Zexuan Zhu

List of Publications by Year
in descending order

108 papers	4,102 citations	147801 31 h-index	123424 61 g-index
110 all docs	110 docs citations	110 times ranked	3315 citing authors

#	Article	IF	Citations
1	PBMDA: A novel and effective path-based computational model for miRNA-disease association prediction. PLoS Computational Biology, 2017, 13, e1005455.	3.2	387
2	Markov blanket-embedded genetic algorithm for gene selection. Pattern Recognition, 2007, 40, 3236-3248.	8.1	360
3	Wrapper–Filter Feature Selection Algorithm Using a Memetic Framework. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 70-76.	5.0	353
4	A Survey on Cooperative Co-Evolutionary Algorithms. IEEE Transactions on Evolutionary Computation, 2019, 23, 421-441.	10.0	177
5	On Tchebycheff Decomposition Approaches for Multiobjective Evolutionary Optimization. IEEE Transactions on Evolutionary Computation, 2018, 22, 226-244.	10.0	135
6	LRLSHMDA: Laplacian Regularized Least Squares for Human Microbe–Disease Association prediction. Scientific Reports, 2017, 7, 7601.	3.3	112
7	A Survey of Weight Vector Adjustment Methods for Decomposition-Based Multiobjective Evolutionary Algorithms. IEEE Transactions on Evolutionary Computation, 2020, 24, 634-649.	10.0	104
8	Toward Adaptive Knowledge Transfer in Multifactorial Evolutionary Computation. IEEE Transactions on Cybernetics, 2021, 51, 2563-2576.	9.5	104
9	DNA Sequence Compression Using Adaptive Particle Swarm Optimization-Based Memetic Algorithm. IEEE Transactions on Evolutionary Computation, 2011, 15, 643-658.	10.0	103
10	Three-dimensional Gabor feature extraction for hyperspectral imagery classification using a memetic framework. Information Sciences, 2015, 298, 274-287.	6.9	98
11	PBHMDA: Path-Based Human Microbe-Disease Association Prediction. Frontiers in Microbiology, 2017, 8, 233.	3.5	97
12	Global path planning of wheeled robots using multi-objective memetic algorithms. Integrated Computer-Aided Engineering, 2015, 22, 387-404.	4.6	85
13	High-throughput DNA sequence data compression. Briefings in Bioinformatics, 2015, 16, 1-15.	6.5	85
14	Concept Drift Adaptation by Exploiting Historical Knowledge. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 4822-4832.	11.3	82
15	Hybrid of memory and prediction strategies for dynamic multiobjective optimization. Information Sciences, 2019, 485, 200-218.	6.9	80
16	Multimodal Multiobjective Evolutionary Optimization With Dual Clustering in Decision and Objective Spaces. IEEE Transactions on Evolutionary Computation, 2021, 25, 130-144.	10.0	78
17	Discriminative Gabor Feature Selection for Hyperspectral Image Classification. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 29-33.	3.1	68
18	Identifying Autism Spectrum Disorder From Resting-State fMRI Using Deep Belief Network. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 2847-2861.	11.3	68

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19	Towards a Memetic Feature Selection Paradigm [Application Notes. IEEE Computational Intelligence Magazine, 2010, 5, 41-53.	3.2	67
20	A multi-objective memetic algorithm based on locality-sensitive hashing for one-to-many-to-one dynamic pickup-and-delivery problem. Information Sciences, 2016, 329, 73-89.	6.9	66
21	A hybrid of genetic transform and hyper-rectangle search strategies for evolutionary multi-tasking. Expert Systems With Applications, 2019, 138, 112798.	7.6	60
22	Solving Generalized Vehicle Routing Problem With Occasional Drivers via Evolutionary Multitasking. IEEE Transactions on Cybernetics, 2021, 51, 3171-3184.	9.5	55
23	Evolutionary Multitasking for Multiobjective Optimization With Subspace Alignment and Adaptive Differential Evolution. IEEE Transactions on Cybernetics, 2022, 52, 2096-2109.	9.5	50
24	A novel adaptive hybrid crossover operator for multiobjective evolutionary algorithm. Information Sciences, 2016, 345, 177-198.	6.9	44
25	An Indicator-Based Many-Objective Evolutionary Algorithm With Boundary Protection. IEEE Transactions on Cybernetics, 2021, 51, 4553-4566.	9.5	43
26	Identification of Full and Partial Class Relevant Genes. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2010, 7, 263-277.	3.0	42
27	A Two-Stage Feature Selection Framework for Hyperspectral Image Classification Using Few Labeled Samples. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1023-1035.	4.9	41
28	Predicting lncRNA-miRNA Interaction via Graph Convolution Auto-Encoder. Frontiers in Genetics, 2019, 10, 758.	2.3	41
29	A Many-Objective Evolutionary Algorithm Based on a Two-Round Selection Strategy. IEEE Transactions on Cybernetics, 2021, 51, 1417-1429.	9.5	38
30	An enhanced artificial bee colony algorithm with adaptive differential operators. Applied Soft Computing Journal, 2017, 58, 480-494.	7.2	35
31	Novel link prediction for large-scale miRNA-lncRNA interaction network in a bipartite graph. BMC Medical Genomics, 2018, 11, 113.	1.5	34
32	Light-weight reference-based compression of FASTQ data. BMC Bioinformatics, 2015, 16, 188.	2.6	33
33	Quantitative characterization of bovine serum albumin thin-films using terahertz spectroscopy and machine learning methods. Biomedical Optics Express, 2018, 9, 2917.	2.9	33
34	Robust twin boosting for feature selection from high-dimensional omics data with label noise. Information Sciences, 2015, 291, 1-18.	6.9	32
35	Multiobjectivization of Single-Objective Optimization in Evolutionary Computation: A Survey. IEEE Transactions on Cybernetics, 2023, 53, 3702-3715.	9.5	32
36	Global path planning of mobile robots using a memetic algorithm. International Journal of Systems Science, 2015, 46, 1982-1993.	5.5	31

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37	A Similarity-Based Multiobjective Evolutionary Algorithm for Deployment Optimization of Near Space Communication System. IEEE Transactions on Evolutionary Computation, 2017, 21, 878-897.	10.0	30
38	A Dynamic Multiobjective Evolutionary Algorithm Based on Decision Variable Classification. IEEE Transactions on Cybernetics, 2022, 52, 1602-1615.	9.5	30
39	Evolutionary Many-Task Optimization Based on Multisource Knowledge Transfer. IEEE Transactions on Evolutionary Computation, 2022, 26, 319-333.	10.0	30
40	Multiobjective Evolutionary Multitasking With Two-Stage Adaptive Knowledge Transfer Based on Population Distribution. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 4457-4469.	9.3	29
41	Iterative ensemble feature selection for multiclass classification of imbalanced microarray data. Journal of Biological Research, 2016, 23, 13.	2.1	25
42	LW-FQZip 2: a parallelized reference-based compression of FASTQ files. BMC Bioinformatics, 2017, 18, 179.	2.6	25
43	A Two-Level Transfer Learning Algorithm for Evolutionary Multitasking. Frontiers in Neuroscience, 2019, 13, 1408.	2.8	25
44	Quantitative analysis of bisphenol analogue mixtures by terahertz spectroscopy using machine learning method. Food Chemistry, 2021, 352, 129313.	8.2	25
45	Predicting synthetic lethal interactions in human cancers using graph regularized self-representative matrix factorization. BMC Bioinformatics, 2019, 20, 657.	2.6	24
46	A novel differential evolution algorithm with a self-adaptation parameter control method by differential evolution. Soft Computing, 2018, 22, 6171-6190.	3.6	23
47	DiME: A Scalable Disease Module Identification Algorithm with Application to Glioma Progression. PLoS ONE, 2014, 9, e86693.	2.5	22
48	Evolutionary multitasking in combinatorial search spaces: A case study in capacitated vehicle routing problem. , 2016, , .		22
49	RepLong: <i>de novo</i> repeat identification using long read sequencing data. Bioinformatics, 2018, 34, 1099-1107.	4.1	21
50	Multifactorial Differential Evolution with Opposition-based Learning for Multi-tasking Optimization. , 2019, , .		21
51	Enhanced Multifactorial Evolutionary Algorithm With Meme Helper-Tasks. IEEE Transactions on Cybernetics, 2022, 52, 7837-7851.	9.5	20
52	CompMap: a reference-based compression program to speed up read mapping to related reference sequences. Bioinformatics, 2015, 31, 426-428.	4.1	17
53	Multifactorial Evolutionary Algorithm Enhanced with Cross-task Search Direction. , 2019, , .		17
54	LncRNA-Disease Association Prediction Using Two-Side Sparse Self-Representation. Frontiers in Genetics, 2019, 10, 476.	2.3	17

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55	Adaptive Memetic Algorithm Based Evolutionary Multi-tasking Single-Objective Optimization. Lecture Notes in Computer Science, 2017, , 462-472.	1.3	15
56	Evolutionary Multi-tasking Single-Objective Optimization Based on Cooperative Co-evolutionary Memetic Algorithm. , 2017, , .		13
57	ATEN: And/Or tree ensemble for inferring accurate Boolean network topology and dynamics. Bioinformatics, 2020, 36, 578-585.	4.1	13
58	Two new reference vector adaptation strategies for many-objective evolutionary algorithms. Information Sciences, 2019, 483, 332-349.	6.9	13
59	Differential evolution algorithm with dichotomy-based parameter space compression. Soft Computing, 2019, 23, 3643-3660.	3.6	13
60	Merged Differential Grouping for Large-Scale Global Optimization. IEEE Transactions on Evolutionary Computation, 2022, 26, 1439-1451.	10.0	13
61	FMSM: a novel computational model for predicting potential miRNA biomarkers for various human diseases. BMC Systems Biology, 2018, 12, 121.	3.0	12
62	MUMI: Multitask Module Identification for Biological Networks. IEEE Transactions on Evolutionary Computation, 2020, 24, 765-776.	10.0	12
63	Compression of next-generation sequencing quality scores using memetic algorithm. BMC Bioinformatics, 2014, 15, S10.	2.6	11
64	Weighted Fused Pathway Graphical Lasso for Joint Estimation of Multiple Gene Networks. Frontiers in Genetics, 2019, 10, 623.	2.3	11
65	Multi-objective multi-factorial memetic algorithm based on bone route and large neighborhood local search for VRPTW. , 2020, , .		11
66	Identification of Autistic Risk Candidate Genes and Toxic Chemicals via Multilabel Learning. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3971-3984.	11.3	11
67	Decomposition-based multiobjective optimization with bicriteria assisted adaptive operator selection. Swarm and Evolutionary Computation, 2021, 60, 100790.	8.1	11
68	A feedback-based prediction strategy for dynamic multi-objective evolutionary optimization. Expert Systems With Applications, 2021, 172, 114594.	7.6	11
69	Joint learning of multiple gene networks from single-cell gene expression data. Computational and Structural Biotechnology Journal, 2020, 18, 2583-2595.	4.1	10
70	PSO based memetic algorithm for face recognition Gabor filters selection. , 2011, , .		9
71	Minimal-redundancy-maximal-relevance feature selection using different relevance measures for omics data classification. , 2013, , .		9
72	Assistant reference point guided evolutionary algorithm for many-objective fuzzy portfolio selection. Swarm and Evolutionary Computation, 2021, 62, 100862.	8.1	9

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73	Multi-objective evolutionary multi-tasking algorithm using cross-dimensional and prediction-based knowledge transfer. Information Sciences, 2022, 586, 540-562.	6.9	9
74	Evolutionary Multitasking for Optimization Based on Generative Strategies. IEEE Transactions on Evolutionary Computation, 2023, 27, 1042-1056.	10.0	9
75	Multimodal Multi-objective Optimization Using A Density-based One-by-One Update Strategy. , 2019, , .		8
76	Memetic Ant Colony Optimization for Band Selection of Hyperspectral Imagery Classification. , 2010, , .		7
77	Active module identification in intracellular networks using a memetic algorithm with a new binary decoding scheme. BMC Genomics, 2017, 18, 209.	2.8	7
78	Multi-objective memetic algorithm for core-periphery structure detection in complex network. Memetic Computing, 2021, 13, 285-306.	4.0	7
79	Multi-objective memetic algorithm for solving pickup and delivery problem with dynamic customer requests and traffic information. , 2016, , .		6
80	Evolutionary Search with Multiple Utopian Reference Points in Decomposition-Based Multiobjective Optimization. Complexity, 2019, 2019, 1-22.	1.6	6
81	MarkerGenie: an NLP-enabled text-mining system for biomedical entity relation extraction. Bioinformatics Advances, 2022, 2, .	2.4	6
82	Memetic clustering based on particle swarm optimizer and K-means. , 2012, , .		5
83	Using Chou's amphiphilic Pseudo-Amino Acid Composition and Extreme Learning Machine for prediction of Protein-protein interactions. , 2014, , .		5
84	Self-configuration single particle optimizer for DNA sequence compression. Soft Computing, 2013, 17, 675-682.	3.6	4
85	A Local Best Particle Swarm Optimization Based on Crown Jewel Defense Strategy. International Journal of Swarm Intelligence Research, 2015, 6, 41-63.	0.7	4
86	A comparative study on decomposition-based multi-objective evolutionary algorithms for many-objective optimization. , 2016, , .		4
87	Multi-objective memetic algorithm based on request prediction for dynamic pickup-and-delivery problems. , 2017, , .		4
88	S2A: Scale-Attention-Aware Networks for Video Super-Resolution. Entropy, 2021, 23, 1398.	2.2	4
89	Multi-objective multifactorial evolutionary algorithm enhanced with the weighting helper-task. , 2020, , .		4
90	Affinity propagation based memetic band selection on hyperspectral imagery datasets. , 2010, , .		3

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91	Orderly Roulette Selection Based Ant Colony Algorithm for Hierarchical Multilabel Protein Function Prediction. Mathematical Problems in Engineering, 2017, 2017, 1-15.	1.1	3
92	A dynamic multi-objective evolutionary algorithm based on polynomial regression and adaptive clustering. Swarm and Evolutionary Computation, 2022, 71, 101075.	8.1	3
93	A memory binary particle swarm optimization. , 2012, , .		2
94	Locality-sensitive hashing based multiobjective memetic algorithm for dynamic pickup and delivery problems. , 2014, , .		2
95	Survival analysis of gene expression data using PSO based radial basis function networks. , 2012, , .		1
96	A Preliminary Study of Adaptive Indicator Based Evolutionary Algorithm for Dynamic Multiobjective Optimization via Autoencoding. , 2018, , .		1
97	Multi-objective memetic algorithm based on correlation priority for pickup-and-delivery problems. , 2019, , .		1
98	An Adaptive Multi-objective Multifactorial Evolutionary Algorithm Based on Mixture Gaussian Distribution. , 2021, , .		1
99	CURC: a CUDA-based reference-free read compressor. Bioinformatics, 2022, 38, 3294-3296.	4.1	1
100	Feature Selection Technique for Hyperspectral Imagery Classification with Noise Reduction Preprocessing. , 2010, , .		0
101	Memetic figure selection for cluster expansion in binary alloy systems. , 2011, , .		0
102	A crown jewel defense strategy based particle swarm optimization. , 2012, , .		0
103	Probing label free antibody interactions with HA protein using terahertz pulsed spectroscopy. , 2013, , .		0
104	A more efficient method for domain repeat detection in WD-40 proteins. , 2016, , .		0
105	Metabolomics biomarker discovery using multimodal memetic algorithm and multivariate mutual information based feature selection. , 2016, , .		0
106	G-FQZip: Lossless Reference-Based Compression of FASTQ Files Using GPUs. , 2017, , .		0
107	Tracking Moving Optima of Dynamic Multi-objective Problem via Prediction in Objective Space. , 2020, , .		0
108	Memetic Algorithm Based on Community Detection for Energy-Efficient Service Migration Optimization in 5G Mobile Edge Computing. , 2021, , .		0