Xingyi Zhang

List of Publications by Year in Descending Order

111 papers	4,641 citations	34 h-index	67 g-index
121 ext. papers	6,342 ext. citations	6.2 avg, IF	6.5 L-index

#	Paper	IF	Citations
111	A Large-Scale Combinatorial Many-Objective Evolutionary Algorithm for Intensity-Modulated Radiotherapy Planning. *IEEE Transactions on Evolutionary Computation*, **2022**, 1-1	15.6	
110	An evolutionary algorithm for solving Capacitated Vehicle Routing Problems by using local information. *Applied Soft Computing Journal*, **2022**, 117, 108431	7.5	1
109	Deep Reinforcement Learning Based Adaptive Operator Selection for Evolutionary Multi-Objective Optimization. *IEEE Transactions on Emerging Topics in Computational Intelligence*, **2022**, 1-14	4.1	4
108	Evolutionary Large-Scale Multi-Objective Optimization: A Survey. *ACM Computing Surveys*, **2022**, 54, 1-34	13.4	12
107	A Fast Clustering Based Evolutionary Algorithm for Super-Large-Scale Sparse Multi-Objective Optimization. *IEEE/CAA Journal of Automatica Sinica*, **2022**, 1-16	7	1
106	Rate□istortion optimal evolutionary algorithm for JPEG quantization with multiple rates. *Knowledge-Based Systems*, **2022**, 244, 108500	7.3	0
105	Imperceptible and Sparse Adversarial Attacks via a Dual-Population Based Constrained Evolutionary Algorithm. *IEEE Transactions on Artificial Intelligence*, **2022**, 1-1	4.7	1
104	Privacy-Preserving Link Prediction in Multiple Private Networks. *IEEE Transactions on Computational Social Systems*, **2022**, 1-13	4.5	0
103	Accelerating Evolutionary Neural Architecture Search via Multi-Fidelity Evaluation. *IEEE Transactions on Cognitive and Developmental Systems*, **2022**, 1-1	3	0
102	Dual-decoder graph autoencoder for unsupervised graph representation learning. *Knowledge-Based Systems*, **2021**, 234, 107564	7.3	2
101	A Local-Global Influence Indicator Based Constrained Evolutionary Algorithm for Budgeted Influence Maximization in Social Networks. *IEEE Transactions on Network Science and Engineering*, **2021**, 8, 1557-1570	4.9	1
100	A Local-Neighborhood Information Based Overlapping Community Detection Algorithm for Large-Scale Complex Networks. *IEEE/ACM Transactions on Networking*, **2021**, 29, 543-556	3.8	7
99	A Multipopulation Evolutionary Algorithm for Solving Large-Scale Multimodal Multiobjective Optimization Problems. *IEEE Transactions on Evolutionary Computation*, **2021**, 25, 405-418	15.6	14
98	Paired Offspring Generation for Constrained Large-Scale Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, **2021**, 25, 448-462	15.6	7
97	A multi-stage evolutionary algorithm for multi-objective optimization with complex constraints. *Information Sciences*, **2021**, 560, 68-91	7.7	17
96	A responsive ant colony optimization for large-scale dynamic vehicle routing problems via pheromone diversity enhancement. *Complex & Intelligent Systems*, **2021**, 7, 2543	7.1	1
95	An Evolutionary Multiobjective Route Grouping-Based Heuristic Algorithm for Large-Scale Capacitated Vehicle Routing Problems. *IEEE Transactions on Cybernetics*, **2021**, 51, 4173-4186	10.2	5

94	Solving Large-Scale Multiobjective Optimization Problems With Sparse Optimal Solutions via Unsupervised Neural Networks. *IEEE Transactions on Cybernetics*, **2021**, 51, 3115-3128	10.2	33
93	A Coevolutionary Framework for Constrained Multiobjective Optimization Problems. *IEEE Transactions on Evolutionary Computation*, **2021**, 25, 102-116	15.6	59
92	A local-to-global scheme-based multi-objective evolutionary algorithm for overlapping community detection on large-scale complex networks. *Neural Computing and Applications*, **2021**, 33, 5135-5149	4.8	5
91	EMODMI: A Multi-Objective Optimization Based Method to Identify Disease Modules. *IEEE Transactions on Emerging Topics in Computational Intelligence*, **2021**, 5, 570-582	4.1	6
90	A Community Structure Enhancement-Based Community Detection Algorithm for Complex Networks. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 51, 2833-2846	7.3	11
89	A Pairwise Proximity Learning-Based Ant Colony Algorithm for Dynamic Vehicle Routing Problems. *IEEE Transactions on Intelligent Transportation Systems*, **2021**, 1-12	6.1	7
88	Balancing Objective Optimization and Constraint Satisfaction in Constrained Evolutionary Multiobjective Optimization. *IEEE Transactions on Cybernetics*, **2021**, PP,	10.2	15
87	A Dual-Population Based Evolutionary Algorithm for Multi-Objective Location Problem Under Uncertainty of Facilities. *IEEE Transactions on Intelligent Transportation Systems*, **2021**, 1-16	6.1	2
86	A Pattern Mining-Based Evolutionary Algorithm for Large-Scale Sparse Multiobjective Optimization Problems. *IEEE Transactions on Cybernetics*, **2021**, PP,	10.2	5
85	Two-Stage Selective Ensemble of CNN via Deep Tree Training for Medical Image Classification. *IEEE Transactions on Cybernetics*, **2021**, PP,	10.2	7
84	SOIDP: Predicting Interlayer Links in Multiplex Networks. *IEEE Transactions on Computational Social Systems*, **2021**, 1-11	4.5	2
83	A Comparison Study of Evolutionary Algorithms on Large-Scale Sparse Multi-objective Optimization Problems. *Lecture Notes in Computer Science*, **2021**, 424-437	0.9	1
82	A seasonal-trend decomposition-based dendritic neuron model for financial time series prediction. *Applied Soft Computing Journal*, **2021**, 108, 107488	7.5	11
81	Balancing topology structure and node attribute in evolutionary multi-objective community detection for attributed networks. *Knowledge-Based Systems*, **2021**, 227, 107169	7.3	2
80	A parallel multi-objective evolutionary algorithm for community detection in large-scale complex networks. *Information Sciences*, **2021**, 576, 374-392	7.7	11
79	Action Command Encoding for Surrogate Assisted Neural Architecture Search. *IEEE Transactions on Cognitive and Developmental Systems*, **2021**, 1-1	3	0
78	A Gradient-Guided Evolutionary Approach to Training Deep Neural Networks. *IEEE Transactions on Neural Networks and Learning Systems*, **2021**, PP,	10.3	7
77	Multi-Objective Optimization of Critical Node Detection Based on Cascade Model in Complex Networks. *IEEE Transactions on Network Science and Engineering*, **2020**, 7, 2052-2066	4.9	13

76	Community detection in complex networks with an ambiguous structure using central node based link prediction. *Knowledge-Based Systems*, **2020**, 195, 105626	7.3	26
75	Demand coverage diversity based ant colony optimization for dynamic vehicle routing problems. *Engineering Applications of Artificial Intelligence*, **2020**, 91, 103582	7.2	19
74	A Clustering-Based Surrogate-Assisted Multiobjective Evolutionary Algorithm for Shelter Location Problem Under Uncertainty of Road Networks. *IEEE Transactions on Industrial Informatics*, **2020**, 16, 7544-7555	11.9	12
73	A Multistage Evolutionary Algorithm for Better Diversity Preservation in Multiobjective Optimization. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2020**, 1-15	7.3	14
72	A new history-guided multi-objective evolutionary algorithm based on decomposition for batching scheduling. *Expert Systems With Applications*, **2020**, 141, 112920	7.8	8
71	AdaBoost-inspired multi-operator ensemble strategy for multi-objective evolutionary algorithms. *Neurocomputing*, **2020**, 384, 243-255	5.4	9
70	Maximizing receiver operating characteristics convex hull via dynamic reference point-based multi-objective evolutionary algorithm. *Applied Soft Computing Journal*, **2020**, 86, 105896	7.5	5
69	Iterated Problem Reformulation for Evolutionary Large-Scale Multiobjective Optimization **2020**,		6
68	A Recommender System for Metaheuristic Algorithms for Continuous Optimization Based on Deep Recurrent Neural Networks. *IEEE Transactions on Artificial Intelligence*, **2020**, 1, 5-18	4.7	12
67	Guiding Evolutionary Multiobjective Optimization With Generic Front Modeling. *IEEE Transactions on Cybernetics*, **2020**, 50, 1106-1119	10.2	21
66	A Network Reduction-Based Multiobjective Evolutionary Algorithm for Community Detection in Large-Scale Complex Networks. *IEEE Transactions on Cybernetics*, **2020**, 50, 703-716	10.2	34
65	An Evolutionary Algorithm for Large-Scale Sparse Multiobjective Optimization Problems. *IEEE Transactions on Evolutionary Computation*, **2020**, 24, 380-393	15.6	81
64	Efficient Large-Scale Multiobjective Optimization Based on a Competitive Swarm Optimizer. *IEEE Transactions on Cybernetics*, **2020**, 50, 3696-3708	10.2	60
63	An Evolutionary Multiobjective Optimization Based Fuzzy Method for Overlapping Community Detection. *IEEE Transactions on Fuzzy Systems*, **2020**, 28, 2841-2855	8.3	14
62	A non-revisiting genetic algorithm based on a novel binary space partition tree. *Information Sciences*, **2020**, 512, 661-674	7.7	15
61	A Heuristic Algorithm for Identifying Molecular Signatures in Cancer. *IEEE Transactions on Nanobioscience*, **2020**, 19, 132-141	3.4	8
60	Accelerating Large-Scale Multiobjective Optimization via Problem Reformulation. *IEEE Transactions on Evolutionary Computation*, **2019**, 23, 949-961	15.6	78
59	A Strengthened Dominance Relation Considering Convergence and Diversity for Evolutionary Many-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, **2019**, 23, 331-345	15.6	101

58	Using PlatEMO to Solve Multi-Objective Optimization Problems in Applications: A Case Study on Feature Selection **2019**,		5
57	Diversity Assessment of Multi-Objective Evolutionary Algorithms: Performance Metric and Benchmark Problems [Research Frontier]. *IEEE Computational Intelligence Magazine*, **2019**, 14, 61-74	5.6	41
56	An Evolutionary Algorithm Based on Multi-operator Ensemble for Multi-objective Optimization. *Lecture Notes in Computer Science*, **2019**, 14-24	0.9	
55	Evolutionary Algorithm for Solving Complex Multiobjective Optimization Problems **2019**, 107-132		
54	Multi-objective evolutionary algorithm for optimizing the partial area under the ROC curve. *Knowledge-Based Systems*, **2019**, 170, 61-69	7.3	9
53	Automated Selection of Evolutionary Multi-objective Optimization Algorithms **2019**,		3
52	A Surrogate-Assisted Multiobjective Evolutionary Algorithm for Large-Scale Task-Oriented Pattern Mining. *IEEE Transactions on Emerging Topics in Computational Intelligence*, **2019**, 3, 106-116	4.1	16
51	A Classification-Based Surrogate-Assisted Evolutionary Algorithm for Expensive Many-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, **2019**, 23, 74-88	15.6	134
50	A unified method of detecting core-periphery structure and community structure in networks. *Chaos*, **2018**, 28, 013122	3.3	9
49	An Indicator-Based Multiobjective Evolutionary Algorithm With Reference Point Adaptation for Better Versatility. *IEEE Transactions on Evolutionary Computation*, **2018**, 22, 609-622	15.6	251
48	A local information based multi-objective evolutionary algorithm for community detection in complex networks. *Applied Soft Computing Journal*, **2018**, 69, 357-367	7.5	26
47	Low-rank subspace learning based network community detection. *Knowledge-Based Systems*, **2018**, 155, 71-82	7.3	9
46	A Decision Variable Clustering-Based Evolutionary Algorithm for Large-Scale Many-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, **2018**, 22, 97-112	15.6	203
45	A competitive mechanism based multi-objective particle swarm optimizer with fast convergence. *Information Sciences*, **2018**, 427, 63-76	7.7	138
44	On String Languages Generated by Spiking Neural P Systems With Structural Plasticity. *IEEE Transactions on Nanobioscience*, **2018**, 17, 560-566	3.4	15
43	MOFSRank: A Multiobjective Evolutionary Algorithm for Feature Selection in Learning to Rank. *Complexity*, **2018**, 2018, 1-14	1.6	3
42	Sampling Reference Points on the Pareto Fronts of Benchmark Multi-Objective Optimization Problems **2018**,		28
41	A seed-expanding method based on random walks for community detection in networks with ambiguous community structures. *Scientific Reports*, **2017**, 7, 41830	4.9	20

40	A benchmark test suite for evolutionary many-objective optimization. *Complex & Intelligent Systems*, **2017**, 3, 67-81	7.1	187
39	A Mixed Representation-Based Multiobjective Evolutionary Algorithm for Overlapping Community Detection. *IEEE Transactions on Cybernetics*, **2017**, 47, 2703-2716	10.2	64
38	A region division based diversity maintaining approach for many-objective optimization. *Integrated Computer-Aided Engineering*, **2017**, 24, 279-296	5.2	47
37	Effectiveness and efficiency of non-dominated sorting for evolutionary multi- and many-objective optimization. *Complex & Intelligent Systems*, **2017**, 3, 247-263	7.1	63
36	An algorithm based on positive and negative links for community detection in signed networks. *Scientific Reports*, **2017**, 7, 10874	4.9	11
35	A radial space division based evolutionary algorithm for many-objective optimization. *Applied Soft Computing Journal*, **2017**, 61, 603-621	7.5	64
34	Pattern Recommendation in Task-oriented Applications: A Multi-Objective Perspective [Application Notes]. *IEEE Computational Intelligence Magazine*, **2017**, 12, 43-53	5.6	37
33	PlatEMO: A MATLAB Platform for Evolutionary Multi-Objective Optimization [Educational Forum]. *IEEE Computational Intelligence Magazine*, **2017**, 12, 73-87	5.6	645
32	A Fast Overlapping Community Detection Algorithm Based on Weak Cliques for Large-Scale Networks. *IEEE Transactions on Computational Social Systems*, **2017**, 4, 218-230	4.5	31
31	Overlapping Community Detection based on Network Decomposition. *Scientific Reports*, **2016**, 6, 24115	4.9	40
30	Complex Network Clustering by a Multi-objective Evolutionary Algorithm Based on Decomposition and Membrane Structure. *Scientific Reports*, **2016**, 6, 33870	4.9	28
29	Approximate non-dominated sorting for evolutionary many-objective optimization. *Information Sciences*, **2016**, 369, 14-33	7.7	40
28	A multi-objective evolutionary algorithm based on an enhanced inverted generational distance metric **2016**,		44
27	Empirical analysis of a tree-based efficient non-dominated sorting approach for many-objective optimization **2016**,		4
26	An improved reference point sampling method on Pareto optimal front **2016**,		9
25	Spiking Neural P Systems With White Hole Neurons. *IEEE Transactions on Nanobioscience*, **2016**, 15, 666-673	3.4	59
24	A multi-objective membrane algorithm guided by the skin membrane. *Natural Computing*, **2016**, 15, 597-610	1.3	10
23	On the Universality of Axon P Systems. *IEEE Transactions on Neural Networks and Learning Systems*, **2015**, 26, 2816-29	10.3	124

22	A Knee Point-Driven Evolutionary Algorithm for Many-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, **2015**, 19, 761-776	15.6	449
21	An Efficient Approach to Nondominated Sorting for Evolutionary Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, **2015**, 19, 201-213	15.6	296
20	Spiking neural P systems with thresholds. *Neural Computation*, **2014**, 26, 1340-61	2.9	94
19	On some classes of sequential spiking neural p systems. *Neural Computation*, **2014**, 26, 974-97	2.9	52
18	Weighted Spiking Neural P Systems with Rules on Synapses. *Fundamenta Informaticae*, **2014**, 134, 201-218	1.8	11
17	Spiking neural P systems with a generalized use of rules. *Neural Computation*, **2014**, 26, 2925-43	2.9	31
16	Computational power of tissue P systems for generating control languages. *Information Sciences*, **2014**, 278, 285-297	7.7	63
15	Sequential spiking neural P systems with exhaustive use of rules. *BioSystems*, **2012**, 108, 52-62	1.9	25
14	A membrane evolutionary algorithm for DNA sequence design in DNA computing. *Science Bulletin*, **2012**, 57, 698-706		33
13	Spiking Neural P Systems with Weighted Synapses. *Neural Processing Letters*, **2012**, 35, 13-27	2.4	48
12	Performing four basic arithmetic operations with spiking neural P systems. *IEEE Transactions on Nanobioscience*, **2012**, 11, 366-74	3.4	42
11	A uniform solution to the independent set problem through tissue P systems with cell separation. *Frontiers of Computer Science*, **2012**, 6, 477	2.2	
10	Tissue P systems with cell separation: attacking the partition problem. *Science China Information Sciences*, **2011**, 54, 293-304	3.4	27
9	Spiking Neural P Systems for Arithmetic Operations **2011**,		2
8	Time-free spiking neural P systems. *Neural Computation*, **2011**, 23, 1320-42	2.9	53
7	Similarity analysis of DNA sequences based on a compact representation **2010**,		1
6	Deterministic solutions to QSAT and Q3SAT by spiking neural P systems with pre-computed resources. *Theoretical Computer Science*, **2010**, 411, 2345-2358	1.1	89
5	Homogeneous Spiking Neural P Systems. *Fundamenta Informaticae*, **2009**, 97, 275-294	1	39

4	On languages generated by asynchronous spiking neural P systems. *Theoretical Computer Science*, **2009**, 410, 2478-2488	1.1	28
3	On string languages generated by spiking neural P systems with exhaustive use of rules. *Natural Computing*, **2008**, 7, 535-549	1.3	43
2	Improved SparseEA for sparse large-scale multi-objective optimization problems. *Complex & Intelligent Systems*,1	7.1	1
1	A conjugate gradient-assisted multi-objective evolutionary algorithm for fluence map optimization in radiotherapy treatment. *Complex & Intelligent Systems*,1	7.1	