

Eugenio Roanes-Lozano

List of Publications by Year in descending order

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85
papers

573
citations

687363

13
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752698

20
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90
all docs

90
docs citations

90
times ranked

198
citing authors

#	ARTICLE	IF	CITATIONS
1	A polynomial model for multi-valued Logics with a touch of Algebraic Geometry and Computer Algebra. <i>Mathematics and Computers in Simulation</i> , 1998, 45, 83-99.	4.4	47
2	A bridge between dynamic geometry and computer algebra. <i>Mathematical and Computer Modelling</i> , 2003, 37, 1005-1028.	2.0	38
3	A logic and computer algebra-based expert system for diagnosis of anorexia. <i>Mathematics and Computers in Simulation</i> , 2002, 58, 183-202.	4.4	33
4	Railway interlocking systems and Gröbner bases. <i>Mathematics and Computers in Simulation</i> , 2000, 51, 473-481.	4.4	32
5	An applicable topology-independent model for railway interlocking systems. <i>Mathematics and Computers in Simulation</i> , 1998, 45, 175-183.	4.4	25
6	An accelerated-time simulation of departing passengers' flow in airport terminals. <i>Mathematics and Computers in Simulation</i> , 2004, 67, 163-172.	4.4	25
7	An expert system for managing medical appropriateness criteria based on computer algebra techniques. <i>Computers and Mathematics With Applications</i> , 2001, 42, 1505-1522.	2.7	21
8	A computational system for diagnosis of depressive situations. <i>Expert Systems With Applications</i> , 2006, 31, 47-55.	7.6	19
9	A logic approach to decision taking in a railway interlocking system using Maple. <i>Mathematics and Computers in Simulation</i> , 2011, 82, 15-28.	4.4	19
10	A multi-criteria computer package for power transformer fault detection and diagnosis. <i>Applied Mathematics and Computation</i> , 2018, 319, 153-164.	2.2	18
11	An algebraic approach to rule based expert systems. <i>Revista De La Real Academia De Ciencias Exactas, Físicas Y Naturales - Serie A: Matemáticas</i> , 2010, 104, 19-40.	1.2	17
12	The geometry of algebraic systems and their exact solving using Grobner bases. <i>Computing in Science and Engineering</i> , 2004, 6, 76-79.	1.2	14
13	Some applications of grobner bases. <i>Computing in Science and Engineering</i> , 2004, 6, 56-60.	1.2	13
14	A Gröbner bases-based rule based expert system for fibromyalgia diagnosis. <i>Revista De La Real Academia De Ciencias Exactas, Físicas Y Naturales - Serie A: Matemáticas</i> , 2012, 106, 443-456.	1.2	12
15	An application of an AI methodology to railway interlocking systems using computer algebra. <i>Lecture Notes in Computer Science</i> , 1998, , 687-696.	1.3	11
16	Evolution of railway network flexibility: The Spanish broad gauge case. <i>Mathematics and Computers in Simulation</i> , 2009, 79, 2317-2332.	4.4	10
17	An accelerated-time microscopic simulation of a dedicated freight double-track railway line. <i>Mathematical and Computer Modelling</i> , 2010, 51, 1160-1169.	2.0	10
18	A logic-algebraic approach to decision taking in a railway interlocking system. <i>Annals of Mathematics and Artificial Intelligence</i> , 2012, 65, 317-328.	1.3	10

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19	A portable knowledge-based system for car breakdown evaluation. Applied Mathematics and Computation, 2015, 267, 758-770.	2.2	10
20	A Groebner bases-based approach to backward reasoning in rule based expert systems. Annals of Mathematics and Artificial Intelligence, 2009, 56, 297-311.	1.3	9
21	A Polynomial Model for Logics with a Prime Power Number of Truth Values. Journal of Automated Reasoning, 2011, 46, 205-221.	1.4	9
22	An interpretation of the propositional Boolean algebra as a k-algebra. Effective calculus. Lecture Notes in Computer Science, 1995, , 255-263.	1.3	8
23	A Maple Package for Automatic Theorem Proving and Discovery in 3D-Geometry. , 2006, , 171-188.		8
24	A computer algebra approach to the design of routes and the study of their compatibility in a railway interlocking. Mathematics and Computers in Simulation, 2002, 58, 203-214.	4.4	7
25	Calculating the Exploitation Costs of Trains in the Spanish Railways. Computing in Science and Engineering, 2013, 15, 89-95.	1.2	7
26	An approach from answer set programming to decision making in a railway interlocking system. Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas, 2014, 108, 973-987.	1.2	7
27	3D extension of Steiner chains problem. Mathematical and Computer Modelling, 2007, 45, 137-148.	2.0	6
28	Optimal Route Finding and Rolling-Stock Selection for the Spanish Railways. Computing in Science and Engineering, 2012, 14, 82-89.	1.2	6
29	An algebraic model for implementing expert systems based on the knowledge of different experts. Mathematics and Computers in Simulation, 2015, 107, 92-107.	4.4	6
30	A prototype of a RBES for personalized menus generation. Applied Mathematics and Computation, 2017, 315, 615-624.	2.2	6
31	Some Reflections About the Success and Impact of the Computer Algebra System DERIVE with a 10-Year Time Perspective. Mathematics in Computer Science, 2019, 13, 417-431.	0.4	6
32	Diagnosis in Tennis Serving Technique. Algorithms, 2020, 13, 106.	2.1	6
33	An Application of Computer Algebra to Pharmacokinetics: The Bateman Equation. SIAM Review, 2006, 48, 133-146.	9.5	5
34	Obtaining a 3D extension of Pascal theorem for non-degenerated quadrics and its complete configuration with the aid of a computer algebra system. Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas, 2009, 103, 93-109.	1.2	5
35	Connecting the 3D DCS Calques3D with the CAS Maple. Mathematics and Computers in Simulation, 2010, 80, 1153-1176.	4.4	5
36	Estimating radial railway network improvement with a CAS. Journal of Computational and Applied Mathematics, 2014, 270, 294-307.	2.0	5

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37	A New Algebraic Approach to Decision Making in a Railway Interlocking System Based on Preprocess. <i>Mathematical Problems in Engineering</i> , 2018, 2018, 1-14.	1.1	5
38	Computer Algebra based Verification and Knowledge Extraction in RBS. Application to Medical Fitness Criteria. , 1999, , 53-65.		5
39	The Geometry of Railway Geometric Overthrow Revisited Using Computer Algebra Methods. <i>Mathematics in Computer Science</i> , 2013, 7, 473-485.	0.4	4
40	A Multi-Criteria Computer Package-Based Energy Management System for a Grid-Connected AC Nanogrid. <i>Mathematics</i> , 2021, 9, 487.	2.2	4
41	A Computer Approach to Mathematics Curriculum Developments Debugging. <i>Eurasia Journal of Mathematics, Science and Technology Education</i> , 2016, 12, .	1.3	4
42	A knowledge-based system for house layout selection. <i>Mathematics and Computers in Simulation</i> , 2004, 66, 43-54.	4.4	3
43	Automatically obtaining railway maps from a set of historical events. <i>Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas</i> , 2011, 105, 149-165.	1.2	3
44	A New Approach to Shortest Route Finding in a Railway Network with Two Track Gauges and Gauge Changeovers. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-16.	1.1	3
45	A Groebner Bases Based Many-Valued Modal Logic Implementation in Maple. <i>Lecture Notes in Computer Science</i> , 2008, , 170-183.	1.3	3
46	Looking for Compatible Routes in the Railway Interlocking System of an Overtaking Station Using a Computer Algebra System. <i>Lecture Notes in Computer Science</i> , 2020, , 528-542.	1.3	3
47	Boole's logic revisited from computer algebra. <i>Mathematics and Computers in Simulation</i> , 2000, 51, 419-439.	4.4	2
48	An Algebraic Approach to Detect Logical Inconsistencies in Medical Appropriateness Criteria. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 5148-51.	0.5	2
49	A geometric approach to the estimation of radial railway network improvement. <i>Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas</i> , 2012, 106, 35-46.	1.2	2
50	A constructive approach to the quadrics of revolution using 3D dynamic geometry systems with algebraic capabilities. <i>Computer Applications in Engineering Education</i> , 2017, 25, 26-38.	3.4	2
51	Matrix Approach to DC Railway Electrification Verification. <i>Procedia Computer Science</i> , 2017, 108, 1424-1433.	2.0	2
52	A Brief Note on the Approach to the Conic Sections of a Right Circular Cone from Dynamic Geometry. <i>Mathematics in Computer Science</i> , 2017, 11, 439-448.	0.4	2
53	A recommender system for train routing: When concatenating two minimum length paths is not the minimum length path. <i>Applied Mathematics and Computation</i> , 2018, 319, 486-498.	2.2	2
54	An Algebraic Approach to DC Railway Electrification Verification. <i>Mathematics in Computer Science</i> , 2019, 13, 449-457.	0.4	2

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55	An Application of Knowledge Engineering to Mathematics Curricula Organization and Formal Verification. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-12.	1.1	2
56	An Accelerated-Time Simulation of Queues at Ticket Offices at Railway Stations. <i>Mathematical Problems in Engineering</i> , 2021, 2021, 1-10.	1.1	2
57	An inference engine for propositional two-valued logic based on the radical membership problem. <i>Lecture Notes in Computer Science</i> , 1996, , 71-86.	1.3	2
58	Multi-Valued Logics Introducing Propositional Multi-Valued Logics with the Help of a CAS. <i>International Society for Analysis, Applications and Computation</i> , 1999, , 277-290.	0.1	2
59	EFFECTO DE SCRATCH EN EL APRENDIZAJE DE CONCEPTOS GEOMÉTRICOS DE FUTUROS DOCENTES DE PRIMARIA. <i>Revista Latinoamericana De Investigacion En Matematica Educativa</i> , 2022, 23, 357-386.	0.1	2
60	A Prototype of a Decision Support System for Equine Cardiovascular Diseases Diagnosis and Management. <i>Mathematics</i> , 2021, 9, 2580.	2.2	2
61	A survey on the use of computer algebra in Spain in relationship to its secondary school system. <i>Zentralblatt Für Didaktik Der Mathematik</i> , 1997, 29, 149-154.	0.4	1
62	A Grammar-based shell for rule-based expert systems development. <i>Expert Systems With Applications</i> , 2000, 18, 221-230.	7.6	1
63	Tort-Dec3: a turtle geometry-based package for drawing periodic designs. <i>Mathematical and Computer Modelling</i> , 2001, 33, 321-340.	2.0	1
64	The Logics™ Explorer: a Maple package for exploring finite many-valued propositional logics. <i>Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas</i> , 2011, 105, 323-337.	1.2	1
65	Possibilities of RutasOptiRed Package. <i>Procedia, Social and Behavioral Sciences</i> , 2014, 160, 102-111.	0.5	1
66	A natural language for implementing algebraically Expert Systems. <i>Mathematics and Computers in Simulation</i> , 2016, 129, 31-49.	4.4	1
67	Using Fractals and Turtle Geometry to Visually Explain the Spread of a Virus to Kids: A STEM Multitarget Activity. <i>Mathematics in Computer Science</i> , 2021, 15, 689.	0.4	1
68	A computer approach to overtaking station track layout diagram design using graphs. An alternative track diagram proposal for these stations. <i>Journal of Computational and Applied Mathematics</i> , 2021, 391, 113455.	2.0	1
69	A Symbolic Computation-Based Expert System for Alzheimer's Disease Diagnosis. <i>Lecture Notes in Computer Science</i> , 2002, , 38-50.	1.3	1
70	An algebraic approach to rule based expert systems. <i>Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas</i> , 2010, 104, 19-40.	1.2	1
71	Four Experiences and Some Reflections about the Influence of Mathematical Software on the Mathematics Curriculum. <i>Journal of Scientific Research and Reports</i> , 2015, 7, 154-164.	0.2	1
72	Foreword to the special issue on Nonstandard applications of computer algebra. <i>Mathematics and Computers in Simulation</i> , 2009, 79, 2291-2292.	4.4	0

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73	An algebraic method for managing reliability in propositional logics. , 2010, , .		0
74	Revisiting four-valued logics from Maple using the Logics Explorer package. Mathematics and Computers in Simulation, 2014, 104, 31-42.	4.4	0
75	An algebraic approach for detecting nearly dangerous situations in expert systems. Mathematics and Computers in Simulation, 2016, 129, 81-93.	4.4	0
76	Automatic Generation of Diagrammatic Subway Maps for Any Date with Maple. Mathematics in Computer Science, 2020, 14, 193-207.	0.4	0
77	A Simplified Introduction to Virus Propagation Using Maple's Turtle Graphics Package Suitable for Children. Communications in Computer and Information Science, 2021, , 334-349.	0.5	0
78	George Boole, a Forerunner of Symbolic Computation. Lecture Notes in Computer Science, 2001, , 1-19.	1.3	0
79	A Rule-Based Knowledge System for Diagnosis of Mental Retardation. Lecture Notes in Computer Science, 2004, , 67-78.	1.3	0
80	An Expert System Devoted to Automated Music Identification and Recognition. , 2008, , 80-101.		0
81	A Note on the Need for Radical Membership Checking in Mechanical Theorem Proving in Geometry. Lecture Notes in Computer Science, 2013, , 288-300.	1.3	0
82	A Rule-Based Expert System for Vaginal Cytology Diagnosis. Lecture Notes in Computer Science, 2014, , 34-48.	1.3	0
83	A Simple GUI for Developing Applications That Use Mathematical Software Systems. Lecture Notes in Computer Science, 2014, , 99-119.	1.3	0
84	A 3D proposal for the visualization of speed in railway networks. AIMS Mathematics, 2020, 5, 7480-7499.	1.6	0
85	A Decision Making Tool for Mathematics Curricula Formal Verification. Mathematics Education in the Digital Era, 2022, , 77-88.	0.4	0