Shengxiang Yang

List of Publications by Year
in descending order

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297 papers	13,166 citations	29994 54 h-index	29081 104 g-index
304 all docs	304 docs citations	304 times ranked	5927 citing authors

#	Article	IF	Citations
1	A Grid-Based Evolutionary Algorithm for Many-Objective Optimization. IEEE Transactions on Evolutionary Computation, 2013, 17, 721-736.	7.5	890
2	Shift-Based Density Estimation for Pareto-Based Algorithms in Many-Objective Optimization. IEEE Transactions on Evolutionary Computation, 2014, 18, 348-365.	7.5	773
3	Evolutionary dynamic optimization: A survey of the state of the art. Swarm and Evolutionary Computation, 2012, 6, 1-24.	4.5	584
4	A survey of swarm intelligence for dynamic optimization: Algorithms and applications. Swarm and Evolutionary Computation, 2017, 33, 1-17.	4.5	409
5	A Clustering Particle Swarm Optimizer for Locating and Tracking Multiple Optima in Dynamic Environments. IEEE Transactions on Evolutionary Computation, 2010, 14, 959-974.	7.5	357
6	A benchmark test suite for evolutionary many-objective optimization. Complex & Intelligent Systems, 2017, 3, 67-81.	4.0	311
7	A Self-Learning Particle Swarm Optimizer for Global Optimization Problems. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 627-646.	5.5	290
8	A Strength Pareto Evolutionary Algorithm Based on Reference Direction for Multiobjective and Many-Objective Optimization. IEEE Transactions on Evolutionary Computation, 2017, 21, 329-346.	7.5	272
9	A General Framework of Multipopulation Methods With Clustering in Undetectable Dynamic Environments. IEEE Transactions on Evolutionary Computation, 2012, 16, 556-577.	7.5	251
10	Bi-goal evolution for many-objective optimization problems. Artificial Intelligence, 2015, 228, 45-65.	3.9	239
11	Experimental study on population-based incremental learning algorithms for dynamic optimization problems. Soft Computing, 2005, 9, 815-834.	2.1	233
12	Population-Based Incremental Learning With Associative Memory for Dynamic Environments. IEEE Transactions on Evolutionary Computation, 2008, 12, 542-561.	7.5	232
13	A Steady-State and Generational Evolutionary Algorithm for Dynamic Multiobjective Optimization. IEEE Transactions on Evolutionary Computation, 2017, 21, 65-82.	7.5	227
14	Pareto or Non-Pareto: Bi-Criterion Evolution in Multiobjective Optimization. IEEE Transactions on Evolutionary Computation, 2016, 20, 645-665.	7.5	217
15	Genetic Algorithms with Memory- and Elitism-Based Immigrants in Dynamic Environments. Evolutionary Computation, 2008, 16, 385-416.	2.3	199
16	An Improved Multiobjective Optimization Evolutionary Algorithm Based on Decomposition for Complex Pareto Fronts. IEEE Transactions on Cybernetics, 2016, 46, 421-437.	6.2	185
17	Diversity Comparison of Pareto Front Approximations in Many-Objective Optimization. IEEE Transactions on Cybernetics, 2014, 44, 2568-2584.	6.2	182
18	Ant Colony Optimization With Local Search for Dynamic Traveling Salesman Problems. IEEE Transactions on Cybernetics, 2017, 47, 1743-1756.	6.2	166

#	Article	IF	Citations
19	Genetic Algorithms With Immigrants and Memory Schemes for Dynamic Shortest Path Routing Problems in Mobile Ad Hoc Networks. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2010, 40, 52-63.	3.3	160
20	An Adaptive Localized Decision Variable Analysis Approach to Large-Scale Multiobjective and Many-Objective Optimization. IEEE Transactions on Cybernetics, 2022, 52, 6684-6696.	6.2	155
21	A Survey on Problem Models and Solution Approaches to Rescheduling in Railway Networks. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 2997-3016.	4.7	153
22	Evolutionary Dynamic Multiobjective Optimization: Benchmarks and Algorithm Comparisons. IEEE Transactions on Cybernetics, 2017, 47, 198-211.	6.2	148
23	Evolutionary Algorithms With Segment-Based Search for Multiobjective Optimization Problems. IEEE Transactions on Cybernetics, 2014, 44, 1295-1313.	6.2	143
24	Particle Swarm Optimization With Composite Particles in Dynamic Environments. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 1634-1648.	5.5	129
25	Ant colony optimization with immigrants schemes for the dynamic travelling salesman problem with traffic factors. Applied Soft Computing Journal, 2013, 13, 4023-4037.	4.1	129
26	The effect of diversity maintenance on prediction in dynamic multi-objective optimization. Applied Soft Computing Journal, 2017, 58, 631-647.	4.1	120
27	A prediction strategy based on center points and knee points for evolutionary dynamic multi-objective optimization. Applied Soft Computing Journal, 2017, 61, 806-818.	4.1	120
28	A Similarity-Based Cooperative Co-Evolutionary Algorithm for Dynamic Interval Multiobjective Optimization Problems. IEEE Transactions on Evolutionary Computation, 2020, 24, 142-156.	7.5	117
29	A memetic algorithm with adaptive hill climbing strategy for dynamic optimization problems. Soft Computing, 2009, 13, 763-780.	2.1	115
30	A self-organizing random immigrants genetic algorithm for dynamic optimization problems. Genetic Programming and Evolvable Machines, 2007, 8, 255-286.	1.5	111
31	Differential Evolution With a New Encoding Mechanism for Optimizing Wind Farm Layout. IEEE Transactions on Industrial Informatics, 2018, 14, 1040-1054.	7.2	108
32	Global and Local Surrogate-Assisted Differential Evolution for Expensive Constrained Optimization Problems With Inequality Constraints. IEEE Transactions on Cybernetics, 2019, 49, 1642-1656.	6.2	104
33	Memory-based immigrants for genetic algorithms in dynamic environments. , 2005, , .		103
34	A hybrid immigrants scheme for genetic algorithms in dynamic environments. International Journal of Automation and Computing, 2007, 4, 243-254.	4.5	91
35	Ant algorithms with immigrants schemes for the dynamic vehicle routing problem. Information Sciences, 2015, 294, 456-477.	4.0	88
36	Learning to Optimize: Reference Vector Reinforcement Learning Adaption to Constrained Many-Objective Optimization of Industrial Copper Burdening System. IEEE Transactions on Cybernetics, 2022, 52, 12698-12711.	6.2	85

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37	A memetic ant colony optimization algorithm for the dynamic travelling salesman problem. Soft Computing, 2011, 15, 1405-1425.	2.1	82
38	A memetic particle swarm optimization algorithm for multimodal optimization problems. Information Sciences, 2012, 197, 38-52.	4.0	80
39	Hybrid of memory and prediction strategies for dynamic multiobjective optimization. Information Sciences, 2019, 485, 200-218.	4.0	80
40	Training neural networks with ant colony optimization algorithms for pattern classification. Soft Computing, 2015, 19, 1511-1522.	2.1	78
41	Novel Prediction Strategies for Dynamic Multiobjective Optimization. IEEE Transactions on Evolutionary Computation, 2020, 24, 260-274.	7.5	78
42	Fast Multi-Swarm Optimization for Dynamic Optimization Problems. , 2008, , .		76
43	Dynamic genetic algorithms for the dynamic load balanced clustering problem in mobile ad hoc networks. Expert Systems With Applications, 2013, 40, 1381-1392.	4.4	72
44	An improved particle swarm optimization algorithm for dynamic job shop scheduling problems with random job arrivals. Swarm and Evolutionary Computation, 2019, 51, 100594.	4.5	72
45	ETEA: A Euclidean Minimum Spanning Tree-Based Evolutionary Algorithm for Multi-Objective Optimization. Evolutionary Computation, 2014, 22, 189-230.	2.3	71
46	Ant Colony Stream Clustering: A Fast Density Clustering Algorithm for Dynamic Data Streams. IEEE Transactions on Cybernetics, 2019, 49, 2215-2228.	6.2	69
47	Handling Constrained Many-Objective Optimization Problems via Problem Transformation. IEEE Transactions on Cybernetics, 2021, 51, 4834-4847.	6.2	68
48	A clustering particle swarm optimizer for dynamic optimization. , 2009, , .		67
49	Genetic algorithms with immigrants schemes for dynamic multicast problems in mobile ad hoc networks. Engineering Applications of Artificial Intelligence, 2010, 23, 806-819.	4.3	67
50	Genetic Algorithms With Guided and Local Search Strategies for University Course Timetabling. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2011, 41, 93-106.	3.3	67
51	Scalarizing Functions in Decomposition-Based Multiobjective Evolutionary Algorithms. IEEE Transactions on Evolutionary Computation, 2018, 22, 296-313.	7.5	67
52	Multi-population methods in unconstrained continuous dynamic environments: The challenges. Information Sciences, 2015, 296, 95-118.	4.0	66
53	An Adaptive Multipopulation Framework for Locating and Tracking Multiple Optima. IEEE Transactions on Evolutionary Computation, 2016, 20, 590-605.	7.5	65
54	Ant Colony Optimization for Simulated Dynamic Multi-Objective Railway Junction Rescheduling. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 2980-2992.	4.7	62

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55	A Generalized Approach to Construct Benchmark Problems for Dynamic Optimization. Lecture Notes in Computer Science, 2008, , 391-400.	1.0	62
56	A Novel Evolutionary Algorithm for Dynamic Constrained Multiobjective Optimization Problems. IEEE Transactions on Evolutionary Computation, 2020, 24, 792-806.	7.5	61
57	Genetic Algorithms with Elitism-Based Immigrants for Changing Optimization Problems. , 2007, , 627-636.		61
58	Improving the multiobjective evolutionary algorithm based on decomposition with new penalty schemes. Soft Computing, 2017, 21, 4677-4691.	2.1	59
59	A Weighted Biobjective Transformation Technique for Locating Multiple Optimal Solutions of Nonlinear Equation Systems. IEEE Transactions on Evolutionary Computation, 2017, 21, 697-713.	7.5	55
60	Multiline Distance Minimization: A Visualized Many-Objective Test Problem Suite. IEEE Transactions on Evolutionary Computation, 2018, 22, 61-78.	7.5	55
61	Associative Memory Scheme for Genetic Algorithms in Dynamic Environments. Lecture Notes in Computer Science, 2006, , 788-799.	1.0	55
62	An Adaptive Multi-Swarm Optimizer for Dynamic Optimization Problems. Evolutionary Computation, 2014, 22, 559-594.	2.3	54
63	A Two-Phase Differential Evolution for Uniform Designs in Constrained Experimental Domains. IEEE Transactions on Evolutionary Computation, 2017, 21, 665-680.	7.5	53
64	A predictive strategy based on special points for evolutionary dynamic multi-objective optimization. Soft Computing, 2019, 23, 3723-3739.	2.1	53
65	A hybrid genetic algorithm and tabu search approach for post enrolment course timetabling. Journal of Scheduling, 2011, 14, 617-637.	1.3	52
66	A new adaptive neural network and heuristics hybrid approach for job-shop scheduling. Computers and Operations Research, 2001, 28, 955-971.	2.4	51
67	Constraint satisfaction adaptive neural network and heuristics combined approaches for generalized job-shop scheduling. IEEE Transactions on Neural Networks, 2000, 11, 474-486.	4.8	49
68	Joint QoS multicast routing and channel assignment in multiradio multichannel wireless mesh networks using intelligent computational methods. Applied Soft Computing Journal, 2011, 11, 1953-1964.	4.1	49
69	Non-stationary problem optimization using the primal-dual genetic algorithm. , 0, , .		48
70	A hybrid evolutionary multiobjective optimization strategy for the dynamic power supply problem in magnesia grain manufacturing. Applied Soft Computing Journal, 2013, 13, 2960-2969.	4.1	47
71	A Comparative Study on Evolutionary Algorithms for Many-Objective Optimization. Lecture Notes in Computer Science, 2013, , 261-275.	1.0	44
72	A close neighbor mobility method using particle swarm optimizer for solving multimodal optimization problems. Information Sciences, 2020, 519, 332-347.	4.0	44

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73	Explicit Memory Schemes for Evolutionary Algorithms in Dynamic Environments. Studies in Computational Intelligence, 2007, , 3-28.	0.7	43
74	Fourth party logistics routing problem with fuzzy duration time. International Journal of Production Economics, 2013, 145, 107-116.	5.1	42
75	A dual-population algorithm based on alternative evolution and degeneration for solving constrained multi-objective optimization problems. Information Sciences, 2021, 579, 89-102.	4.0	41
76	Population-based incremental learning with memory scheme for changing environments. , 2005, , .		39
77	An Adaptive Framework to Tune the Coordinate Systems in Nature-Inspired Optimization Algorithms. IEEE Transactions on Cybernetics, 2019, 49, 1403-1416.	6.2	38
78	Triggered Memory-Based Swarm Optimization in Dynamic Environments. , 2007, , 637-646.		38
79	A comparative study of constraint-handling techniques in evolutionary constrained multiobjective optimization. , 2016, , .		37
80	A prediction strategy based on decision variable analysis for dynamic Multi-objective Optimization. Swarm and Evolutionary Computation, 2021, 60, 100786.	4.5	37
81	Learning behavior in abstract memory schemes for dynamic optimization problems. Soft Computing, 2009, 13, 1163-1173.	2.1	35
82	A dynamic multiobjective evolutionary algorithm based on a dynamic evolutionary environment model. Swarm and Evolutionary Computation, 2019, 44, 247-259.	4.5	35
83	A decomposition-based multiobjective evolutionary algorithm with angle-based adaptive penalty. Applied Soft Computing Journal, 2019, 74, 190-205.	4.1	34
84	A particle swarm optimization based memetic algorithm for dynamic optimization problems. Natural Computing, 2010, 9, 703-725.	1.8	33
85	A memetic particle swarm optimisation algorithm for dynamic multi-modal optimisation problems. International Journal of Systems Science, 2012, 43, 1268-1283.	3.7	33
86	A Memetic Algorithm for the University Course Timetabling Problem. , 2008, , .		32
87	A Performance Comparison Indicator for Pareto Front Approximations in Many-Objective Optimization. , 2015, , .		32
88	Ant Colony Optimization Algorithms for Dynamic Optimization: A Case Study of the Dynamic Travelling Salesperson Problem [Research Frontier]. IEEE Computational Intelligence Magazine, 2020, 15, 52-63.	3.4	32
89	An adaptive learning particle swarm optimizer for function optimization. , 2009, , .		31
90	Improving Uncertainty Estimation With Semi-Supervised Deep Learning for COVID-19 Detection Using Chest X-Ray Images. IEEE Access, 2021, 9, 85442-85454.	2.6	31

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91	Correcting data imbalance for semi-supervised COVID-19 detection using X-ray chest images. Applied Soft Computing Journal, 2021, 111, 107692.	4.1	31
92	Fourth party logistics routing problem model with fuzzy duration time and cost discount. Knowledge-Based Systems, 2013, 50, 14-24.	4.0	30
93	A Scalable Test Suite for Continuous Dynamic Multiobjective Optimization. IEEE Transactions on Cybernetics, 2020, 50, 2814-2826.	6.2	30
94	An adaptive hybrid evolutionary immune multi-objective algorithm based on uniform distribution selection. Information Sciences, 2020, 512, 446-470.	4.0	30
95	A Dynamic Multiobjective Evolutionary Algorithm Based on Decision Variable Classification. IEEE Transactions on Cybernetics, 2022, 52, 1602-1615.	6.2	30
96	Ant Colony Optimization with Immigrants Schemes in Dynamic Environments. , 2010, , 371-380.		29
97	A dynamic multi-objective evolutionary algorithm based on intensity of environmental change. Information Sciences, 2020, 523, 49-62.	4.0	28
98	Ant colony optimization with memory-based immigrants for the dynamic vehicle routing problem. , 2012, , .		26
99	A many-objective evolutionary algorithm based on rotated grid. Applied Soft Computing Journal, 2018, 67, 596-609.	4.1	26
100	Hybrid meta-heuristic algorithms for independent job scheduling in grid computing. Applied Soft Computing Journal, 2018, 72, 498-517.	4.1	26
101	A pareto-based evolutionary algorithm using decomposition and truncation for dynamic multi-objective optimization. Applied Soft Computing Journal, 2019, 85, 105673.	4.1	26
102	Differential evolution with a two-stage optimization mechanism for numerical optimization. , 2016, , .		25
103	Biology migration algorithm: a new nature-inspired heuristic methodology for global optimization. Soft Computing, 2019, 23, 7333-7358.	2.1	25
104	Environment identification-based memory scheme for estimation of distribution algorithms in dynamic environments. Soft Computing, 2011, 15, 311-326.	2.1	24
105	Ant colony optimization with immigrants schemes for the dynamic railway junction rescheduling problem with multiple delays. Soft Computing, 2016, 20, 2951-2966.	2.1	24
106	Multi-population Genetic Algorithms with Immigrants Scheme for Dynamic Shortest Path Routing Problems in Mobile Ad Hoc Networks. Lecture Notes in Computer Science, 2010, , 562-571.	1.0	24
107	Memory Based on Abstraction for Dynamic Fitness Functions. Lecture Notes in Computer Science, 2008, , 596-605.	1.0	23
108	A comparative study of immune system based genetic algorithms in dynamic environments. , 2006, , .		22

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109	Adaptive Primalâ€“Dual Genetic Algorithms in Dynamic Environments. IEEE Transactions on Systems, Man, and Cybernetics, 2009, 39, 1348-1361.	5.5	22
110	Multi-colony ant algorithms for the dynamic travelling salesman problem. , 2014, , .		22
111	A Pareto-based many-objective evolutionary algorithm using space partitioning selection and angle-based truncation. Information Sciences, 2019, 478, 186-207.	4.0	22
112	A decision variable classification-based cooperative coevolutionary algorithm for dynamic multiobjective optimization. Information Sciences, 2021, 560, 307-330.	4.0	22
113	A Benchmark Generator for Dynamic Permutation-Encoded Problems. Lecture Notes in Computer Science, 2012, , 508-517.	1.0	22
114	Continuous dynamic problem generators for evolutionary algorithms. , 2007, , .		21
115	Compound Particle Swarm Optimization in Dynamic Environments. Lecture Notes in Computer Science, 2008, , 616-625.	1.0	21
116	Hyper-learning for population-based incremental learning in dynamic environments. , 2009, , .		21
117	An improved constraint satisfaction adaptive neural network for job-shop scheduling. Journal of Scheduling, 2010, 13, 17-38.	1.3	21
118	A Multiobjective Evolutionary Algorithm Based on Coordinate Transformation. IEEE Transactions on Cybernetics, 2019, 49, 2732-2743.	6.2	21
119	A knee-point-based evolutionary algorithm using weighted subpopulation for many-objective optimization. Swarm and Evolutionary Computation, 2019, 47, 33-43.	4.5	21
120	A dynamic multi-objective particle swarm optimization algorithm based on adversarial decomposition and neighborhood evolution. Swarm and Evolutionary Computation, 2022, 69, 100987.	4.5	21
121	Dynamic Feature Selection for Clustering High Dimensional Data Streams. IEEE Access, 2019, 7, 127128-127140.	2.6	20
122	Adapting the Pheromone Evaporation Rate in Dynamic Routing Problems. Lecture Notes in Computer Science, 2013, , 606-615.	1.0	20
123	Evolutionary Dynamic Multi-objective Optimisation: A Survey. ACM Computing Surveys, 2023, 55, 1-47.	16.1	20
124	Force-imitated particle swarm optimization using the near-neighbor effect for locating multiple optima. Information Sciences, 2012, 182, 139-155.	4.0	19
125	Analysis of fitness landscape modifications in evolutionary dynamic optimization. Information Sciences, 2014, 282, 214-236.	4.0	19
126	Evolutionary dynamic constrained optimization: Test suite construction and algorithm comparisons. Swarm and Evolutionary Computation, 2019, 50, 100559.	4.5	19

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127	A novel discrete bat algorithm for heterogeneous redundancy allocation of multi-state systems subject to probabilistic common-cause failure. Reliability Engineering and System Safety, 2021, 208, 107338.	5.1	19
128	Dynamic Transfer Reference Point-Oriented MOEA/D Involving Local Objective-Space Knowledge. IEEE Transactions on Evolutionary Computation, 2022, 26, 542-554.	7.5	19
129	A multipopulation parallel genetic simulated annealing-based QoS routing and wavelength assignment integration algorithm for multicast in optical networks. Applied Soft Computing Journal, 2009, 9, 677-684.	4.1	18
130	Energy Consumption Forecasting for the Nonferrous Metallurgy Industry Using Hybrid Support Vector Regression with an Adaptive State Transition Algorithm. Cognitive Computation, 2020, 12, 357-368.	3.6	18
131	Dynamic multi-objective optimization algorithm based decomposition and preference. Information Sciences, 2021, 571, 175-190.	4.0	18
132	Multiview Subspace Clustering Using Low-Rank Representation. IEEE Transactions on Cybernetics, 2022, 52, 12364-12378.	6.2	18
133	A test problem for visual investigation of high-dimensional multi-objective search. , 2014, , .		17
134	A framework of scalable dynamic test problems for dynamic multi-objective optimization. , 2014, , .		17
135	An Ant Colony Optimization Based Memetic Algorithm for the Dynamic Travelling Salesman Problem. , 2015, , .		17
136	A two-archive algorithm with decomposition and fitness allocation for multi-modal multi-objective optimization. Information Sciences, 2021, 574, 413-430.	4.0	17
137	Combining a hybrid prediction strategy and a mutation strategy for dynamic multiobjective optimization. Swarm and Evolutionary Computation, 2022, 70, 101041.	4.5	17
138	Stabilityâ€aware multiâ€metric clustering in mobile ad hoc networks with group mobility. Wireless Communications and Mobile Computing, 2009, 9, 759-771.	0.8	16
139	Evolving neural networks using ant colony optimization with pheromone trail limits. , 2013, , .		16
140	An adaptation reference-point-based multiobjective evolutionary algorithm. Information Sciences, 2019, 488, 41-57.	4.0	16
141	AREA: An adaptive reference-set based evolutionary algorithm for multiobjective optimisation. Information Sciences, 2020, 515, 365-387.	4.0	16
142	A Fuzzy Decision Variables Framework for Large-Scale Multiobjective Optimization. IEEE Transactions on Evolutionary Computation, 2023, 27, 445-459.	7.5	16
143	IMMIGRANTS-ENHANCED MULTI-POPULATION GENETIC ALGORITHMS FOR DYNAMIC SHORTEST PATH ROUTING PROBLEMS IN MOBILE AD HOC NETWORKS. Applied Artificial Intelligence, 2012, 26, 673-695.	2.0	15
144	Multifurnace Optimization in Electric Smelting Plants by Load Scheduling and Control. IEEE Transactions on Automation Science and Engineering, 2014, 11, 850-862.	3.4	15

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145	A Directed Mutation Operator for Real Coded Genetic Algorithms. Lecture Notes in Computer Science, 2010, , 491-500.	1.0	14
146	An adaptive local search algorithm for real-valued dynamic optimization. , 2015, , .		14
147	Ra-dominance: A new dominance relationship for preference-based evolutionary multiobjective optimization. Applied Soft Computing Journal, 2020, 90, 106192.	4.1	14
148	Improving Uncertainty Estimations for Mammogram Classification using Semi-Supervised Learning. , 2021, , .		14
149	Joint Multicast Routing and Channel Assignment in Multiradio Multichannel Wireless Mesh Networks Using Simulated Annealing. Lecture Notes in Computer Science, 2008, , 370-380.	1.0	14
150	Constructing dynamic test environments for genetic algorithms based on problem difficulty. , 0, , .		13
151	Adaptive mutation with fitness and allele distribution correlation for genetic algorithms. , 2006, , .		13
152	Ant colony optimization with self-adaptive evaporation rate in dynamic environments. , 2014, , .		13
153	Evolutionary Computation for Dynamic Optimization Problems. , 2015, , .		13
154	Convergence Versus Diversity in Multiobjective Optimization. Lecture Notes in Computer Science, 2016, , 984-993.	1.0	13
155	Adaptive neighborhood selection for many-objective optimization problems. Applied Soft Computing Journal, 2018, 64, 186-198.	4.1	13
156	Dealing with Scarce Labelled Data: Semi-supervised Deep Learning with Mix Match for Covid-19 Detection Using Chest X-ray Images. , 2021, , .		13
157	Genetic algorithms with elitism-based immigrants for dynamic load balanced clustering problem in mobile ad hoc networks. , 2011, , .		12
158	Use of the q-Gaussian mutation in evolutionary algorithms. Soft Computing, 2011, 15, 1523-1549.	2.1	12
159	Evolutionary computation for dynamic optimization problems. , 2013, , .		12
160	An infeasible solutions diversity maintenance epsilon constraint handling method for evolutionary constrained multiobjective optimization. Soft Computing, 2021, 25, 8051-8062.	2.1	12
161	Genetic Algorithms with Self-Organizing Behaviour in Dynamic Environments. Studies in Computational Intelligence, 2007, , 105-127.	0.7	12
162	Evolutionary Dynamic Optimization: Test and Evaluation Environments. Studies in Computational Intelligence, 2013, , 3-37.	0.7	12

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163	Cooperative co-evolutionary algorithm for multi-objective optimization problems with changing decision variables. Information Sciences, 2022, 607, 278-296.	4.0	12
164	Finding and Tracking Multi-Density Clusters in Online Dynamic Data Streams. IEEE Transactions on Big Data, 2022, 8, 178-192.	4.4	11
165	A New Crossover Mechanism for Genetic Algorithms for Steiner Tree Optimization. IEEE Transactions on Cybernetics, 2022, 52, 3147-3158.	6.2	11
166	A feedback-based prediction strategy for dynamic multi-objective evolutionary optimization. Expert Systems With Applications, 2021, 172, 114594.	4.4	11
167	Niche-based and angle-based selection strategies for many-objective evolutionary optimization. Information Sciences, 2021, 571, 133-153.	4.0	11
168	A many-objective evolutionary algorithm based on dominance and decomposition with reference point adaptation. Knowledge-Based Systems, 2021, 231, 107392.	4.0	11
169	Genetic algorithms with elitism-based immigrants for dynamic shortest path problem in mobile ad hoc networks. , 2009, , .		10
170	Ant Colony Optimization with Immigrants Schemes for the Dynamic Vehicle Routing Problem. Lecture Notes in Computer Science, 2012, , 519-528.	1.0	10
171	Evolutionary Dynamic Optimization: Methodologies. Studies in Computational Intelligence, 2013, , 39-64.	0.7	10
172	A benchmark generator for dynamic multi-objective optimization problems. , 2014, , .		10
173	A green intelligent routing algorithm supporting flexible QoS for many-to-many multicast. Computer Networks, 2017, 126, 229-245.	3.2	10
174	Accelerating differential evolution based on a subset-to-subset survivor selection operator. Soft Computing, 2019, 23, 4113-4130.	2.1	10
175	A modular neural network-based population prediction strategy for evolutionary dynamic multi-objective optimization. Swarm and Evolutionary Computation, 2021, 62, 100829.	4.5	10
176	Evolutionary Multiobjective Clustering Algorithms With Ensemble for Patient Stratification. IEEE Transactions on Cybernetics, 2022, 52, 11027-11040.	6.2	10
177	Dealing with distribution mismatch in semi-supervised deep learning for COVID-19 detection using chest X-ray images: A novel approach using feature densities. Applied Soft Computing Journal, 2022, 123, 108983.	4.1	10
178	Joint Multicast Routing and Channel Assignment in Multiradio Multichannel Wireless Mesh Networks Using Tabu Search. , 2009, , .		9
179	Genetic algorithms with adaptive immigrants for dynamic environments. , 2013, , .		9
180	In silico discovery of significant pathways in colorectal cancer metastasis using a twoâ€stage optimisation approach. IET Systems Biology, 2015, 9, 294-302.	0.8	9

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181	Less detectable environmental changes in dynamic multiobjective optimisation. , 2018, , .		9
182	A random benchmark suite and a new reaction strategy in dynamic multiobjective optimization. Swarm and Evolutionary Computation, 2021, 63, 100867.	4.5	9
183	An Island Based Hybrid Evolutionary Algorithm for Optimization. Lecture Notes in Computer Science, 2008, , 180-189.	1.0	9
184	A level-based multi-strategy learning swarm optimizer for large-Scale multi-objective optimization. Swarm and Evolutionary Computation, 2022, 73, 101100.	4.5	9
185	Memory-Enhanced Univariate Marginal Distribution Algorithms for Dynamic Optimization Problems. , 0, , .		8
186	Hyper-mutation Based Genetic Algorithms for Dynamic Multicast Routing Problem in Mobile Ad Hoc Networks. , 2012, , .		8
187	An Immigrants Scheme Based on Environmental Information for Ant Colony Optimization for the Dynamic Travelling Salesman Problem. Lecture Notes in Computer Science, 2012, , 1-12.	1.0	8
188	Interactive and non-interactive hybrid immigrants schemes for ant algorithms in dynamic environments. , 2014, , .		8
189	Solving dynamic multi-objective problems with an evolutionary multi-directional search approach. Knowledge-Based Systems, 2020, 194, 105175.	4.0	8
190	An Immune System Based Genetic Algorithm Using Permutation-Based Dualism for Dynamic Traveling Salesman Problems. Lecture Notes in Computer Science, 2009, , 725-734.	1.0	8
191	A Guided Search Non-dominated Sorting Genetic Algorithm for the Multi-Objective University Course Timetabling Problem. Lecture Notes in Computer Science, 2011, , 1-13.	1.0	8
192	Ant Colony Optimization Algorithms with Immigrants Schemes for the Dynamic Travelling Salesman Problem. Studies in Computational Intelligence, 2013, , 317-341.	0.7	8
193	Handling Dynamic Multiobjective Optimization Environments via Layered Prediction and Subspace-Based Diversity Maintenance. IEEE Transactions on Cybernetics, 2023, 53, 2572-2585.	6.2	8
194	A multiobjective state transition algorithm based on modified decomposition method. Applied Soft Computing Journal, 2022, 119, 108553.	4.1	8
195	A multiobjective evolutionary algorithm based on decision variable classification for many-objective optimization. Swarm and Evolutionary Computation, 2022, 73, 101108.	4.5	8
196	On the Design of Diploid Genetic Algorithms for Problem Optimization in Dynamic Environments. , 0, , .		7
197	Dominance learning in diploid genetic algorithms for dynamic optimization problems. , 2006, , .		7
198	Self-adaptation of mutation distribution in evolutionary algorithms. , 2007, , .		7

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199	A hybrid evolutionary multiobjective approach for the dynamic component selection problem. , 2011, , .		7
200	Dynamic Stream Clustering Using Ants. Advances in Intelligent Systems and Computing, 2017, , 495-508.	0.5	7
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