

Zbigniew Michalewicz

List of Publications by Year in descending order

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142
papers

17,936
citations

168829

31
h-index

54771

88
g-index

155
all docs

155
docs citations

155
times ranked

9345
citing authors

#	ARTICLE	IF	CITATIONS
1	A Regional Multi-Objective Tabu Search Algorithm for a Green Heterogeneous Dial-A-Ride Problem. , 2019, , .		1
2	Evolutionary Computation for Multicomponent Problems: Opportunities and Future Directions. Management and Industrial Engineering, 2019, , 13-30.	0.3	15
3	Decomposition Algorithms for a Multi-Hard Problem. Evolutionary Computation, 2018, 26, 507-533.	2.3	4
4	Particle Swarm Optimization for Single Objective Continuous Space Problems: A Review. Evolutionary Computation, 2017, 25, 1-54.	2.3	517
5	Ahura: A Heuristic-Based Racer for the Open Racing Car Simulator. IEEE Transactions on Games, 2017, 9, 290-304.	1.7	6
6	Preliminary Study on Solving Coal Processing and Blending Problems Using Lexicographic Ordering. Lecture Notes in Computer Science, 2017, , 221-233.	1.0	1
7	Multi-hard Problems in Uncertain Environment. , 2016, , .		3
8	Benchmarks for the Coal Processing and Blending Problem. , 2016, , .		6
9	The relationship between model complexity and forecasting performance for computer intelligence optimization in finance. International Journal of Forecasting, 2016, 32, 598-613.	3.9	6
10	Impacts of coefficients on movement patterns in the particle swarm optimization algorithm. IEEE Transactions on Evolutionary Computation, 2016, , 1-1.	7.5	29
11	Stability Analysis of the Particle Swarm Optimization Without Stagnation Assumption. IEEE Transactions on Evolutionary Computation, 2016, 20, 814-819.	7.5	73
12	Analysis of Stability, Local Convergence, and Transformation Sensitivity of a Variant of the Particle Swarm Optimization Algorithm. IEEE Transactions on Evolutionary Computation, 2016, 20, 370-385.	7.5	113
13	Evolutionary Computation for Real-World Problems. Studies in Computational Intelligence, 2016, , 1-24.	0.7	6
14	Locating Potentially Disjoint Feasible Regions of a Search Space with a Particle Swarm Optimizer. Infosys Science Foundation Series, 2015, , 205-230.	0.3	3
15	A Hybrid Evolutionary Algorithm for Wheat Blending Problem. Scientific World Journal, The, 2014, 2014, 1-13.	0.8	4
16	Multiobjective Resource-Constrained Project Scheduling with a Time-Varying Number of Tasks. Scientific World Journal, The, 2014, 2014, 1-35.	0.8	9
17	SPSO 2011. , 2014, , .		14
18	On the edge of feasibility: A case study of the particle swarm optimizer. , 2014, , .		7

#	ARTICLE	IF	CITATIONS
19	Implicit memory-based technique in solving dynamic scheduling problems through Response Surface Methodology – Part II. International Journal of Intelligent Computing and Cybernetics, 2014, 7, 143-174.	1.6	3
20	Socially inspired algorithms for the travelling thief problem. , 2014, , .		40
21	A comprehensive benchmark set and heuristics for the traveling thief problem. , 2014, , .		76
22	An analysis of the velocity updating rule of the particle swarm optimization algorithm. Journal of Heuristics, 2014, 20, 417-452.	1.1	51
23	Scheduling in iron ore open-pit mining. International Journal of Advanced Manufacturing Technology, 2014, 72, 1021-1037.	1.5	13
24	EVOR. , 2014, , .		6
25	A locally convergent rotationally invariant particle swarm optimization algorithm. Swarm Intelligence, 2014, 8, 159-198.	1.3	64
26	Benchmarking Optimization Algorithms: An Open Source Framework for the Traveling Salesman Problem. IEEE Computational Intelligence Magazine, 2014, 9, 40-52.	3.4	62
27	A hybrid particle swarm with a time-adaptive topology for constrained optimization. Swarm and Evolutionary Computation, 2014, 18, 22-37.	4.5	40
28	Implicit memory-based technique in solving dynamic scheduling problems through Response Surface Methodology – Part I. International Journal of Intelligent Computing and Cybernetics, 2014, 7, 114-142.	1.6	3
29	Beyond the Edge of Feasibility: Analysis of Bottlenecks. Lecture Notes in Computer Science, 2014, , 431-442.	1.0	5
30	The travelling thief problem: The first step in the transition from theoretical problems to realistic problems. , 2013, , .		90
31	A hybrid particle swarm with velocity mutation for constraint optimization problems. , 2013, , .		20
32	Applying Puzzle-Based Learning to Cyber-Security Education. , 2013, , .		12
33	Solving a real-world wheat blending problem using a hybrid evolutionary algorithm. , 2013, , .		7
34	Multi-mine Planning using a Multi-objective Evolutionary Algorithm. , 2013, , .		4
35	Combining vehicle routing and packing for optimal delivery schedules of water tanks. OR Insight, 2013, 26, 167-190.	0.1	24
36	Advanced Planning in Vertically Integrated Wine Supply Chains. Studies in Computational Intelligence, 2013, , 433-463.	0.7	0

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37	Ubiquity symposium: Evolutionary computation and the processes of life. Ubiquity, 2012, 2012, 1-13.	0.2	21
38	Evolutionary approaches for supply chain optimisation. International Journal of Intelligent Computing and Cybernetics, 2012, 5, 444-472.	1.6	11
39	Evolutionary approaches for supply chain optimisation. Part II: multi-€ supply chains. International Journal of Intelligent Computing and Cybernetics, 2012, 5, 473-499.	1.6	11
40	A fast particle swarm optimization algorithm for the multidimensional knapsack problem. , 2012, , .		5
41	Evolutionary Optimization. , 2012, , 1-29.		16
42	Quo Vadis, Evolutionary Computation?. Lecture Notes in Computer Science, 2012, , 98-121.	1.0	36
43	An Evolutionary Approach to Practical Constraints in Scheduling: A Case-Study of the Wine Bottling Problem. , 2012, , 31-58.		0
44	A Fuzzy-Evolutionary Approach to the Problem of Optimisation and Decision-Support in Supply Chain Networks. , 2012, , 143-166.		1
45	An experimental study of Multi-Objective Evolutionary Algorithms for balancing interpretability and accuracy in fuzzy rulebase classifiers for financial prediction. , 2011, , .		8
46	Intelligent techniques for forecasting multiple time series in real-world systems. International Journal of Intelligent Computing and Cybernetics, 2011, 4, 284-310.	1.6	24
47	Considerations of the nature of the relationship between generalization and interpretability in evolutionary fuzzy systems. , 2011, , .		0
48	Comparison of cooperative, multiobjective cooperative and classical evolutionary algorithms for global supply chain optimisation. , 2011, , .		1
49	Comparison of different evolutionary algorithms for global supply chain optimisation and parameter analysis. , 2011, , .		2
50	Estimating the reproductive potential of offspring in evolutionary heuristics for combinatorial optimization problems. , 2011, , .		0
51	Advanced Planning in Vertically Integrated Supply Chains. Studies in Computational Intelligence, 2011, , 125-148.	0.7	1
52	Using cellular evolution for diversification of the balance between accurate and interpretable fuzzy knowledge bases for classification. , 2011, , .		1
53	Controlling the tradeoff between time and quality by considering the reproductive potential of offspring. , 2011, , .		0
54	Puzzle-Based Learning for Engineering and Computer Science. Computer, 2010, 43, 20-28.	1.2	32

#	ARTICLE	IF	CITATIONS
55	Index tracking fund enhancement using evolving multi-criteria fuzzy decision models. , 2010, , .		2
56	Time-varying constraints and other practical problems in real-world scheduling applications. , 2010, , .		0
57	Optimising supply chain networks by means of a hybridised simulation-based approach. , 2010, , .		1
58	Comparison of cooperative and classical evolutionary algorithms for global supply chain optimisation. , 2010, , .		3
59	Interpretable multi-criteria fuzzy rule based decision models for hedge fund management. , 2010, , .		0
60	Evolving Fuzzy Rules: Evaluation of a New Approach. Lecture Notes in Computer Science, 2010, , 250-259.	1.0	0
61	Adapting to Human Gamers Using Coevolution. Studies in Computational Intelligence, 2010, , 75-100.	0.7	2
62	On Stability and Classification Tools for Genetic Algorithms. Fundamenta Informaticae, 2009, 96, 477-491.	0.3	1
63	Computational Intelligence for Evolving Trading Rules. IEEE Transactions on Evolutionary Computation, 2009, 13, 71-86.	7.5	52
64	Return performance volatility and adaptation in an automated technical analysis approach to portfolio management. Intelligent Systems in Accounting, Finance and Management, 2009, 16, 127-146.	2.8	1
65	Adaptive and Self-adaptive Techniques for Evolutionary Forecasting Applications Set in Dynamic and Uncertain Environments. Studies in Computational Intelligence, 2009, , 3-21.	0.7	0
66	Evaluation of intelligent quantitative hedge fund management. , 2009, , .		1
67	Intelligent Decision Support: A Fuzzy Stock Ranking System. Lecture Notes in Computer Science, 2009, , 379-410.	1.0	1
68	Global Optimization in Supply Chain Operations. Studies in Computational Intelligence, 2009, , 1-28.	0.7	2
69	Computational Intelligence for Evolving Trading Rules. IEEE Transactions on Evolutionary Computation, 2009, , .	7.5	3
70	Machine intelligence, adaptive business intelligence, and natural intelligence [Research Frontier]. IEEE Computational Intelligence Magazine, 2008, 3, 54-63.	3.4	9
71	Forecasting economic time series with the DyFor genetic program model. Applied Financial Economics, 2008, 18, 357-378.	0.5	6
72	Coevolving strategic intelligence. , 2008, , .		6

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73	On classification tools for genetic algorithms. Proceedings of the International Multiconference on Computer Science and Information Technology, 2008, , .	0.0	0
74	Adapting to human game play. , 2008, , .		9
75	Experiments in applying evolutionary algorithms to software verification. , 2008, , .		2
76	An analysis of adaptive windowing for time series forecasting in dynamic environments. , 2008, , .		18
77	The performance of an adaptive portfolio management system. , 2008, , .		5
78	Fractal Dimension of Trajectory as Invariant of Genetic Algorithms. Lecture Notes in Computer Science, 2008, , 414-425.	1.0	6
79	Learning Fuzzy Rules with Evolutionary Algorithms – An Analytic Approach. Lecture Notes in Computer Science, 2008, , 1051-1060.	1.0	7
80	Evolving Trading Rules. Studies in Computational Intelligence, 2008, , 95-119.	0.7	0
81	Static experts and dynamic enemies in coevolutionary games. , 2007, , .		6
82	Parameter Control in Evolutionary Algorithms. , 2007, , 19-46.		252
83	Parameter Control in Practice. , 2007, , 277-294.		10
84	Parameter Adaptation for GP Forecasting Applications. , 2007, , 295-309.		1
85	Time Series Forecasting for Dynamic Environments: The DyFor Genetic Program Model. IEEE Transactions on Evolutionary Computation, 2007, 11, 433-452.	7.5	105
86	A Computational Intelligence Portfolio Construction System for Equity Market Trading. , 2007, , .		10
87	A Historical Population in a Coevolutionary System. , 2007, , .		4
88	Computational Intelligence for Evolving Trading Rules. SSRN Electronic Journal, 2007, , .	0.4	1
89	Adaptive Business Intelligence: Three Case Studies. Studies in Computational Intelligence, 2007, , 179-196.	0.7	33
90	Coevolutionary Optimization of Fuzzy Logic Intelligence for Strategic Decision Support. IEEE Transactions on Evolutionary Computation, 2005, 9, 682-694.	7.5	15

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91	How to Solve It: Modern Heuristics. , 2004, , .		388
92	Parameter Selection. , 2003, , 279-306.		2
93	Evolutionary Algorithms and Constrained Optimization. , 2003, , 57-86.		7
94	Analysis and modeling of control tasks in dynamic systems. IEEE Transactions on Evolutionary Computation, 2002, 6, 378-389.	7.5	46
95	An evolutionary algorithm for optimizing material flow in supply chains. Computers and Industrial Engineering, 2002, 43, 407-421.	3.4	57
96	Two aspects of evolutionary algorithms. Wuhan University Journal of Natural Sciences, 2000, 5, 413-424.	0.2	1
97	A comparison between genetic algorithms and the RAND method for solving the joint replenishment problem. Production Planning and Control, 2000, 11, 556-564.	5.8	66
98	Test-case generator for nonlinear continuous parameter optimization techniques. IEEE Transactions on Evolutionary Computation, 2000, 4, 197-215.	7.5	75
99	Modeling of ship trajectory in collision situations by an evolutionary algorithm. IEEE Transactions on Evolutionary Computation, 2000, 4, 227-241.	7.5	151
100	Test-Case Generator TCG-2 for Nonlinear Parameter Optimisation. Lecture Notes in Computer Science, 2000, , 539-548.	1.0	7
101	Parameter control. , 2000, , 170-187.		11
102	Evolutionary Algorithms, Homomorphous Mappings, and Constrained Parameter Optimization. Evolutionary Computation, 1999, 7, 19-44.	2.3	658
103	Parameter control in evolutionary algorithms. IEEE Transactions on Evolutionary Computation, 1999, 3, 124-141.	7.5	1,455
104	Evolutionary approach to non-stationary optimisation tasks. Lecture Notes in Computer Science, 1999, , 538-546.	1.0	7
105	The Significance of the Evaluation Function in Evolutionary Algorithms. The IMA Volumes in Mathematics and Its Applications, 1999, , 151-166.	0.5	5
106	An evolutionary algorithm for the optimal design of induction motors. IEEE Transactions on Magnetics, 1998, 34, 3882-3887.	1.2	58
107	Sphere operators and their applicability for constrained parameter optimization problems. Lecture Notes in Computer Science, 1998, , 239-250.	1.0	7
108	Evolutionary Algorithm for Economic lot and Delivery Scheduling Problem. Fundamenta Informaticae, 1998, 35, 113-123.	0.3	4

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109	Adaptive evolutionary planner/navigator for mobile robots. IEEE Transactions on Evolutionary Computation, 1997, 1, 18-28.	7.5	326
110	Evolutionary Algorithms. , 1997, , 3-31.		10
111	Evolutionary Algorithms " An Overview. , 1997, , 3-28.		33
112	Evolutionary Algorithms for Constrained Parameter Optimization Problems. Evolutionary Computation, 1996, 4, 1-32.	2.3	1,419
113	GENOCOP. Communications of the ACM, 1996, 39, 175.	3.3	112
114	Evolutionary algorithms for constrained engineering problems. Computers and Industrial Engineering, 1996, 30, 851-870.	3.4	242
115	Heuristic methods for evolutionary computation techniques. Journal of Heuristics, 1996, 1, 177-206.	1.1	62
116	Genetic Algorithms + Data Structures = Evolution Programs. , 1996, , .		3,923
117	Evolutionary computation at the edge of feasibility. Lecture Notes in Computer Science, 1996, , 245-254.	1.0	73
118	Evolutionary computation: One project, many directions. Lecture Notes in Computer Science, 1996, , 189-201.	1.0	4
119	Genetic algorithms in optimisation, simulation and modelling. Control Engineering Practice, 1995, 3, 1053-1054.	3.2	1
120	A perspective on evolutionary computation. Lecture Notes in Computer Science, 1995, , 73-89.	1.0	1
121	Pioneer: A New Tool for Coding of Multi-Level Finite State Machines Based on Evolution Programming. VLSI Design, 1994, 2, 105-116.	0.5	0
122	Genetic Algorithms + Data Structures = Evolution Programs. , 1994, , .		1,505
123	Evolutionary computation. Statistics and Computing, 1994, 4, 49.	0.8	4
124	Non-standard methods in evolutionary computation. Statistics and Computing, 1994, 4, 141.	0.8	5
125	Genetic algorithms for the 0/1 knapsack problem. Lecture Notes in Computer Science, 1994, , 134-143.	1.0	42
126	Evolutionary Computation Techniques for Nonlinear Programming Problems. International Transactions in Operational Research, 1994, 1, 223-240.	1.8	20

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127	A Hierarchy of Evolution Programs: An Experimental Study. <i>Evolutionary Computation</i> , 1993, 1, 51-76.	2.3	58
128	Genetic Algorithms + Data Structures = Evolution Programs. <i>Artificial Intelligence</i> , 1992, , .	0.7	4,424
129	A modified genetic algorithm for optimal control problems. <i>Computers and Mathematics With Applications</i> , 1992, 23, 83-94.	1.4	220
130	The Transportation Problem. <i>Artificial Intelligence</i> , 1992, , 141-163.	0.7	1
131	Genetic algorithms for numerical optimization. <i>Statistics and Computing</i> , 1991, 1, 75-91.	0.8	98
132	A Nonstandard Genetic Algorithm for the Nonlinear Transportation Problem. <i>ORSA Journal on Computing</i> , 1991, 3, 307-316.	1.7	133
133	Closed Sets of Boolean Terms in Relational Databases. <i>Fundamenta Informaticae</i> , 1991, 14, 367-385.	0.3	0
134	Optimal distribution of restricted ranges in secure statistical databases. <i>Lecture Notes in Computer Science</i> , 1990, , 65-79.	1.0	0
135	Algebraic Operations on Restricted Cardinality Sets in Relational Databases. <i>Fundamenta Informaticae</i> , 1989, 12, 13-27.	0.3	0
136	Ranges and trackers in statistical databases. , 1989, , 193-206.		3
137	Multiranges and Multitrackers in Statistical Databases. <i>Fundamenta Informaticae</i> , 1988, 11, 41-48.	0.3	2
138	Functional dependencies and their connection with security of statistical databases. <i>Information Systems</i> , 1987, 12, 17-27.	2.4	2
139	A Coin-Weighing Problem and Its Connection with the Security of a Statistical Database. <i>Fundamenta Informaticae</i> , 1987, 10, 81-91.	0.3	0
140	Inference control in statistical databases with incomplete information. <i>Information Systems</i> , 1983, 8, 177-185.	2.4	1
141	Compromisability of a statistical database. <i>Information Systems</i> , 1981, 6, 301-304.	2.4	5
142	An Application of Genetic Programming to Forecasting Foreign Exchange Rates. , 0, , 26-48.		0