Antonio J Nebro

List of Publications by Year
in descending order

104 papers	4,644 citations	218381 26 h-index	133063 59 g-index
110 all docs	110 docs citations	110 times ranked	3544 citing authors

#	Article	IF	Citations
1	Energy-Aware Multi-Objective Job Shop Scheduling Optimization with Metaheuristics in Manufacturing Industries: A Critical Survey, Results, and Perspectives. Applied Sciences (Switzerland), 2022, 12, 1491.	1.3	17
2	Reconstruction of gene regulatory networks with multi-objective particle swarm optimisers. Applied Intelligence, 2021, 51, 1972-1991.	3.3	6
3	Evolving a Multi-objective Optimization Framework. Springer Tracts in Nature-inspired Computing, 2021, , 175-198.	1.2	3
4	A Tutorial On the design, experimentation and application of metaheuristic algorithms to real-World optimization problems. Swarm and Evolutionary Computation, 2021, 64, 100888.	4.5	154
5	Injecting domain knowledge in multi-objective optimization problems: A semantic approach. Computer Standards and Interfaces, 2021, 78, 103546.	3.8	6
6	TITAN: A knowledge-based platform for Big Data workflow management. Knowledge-Based Systems, 2021, 232, 107489.	4.0	9
7	A multi-objective interactive dynamic particle swarm optimizer. Progress in Artificial Intelligence, 2020, 9, 55-65.	1.5	2
8	Optimizing ligand conformations in flexible protein targets: a multi-objective strategy. Soft Computing, 2020, 24, 10705-10719.	2.1	0
9	Merge Nondominated Sorting Algorithm for Many-Objective Optimization. IEEE Transactions on Cybernetics, 2020, PP, 1-11.	6.2	8
10	Qomâ€”A New Hydrologic Prediction Model Enhanced with Multi-Objective Optimization. Applied Sciences (Switzerland), 2020, 10, 251.	1.3	4
11	On the design of a framework integrating an optimization engine with streaming technologies. Future Generation Computer Systems, 2020, 107, 538-550.	4.9	10
12	Sequoya: multiobjective multiple sequence alignment in Python. Bioinformatics, 2020, 36, 3892-3893.	1.8	3
13	BIGOWL: Knowledge centered Big Data analytics. Expert Systems With Applications, 2019, 115, 543-556.	4.4	24
14	Multi-objective ligand-protein docking with particle swarm optimizers. Swarm and Evolutionary Computation, 2019, 44, 439-452.	4.5	10
15	Automatic configuration of NSGA-II with jMetal and irace. , 2019, , .		14
16	jMetalPy: A Python framework for multi-objective optimization with metaheuristics. Swarm and Evolutionary Computation, 2019, 51, 100598.	4.5	143
17	Inference of gene regulatory networks with multi-objective cellular genetic algorithm. Computational Biology and Chemistry, 2019, 80, 409-418.	1.1	5
18	Bio-inspired optimization for the molecular docking problem: State of the art, recent results and perspectives. Applied Soft Computing Journal, 2019, 79, 30-45.	4.1	13

#	Article	IF	Citations
19	Analyze, Sense, Preprocess, Predict, Implement, and Deploy (ASPPID): An incremental methodology based on data analytics for cost-efficiently monitoring the industry 4.0. Engineering Applications of Artificial Intelligence, 2019, 82, 30-43.	4.3	13
20	A novel multi-objective evolutionary algorithm with fuzzy logic based adaptive selection of operators: FAME. Information Sciences, 2019, 471, 233-251.	4.0	67
21	InDM2: Interactive Dynamic Multi-Objective Decision Making Using Evolutionary Algorithms. Swarm and Evolutionary Computation, 2018, 40, 184-195.	4.5	22
22	jMetalSP: A framework for dynamic multi-objective big data optimization. Applied Soft Computing Journal, 2018, 69, 737-748.	4.1	27
23	Multi-Objective Optimization of Bike Routes for Last-Mile Package Delivery with Drop-Offs. , 2018, , .		5
24	Multi-objective Metaheuristics for a Flexible Ligand-Macromolecule Docking Problem in Computational Biology. Studies in Computational Intelligence, 2018, , 369-379.	0.7	0
25	Decision Making in Industry 4.0 Scenarios Supported by Imbalanced DataÂClassification. Studies in Computational Intelligence, 2018, , 121-134.	0.7	1
26	About Designing an Observer Pattern-Based Architecture for a Multi-objective Metaheuristic Optimization Framework. Studies in Computational Intelligence, 2018, , 50-60.	0.7	2
27	Artificial Decision Maker Driven by PSO: An Approach for Testing Reference Point Based Interactive Methods. Lecture Notes in Computer Science, 2018, , 274-285.	1.0	8
28	Extending the Speed-Constrained Multi-objective PSO (SMPSO) with Reference Point Based Preference Articulation. Lecture Notes in Computer Science, 2018, , 298-310.	1.0	5
29	Multi-objective Design of Time-Constrained Bike Routes Using Bio-inspired Meta-heuristics. Lecture Notes in Computer Science, 2018, , 197-210.	1.0	6
30	MORPHY: A Multiobjective Software Tool for Phylogenetic Inference of Protein Coded Sequences. Advances in Intelligent Systems and Computing, 2018, , 719-731.	0.5	0
31	Multiple Sequence Alignment with Multiobjective Metaheuristics. A Comparative Study. International Journal of Intelligent Systems, 2017, 32, 843-861.	3.3	8
32	Multi-objective Big Data Optimization with jMetal and Spark. Lecture Notes in Computer Science, 2017, , 16-30.	1.0	16
33	Comparing multi-objective metaheuristics for solving a three-objective formulation of multiple sequence alignment. Progress in Artificial Intelligence, 2017, 6, 195-210.	1.5	14
34	A Multi-objective Optimization Framework for Multiple Sequence Alignment with Metaheuristics. Lecture Notes in Computer Science, 2017, , 245-256.	1.0	4
35	Design and architecture of the jMetalSP framework. , 2017, , .		3
36	M2Align: parallel multiple sequence alignment with a multi-objective metaheuristic. Bioinformatics, 2017, 33, 3011-3017.	1.8	14

#	Article	IF	Citations
37	Molecular Docking Optimization in the Context of Multi-Drug Resistant and Sensitive EGFR Mutants. Molecules, 2016, 21, 1575.	1.7	18
38	<scp>MO</scp>â€Phylogenetics: a phylogenetic inference software tool with multiâ€objective evolutionary metaheuristics. Methods in Ecology and Evolution, 2016, 7, 800-805.	2.2	12
39	A Study of Archiving Strategies in Multi-objective PSO for Molecular Docking. Lecture Notes in Computer Science, 2016, , 40-52.	1.0	2
40	Structural design using multi-objective metaheuristics. Comparative study and application to a real-world problem. Structural and Multidisciplinary Optimization, 2016, 53, 545-566.	1.7	16
41	Distributed Multi-Objective Metaheuristics for Real-World Structural Optimization Problems. Computer Journal, 2016, 59, 777-792.	1.5	10
42	Solving Molecular Docking Problems with Multi-Objective Metaheuristics. Molecules, 2015, 20, 10154-10183.	1.7	22
43	Solving molecular flexible docking problems with metaheuristics: A comparative study. Applied Soft Computing Journal, 2015, 28, 379-393.	4.1	44
44	Redesigning the jMetal Multi-Objective Optimization Framework. , 2015, , .		119
45	Integrating a multi-objective optimization framework into a structural design software. Advances in Engineering Software, 2014, 76, 161-170.	1.8	7
46	A survey of multi-objective metaheuristics applied to structural optimization. Structural and Multidisciplinary Optimization, 2014, 49, 537-558.	1.7	157
47	jMetalCpp: optimizing molecular docking problems with a C++ metaheuristic framework. Bioinformatics, 2014, 30, 437-438.	1.8	28
48	Achieving super-linear performance in parallel multi-objective evolutionary algorithms by means of cooperative coevolution. Computers and Operations Research, 2013, 40, 1552-1563.	2.4	42
49	Analysis of leader selection strategies in a multi-objective Particle Swarm Optimizer. , 2013, , .		24
50	Solving a Real-World Structural Optimization Problem with a Distributed SMS-EMOA Algorithm. , 2013, , .		0
51	A Study of the Combination of Variation Operators in the NSGA-II Algorithm. Lecture Notes in Computer Science, 2013, , 269-278.	1.0	10
52	Multi-objective metaheuristics for preprocessing EEG data in brainâ€“computer interfaces. Engineering Optimization, 2012, 44, 373-390.	1.5	6
53	Multi-objective Optimization of a Two-stage Membrane Process with Metaheuristics. Procedia Engineering, 2012, 44, 2056-2058.	1.2	0
54	Multiâ€objective optimization using metaheuristics: nonâ€standard algorithms. International Transactions in Operational Research, 2012, 19, 283-305.	1.8	62

#	Article	IF	Citations
55	An efficient local improvement operator for the multi-objective wireless sensor network deployment problem. Engineering Optimization, 2011, 43, 1115-1139.	1.5	5
56	Multi-objective Cooperative Coevolutionary Evolutionary Algorithms for Continuous and Combinatorial Optimization. Studies in Computational Intelligence, 2011, , 49-74.	0.7	12
57	Using multi-objective metaheuristics to solve the software project scheduling problem. , 2011, , .		35
58	jMetal: A Java framework for multi-objective optimization. Advances in Engineering Software, 2011, 42, 760-771.	1.8	906
59	A study of the bi-objective next release problem. Empirical Software Engineering, 2011, 16, 29-60.	3.0	61
60	Optimization algorithms for large-scale real-world instances of the frequency assignment problem. Soft Computing, 2011, 15, 975-990.	2.1	31
61	Distribution of Computational Effort in ParallelÂMOEA/D. Lecture Notes in Computer Science, 2011, , 488-502.	1.0	19
62	A Study of Multiobjective Metaheuristics When Solving Parameter Scalable Problems. IEEE Transactions on Evolutionary Computation, 2010, 14, 618-635.	7.5	107
63	Convergence speed in multiâ€objective metaheuristics: Efficiency criteria and empirical study. International Journal for Numerical Methods in Engineering, 2010, 84, 1344-1375.	1.5	32
64	The jMetal framework for multi-objective optimization: Design and architecture. , 2010, , .		202
65	Evolutionary algorithms for solving the automatic cell planning problem: a survey. Engineering Optimization, 2010, 42, 671-690.	1.5	23
66	A Scatter Search Approach for Solving the Automatic Cell Planning Problem. Lecture Notes in Computer Science, 2010, , 334-342.	1.0	2
67	A Study of the Parallelization of the Multi-Objective Metaheuristic MOEA/D. Lecture Notes in Computer Science, 2010, , 303-317.	1.0	32
68	A Study of the Multi-objective Next Release Problem. , 2009, , .		47
69	MOCell: A cellular genetic algorithm for multiobjective optimization. International Journal of Intelligent Systems, 2009, 24, 726-746.	3.3	231
70	Why Is Optimization Difficult?. Studies in Computational Intelligence, 2009, , 1-50.	0.7	52
71	SMPSO: A new PSO-based metaheuristic for multi-objective optimization. , 2009, , .		393
72	Multi-Objective Particle Swarm Optimizers: An Experimental Comparison. Lecture Notes in Computer Science, 2009, , 495-509.	1.0	101

#	Article	IF	Citations
73	On the Effect of Applying a Steady-State Selection Scheme in the Multi-Objective Genetic Algorithm NSGA-II. Studies in Computational Intelligence, 2009, , 435-456.	0.7	12
74	On the Effect of the Steady-State Selection Scheme in Multi-Objective Genetic Algorithms. Lecture Notes in Computer Science, 2009, , 183-197.	1.0	42
75	Optimizing the DFCN Broadcast Protocol with a Parallel Cooperative Strategy of Multi-Objective Evolutionary Algorithms. Lecture Notes in Computer Science, 2009, , 305-319.	1.0	6
76	DNA fragment assembly using a grid-based genetic algorithm. Computers and Operations Research, 2008, 35, 2776-2790.	2.4	35
77	AbYSS: Adapting Scatter Search to Multiobjective Optimization. IEEE Transactions on Evolutionary Computation, 2008, 12, 439-457.	7.5	297
78	A study of master-slave approaches to parallelize NSGA-II. Parallel and Distributed Processing Symposium (IPDPS), Proceedings of the International Conference on, 2008, , .	1.0	60
79	The incidence of rheumatoid arthritis in Spain: results from a nationwide primary care registry. Rheumatology, 2008, 47, 1088-1092.	0.9	100
80	Metaheuristics for solving a real-world frequency assignment problem in GSM networks. , 2008, , .		22
81	A comparative study of the effect of parameter scalability in multi-objective metaheuristics. , 2008, , .		23
82	Solving large-scale real-world telecommunication problems using a grid-based genetic algorithm. Engineering Optimization, 2008, 40, 1067-1084.	1.5	25
83	A Study of Convergence Speed in Multi-objective Metaheuristics. Lecture Notes in Computer Science, 2008, , 763-772.	1.0	21
84	Search Intensification in Metaheuristics for Solving the Automatic Frequency Problem in GSM. Studies in Computational Intelligence, 2008, , 151-166.	0.7	0
85	Design Issues in a Multiobjective Cellular Genetic Algorithm. , 2007, , 126-140.		48
86	ACO vs EAs for solving a real-world frequency assignment problem in GSM networks. , 2007, , .		43
87	Optimal antenna placement using a new multi-objective chc algorithm. , 2007, , .		43
88	A cellular multi-objective genetic algorithm for optimal broadcasting strategy in metropolitan MANETs. Computer Communications, 2007, 30, 685-697.	3.1	79
89	Multi-Objective Optimization using Grid Computing. Soft Computing, 2007, 11, 531-540.	2.1	26
90	Evolutionary Algorithms for Real-World Instances of the Automatic Frequency Planning Problem in GSM Networks. Lecture Notes in Computer Science, 2007, , 108-120.	1.0	12

#	Article	IF	Citations
91	Observations in using Grid-enabled technologies for solving multi-objective optimization problems. Parallel Computing, 2006, 32, 377-393.	1.3	22
92	Optimal Broadcasting in Metropolitan MANETs Using Multiobjective Scatter Search. Lecture Notes in Computer Science, 2006, , 255-266.	1.0	5
93	Parallel Multiobjective Optimization. , 2005, , 371-394.		15
94	Parallel Heterogeneous Metaheuristics. , 2005, , 395-422.		7
95	New Technologies in Parallelism. , 2005, , 63-78.		1
96	New Ideas in Applying Scatter Search to Multiobjective Optimization. Lecture Notes in Computer Science, 2005, , 443-458.	1.0	19
97	Parallel heterogeneous genetic algorithms for continuous optimization. Parallel Computing, 2004, 30, 699-719.	1.3	52
98	Heterogeneous Computing and Parallel Genetic Algorithms. Journal of Parallel and Distributed Computing, 2002, 62, 1362-1385.	2.7	78
99	.NET as a Platform for Implementing Concurrent Objects. Lecture Notes in Computer Science, 2002, , 125-129.	1.0	1
100	Applying Distributed Shared Memory Techniques for Implementing Distributed Objects. Lecture Notes in Computer Science, 1998, , 499-506.	1.0	0
101	Evaluating a Multithreaded Runtime System for Concurrent Object-Oriented Languages. Lecture Notes in Computer Science, 1998, , 167-174.	1.0	1
102	Integrating an entry consistency memory model and concurrent object-oriented programming. Lecture Notes in Computer Science, 1997, , 567-571.	1.0	1
103	DNA Fragment Assembly Using Grid Systems. , 0, , 357-374.		0
104	Applying Evolutionary Algorithms to Solve the Automatic Frequency Planning Problem. , 0, , 271-286.		1