Ana Maria A C Rocha

List of Publications by Year
in descending order

87 papers	690 citations	687363 13 h-index	642732 23 g-index
101 all docs	101 docs citations	101 times ranked	572 citing authors

#	Article	IF	Citations
1	Improved binary artificial fish swarm algorithm for the 0–1 multidimensional knapsack problems. Swarm and Evolutionary Computation, 2014, 14, 66-75.	8.1	85
2	Hybridizing the electromagnetism-like algorithm with descent search for solving engineering design problems. International Journal of Computer Mathematics, 2009, 86, 1932-1946.	1.8	55
3	An augmented Lagrangian fish swarm based method for global optimization. Journal of Computational and Applied Mathematics, 2011, 235, 4611-4620.	2.0	52
4	A simplified binary artificial fish swarm algorithm for 0–1 quadratic knapsack problems. Journal of Computational and Applied Mathematics, 2014, 259, 897-904.	2.0	43
5	Modified movement force vector in an electromagnetism-like mechanism for global optimization. Optimization Methods and Software, 2009, 24, 253-270.	2.4	32
6	Improving additive manufacturing performance by build orientation optimization. International Journal of Advanced Manufacturing Technology, 2020, 107, 1993-2005.	3.0	26
7	Many-objective optimization of build part orientation in additive manufacturing. International Journal of Advanced Manufacturing Technology, 2021, 112, 747-762.	3.0	19
8	Head motion stabilization during quadruped robot locomotion: Combining dynamical systems and a genetic algorithm. , 2009, , .		18
9	Filter-based DIRECT method for constrained global optimization. Journal of Global Optimization, 2018, 71, 517-536.	1.8	16
10	Feasibility and Dominance Rules in the Electromagnetism-Like Algorithm for Constrained Global Optimization. Lecture Notes in Computer Science, 2008, , 768-783.	1.3	16
11	Numerical study of augmented Lagrangian algorithms for constrained global optimization. Optimization, 2011, 60, 1359-1378.	1.7	15
12	An artificial fish swarm algorithm based hyperbolic augmented Lagrangian method. Journal of Computational and Applied Mathematics, 2014, 259, 868-876.	2.0	15
13	Self-efficacy, mathematics' anxiety and perceived importance: an empirical study with Portuguese engineering students. European Journal of Engineering Education, 2016, 41, 105-121.	2.3	15
14	Novel Fish Swarm Heuristics for Bound Constrained Global Optimization Problems. Lecture Notes in Computer Science, 2011, , 185-199.	1.3	15
15	Solving Large 0–1 Multidimensional Knapsack Problems by a New Simplified Binary Artificial Fish Swarm Algorithm. Mathematical Modelling and Algorithms, 2015, 14, 313-330.	0.5	13
16	Firefly penalty-based algorithm for bound constrained mixed-integer nonlinear programming. Optimization, 2016, 65, 1085-1104.	1.7	13
17	A filter-based artificial fish swarm algorithm for constrained global optimization: theoretical and practical issues. Journal of Global Optimization, 2014, 60, 239-263.	1.8	12
18	Multiple Roots of Systems of Equations by Repulsion Merit Functions. Lecture Notes in Computer Science, 2014, , 126-139.	1.3	12

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19	Heuristic-Based Firefly Algorithm for Bound Constrained Nonlinear Binary Optimization. Advances in Operations Research, 2014, 2014, 1-12.	0.4	11
20	A human centered hybrid MAS and meta-heuristics based system for simultaneously supporting scheduling and plant layout adjustment. FME Transactions, 2019, 47, 699-710.	1.4	11
21	Boreholes plans optimization methodology combining geostatistical simulation and simulated annealing. Tunnelling and Underground Space Technology, 2017, 70, 65-75.	6.2	10
22	An Artificial Fish Swarm Filter-Based Method for Constrained Global Optimization. Lecture Notes in Computer Science, 2012, , 57-71.	1.3	10
23	Experiments with Firefly Algorithm. Lecture Notes in Computer Science, 2014, , 227-236.	1.3	8
24	Build Orientation Optimization Problem in Additive Manufacturing. Lecture Notes in Computer Science, 2018, , 669-682.	1.3	8
25	Testing Nelder-Mead Based Repulsion Algorithms for Multiple Roots of Nonlinear Systems via a Two-Level Factorial Design of Experiments. PLoS ONE, 2015, 10, e0121844.	2.5	8
26	Implementation of the Electromagnetism-Like Algorithm with a Constraint-Handling Technique for Engineering Optimization Problems. , 2008, , .		7
27	A shifted hyperbolic augmented Lagrangian-based artificial fish two-swarm algorithm with guaranteed convergence for constrained global optimization. Engineering Optimization, 2016, 48, 2114-2140.	2.6	7
28	Theoretical and Practical Convergence of a Self-Adaptive Penalty Algorithm for Constrained Global Optimization. Journal of Optimization Theory and Applications, 2017, 174, 875-893.	1.5	7
29	On a multiobjective optimal control of a tumor growth model with immune response and drug therapies. International Transactions in Operational Research, 2018, 25, 269-294.	2.7	7
30	Prediction of Friction Degradation in Highways with Linear Mixed Models. Coatings, 2021, 11, 187.	2.6	6
31	A Multi-objective Approach to Solve the Build Orientation Problem in Additive Manufacturing. Lecture Notes in Computer Science, 2019, , 261-276.	1.3	6
32	Fatores que influenciam a aprendizagem de conceitos matemáticos em cursos de engenharia: Um estudo exploratório com estudantes da Universidade do Minho. Revista Portuguesa De Educacao, 2016, 29, 259.	0.1	6
33	Solving Multidimensional 0–1 Knapsack Problem with an Artificial Fish Swarm Algorithm. Lecture Notes in Computer Science, 2012, , 72-86.	1.3	5
34	Hybrid System for Simultaneous Job Shop Scheduling and Layout Optimization Based on Multi-agents and Genetic Algorithm. Advances in Intelligent Systems and Computing, 2020, , 387-397.	0.6	5
35	On Challenging Techniques for Constrained Global Optimization. Intelligent Systems Reference Library, 2013, , 641-671.	1.2	5
36	On Solving the Profit Maximization of Small Cogeneration Systems. Lecture Notes in Computer Science, 2012, , 147-158.	1.3	5

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37	Finding Multiple Roots of Systems of Nonlinear Equations by a Hybrid Harmony Search-Based Multistart Method. Applied Mathematics and Information Sciences, 2018, 12, 21-32.	0.5	5
38	Mutation-Based Artificial Fish Swarm Algorithm for Bound Constrained Global Optimization. AIP Conference Proceedings, 2011, , .	0.4	4
39	A New Competitive Implementation of the Electromagnetism-Like Algorithm for Global Optimization. Lecture Notes in Computer Science, 2015, , 506-521.	1.3	4
40	On Metaheuristics for Solving the Parameter Estimation Problem in Dynamic Systems: A Comparative Study. Journal of Optimization, 2018, 2018, 1-21.	6.0	4
41	A Statistical Comparison of Metaheuristics for Unrelated Parallel Machine Scheduling Problems with Setup Times. Mathematics, 2022, 10, 2431.	2.2	4
42	Performance Profile Assessment of Electromagnetism-like Algorithms for Global Optimization. , 2008, , .		3
43	Multistart Hooke and Jeeves filter method for mixed variable optimization. , 2013, , .		3
44	A firefly dynamic penalty approach for solving engineering design problems. AIP Conference Proceedings, 2015, , .	0.4	3
45	On optimizing the build orientation problem using genetic algorithm. AIP Conference Proceedings, 2019, , .	0.4	3
46	Combining Filter Method and Dynamically Dimensioned Search for Constrained Global Optimization. Lecture Notes in Computer Science, 2017, , 119-134.	1.3	3
47	A Modified Electromagnetism-Like Algorithm Based on a Pattern Search Method. Lecture Notes in Electrical Engineering, 2009, , 161-167.	0.4	3
48	Nonlinear Continuous Global Optimization by Modified Differential Evolution. , 2010, , .		2
49	A Stochastic Augmented Lagrangian Equality Constrained-Based Algorithm for Global Optimization. , 2010, , .		2
50	Combining Non-dominance, Objective-order and Spread Metric to Extend Firefly Algorithm to Multi-objective Optimization. Lecture Notes in Computer Science, 2015, , 292-306.	1.3	2
51	A stochastic coordinate descent for bound constrained global optimization. AIP Conference Proceedings, 2019, , .	0.4	2
52	Filter-based stochastic algorithm for global optimization. Journal of Global Optimization, 2020, 77, 777-805.	1.8	2
53	A Computational Study on Different Penalty Functions with DIRECT Algorithm. Lecture Notes in Computer Science, 2013, , 318-332.	1.3	2
54	Multiple solutions of mixed variable optimization by multistart Hooke and Jeeves filter method. Applied Mathematical Sciences, 0, 8, 2163-2179.	0.1	2

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55	Parameter Estimation of the Kinetic $$alpha $$α-Pinene Isomerization Model Using the MCSFilter Algorithm. Lecture Notes in Computer Science, 2018, , 624-636.	1.3	2
56	Distributed Scheduling Based on Multi-agent Systems and Optimization Methods. Communications in Computer and Information Science, 2019, , 313-317.	0.5	2
57	An adaptive penalty method for DIRECT algorithm in engineering optimization. , 2012, , .		1
58	Comparison of penalty functions on a penalty approach to mixed-integer optimization. AIP Conference Proceedings, 2016, , .	0.4	1
59	Comparing immune-tumor growth models with drug therapy using optimal control. AIP Conference Proceedings, 2016, , .	0.4	1
60	On a smoothed penalty-based algorithm for global optimization. Journal of Global Optimization, 2017, 69, 561-585.	1.8	1
61	Extension of the firefly algorithm and preference rules for solving MINLP problems. AIP Conference Proceedings, 2017, , .	0.4	1
62	On Trajectory Optimization of an Electric Vehicle. Lecture Notes in Computer Science, 2019, , 249-260.	1.3	1
63	Feature Selection Optimization of Risk Factors for Coronary Heart Disease. Lecture Notes in Computer Science, 2021, , 413-428.	1.3	1
64	A Multiple Shooting Descent-Based Filter Method for Optimal Control Problems. Computational Methods in Applied Sciences (Springer), 2021, , 377-392.	0.3	1
65	Applying an Elitist Electromagnetism-Like Algorithm to Head Robot Stabilization. Lecture Notes in Computer Science, 2011, , 343-357.	1.3	1
66	IMRT Beam Angle Optimization Using Electromagnetism-Like Algorithm. Lecture Notes in Computer Science, 2014, , 278-289.	1.3	1
67	Direct Sequential Based Firefly Algorithm for the $$alpha $$ -Pinene Isomerization Problem. Lecture Notes in Computer Science, 2016, , 386-401.	1.3	1
68	Path Generation, Control, and Monitoring. Advanced Structured Materials, 2020, , 203-236.	0.5	1
69	Penalty-Based Heuristic DIRECT Method for Constrained Global Optimization. Lecture Notes in Computer Science, 2020, , 538-551.	1.3	1
70	Correction to: Computational Science and Its Applications â€" ICCSA 2021. Lecture Notes in Computer Science, 2021, , C1-C1.	1.3	1
71	Hooke and Jeeves based multilevel coordinate search to globally solving nonsmooth problems. , 2013, , .		0
72	Analysing Students' Attitudes Towards the Learning of Specialized Software. , 2014, , .		0

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73	ICCSA 2014 Welcome Message. , 2014, , .		0
74	A Penalty Approach for Solving Nonsmooth and Nonconvex MINLP Problems. Springer Proceedings in Mathematics and Statistics, 2018, , 39-55.	0.2	0
75	Preface to the Special Issue â€œGOWâ€™16â€. Journal of Global Optimization, 2018, 71, 441-442.	1.8	0
76	Solving a Logistics System for Vehicle Routing Problem Using an Open-Source Tool. Lecture Notes in Computer Science, 2021, , 397-412.	1.3	0
77	A Clustering Algorithm Based on Fitness Probability Scores for Cluster Centers Optimization. Lecture Notes in Computer Science, 2021, , 382-396.	1.3	0
78	On Local Convergence of Stochastic Global Optimization Algorithms. Lecture Notes in Computer Science, 2021, , 456-472.	1.3	0
79	Implementation of Robust Multi-objective Optimization in the Build Orientation Problem. Lecture Notes in Computer Science, 2021, , 247-259.	1.3	0
80	Head Motion Stabilization During Quadruped Robot Locomotion. , 2014, , 41-65.		0
81	Extensions of Firefly Algorithm for Nonsmooth Nonconvex Constrained Optimization Problems. Lecture Notes in Computer Science, 2016, , 402-417.	1.3	0
82	Improving Efficiency of a Multistart with Interrupted Hooke-and-Jeeves Filter Search for Solving MINLP Problems. Lecture Notes in Computer Science, 2016, , 345-358.	1.3	0
83	Continuous Relaxation of MINLP Problems by Penalty Functions: A Practical Comparison. Lecture Notes in Computer Science, 2017, , 107-118.	1.3	0
84	Single Screw Extrusion Optimization Using the Tchebycheff Scalarization Method. Lecture Notes in Computer Science, 2020, , 664-679.	1.3	0
85	Objective and Violation Upper Bounds on a DIRECT-Filter Method for Global Optimization. Lecture Notes in Computer Science, 2020, , 59-71.	1.3	0
86	Feature Selection Optimization forÂBreast Cancer Diagnosis. Communications in Computer and Information Science, 2021, , 492-506.	0.5	0
87	Cluster Analysis forÂBreast Cancer Patterns Identification. Communications in Computer and Information Science, 2021, , 507-514.	0.5	0