

# RaÃ±l BaÃ±os

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1362452/publications.pdf>

Version: 2024-02-01

89  
papers

3,352  
citations

218592

26  
h-index

149623

56  
g-index

92  
all docs

92  
docs citations

92  
times ranked

4009  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization methods applied to renewable and sustainable energy: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 1753-1766.	8.2	1,276
2	A hybrid meta-heuristic for multi-objective vehicle routing problems with time windows. <i>Computers and Industrial Engineering</i> , 2013, 65, 286-296.	3.4	118
3	Renewable energy production in Spain: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 33, 509-531.	8.2	104
4	A Simulated Annealing-based parallel multi-objective approach to vehicle routing problems with time windows. <i>Expert Systems With Applications</i> , 2013, 40, 1696-1707.	4.4	101
5	Application of Several Meta-Heuristic Techniques to the Optimization of Real Looped Water Distribution Networks. <i>Water Resources Management</i> , 2008, 22, 1367-1379.	1.9	100
6	A fast method for identifying worldwide scientific collaborations using the Scopus database. <i>Telematics and Informatics</i> , 2018, 35, 168-185.	3.5	98
7	Adaptive community detection in complex networks using genetic algorithms. <i>Neurocomputing</i> , 2017, 266, 101-113.	3.5	95
8	An overview of research and energy evolution for small hydropower in Europe. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 75, 476-489.	8.2	87
9	Green Packaging from Consumer and Business Perspectives. <i>Sustainability</i> , 2021, 13, 1356.	1.6	80
10	Wind turbine selection for wind farm layout using multi-objective evolutionary algorithms. <i>Expert Systems With Applications</i> , 2014, 41, 6585-6595.	4.4	77
11	A memetic algorithm applied to the design of water distribution networks. <i>Applied Soft Computing Journal</i> , 2010, 10, 261-266.	4.1	70
12	Resilience Indexes for Water Distribution Network Design: A Performance Analysis Under Demand Uncertainty. <i>Water Resources Management</i> , 2011, 25, 2351-2366.	1.9	67
13	Power quality techniques research worldwide: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 54, 846-856.	8.2	60
14	The research on energy in Spain: A scientometric approach. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 29, 173-183.	8.2	53
15	OpenZmeter: An Efficient Low-Cost Energy Smart Meter and Power Quality Analyzer. <i>Sustainability</i> , 2018, 10, 4038.	1.6	48
16	Optimal Design of Gravity-Fed Looped Water Distribution Networks Considering the Resilience Index. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2008, 134, 234-238.	1.3	44
17	Minimization of voltage deviation and power losses in power networks using Pareto optimization methods. <i>Engineering Applications of Artificial Intelligence</i> , 2010, 23, 695-703.	4.3	42
18	A Pareto-based multi-objective evolutionary algorithm for automatic rule generation in network intrusion detection systems. <i>Soft Computing</i> , 2013, 17, 255-263.	2.1	42

#	ARTICLE	IF	CITATIONS
19	An Open Hardware Design for Internet of Things Power Quality and Energy Saving Solutions. <i>Sensors</i> , 2019, 19, 627.	2.1	42
20	Parallel alternatives for evolutionary multi-objective optimization in unsupervised feature selection. <i>Expert Systems With Applications</i> , 2015, 42, 4239-4252.	4.4	38
21	Multi-objective crop planning using pareto-based evolutionary algorithms. <i>Agricultural Economics (United Kingdom)</i> , 2011, 42, 649-656.	2.0	34
22	Energy benchmarking for shopping centers in Gulf Coast region. <i>Energy Policy</i> , 2016, 91, 247-255.	4.2	34
23	The research of water use in Spain. <i>Journal of Cleaner Production</i> , 2016, 112, 4719-4732.	4.6	31
24	Power Quality: Scientific Collaboration Networks and Research Trends. <i>Energies</i> , 2018, 11, 2067.	1.6	31
25	Implementation of scatter search for multi-objective optimization: a comparative study. <i>Computational Optimization and Applications</i> , 2009, 42, 421-441.	0.9	28
26	A parallel multi-objective algorithm for two-dimensional bin packing with rotations and load balancing. <i>Expert Systems With Applications</i> , 2013, 40, 5169-5180.	4.4	28
27	Genetic algorithm for S-transform optimisation in the analysis and classification of electrical signal perturbations. <i>Expert Systems With Applications</i> , 2013, 40, 6766-6777.	4.4	28
28	Community detection in national-scale high voltage transmission networks using genetic algorithms. <i>Advanced Engineering Informatics</i> , 2018, 38, 232-241.	4.0	28
29	A hybrid method for solving multi-objective global optimization problems. <i>Journal of Global Optimization</i> , 2007, 38, 265-281.	1.1	27
30	A Parallel Multilevel Metaheuristic for Graph Partitioning. <i>Journal of Heuristics</i> , 2004, 10, 315-336.	1.1	25
31	A Mixed Heuristic for Circuit Partitioning. <i>Computational Optimization and Applications</i> , 2002, 23, 321-340.	0.9	23
32	Multilevel Heuristic Algorithm for Graph Partitioning. <i>Lecture Notes in Computer Science</i> , 2003, , 143-153.	1.0	22
33	Analysis of Research Topics and Scientific Collaborations in Renewable Energy Using Community Detection. <i>Sustainability</i> , 2018, 10, 4510.	1.6	21
34	Design of a Snort-Based Hybrid Intrusion Detection System. <i>Lecture Notes in Computer Science</i> , 2009, , 515-522.	1.0	20
35	Analysis of OpenMP and MPI implementations of meta-heuristics for vehicle routing problems. <i>Applied Soft Computing Journal</i> , 2016, 43, 262-275.	4.1	18
36	Analysis of Research Topics and Scientific Collaborations in Energy Saving Using Bibliometric Techniques and Community Detection. <i>Energies</i> , 2019, 12, 2030.	1.6	18

#	ARTICLE	IF	CITATIONS
37	Analysis of power flow under non-sinusoidal conditions in the presence of harmonics and interharmonics using geometric algebra. International Journal of Electrical Power and Energy Systems, 2019, 111, 486-492.	3.3	15
38	Student Response Systems: A Multidisciplinary Analysis Using Visual Analytics. Education Sciences, 2020, 10, 348.	1.4	15
39	A Memetic Algorithm for Water Distribution Network Design. , 2007, , 279-289.		15
40	Energies and Its Worldwide Research. Energies, 2020, 13, 6700.	1.6	14
41	Quadrature Current Compensation in Non-Sinusoidal Circuits Using Geometric Algebra and Evolutionary Algorithms. Energies, 2019, 12, 692.	1.6	12
42	A new approach to single-phase systems under sinusoidal and non-sinusoidal supply using geometric algebra. Electric Power Systems Research, 2020, 189, 106605.	2.1	12
43	Ant Colony Optimization for Water Distribution Network Design: A Comparative Study. Lecture Notes in Computer Science, 2011, , 300-307.	1.0	12
44	Vector Geometric Algebra in Power Systems: An Updated Formulation of Apparent Power under Non-Sinusoidal Conditions. Mathematics, 2021, 9, 1295.	1.1	11
45	Parallelization of population-based multi-objective meta-heuristics: An empirical study. Applied Mathematical Modelling, 2006, 30, 578-592.	2.2	10
46	Leveraging cooperation for parallel multi-objective feature selection in high-dimensional EEG data. Concurrency Computation Practice and Experience, 2015, 27, 5476-5499.	1.4	10
47	Determination of Instantaneous Powers From a Novel Time-Domain Parameter Identification Method of Non-Linear Single-Phase Circuits. IEEE Transactions on Power Delivery, 2022, 37, 3608-3619.	2.9	10
48	Feature selection in high-dimensional EEG data by parallel multi-objective optimization. , 2014, , .		9
49	A Pareto-based memetic algorithm for optimization of looped water distribution systems. Engineering Optimization, 2010, 42, 223-240.	1.5	7
50	The assessment of evolutionary algorithms for analyzing the positional accuracy and uncertainty of maps. Expert Systems With Applications, 2014, 41, 6346-6360.	4.4	7
51	Simulation of power quality disturbances through the wavelet transform. , 2018, , .		7
52	Optimization Methods Applied to Power Systems. Energies, 2019, 12, 2302.	1.6	7
53	Evolutionary Algorithms for Community Detection in Continental-Scale High-Voltage Transmission Grids. Symmetry, 2019, 11, 1472.	1.1	7
54	Aprendizaje cooperativo a travÃ©s de las nuevas tecnologÃ­as: Una revisiÃ³n. @tic: Revista D'InnovaciÃ³ Educativa, 2018, , 16.	0.3	7

#	ARTICLE	IF	CITATIONS
55	Parallelism on multicore processors using Parallel.FX. <i>Advances in Engineering Software</i> , 2011, 42, 259-265.	1.8	6
56	Annealing-tabu PAES: a multi-objective hybrid meta-heuristic. <i>Optimization</i> , 2011, 60, 1473-1491.	1.0	6
57	Multi-Objective Evolutionary Algorithms to Find Community Structures in Large Networks. <i>Mathematics</i> , 2020, 8, 2048.	1.1	6
58	Detection of Communities within the Multibody System Dynamics Network and Analysis of Their Relations. <i>Symmetry</i> , 2019, 11, 1525.	1.1	6
59	Cooperative learning and electronic group portfolio: tutoring tools, development of competences and assessment. <i>International Journal of Learning Technology</i> , 2011, 6, 46.	0.2	5
60	Engaging students in computer-supported cooperative learning. <i>International Journal of Learning Technology</i> , 2013, 8, 297.	0.2	5
61	Rampant Arch and Its Optimum Geometrical Generation. <i>Symmetry</i> , 2019, 11, 627.	1.1	5
62	Geometric Algebra Framework Applied to Symmetrical Balanced Three-Phase Systems for Sinusoidal and Non-Sinusoidal Voltage Supply. <i>Mathematics</i> , 2021, 9, 1259.	1.1	5
63	Parallel heuristic search in multilevel graph partitioning. , 2004, , .		4
64	A Multi-Objective Evolutionary Algorithm for Network Intrusion Detection Systems. <i>Lecture Notes in Computer Science</i> , 2011, , 73-80.	1.0	4
65	Web GIS to enhance relational capital: the case of general merchandise retailers. <i>Journal of Knowledge Management</i> , 2016, 20, 578-593.	3.2	4
66	A Hybrid Active Filter Using the Backstepping Controller for Harmonic Current Compensation. <i>Symmetry</i> , 2019, 11, 1161.	1.1	4
67	Geometric Algebra in Nonsinusoidal Power Systems: A Case of Study for Passive Compensation. <i>Symmetry</i> , 2019, 11, 1287.	1.1	4
68	A New Memetic Algorithm for the Two-Dimensional Bin-Packing Problem with Rotations. <i>Advances in Intelligent and Soft Computing</i> , 2010, , 541-548.	0.2	4
69	Geometric Algebra Applied to Multiphase Electrical Circuits in Mixed Time-Frequency Domain by Means of Hypercomplex Hilbert Transform. <i>Mathematics</i> , 2022, 10, 1419.	1.1	4
70	A parallel evolutionary algorithm for circuit partitioning. , 2003, , .		3
71	IMPROVING THE PERFORMANCE OF MULTI-OBJECTIVE EVOLUTIONARY ALGORITHMS USING THE ISLAND PARALLEL MODEL. <i>Parallel Processing Letters</i> , 2007, 17, 127-139.	0.4	3
72	Higher-order statistics for power systems: Effects of the sampling frequency on ergodicity. <i>Applied Mathematical Modelling</i> , 2016, 40, 6924-6933.	2.2	3

#	ARTICLE	IF	CITATIONS
73	Optimization of the Contracted Electric Power by Means of Genetic Algorithms. <i>Energies</i> , 2019, 12, 1270.	1.6	3
74	Optimizaci3n de Tensi3n en Redes de Distribuci3n utilizando T3cnicas de Optimizaci3n Evolutiva. <i>Informacion Tecnologica (discontinued)</i> , 2006, 17, .	0.1	3
75	Experiencias de Aprendizaje Cooperativo en Matem3ticas   Cooperative learning experiences in mathematics. <i>Espiral Cuadernos Del Profesorado</i> , 2018, 11, 99-108.	0.5	3
76	A memetic algorithm for two-dimensional multi-objective bin-packing with constraints. , 2011, , .		2
77	Symmetry in Engineering Sciences. <i>Symmetry</i> , 2019, 11, 797.	1.1	2
78	Symmetry in Engineering Sciences II. <i>Symmetry</i> , 2020, 12, 1077.	1.1	2
79	Geometric Algebra for teaching AC Circuit Theory. <i>International Journal of Circuit Theory and Applications</i> , 2021, 49, 3473-3487.	1.3	2
80	A MATLAB application for monitoring the operation and power quality of electrical machines. , 2018, , .		1
81	Environmental Energy Sustainability at Universities. <i>Sustainability</i> , 2020, 12, 9219.	1.6	1
82	Electronics and Its Worldwide Research. <i>Electronics (Switzerland)</i> , 2020, 9, 977.	1.8	1
83	A New Pareto-Based Algorithm for Multi-objective Graph Partitioning. <i>Lecture Notes in Computer Science</i> , 2004, , 779-788.	1.0	1
84	Performance Analysis of Parallel Strategies for Bi-objective Network Partitioning. <i>Advances in Intelligent and Soft Computing</i> , 2006, , 291-300.	0.2	1
85	Multi-Objective Evolutionary Algorithms Used in Greenhouse Planning for Recycling Biomass into Energy. <i>Advances in Intelligent and Soft Computing</i> , 2010, , 463-470.	0.2	1
86	Geometric Power and Poynting Vector: a Physical Derivation for Harmonic Power Flow using Geometric Algebra. , 2022, , .		1
87	Online Store Locator: An Essential Resource for Retailers in the 21st Century. <i>Social Sciences</i> , 2019, 8, 53.	0.7	0
88	Parallel Cooperation for Large-Scale Multiobjective Optimization on Feature Selection Problems. <i>Lecture Notes in Computer Science</i> , 2015, , 693-705.	1.0	0
89	Adapting Multi-Objective Meta-Heuristics for Graph Partitioning. , 2006, , 123-132.		0