Xiaodong Li

List of Publications by Citations

161 papers	6,007 citations	40 h-index	74 g-index
174 ext. papers	7,227 ext. citations	4.5 avg, IF	6.56 L-index

#	Paper	IF	Citations
161	Cooperatively Coevolving Particle Swarms for Large Scale Optimization. *IEEE Transactions on Evolutionary Computation*, **2012**, 16, 210-224	15.6	459
160	Cooperative Co-Evolution With Differential Grouping for Large Scale Optimization. *IEEE Transactions on Evolutionary Computation*, **2014**, 18, 378-393	15.6	413
159	Locating and tracking multiple dynamic optima by a particle swarm model using speciation. *IEEE Transactions on Evolutionary Computation*, **2006**, 10, 440-458	15.6	385
158	Niching Without Niching Parameters: Particle Swarm Optimization Using a Ring Topology. *IEEE Transactions on Evolutionary Computation*, **2010**, 14, 150-169	15.6	265
157	Binary dragonfly optimization for feature selection using time-varying transfer functions. *Knowledge-Based Systems*, **2018**, 161, 185-204	7.3	232
156	A Non-dominated Sorting Particle Swarm Optimizer for Multiobjective Optimization. *Lecture Notes in Computer Science*, **2003**, 37-48	0.9	225
155	Swarm Intelligence in Optimization. *Natural Computing Series*, **2008**, 43-85	2.5	171
154	Erratum to Niching Without Niching Parameters: Particle Swarm Optimization Using a Ring Topology[[Feb 10 150-169]. *IEEE Transactions on Evolutionary Computation*, **2010**, 14, 665-665	15.6	149
153	DG2: A Faster and More Accurate Differential Grouping for Large-Scale Black-Box Optimization. *IEEE Transactions on Evolutionary Computation*, **2017**, 21, 929-942	15.6	137
152	Cooperative Co-evolution with delta grouping for large scale non-separable function optimization **2010**,		132
151	Adaptively Choosing Neighbourhood Bests Using Species in a Particle Swarm Optimizer for Multimodal Function Optimization. *Lecture Notes in Computer Science*, **2004**, 105-116	0.9	129
150	Seeking Multiple Solutions: An Updated Survey on Niching Methods and Their Applications. *IEEE Transactions on Evolutionary Computation*, **2017**, 21, 518-538	15.6	126
149	Efficient differential evolution using speciation for multimodal function optimization **2005**,		121
148	Cooperative Co-evolution for large scale optimization through more frequent random grouping **2010**,		109
147	A Competitive Divide-and-Conquer Algorithm for Unconstrained Large-Scale Black-Box Optimization. *ACM Transactions on Mathematical Software*, **2016**, 42, 1-24	2.3	109
146	Time series forecasting by evolving artificial neural networks with genetic algorithms, differential evolution and estimation of distribution algorithm. *Neural Computing and Applications*, **2013**, 22, 11-20	4.8	94
145	Cooperative Coevolution With Route Distance Grouping for Large-Scale Capacitated Arc Routing Problems. *IEEE Transactions on Evolutionary Computation*, **2014**, 18, 435-449	15.6	85

144	Particle swarm with speciation and adaptation in a dynamic environment **2006**,		84
143	A Survey on Cooperative Co-Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, **2019**, 23, 421-441	15.6	84
142	Designing benchmark problems for large-scale continuous optimization. *Information Sciences*, **2015**, 316, 419-436	7.7	82
141	Selected Papers from the Ninth International Conference on Computational Intelligence and Security. *Scientific World Journal, The*, **2013**, 2013, 1-2	2.2	78
140	A backtracking search hyper-heuristic for the distributed assembly flow-shop scheduling problem. *Swarm and Evolutionary Computation*, **2017**, 36, 124-135	9.8	76
139	Particle Swarms for Dynamic Optimization Problems. *Natural Computing Series*, **2008**, 193-217	2.5	69
138	. *IEEE Transactions on Evolutionary Computation*, **2016**, 20, 666-681	15.6	68
137	A review of population initialization techniques for evolutionary algorithms **2014**,		67
136	Efficient Resource Allocation in Cooperative Co-Evolution for Large-Scale Global Optimization. *IEEE Transactions on Evolutionary Computation*, **2017**, 21, 493-505	15.6	66
135	Tackling high dimensional nonseparable optimization problems by cooperatively coevolving particle swarms **2009**,		65
134	A particle swarm model for tracking multiple peaks in a dynamic environment using speciation		64
133	A novel scalable test problem suite for multimodal multiobjective optimization. *Swarm and Evolutionary Computation*, **2019**, 48, 62-71	9.8	58
132	A decomposition based memetic algorithm for multi-objective vehicle routing problem with time windows. *Computers and Operations Research*, **2015**, 62, 61-77	4.6	56
131	Smart use of computational resources based on contribution for cooperative co-evolutionary algorithms **2011**,		56
130	A multimodal particle swarm optimizer based on fitness Euclidean-distance ratio **2007**,		54
129	Better Spread and Convergence: Particle Swarm Multiobjective Optimization Using the Maximin Fitness Function. *Lecture Notes in Computer Science*, **2004**, 117-128	0.9	53
128	A framework for generating tunable test functions for multimodal optimization. *Soft Computing*, **2011**, 15, 1689-1706	3.5	52
127	Adaptively choosing niching parameters in a PSO **2006**,		51

126	A Real-Coded Predator-Prey Genetic Algorithm for Multiobjective Optimization. *Lecture Notes in Computer Science*, **2003**, 207-221	0.9	51
125	A dynamic archive niching differential evolution algorithm for multimodal optimization **2013**,		43
124	A Cooperative Coevolutionary Multiobjective Algorithm Using Non-dominated Sorting. *Lecture Notes in Computer Science*, **2004**, 537-548	0.9	43
123	A Survey of Weight Vector Adjustment Methods for Decomposition-Based Multiobjective Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, **2020**, 24, 634-649	15.6	42
122	A time-varying transfer function for balancing the exploration and exploitation ability of a binary PSO. *Applied Soft Computing Journal*, **2017**, 59, 182-196	7.5	41
121	An analysis of the velocity updating rule of the particle swarm optimization algorithm. *Journal of Heuristics*, **2014**, 20, 417-452	1.9	39
120	Self-adaptive multi-objective evolutionary algorithm based on decomposition for large-scale problems: A case study on reservoir flood control operation. *Information Sciences*, **2016**, 367-368, 529-549	7.7	35
119	Effective decomposition of large-scale separable continuous functions for cooperative co-evolutionary algorithms **2014**,		34
118	Using regression to improve local convergence **2007**,		33
117	A Scalable Approach to Capacitated Arc Routing Problems Based on Hierarchical Decomposition. *IEEE Transactions on Cybernetics*, **2017**, 47, 3928-3940	10.2	30
116	Designing airfoils using a reference point based evolutionary many-objective particle swarm optimization algorithm **2010**,		30
115	On investigation of interdependence between sub-problems of the Travelling Thief Problem. *Soft Computing*, **2016**, 20, 157-172	3.5	29
114	Particle swarm optimization **2007**,		29
113	CBCC3 — A contribution-based cooperative co-evolutionary algorithm with improved exploration/exploitation balance **2016**,		27
112	Initialization methods for large scale global optimization **2013**,		27
111	A new performance metric for user-preference based multi-objective evolutionary algorithms **2013**,		27
110	Reference point based multi-objective optimization through decomposition **2012**,		26
109	Multi-objective techniques in genetic programming for evolving classifiers		26

108	User-preference based decomposition in MOEA/D without using an ideal point. *Swarm and Evolutionary Computation*, **2019**, 44, 597-611	9.8	25
107	Efficient meta-heuristics for the Multi-Objective Time-Dependent Orienteering Problem. *European Journal of Operational Research*, **2016**, 254, 443-457	5.6	24
106	Effects of population initialization on differential evolution for large scale optimization **2014**,		24
105	Using a distance metric to guide PSO algorithms for many-objective optimization **2009**,		24
104	Integrating user preferences with particle swarms for multi-objective optimization **2008**,		24
103	Integrating user preferences and decomposition methods for many-objective optimization **2014**,		23
102	Evolutionary algorithms and multi-objectivization for the travelling salesman problem **2009**,		23
101	Cooperative Coevolution with Formula-Based Variable Grouping for Large-Scale Global Optimization. *Evolutionary Computation*, **2018**, 26, 569-596	4.3	22
100	Decomposition for Large-scale Optimization Problems with Overlapping Components **2019**,		21
99	Differential evolution on the CEC-2013 single-objective continuous optimization testbed **2013**,		21
98	Improving Efficiency of Heuristics for the Large Scale Traveling Thief Problem. *Lecture Notes in Computer Science*, **2014**, 631-643	0.9	21
97	Monte Carlo tree search based algorithms for dynamic difficulty adjustment **2017**,		20
96	Adaptive threshold parameter estimation with recursive differential grouping for problem decomposition **2018**,		19
95	A two phase hybrid algorithm with a new decomposition method for large scale optimization. *Integrated Computer-Aided Engineering*, **2018**, 25, 349-367	5.2	18
94	Enhancing the robustness of a speciation-based PSO		18
93	Multi-objective optimization for designing of high-speed train cabin ventilation system using particle swarm optimization and multi-fidelity Kriging. *Building and Environment*, **2019**, 155, 161-174	6.5	16
92	Comparing particle swarms for tracking extrema in dynamic environments		15
91	A genetic programming-based hyper-heuristic approach for storage location assignment problem **2014**,		14

90	A novel hybridization of opposition-based learning and cooperative co-evolutionary for large-scale optimization **2014**,		14
89	A multi-objective constraint-handling method with PSO algorithm for constrained engineering optimization problems **2008**,		14
88	Heuristic evolution with genetic programming for traveling thief problem **2015**,		13
87	A sensitivity analysis of contribution-based cooperative co-evolutionary algorithms **2015**,		13
86	A Generator for Multimodal Test Functions with Multiple Global Optima. *Lecture Notes in Computer Science*, **2008**, 239-248	0.9	13
85	Reservoir flood control operation using multi-objective evolutionary algorithm with decomposition and preferences. *Applied Soft Computing Journal*, **2017**, 50, 21-33	7.5	12
84	A comprehensive preference-based optimization framework with application to high-lift aerodynamic design. *Engineering Optimization*, **2012**, 44, 1209-1227	2	12
83	Rotated test problems for assessing the performance of multi-objective optimization algorithms **2006**,		12
82	Player-Computer Interaction Features for Designing Digital Play Experiences across Six Degrees of Water Contact **2015**,		12
81	Reference Point-Based Particle Swarm Optimization Using a Steady-State Approach. *Lecture Notes in Computer Science*, **2008**, 200-209	0.9	12
80	Choosing Leaders for Multi-objective PSO Algorithms Using Differential Evolution. *Lecture Notes in Computer Science*, **2008**, 249-258	0.9	12
79	Swarm Intelligence. *Profiles in Operations Research*, **2019**, 353-384	1	12
78	Multi-objective optimization of HVAC system using NSPSO and Kriging algorithms—A case study. *Building Simulation*, **2017**, 10, 769-781	3.9	11
77	Comparing lbest PSO niching algorithms using different position update rules **2010**,		11
76	ROTATED PROBLEMS AND ROTATIONALLY INVARIANT CROSSOVER IN EVOLUTIONARY MULTI-OBJECTIVE OPTIMIZATION. *International Journal of Computational Intelligence and Applications*, **2008**, 07, 149-186	1.2	11
75	Bandit-based cooperative coevolution for tackling contribution imbalance in large-scale optimization problems. *Applied Soft Computing Journal*, **2019**, 76, 265-281	7.5	11
74	Parameter Control within a Co-operative Co-evolutionary Genetic Algorithm. *Lecture Notes in Computer Science*, **2002**, 247-256	0.9	11
73	Decomposing Large-Scale Capacitated Arc Routing Problems using a random route grouping method **2013**,		10

72	Swarm Heuristic for Identifying Preferred Solutions in Surrogate-Based Multi-Objective Engineering Design. *AIAA Journal*, **2011**, 49, 1437-1449	2.1	10
71	Neuroevolution of content layout in the PCG: Angry bots video game **2013**,		9
70	Evolving patch-based terrains for use in video games **2011**,		9
69	A Distance Metric for Evolutionary Many-Objective Optimization Algorithms Using User-Preferences. *Lecture Notes in Computer Science*, **2009**, 443-453	0.9	9
68	Symbol detection in spatial multiplexing system using particle swarm optimization meta-heuristics. *International Journal of Communication Systems*, **2008**, 21, 1239-1257	1.7	9
67	Informative performance metrics for dynamic optimisation problems **2007**,		9
66	A Comparative Study of CMA-ES on Large Scale Global Optimisation. *Lecture Notes in Computer Science*, **2010**, 303-312	0.9	9
65	Sensitivity analysis of Penalty-based Boundary Intersection on aggregation-based EMO algorithms **2015**,		8
64	Variable neighborhood decomposition for Large Scale Capacitated Arc Routing Problem **2014**,		8
63	Decomposition and cooperative coevolution techniques for large scale global optimization **2014**,		8
62	Time series forecasting by evolving artificial neural networks using genetic algorithms and differential evolution **2010**,		8
61	Why Advanced Population Initialization Techniques Perform Poorly in High Dimension?. *Lecture Notes in Computer Science*, **2014**, 479-490	0.9	8
60	Learning a Super Mario controller from examples of human play **2014**,		7
59	A survey of procedural terrain generation techniques using evolutionary algorithms **2012**,		7
58	Improving Local Convergence in Particle Swarms by Fitness Approximation Using Regression. *Adaptation, Learning, and Optimization*, **2010**, 265-293	0.7	7
57	Developing Niching Algorithms in Particle Swarm Optimization. *Adaptation, Learning, and Optimization*, **2011**, 67-88	0.7	7
56	An improved performance metric for multiobjective evolutionary algorithms with user preferences **2015**,		6
55	Improving the performance and scalability of Differential Evolution on problems exhibiting parameter interactions. *Soft Computing*, **2011**, 15, 1769-1792	3.5	6

54	Editorial Special Issue: Swarm Intelligence. *IEEE Transactions on Evolutionary Computation*, **2009**, 13, 677-680	13.0	6
53	Generalization of machine learning for problem reduction: a case study on travelling salesman problems. *OR Spectrum*, **2021**, 43, 607-633	1.9	6
52	Using Statistical Measures and Machine Learning for Graph Reduction to Solve Maximum Weight Clique Problems. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2021**, 43, 1746-1760	13.3	6
51	Integrated Approach to Personalized Procedural Map Generation Using Evolutionary Algorithms. *IEEE Transactions on Games*, **2015**, 7, 139-155		5
50	Towards solving large-scale precedence constrained production scheduling problems in mining **2017**,		5
49	Multimodal truss structure design using bilevel and niching based evolutionary algorithms **2017**,		5
48	Investigation of self-adaptive differential evolution on the CEC-2013 real-parameter single-objective optimization testbed **2013**,		5
47	Integrating User-Preference Swarm Algorithm and Surrogate Modeling for Airfoil Design **2011**,		5
46	Multiobjective parsimony enforcement for superior generalisation performance		5
45	A hybrid multiobjective GRASP for a multi-row facility layout problem with extra clearances. *International Journal of Production Research*, **2020**, 1-20	7.8	5
44	A genetic algorithm with local search for solving single-source single-sink nonlinear non-convex minimum cost flow problems. *Soft Computing*, **2020**, 24, 1153-1169	3.5	5
43	Challenging AI **2019**,		4
42	Measuring player skill using dynamic difficulty adjustment **2018**,		4
41	Particle Swarm Optimizer with Aging Operator for Multimodal Function Optimization. *International Journal of Computational Intelligence Systems*, **2013**, 6, 862-880	3.4	4
40	Nature-Inspired Algorithms for Real-World Optimization Problems. *Journal of Applied Mathematics*, **2015**, 2015, 1-2	1.1	4
39	**2015**,		4
38	Scaling Up Solutions to Storage Location Assignment Problems by Genetic Programming. *Lecture Notes in Computer Science*, **2014**, 691-702	0.9	4
37	Improving the Performance and Scalability of Differential Evolution. *Lecture Notes in Computer Science*, **2008**, 131-140	0.9	4

36	Benchmarks for the Coal Processing and Blending Problem **2016**,		4
35	Cooperative co-evolution with online optimizer selection for large-scale optimization **2018**,		4
34	Preference-Based Multiobjective Particle Swarm Optimization for Airfoil Design **2015**, 1311-1331		3
33	Enhancing robustness of the inverted PBI scalarizing method in MOEA/D. *Applied Soft Computing Journal*, **2018**, 71, 1117-1132	7.5	3
32	Evolutionary large-scale global optimization **2017**,		3
31	Merged Differential Grouping for Large-scale Global Optimization. *IEEE Transactions on Evolutionary Computation*, **2022**, 1-1	15.6	3
30	An Evolutionary Multi-criteria Journey Planning Algorithm for Multimodal Transportation Networks. *Lecture Notes in Computer Science*, **2017**, 144-156	0.9	3
29	A Study on Pre-training Deep Neural Networks Using Particle Swarm Optimisation. *Lecture Notes in Computer Science*, **2017**, 361-372	0.9	3
28	An Adaptive Training Framework for Increasing Player Proficiency in Games and Simulations **2016**,		2
27	A Delaunay Triangulation Based Density Measurement for Evolutionary Multi-objective Optimization. *Lecture Notes in Computer Science*, **2016**, 183-192	0.9	2
26	A Modified PSO Algorithm for Constrained Multi-objective Optimization **2009**,		2
25	Power generation loading optimization using a multi-objective constraint-handling method via PSO algorithm **2008**,		2
24	CRITICAL DENSITY IN A FIRE SPREAD MODEL UNDER ENVIRONMENTAL INFLUENCE. *International Journal of Computational Intelligence and Applications*, **2003**, 03, 145-155	1.2	2
23	The effects of varying population density in a fine-grained parallel genetic algorithm		2
22	A Probabilistic Tree-Based Representation for Non-convex Minimum Cost Flow Problems. *Lecture Notes in Computer Science*, **2018**, 69-81	0.9	2
21	Multimodal Optimization using Niching Methods **2016**, 1-8		2
20	A merge search algorithm and its application to the constrained pit problem in mining **2018**,		2
19	Enhanced Multifactorial Evolutionary Algorithm With Meme Helper-Tasks. *IEEE Transactions on Cybernetics*, **2021**, PP,	10.2	2

18	Surrogate-Assisted Multi-swarm Particle Swarm Optimization of Morphing Airfoils. *Lecture Notes in Computer Science*, **2017**, 124-133	0.9	1
17	Estimating Passenger Preferences Using Implicit Relevance Feedback for Personalized Journey Planning. *Lecture Notes in Computer Science*, **2017**, 157-168	0.9	1
16	Connectionist learning: A comparison of neural networks and an optical thin-film multilayer model. *Connection Science*, **2002**, 14, 49-63	2.8	1
15	Pattern recognition by an optical thin-film multilayer model. *Annals of Mathematics and Artificial Intelligence*, **1999**, 26, 193-213	0.8	1
14	An Evolutionary Approach for Learning Conditional Preference Networks from Inconsistent Examples. *Lecture Notes in Computer Science*, **2017**, 502-515	0.9	1
13	A Two Phase Approach Based on Dynamic Variable Grouping and Self-Adaptive Group Search for Large Scale Optimization **2016**,		1
12	Differential Evolution Based Hyper-heuristic for the Flexible Job-Shop Scheduling Problem with Fuzzy Processing Time. *Lecture Notes in Computer Science*, **2017**, 75-86	0.9	0
11	A REAL-CODED CELLULAR GENETIC ALGORITHM INSPIRED BY PREDATOR-PREY INTERACTIONS. *Advances in Natural Computation*, **2004**, 191-207		0
10	NSGA-II for Solving Multiobjective Integer Minimum Cost Flow Problem with Probabilistic Tree-Based Representation. *Lecture Notes in Computer Science*, **2019**, 541-552	0.9	0
9	Preliminary Study on Solving Coal Processing and Blending Problems Using Lexicographic Ordering. *Lecture Notes in Computer Science*, **2017**, 221-233	0.9	0
8	Boosting ant colony optimization via solution prediction and machine learning. *Computers and Operations Research*, **2022**, 143, 105769	4.6	0
7	Extending the Delaunay Triangulation Based Density Measurement to Many-Objective Optimization. *Lecture Notes in Computer Science*, **2017**, 3-11	0.9	
6	Multimodal Optimization: Formulation, Heuristics, and a Decade of Advances. *Natural Computing Series*, **2021**, 1-26	2.5	
5	Finding Representative Solutions in Multimodal Optimization for Enhanced Decision-Making. *Natural Computing Series*, **2021**, 57-88	2.5	
4	A speciation-based bilevel niching method for multimodal truss design problems. *Journal of Combinatorial Optimization*,1	0.9	
3	A tri-objective preference-based uniform weight design method using Delaunay triangulation. *Soft Computing*, **2021**, 25, 9703-9729	3.5	
2	Conditional Preference Learning for Personalized and Context-Aware Journey Planning. *Lecture Notes in Computer Science*, **2018**, 451-463	0.9	
1	Novelty-Driven Binary Particle Swarm Optimisation for Truss Optimisation Problems. *Lecture Notes in Computer Science*, **2022**, 111-126	0.9	