics and Mathematical Systems, 2010, , 379-389. | 0.3 | 3 |
| 76 | On the interplay of generator and archiver within archive based multiobjective evolutionary algorithms. , 2010, , . | | 2 |
| 77 | Solving the ambulance location problem in Tijuana-Mexico using a continuous location model. , 2015, , . | | 2 |
| 78 | Numerical Computation of Lightly Multi-Objective Robust Optimal Solutions by Means of Generalized Cell Mapping. Mathematics, 2020, 8, 1959. | 2.2 | 2 |
| 79 | A Set Based Newton Method for the Averaged Hausdorff Distance for Multi-Objective Reference Set Problems. Mathematics, 2020, 8, 1822. | 2.2 | 2 |
| 80 | Dataset on a Benchmark for Equality Constrained Multi-objective Optimization. Data in Brief, 2020, 29, 105130. | 1.0 | 2 |
| 81 | A Memetic Variant of R-NSGA-II for Reference Point Problems. Advances in Intelligent Systems and Computing, 2014, , 247-260. | 0.6 | 2 |
| 82 | Multi-objective Optimal Design of Nonlinear Controls. Studies in Computational Intelligence, 2017, , 205-222. | 0.9 | 2 |
| 83 | The Gradient Subspace Approximation and Its Application to Bi-objective Optimization Problems. Studies in Systems, Decision and Control, 2020, , 355-390. | 1.0 | 2 |
| 84 | Directed search method for indicator-based multi-objective evolutionary algorithms. , 2013, , . | | 1 |
| 85 | Multi-Objective Optimal Design and Validation of Sliding Mode Control. , 2015, , . | | 1 |
| 86 | A local exploration tool for linear many objective optimization problems. , 2016, , . | | 1 |
| 87 | An effective mutation operator to deal with multi-objective constrained problems: SPM. , 2016, , . | | 1 |
| 88 | On the Closest Averaged Hausdorff Archive for a Circularly Convex Pareto Front. Lecture Notes in Computer Science, 2016, , 42-55. | 1.3 | 1 |
| 89 | The Directed Search Method for Unconstrained Parameter Dependent Multi-objective Optimization Problems. Studies in Computational Intelligence, 2017, , 281-330. | 0.9 | 1 |
| 90 | A hybrid evolutionary algorithm and cell mapping method for multi-objective optimization problems. , 2017, , . | | 1 |

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|---|---|---|---|
| 91 | A New Hybrid Metaheuristic for Equality Constrained Bi-objective Optimization Problems. Lecture Notes in Computer Science, 2019, , 53-65. | 1.3 | 1 |
| 92 | Variation Rate: An Alternative to Maintain Diversity in Decision Space for Multi-objective Evolutionary Algorithms. Lecture Notes in Computer Science, 2019, , 203-215. | 1.3 | 1 |
| 93 | A Bounded Archiver for Hausdorff Approximations of the Pareto Front for Multi-Objective Evolutionary Algorithms. Mathematical and Computational Applications, 2022, 27, 48. | 1.3 | 1 |
| 94 | Computing approximate solutions of scalar optimization problems and applications in space mission design. , 2010, , . | | 0 |
| 95 | Multilevel Subdivision Techniques for Scalar Optimization Problems. , 2012, , 221-252. | | 0 |
| 96 | Toward a New Family of Hybrid Evolutionary Algorithms. Lecture Notes in Computer Science, 2019, , 78-90. | 1.3 | 0 |
| 97 | Using gradient-free local search within MOEAs for the treatment of constrained MOPs. , 2020, , . | | 0 |