Andrew J Lewis

List of Publications by Year
in descending order

74 papers	24,149 citations	331259 21 h-index	205818 48 g-index
75 all docs	75 docs citations	75 times ranked	11122 citing authors

#	Article	IF	Citations
1	Ant Colony Optimizer: Theory, Literature Review, and Application inÂAUV Path Planning. Studies in Computational Intelligence, 2020, , 7-21.	0.7	31
2	Particle Swarm Optimization: Theory, Literature Review, and Application in Airfoil Design. Studies in Computational Intelligence, 2020, , 167-184.	0.7	33
3	Integrating continuous differential evolution with discrete local search for meander line RFID antenna design. PLoS ONE, 2019, 14, e0223194.	1.1	1
4	Application of Variable Pulsed Irrigation Algorithm (VPIA) for Runoff Losses Reduction: Case Study of Different Soil Types. IOP Conference Series: Materials Science and Engineering, 2019, 518, 022039.	0.3	1
5	Variable Pulsed Irrigation Algorithm (VPIA) to Reduce Runoff Losses under a Low-Pressure Lateral Move Irrigation Machine. Horticulturae, 2019, 5, 10.	1.2	7
6	Benchmark Function Generators for Single-Objective Robust Optimisation Algorithms. Asset Analytics, 2019, , 13-29.	0.4	1
7	Confidence-based robust optimisation using multi-objective meta-heuristics. Swarm and Evolutionary Computation, 2018, 43, 109-126.	4.5	17
8	Enhanced multi-objective particle swarm optimisation for estimating hand postures. Knowledge-Based Systems, 2018, 158, 175-195.	4.0	14
9	Grasshopper Optimisation Algorithm: Theory and application. Advances in Engineering Software, 2017, 105, 30-47.	1.8	1,938
10	Repairing blackbox constraint violations in Multi-Objective Optimisation by use of decision trees. , 2016, , .		0
11	The Whale Optimization Algorithm. Advances in Engineering Software, 2016, 95, 51-67.	1.8	8,099
12	Obstacles and difficulties for robust benchmark problems: A novel penalty-based robust optimisation method. Information Sciences, 2016, 328, 485-509.	4.0	25
13	Performance Comparison of Evolutionary Algorithms for Airfoil Design. Procedia Computer Science, 2015, 51, 2267-2276.	1.2	10
14	Novel frameworks for creating robust multi-objective benchmark problems. Information Sciences, 2015, 300, 158-192.	4.0	25
15	An Investigation of the Performance Limits of Small, Planar Antennas Using Optimisation. Procedia Computer Science, 2015, 51, 2307-2316.	1.2	2
16	Multi-objective Optimisation of Marine Propellers. Procedia Computer Science, 2015, 51, 2247-2256.	1.2	31
17	Hindrances for robust multi-objective test problems. Applied Soft Computing Journal, 2015, 35, 333-348.	4.1	11
18	Novel performance metrics for robust multi-objective optimization algorithms. Swarm and Evolutionary Computation, 2015, 21, 1-23.	4.5	66

#	Article	IF	Citations
19	How important is a transfer function in discrete heuristic algorithms. Neural Computing and Applications, 2015, 26, 625-640.	3.2	60
20	Let a biogeography-based optimizer train your Multi-Layer Perceptron. Information Sciences, 2014, 269, 188-209.	4.0	263
21	A Novel Multi-Objective Optimization Framework for Designing Photonic Crystal Waveguides. IEEE Photonics Technology Letters, 2014, 26, 146-149.	1.3	26
22	Grey Wolf Optimizer. Advances in Engineering Software, 2014, 69, 46-61.	1.8	11,382
23	A tri-objective Particle Swarm Optimizer for designing line defect Photonic Crystal Waveguides. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 152-163.	1.0	21
24	An Investigation Into the Gustafsson Limit for Small Planar Antennas Using Optimization. IEEE Transactions on Antennas and Propagation, 2014, 62, 950-955.	3.1	19
25	Adaptive gbest-guided gravitational search algorithm. Neural Computing and Applications, 2014, 25, 1569-1584.	3.2	174
26	Biogeography-based optimisation with chaos. Neural Computing and Applications, 2014, 25, 1077-1097.	3.2	273
27	Autonomous Particles Groups for Particle Swarm Optimization. Arabian Journal for Science and Engineering, 2014, 39, 4683-4697.	1.1	122
28	Extending the Front: Designing RFID Antennas Using Multiobjective Differential Evolution with Biased Population Selection. Procedia Computer Science, 2014, 29, 1893-1903.	1.2	7
29	A Web-based System for Visualisation-driven Interactive Multi-objective Optimisation. Procedia Computer Science, 2014, 29, 1915-1925.	1.2	10
30	Local Search Enabled Extremal Optimisation for Continuous Inseparable Multi-objective Benchmark and Real-world Problems. Procedia Computer Science, 2014, 29, 1904-1914.	1.2	2
31	S-shaped versus V-shaped transfer functions for binary Particle Swarm Optimization. Swarm and Evolutionary Computation, 2013, 9, 1-14.	4.5	814
32	Electronic enclosure design using distributed particle swarm optimization. Engineering Optimization, 2013, 45, 167-183.	1.5	4
33	Interactive multi-objective particle swarm optimisation using decision space interaction. , 2013, , .		13
34	Exploring the fundamental limits of planar antennas using optimization techniques. , 2013, , .		1
35	Multi-Objective Particle Swarm Optimisation for Molecular Transition State Search. Advances in Intelligent Systems and Computing, 2013, , 415-430.	0.5	0
36	Twin Removal in Genetic Algorithms for Protein Structure Prediction Using Low-Resolution Model. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2011, 8, 234-245.	1.9	46

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37	Differential evolution for RFID antenna design. , 2011, , .		13
38	Towards a translational medical research ecosystem. , 2011, , .		1
39	Electromagnetic Noise Source Approximation for Finite-Difference Time-Domain Modeling Using Near-Field Scanning and Particle Swarm Optimization. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 89-97.	1.4	6
40	DFS-generated pathways in GA crossover for protein structure prediction. Neurocomputing, 2010, 73, 2308-2316.	3.5	16
41	Modifications and Additions to Ant Colony Optimisation to Solve the Set Partitioning Problem. , 2010, , .		1
42	Interactive multi-objective particle swarm optimization with heatmap-visualization-based user interface. Engineering Optimization, 2010, 42, 119-139.	1.5	23
43	A hybrid multi-objective extremal optimisation approach for multi-objective combinatorial optimisation problems. , 2010, , .		12
44	Pheromone Pre-seeding for the Construction of RFID Antenna Structures Using ACO. , 2010, , .		3
45	Intensification Strategies for Extremal Optimisation. Lecture Notes in Computer Science, 2010, , 115-124.	1.0	4
46	The effect of population density on the performance of a spatial social network algorithm for multi-objective optimisation. , 2009, , .		2
47	LoCost: A spatial social network algorithm for multi-objective optimisation. , 2009, , .		7
48	Using XMPP for ad-hoc grid computing - an application example using parallel ant colony optimisation. , 2009, , .		8
49	Dynamic search initialisation strategies for multi-objective optimisation in peer-to-peer networks. , 2009, , .		9
50	Multi-Objective Optimization in High Frequency Electromagnetics—An Effective Technique for Smart Mobile Terminal Antenna (SMTA) Design. IEEE Transactions on Magnetics, 2009, 45, 1072-1075.	1.2	26
51	Multiobjective optimization for small meander wire dipole antennas in a fixed area using ant colony system. International Journal of RF and Microwave Computer-Aided Engineering, 2009, 19, 592-597.	0.8	21
52	Optimising efficiency and gain of small meander line RFID antennas using ant colony system. , 2009, , .		18
53	Asynchronous Multi-Objective Optimisation in Unreliable Distributed Environments. Studies in Computational Intelligence, 2009, , 51-78.	0.7	22
54	Extremal Optimisation for Assignment Type Problems. Studies in Computational Intelligence, 2009, , 139-164.	0.7	10

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55	Using Ant Colony Optimisation to Construct Meander-Line RFID Antennas. Studies in Computational Intelligence, 2009, , 189-217.	0.7	15
56	Local search for Ant colony system to improve the efficiency of small meander line RFID antennas. , 2008, , .		13
57	Parallel multi-objective optimization using Master-Slave model on heterogeneous resources. , 2008, , .		22
58	Automated solution selection in multi-objective optimisation. , 2008, , .		1
59	Decentralised distributed multiple objective particle swarm optimisation using peer to peer networks. , 2008, , .		10
60	Asynchronous multiple objective particle swarm optimisation in unreliable distributed environments. , 2008, , .		14
61	DFS Based Partial Pathways in GA for Protein Structure Prediction. Lecture Notes in Computer Science, 2008, , 41-53.	1.0	2
62	Using Ant Colony Optimisation to Improve the Efficiency of Small Meander Line RFID Antennas. , 2007, , .		14
63	A Novel Human Computer Interaction Paradigm for Volume Visualization in Projection-Based Virtual Environments. Lecture Notes in Computer Science, 2007, , 49-60.	1.0	1
64	Hybrid Particle Guide Selection Methods in Multi-Objective Particle Swarm Optimization. , 2006, , .		5
65	An Extended Extremal Optimisation Model for Parallel Architectures. , 2006, , .		7
66	Model Optimization and Parameter Estimation with Nimrod/O. Lecture Notes in Computer Science, 2006, , 720-727.	1.0	13
67	An Evolutionary Programming Algorithm for Automatic Engineering Design. Lecture Notes in Computer Science, 2004, , 586-594.	1.0	11
68	Optimization Using Nimrod/O and Its Application to Robust Mechanical Design. Lecture Notes in Computer Science, 2004, , 730-737.	1.0	13
69	A Parallel Implementation of Ant Colony Optimization. Journal of Parallel and Distributed Computing, 2002, 62, 1421-1432.	2.7	168
70	An automatic design optimization tool and its application to computational fluid dynamics. , 2001, , .		36
71	NIMROD/O: A TOOL FOR AUTOMATIC DESIGN OPTIMISATION USING PARALLEL AND DISTRIBUTED SYSTEMS. , 2000, , .		22
72	Parallel non-linear optimization. , 1997, , .		4

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73	A comparison of multi-objective optimisation metaheuristics on the 2D airfoil design problem. ANZIAM Journal, 0, 54, 345.	0.0	9
74	Evolutionary Population Dynamics and Multi-Objective Optimisation Problems. , 0, , 185-206.		15