

# Ral Baos

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

82  
papers

2,531  
citations

24  
h-index

49  
g-index

92  
ext. papers

2,944  
ext. citations

4.2  
avg, IF

5.19  
L-index

#	Paper	IF	Citations
82	Geometric Algebra Applied to Multiphase Electrical Circuits in Mixed Time-Frequency Domain by Means of Hypercomplex Hilbert Transform. <i>Mathematics</i> , <b>2022</b> , 10, 1419	2.3	1
81	Determination of Instantaneous Powers from a Novel Time-Domain Parameter Identification Method of Non-Linear Single-Phase Circuits. <i>IEEE Transactions on Power Delivery</i> , <b>2021</b> , 1-1	4.3	2
80	Geometric Algebra Framework Applied to Symmetrical Balanced Three-Phase Systems for Sinusoidal and Non-Sinusoidal Voltage Supply. <i>Mathematics</i> , <b>2021</b> , 9, 1259	2.3	2
79	Vector Geometric Algebra in Power Systems: An Updated Formulation of Apparent Power under Non-Sinusoidal Conditions. <i>Mathematics</i> , <b>2021</b> , 9, 1295	2.3	6
78	Green Packaging from Consumer and Business Perspectives. <i>Sustainability</i> , <b>2021</b> , 13, 1356	3.6	20
77	Electronics and Its Worldwide Research. <i>Electronics (Switzerland)</i> , <b>2020</b> , 9, 977	2.6	1
76	Multi-Objective Evolutionary Algorithms to Find Community Structures in Large Networks. <i>Mathematics</i> , <b>2020</b> , 8, 2048	2.3	3
75	A new approach to single-phase systems under sinusoidal and non-sinusoidal supply using geometric algebra. <i>Electric Power Systems Research</i> , <b>2020</b> , 189, 106605	3.5	6
74	Student Response Systems: A Multidisciplinary Analysis Using Visual Analytics. <i>Education Sciences</i> , <b>2020</b> , 10, 348	2.2	5
73	Energies and Its Worldwide Research. <i>Energies</i> , <b>2020</b> , 13, 6700	3.1	7
72	A Hybrid Active Filter Using the Backstepping Controller for Harmonic Current Compensation. <i>Symmetry</i> , <b>2019</b> , 11, 1161	2.7	2
71	Analysis of power flow under non-sinusoidal conditions in the presence of harmonics and interharmonics using geometric algebra. <i>International Journal of Electrical Power and Energy Systems</i> , <b>2019</b> , 111, 486-492	5.1	7
70	Rampant Arch and Its Optimum Geometrical Generation. <i>Symmetry</i> , <b>2019</b> , 11, 627	2.7	3
69	Optimization of the Contracted Electric Power by Means of Genetic Algorithms. <i>Energies</i> , <b>2019</b> , 12, 1270	3.1	2
68	Online Store Locator: An Essential Resource for Retailers in the 21st Century. <i>Social Sciences</i> , <b>2019</b> , 8, 53	1.8	
67	Quadrature Current Compensation in Non-Sinusoidal Circuits Using Geometric Algebra and Evolutionary Algorithms. <i>Energies</i> , <b>2019</b> , 12, 692	3.1	10
66	Analysis of Research Topics and Scientific Collaborations in Energy Saving Using Bibliometric Techniques and Community Detection. <i>Energies</i> , <b>2019</b> , 12, 2030	3.1	10

65	Detection of Communities within the Multibody System Dynamics Network and Analysis of Their Relations. <i>Symmetry</i> , <b>2019</b> , 11, 1525	2.7	3
64	An Open Hardware Design for Internet of Things Power Quality and Energy Saving Solutions. <i>Sensors</i> , <b>2019</b> , 19,	3.8	27
63	Evolutionary Algorithms for Community Detection in Continental-Scale High-Voltage Transmission Grids. <i>Symmetry</i> , <b>2019</b> , 11, 1472	2.7	3
62	Geometric Algebra in Nonsinusoidal Power Systems: A Case of Study for Passive Compensation. <i>Symmetry</i> , <b>2019</b> , 11, 1287	2.7	1
61	A fast method for identifying worldwide scientific collaborations using the Scopus database. <i>Telematics and Informatics</i> , <b>2018</b> , 35, 168-185	8.1	60
60	A MATLAB application for monitoring the operation and power quality of electrical machines <b>2018</b> ,		1
59	Community detection in national-scale high voltage transmission networks using genetic algorithms. <i>Advanced Engineering Informatics</i> , <b>2018</b> , 38, 232-241	7.4	21
58	Simulation of power quality disturbances through the wavelet transform <b>2018</b> ,		4
57	Aprendizaje cooperativo a trav� de las nuevas tecnolog�as: Una revisi�. <i>@tic: Revista DiInnovaci� Educativa</i> , <b>2018</b> , 16		2
56	Analysis of Research Topics and Scientific Collaborations in Renewable Energy Using Community Detection. <i>Sustainability</i> , <b>2018</b> , 10, 4510	3.6	16
55	OpenZmeter: An Efficient Low-Cost Energy Smart Meter and Power Quality Analyzer. <i>Sustainability</i> , <b>2018</b> , 10, 4038	3.6	24
54	Power Quality: Scientific Collaboration Networks and Research Trends. <i>Energies</i> , <b>2018</b> , 11, 2067	3.1	23
53	Adaptive community detection in complex networks using genetic algorithms. <i>Neurocomputing</i> , <b>2017</b> , 266, 101-113	5.4	72
52	An overview of research and energy evolution for small hydropower in Europe. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 75, 476-489	16.2	67
51	The research of water use in Spain. <i>Journal of Cleaner Production</i> , <b>2016</b> , 112, 4719-4732	10.3	26
50	Web GIS to enhance relational capital: the case of general merchandise retailers. <i>Journal of Knowledge Management</i> , <b>2016</b> , 20, 578-593	7.3	3
49	Energy benchmarking for shopping centers in Gulf Coast region. <i>Energy Policy</i> , <b>2016</b> , 91, 247-255	7.2	25
48	Higher-order statistics for power systems: Effects of the sampling frequency on ergodicity. <i>Applied Mathematical Modelling</i> , <b>2016</b> , 40, 6924-6933	4.5	1

47	Analysis of OpenMP and MPI implementations of meta-heuristics for vehicle routing problems. <i>Applied Soft Computing Journal</i> , <b>2016</b> , 43, 262-275	7.5	10
46	Power quality techniques research worldwide: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2016</b> , 54, 846-856	16.2	40
45	Leveraging cooperation for parallel multi-objective feature selection in high-dimensional EEG data. <i>Concurrency Computation Practice and Experience</i> , <b>2015</b> , 27, 5476-5499	1.4	9
44	Parallel alternatives for evolutionary multi-objective optimization in unsupervised feature selection. <i>Expert Systems With Applications</i> , <b>2015</b> , 42, 4239-4252	7.8	31
43	Parallel Cooperation for Large-Scale Multiobjective Optimization on Feature Selection Problems. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 693-705	0.9	
42	Renewable energy production in Spain: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2014</b> , 33, 509-531	16.2	83
41	The research on energy in spain: A scientometric approach. <i>Renewable and Sustainable Energy Reviews</i> , <b>2014</b> , 29, 173-183	16.2	41
40	Wind turbine selection for wind farm layout using multi-objective evolutionary algorithms. <i>Expert Systems With Applications</i> , <b>2014</b> , 41, 6585-6595	7.8	66
39	The assessment of evolutionary algorithms for analyzing the positional accuracy and uncertainty of maps. <i>Expert Systems With Applications</i> , <b>2014</b> , 41, 6346-6360	7.8	7
38	Feature selection in high-dimensional EEG data by parallel multi-objective optimization <b>2014</b> ,		5
37	Hybrid MPI/OpenMP Parallel Evolutionary Algorithms for Vehicle Routing Problems. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 653-664	0.9	2
36	A Simulated Annealing-based parallel multi-objective approach to vehicle routing problems with time windows. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 1696-1707	7.8	83
35	A parallel multi-objective algorithm for two-dimensional bin packing with rotations and load balancing. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 5169-5180	7.8	18
34	A Pareto-based multi-objective evolutionary algorithm for automatic rule generation in network intrusion detection systems. <i>Soft Computing</i> , <b>2013</b> , 17, 255-263	3.5	32
33	Genetic algorithm for S-transform optimisation in the analysis and classification of electrical signal perturbations. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 6766-6777	7.8	28
32	A hybrid meta-heuristic for multi-objective vehicle routing problems with time windows. <i>Computers and Industrial Engineering</i> , <b>2013</b> , 65, 286-296	6.4	91
31	Engaging students in computer-supported cooperative learning. <i>International Journal of Learning Technology</i> , <b>2013</b> , 8, 297	0.5	3
30	A Multi-Objective Evolutionary Algorithm for Network Intrusion Detection Systems. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 73-80	0.9	2

29	Cooperative learning and electronic group portfolio: tutoring tools, development of competences and assessment. <i>International Journal of Learning Technology</i> , <b>2011</b> , 6, 46	0.5	3
28	Multi-objective crop planning using pareto-based evolutionary algorithms. <i>Agricultural Economics (United Kingdom)</i> , <b>2011</b> , 42, 649-656	2.8	30
27	Resilience Indexes for Water Distribution Network Design: A Performance Analysis Under Demand Uncertainty. <i>Water Resources Management</i> , <b>2011</b> , 25, 2351-2366	3.7	57
26	Parallelism on multicore processors using Parallel.FX. <i>Advances in Engineering Software</i> , <b>2011</b> , 42, 259-266	5.6	6
25	Optimization methods applied to renewable and sustainable energy: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2011</b> , 15, 1753-1766	16.2	1027
24	A memetic algorithm for two-dimensional multi-objective bin-packing with constraints <b>2011</b> ,		1
23	Annealing-tabu PAES: a multi-objective hybrid meta-heuristic. <i>Optimization</i> , <b>2011</b> , 60, 1473-1491	1.2	6
22	Ant Colony Optimization for Water Distribution Network Design: A Comparative Study. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 300-307	0.9	8
21	A Pareto-based memetic algorithm for optimization of looped water distribution systems. <i>Engineering Optimization</i> , <b>2010</b> , 42, 223-240	2	6
20	A memetic algorithm applied to the design of water distribution networks. <i>Applied Soft Computing Journal</i> , <b>2010</b> , 10, 261-266	7.5	57
19	Minimization of voltage deviation and power losses in power networks using Pareto optimization methods. <i>Engineering Applications of Artificial Intelligence</i> , <b>2010</b> , 23, 695-703	7.2	33
18	Multi-Objective Evolutionary Algorithms Used in Greenhouse Planning for Recycling Biomass into Energy. <i>Advances in Intelligent and Soft Computing</i> , <b>2010</b> , 463-470		1
17	A New Memetic Algorithm for the Two-Dimensional Bin-Packing Problem with Rotations. <i>Advances in Intelligent and Soft Computing</i> , <b>2010</b> , 541-548		1
16	Implementation of scatter search for multi-objective optimization: a comparative study. <i>Computational Optimization and Applications</i> , <b>2009</b> , 42, 421-441	1.4	23
15	Design of a Snort-Based Hybrid Intrusion Detection System. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 515-522	0.9	10
14	Optimal Design of Gravity-Fed Looped Water Distribution Networks Considering the Resilience Index. <i>Journal of Water Resources Planning and Management - ASCE</i> , <b>2008</b> , 134, 234-238	2.8	36
13	Application of Several Meta-Heuristic Techniques to the Optimization of Real Looped Water Distribution Networks. <i>Water Resources Management</i> , <b>2008</b> , 22, 1367-1379	3.7	81
12	A hybrid method for solving multi-objective global optimization problems. <i>Journal of Global Optimization</i> , <b>2007</b> , 38, 265-281	1.5	25

11	IMPROVING THE PERFORMANCE OF MULTI-OBJECTIVE EVOLUTIONARY ALGORITHMS USING THE ISLAND PARALLEL MODEL. <i>Parallel Processing Letters</i> , <b>2007</b> , 17, 127-139	0.3	3
10	A Memetic Algorithm for Water Distribution Network Design <b>2007</b> , 279-289		10
9	Parallelization of population-based multi-objective meta-heuristics: An empirical study. <i>Applied Mathematical Modelling</i> , <b>2006</b> , 30, 578-592	4.5	9
8	Adapting Multi-Objective Meta-Heuristics for Graph Partitioning <b>2006</b> , 123-132		
7	Performance Analysis of Parallel Strategies for Bi-objective Network Partitioning. <i>Advances in Intelligent and Soft Computing</i> , <b>2006</b> , 291-300		1
6	A Parallel Multilevel Metaheuristic for Graph Partitioning. <i>Journal of Heuristics</i> , <b>2004</b> , 10, 315-336	1.9	22
5	Parallel heuristic search in multilevel graph partitioning <b>2004</b> ,		4
4	A New Pareto-Based Algorithm for Multi-objective Graph Partitioning. <i>Lecture Notes in Computer Science</i> , <b>2004</b> , 779-788	0.9	1
3	A parallel evolutionary algorithm for circuit partitioning <b>2003</b> ,		2
2	Multilevel Heuristic Algorithm for Graph Partitioning. <i>Lecture Notes in Computer Science</i> , <b>2003</b> , 143-153	0.9	19
1	A Mixed Heuristic for Circuit Partitioning. <i>Computational Optimization and Applications</i> , <b>2002</b> , 23, 321-340.	0.4	20