

Walter J Gutjahr

List of Publications by Year in descending order

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90
papers

4,451
citations

136740

32
h-index

106150

65
g-index

92
all docs

92
docs citations

92
times ranked

3078
citing authors

#	ARTICLE	IF	CITATIONS
1	A survey on metaheuristics for stochastic combinatorial optimization. <i>Natural Computing</i> , 2009, 8, 239-287.	1.8	543
2	Pareto Ant Colony Optimization: A Metaheuristic Approach to Multiobjective Portfolio Selection. <i>Annals of Operations Research</i> , 2004, 131, 79-99.	2.6	358
3	A Graph-based Ant System and its convergence. <i>Future Generation Computer Systems</i> , 2000, 16, 873-888.	4.9	316
4	ACO algorithms with guaranteed convergence to the optimal solution. <i>Information Processing Letters</i> , 2002, 82, 145-153.	0.4	234
5	Multicriteria optimization in humanitarian aid. <i>European Journal of Operational Research</i> , 2016, 252, 351-366.	3.5	187
6	A math-heuristic for the warehouse location-routing problem in disaster relief. <i>Computers and Operations Research</i> , 2014, 42, 25-39.	2.4	175
7	Pareto ant colony optimization with ILP preprocessing in multiobjective project portfolio selection. <i>European Journal of Operational Research</i> , 2006, 171, 830-841.	3.5	141
8	An ACO algorithm for a dynamic regional nurse-scheduling problem in Austria. <i>Computers and Operations Research</i> , 2007, 34, 642-666.	2.4	139
9	Multicriteria tour planning for mobile healthcare facilities in a developing country. <i>European Journal of Operational Research</i> , 2007, 179, 1078-1096.	3.5	123
10	Competence-driven project portfolio selection, scheduling and staff assignment. <i>Central European Journal of Operations Research</i> , 2008, 16, 281-306.	1.1	116
11	Multi-criteria location planning for public facilities in tsunami-prone coastal areas. <i>OR Spectrum</i> , 2009, 31, 651-678.	2.1	110
12	Multi-objective decision analysis for competence-oriented project portfolio selection. <i>European Journal of Operational Research</i> , 2010, 205, 670-679.	3.5	104
13	Partition testing vs. random testing: the influence of uncertainty. <i>IEEE Transactions on Software Engineering</i> , 1999, 25, 661-674.	4.3	103
14	Stochastic multi-objective optimization: a survey on non-scalarizing methods. <i>Annals of Operations Research</i> , 2016, 236, 475-499.	2.6	95
15	Simulated Annealing for noisy cost functions. <i>Journal of Global Optimization</i> , 1996, 8, 1.	1.1	93
16	The bi-objective stochastic covering tour problem. <i>Computers and Operations Research</i> , 2012, 39, 1582-1592.	2.4	88
17	Bi-objective bilevel optimization of distribution center locations considering user equilibria. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2016, 85, 1-22.	3.7	86
18	First steps to the runtime complexity analysis of ant colony optimization. <i>Computers and Operations Research</i> , 2008, 35, 2711-2727.	2.4	77

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19	Equity and deprivation costs in humanitarian logistics. <i>European Journal of Operational Research</i> , 2018, 270, 185-197.	3.5	73
20	Runtime Analysis of Ant Colony Optimization with Best-So-Far Reinforcement. <i>Methodology and Computing in Applied Probability</i> , 2008, 10, 409-433.	0.7	70
21	On the Finite-Time Dynamics of Ant Colony Optimization. <i>Methodology and Computing in Applied Probability</i> , 2006, 8, 105-133.	0.7	61
22	A Converging ACO Algorithm for Stochastic Combinatorial Optimization. <i>Lecture Notes in Computer Science</i> , 2003, , 10-25.	1.0	59
23	Modelling beneficiaries' choice in disaster relief logistics. <i>Annals of Operations Research</i> , 2017, 256, 41-61.	2.6	56
24	Bi-objective stochastic programming models for determining depot locations in disaster relief operations. <i>International Transactions in Operational Research</i> , 2016, 23, 997-1023.	1.8	54
25	Mathematical runtime analysis of ACO algorithms: survey on an emerging issue. <i>Swarm Intelligence</i> , 2007, 1, 59-79.	1.3	50
26	A MULTICRITERIA DECISION SUPPORT SYSTEM FOR COMPETENCE-DRIVEN PROJECT PORTFOLIO SELECTION. <i>International Journal of Information Technology and Decision Making</i> , 2009, 08, 379-401.	2.3	50
27	A GENERALIZED CONVERGENCE RESULT FOR THE GRAPH-BASED ANT SYSTEM METAHEURISTIC. <i>Probability in the Engineering and Informational Sciences</i> , 2003, 17, 545-569.	0.6	49
28	A Bi-objective Metaheuristic for Disaster Relief Operation Planning. <i>Studies in Computational Intelligence</i> , 2010, , 167-187.	0.7	46
29	Software dependability evaluation based on Markov usage models. <i>Performance Evaluation</i> , 2000, 40, 199-222.	0.9	40
30	Combined Discrete-event Simulation and Ant Colony Optimisation Approach for Selecting Optimal Screening Policies for Diabetic Retinopathy. <i>Computational Management Science</i> , 2006, 4, 59-83.	0.8	40
31	Bi-objective project portfolio selection and staff assignment under uncertainty. <i>Optimization</i> , 2010, 59, 417-445.	1.0	36
32	Optimal test distributions for software failure cost estimation. <i>IEEE Transactions on Software Engineering</i> , 1995, 21, 219-228.	4.3	33
33	Bi-Objective Multi-Mode Project Scheduling Under Risk Aversion. <i>European Journal of Operational Research</i> , 2015, 246, 421-434.	3.5	33
34	Inequity-averse shelter location for disaster preparedness. <i>IIEE Transactions</i> , 2019, 51, 809-829.	1.6	33
35	Optimal stochastic single-machine-tardiness scheduling by stochastic branch-and-bound. <i>European Journal of Operational Research</i> , 1999, 117, 396-413.	3.5	31
36	Dynamic Policy Modeling for Chronic Diseases: Metaheuristic-Based Identification of Pareto-Optimal Screening Strategies. <i>Operations Research</i> , 2010, 58, 1269-1286.	1.2	31

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37	Stochastic project management: multiple projects with multi-skilled human resources. Journal of Scheduling, 2019, 22, 271-288.	1.3	29
38	Extracting Test Sequences from a Markov Software Usage Model by ACO. Lecture Notes in Computer Science, 2003, , 2465-2476.	1.0	28
39	Optimal dynamic portfolio selection for projects under a competence development model. OR Spectrum, 2011, 33, 173-206.	2.1	28
40	Exact hybrid algorithms for solving a bi-objective vehicle routing problem. Central European Journal of Operations Research, 2012, 20, 19-43.	1.1	27
41	Convergence Analysis of Metaheuristics. Annals of Information Systems, 2009, , 159-187.	0.5	25
42	Efficient pairwise preference elicitation allowing for indifference. Computers and Operations Research, 2017, 88, 175-186.	2.4	25
43	Project portfolio selection under uncertainty with outsourcing opportunities. Flexible Services and Manufacturing Journal, 2013, 25, 255-281.	1.9	24
44	The asymptotic contour process of a binary tree is a Brownian excursion. Stochastic Processes and Their Applications, 1992, 41, 69-89.	0.4	22
45	A dynamic simulation‐optimization approach for managing mass casualty incidents. Operations Research for Health Care, 2018, 17, 82-100.	0.8	21
46	Importance Sampling of Test Cases in Markovian Software Usage Models. Probability in the Engineering and Informational Sciences, 1997, 11, 19-36.	0.6	19
47	Two Metaheuristics for Multiobjective Stochastic Combinatorial Optimization. Lecture Notes in Computer Science, 2005, , 116-125.	1.0	17
48	A VNS Algorithm for Noisy Problems and Its Application to Project Portfolio Analysis. Lecture Notes in Computer Science, 2007, , 93-104.	1.0	16
49	A provably convergent heuristic for stochastic bicriteria integer‐programming. Journal of Heuristics, 2009, 15, 227-258.	1.1	15
50	Special issue on optimization in disaster relief. OR Spectrum, 2011, 33, 445-449.	2.1	14
51	Using a Reliability Growth Model to Control Software Inspection. Empirical Software Engineering, 2002, 7, 257-284.	3.0	13
52	Enriched workflow modelling and Stochastic Branch-and-Bound. European Journal of Operational Research, 2006, 175, 1798-1817.	3.5	12
53	Configurations of series-parallel networks with maximum reliability. Microelectronics Reliability, 1996, 36, 247-253.	0.9	11
54	Runtime Analysis of an Evolutionary Algorithm for Stochastic Multi-Objective Combinatorial Optimization. Evolutionary Computation, 2012, 20, 395-421.	2.3	11

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55	Crashing of stochastic processes by sampling and optimisation. Business Process Management Journal, 2000, 6, 65-83.	2.4	10
56	A branch-and-Benders-cut algorithm for a bi-objective stochastic facility location problem. OR Spectrum, 2022, 44, 419-459.	2.1	9
57	Representation and optimization of software usage models with non-Markovian state transitions. Information and Software Technology, 2000, 42, 873-887.	3.0	8
58	Estimating qualifications in a self-evaluating group. Quality and Quantity, 1995, 29, 241-250.	2.0	7
59	Stochastic premarshalling of block stacking warehouses. Omega, 2021, 102, 102336.	3.6	7
60	Stochastic radiotherapy appointment scheduling. Central European Journal of Operations Research, 2022, 30, 1239-1277.	1.1	7
61	A branch-and-bound approach to the optimization of redundant software under failure correlation. Computers and Operations Research, 2002, 29, 1773-1791.	2.4	6
62	Stochastic Search in Metaheuristics. Profiles in Operations Research, 2010, , 573-597.	0.3	6
63	Ant Colony Optimization: Recent Developments in Theoretical Analysis. Theoretical Computer Science, 2011, , 225-254.	1.2	6
64	The asymptotic distribution of leaf heights in binary trees. Graphs and Combinatorics, 1992, 8, 243-251.	0.2	5
65	Expectation transfer between branching processes and random trees. Random Structures and Algorithms, 1993, 4, 447-467.	0.6	4
66	Recent trends in metaheuristics for stochastic combinatorial optimization. Open Computer Science, 2011, 1, .	1.3	4
67	Training on the project: a quantifying approach to competence development. Knowledge Management Research and Practice, 2012, 10, 64-78.	2.7	4
68	Competence-driven project portfolio selection, scheduling and staff assignment. Central European Journal of Operations Research, 2008, 16, 281.	1.1	4
69	Bi-objective facility location under uncertainty with an application in last-mile disaster relief. Annals of Operations Research, 0, , 1.	2.6	4
70	The Variance of Level Numbers in Certain Families of Trees. Random Structures and Algorithms, 1992, 3, 361-374.	0.6	3
71	The dynamics of self-evaluation. Applied Mathematics and Computation, 1994, 64, 47-63.	1.4	3
72	Failure Risk Estimation via Markov Software Usage Models. , 1997, , 183-192.		3

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73	Uniform random generation of expressions respecting algebraic identities. Computing (Vienna/New) Tj ETQq1 1 0.784314 rgBT /Over 3.2		
74	A global optimization problem in series-parallel networks with maximum reliability. Journal of Global Optimization, 1994, 5, 403-404.	1.1	2
75	Innovative approaches in humanitarian operations. OR Spectrum, 2020, 42, 585-589.	2.1	2
76	Stochastic Local Search Procedures for the Probabilistic Two-Day Vehicle Routing Problem. Studies in Computational Intelligence, 2008, , 153-168.	0.7	2
77	Connection reliabilities in stochastic acyclic networks. Random Structures and Algorithms, 1994, 5, 57-72.	0.6	1
78	Project Portfolio Selection Under Skill Development. , 2015, , 729-750.		1
79	Hybrid Metaheuristics for Project Scheduling and Staffing, Considering Project Interruptions and Labor Contracts. Dynamic Modeling and Econometrics in Economics and Finance, 2016, , 349-377.	0.4	1
80	Inequity-averse stochastic decision processes. European Journal of Operational Research, 2021, 288, 258-270.	3.5	1
81	Using Indifference Information in Robust Ordinal Regression. Lecture Notes in Computer Science, 2015, , 205-217.	1.0	1
82	Test Point Optimization in a Branching-Process-Based Reliability Model. Probability in the Engineering and Informational Sciences, 1994, 8, 591-609.	0.6	0
83	An improved algorithm for finding minimum-risk 3-state-device networks. International Journal of Computer Mathematics, 1997, 64, 59-72.	1.0	0
84	The move-to-partner rule for self-organizing task allocation on a linear array. Stochastic Models, 2002, 18, 109-137.	0.3	0
85	Interaction dynamics of two reinforcement learners. Central European Journal of Operations Research, 2006, 14, 59-86.	1.1	0
86	Uncertainty, economics and optimization: recent developments. Computational Management Science, 2019, 16, 541-543.	0.8	0
87	Stochastic Search in Metaheuristics. Profiles in Operations Research, 2019, , 513-540.	0.3	0
88	Sampling-Based Genetic Algorithms for the Bi-Objective Stochastic Covering Tour Problem. Operations Research/ Computer Science Interfaces Series, 2018, , 253-284.	0.3	0
89	Risk-Averse Bargaining in a Stochastic Optimization Context. Manufacturing and Service Operations Management, 2023, 25, 323-340.	2.3	0
90	Bi-objective Risk-averse Facility Location using a Subset-based Representation of the Conditional Value-at-Risk. , 2022, , .		0