Miguel A GutiÃ©rrez-Naranjo

List of Publications by Year
in descending order

88 papers	1,411 citations	331538 21 h-index	395590 33 g-index
101 all docs	101 docs citations	101 times ranked	518 citing authors

#	Article	IF	Citations
1	A parallel algorithm for skeletonizing images by using spiking neural P systems. Neurocomputing, 2013, 115, 81-91.	3.5	79
2	Simulation of P systems with active membranes on CUDA. Briefings in Bioinformatics, 2010, 11, 313-322.	3.2	67
3	Membrane computing and image processing: a short survey. Journal of Membrane Computing, 2019, 1, 58-73.	1.0	66
4	A uniform family of tissue P systems with cell division solving 3-COL in a linear time. Theoretical Computer Science, 2008, 404, 76-87.	0.5	62
5	Segmenting images with gradient-based edge detection using Membrane Computing. Pattern Recognition Letters, 2013, 34, 846-855.	2.6	55
6	A computational modeling for real ecosystems based on P systems. Natural Computing, 2011, 10, 39-53.	1.8	51
7	RESEARCH FRONTIERS OF MEMBRANE COMPUTING: OPEN PROBLEMS AND RESEARCH TOPICS. International Journal of Foundations of Computer Science, 2013, 24, 547-623.	0.8	48
8	Simulating a P system based efficient solution to SAT by using GPUs. The Journal of Logic and Algebraic Programming, 2010, 79, 317-325.	1.4	47
9	An Overview of P-Lingua 2.0. Lecture Notes in Computer Science, 2010, , 264-288.	1.0	46
10	ChlamyNET: a Chlamydomonas gene co-expression network reveals global properties of the transcriptome and the early setup of key co-expression patterns in the green lineage. BMC Genomics, 2016, 17, 227.	1.2	45
11	A fast P system for finding a balanced 2-partition. Soft Computing, 2005, 9, 673-678.	2.1	44
12	A uniform solution to SAT using membrane creation. Theoretical Computer Science, 2007, 371, 54-61.	0.5	44
13	Pâ€“Lingua 2.0: A software framework for cellâ€“like P systems. International Journal of Computers, Communications and Control, 2014, 4, 234.	1.2	37
14	A Linearâ€“time Tissue P System Based Solution for the 3â€“coloring Problem. Electronic Notes in Theoretical Computer Science, 2007, 171, 81-93.	0.9	34
15	A P-Lingua Programming Environment for Membrane Computing. Lecture Notes in Computer Science, 2009, , 187-203.	1.0	33
16	A P System Based Model of an Ecosystem of Some Scavenger Birds. Lecture Notes in Computer Science, 2010, , 182-195.	1.0	32
17	First Steps Towards a CPU Made of Spiking Neural P Systems. International Journal of Computers, Communications and Control, 2014, 4, 244.	1.2	28
18	Computational efficiency of dissolution rules in membrane systems. International Journal of Computer Mathematics, 2006, 83, 593-611.	1.0	26

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19	Fully automatized parallel segmentation of the optic disc in retinal fundus images. Pattern Recognition Letters, 2016, 83, 99-107.	2.6	26
20	Solving Subset Sum in Linear Time by Using Tissue P Systems with Cell Division. Lecture Notes in Computer Science, 2007, , 170-179.	1.0	26
21	P SYSTEMS WITH INPUT IN BINARY FORM. International Journal of Foundations of Computer Science, 2006, 17, 127-146.	0.8	25
22	Two-hidden-layer feed-forward networks are universal approximators: A constructive approach. Neural Networks, 2020, 131, 29-36.	3.3	23
23	Comparing simulation algorithms for multienvironment probabilistic P systems over a standard virtual ecosystem. Natural Computing, 2012, 11, 369-379.	1.8	19
24	A P-Lingua based simulator for tissue P systems. The Journal of Logic and Algebraic Programming, 2010, 79, 374-382.	1.4	18
25	Decision-Theoretic Planning with Person Trajectory Prediction for Social Navigation. Advances in Intelligent Systems and Computing, 2016, , 247-258.	0.5	15
26	A software tool for verification of Spiking Neural P Systems. Natural Computing, 2008, 7, 485-497.	1.8	13
27	A SIMULATION ALGORITHM FOR MULTIENVIRONMENT PROBABILISTIC P SYSTEMS: A FORMAL VERIFICATION. International Journal of Foundations of Computer Science, 2011, 22, 107-118.	0.8	13
28	Available Membrane Computing Software. , 2006, , 411-436.		13
29	CHARACTERIZING TRACTABILITY BY CELL-LIKE MEMBRANE SYSTEMS. Series in Machine Perception and Artificial Intelligence, 2006, , 137-154.	0.1	13
30	A Prolog simulator for deterministic P systems with active membranes. New Generation Computing, 2004, 22, 349-363.	2.5	12
31	A formalization of membrane systems with dynamically evolving structures. International Journal of Computer Mathematics, 2013, 90, 801-815.	1.0	12
32	Implementation on CUDA of the Smoothing Problem with Tissue-Like P Systems. International Journal of Natural Computing Research, 2011, 2, 25-34.	0.5	12
33	Solving the 3-COL problem by using tissue P systems without environment and proteins on cells. Information Sciences, 2018, 430-431, 240-246.	4.0	11
34	Hebbian Learning from Spiking Neural P Systems View. Lecture Notes in Computer Science, 2009, , 217-230.	1.0	11
35	Towards a Programming Language in Cellular Computing. Electronic Notes in Theoretical Computer Science, 2005, 123, 93-110.	0.9	10
36	On the degree of parallelism in membrane systems. Theoretical Computer Science, 2007, 372, 183-195.	0.5	9

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37	A Linear Time Solution to the Partition Problem in a Cellular Tissue-Like Model. Journal of Computational and Theoretical Nanoscience, 2010, 7, 884-889.	0.4	9
38	A Linear Solution of Subset Sum Problem by Using Membrane Creation. Lecture Notes in Computer Science, 2005, , 258-267.	1.0	8
39	Semantics of deductive databases with spiking neural P systems. Neurocomputing, 2018, 272, 365-373.	3.5	8
40	Implementing in Prolog an Effective Cellular Solution to the Knapsack Problem. Lecture Notes in Computer Science, 2004, , 140-152.	1.0	8
41	On Descriptive Complexity of P Systems. Lecture Notes in Computer Science, 2005, , 320-330.	1.0	8
42	Evolutionary game theory in a cell: A membrane computing approach. Information Sciences, 2022, 589, 580-594.	4.0	8
43	Designing a new software tool for Digital Imagery based on P systems. Natural Computing, 2012, 11, 381-386.	1.8	7
44	A bio-inspired software for segmenting digital images. , 2010, , .		6
45	A software tool for generating graphics by means of P systems. Natural Computing, 2011, 10, 879-890.	1.8	6
46	A membrane computing framework for self-reconfigurable robots. Natural Computing, 2019, 18, 635-646.	1.8	6
47	Towards a Practical Argumentative Reasoning with Qualitative Spatial Databases. , 2003, , 789-798.		6
48	Exploring Computation Trees Associated with P Systems. Lecture Notes in Computer Science, 2005, , 278-286.	1.0	6
49	Local Search with P Systems. International Journal of Natural Computing Research, 2011, 2, 47-55.	0.5	6
50	Solving sudoku with Membrane Computing. , 2010, , .		5
51	Bio-inspired parallel computing of representative geometrical objects of holes of binary 2D-images. International Journal of Bio-Inspired Computation, 2017, 9, 77.	0.6	5
52	A Case Study in (Mem)Brane Computation: Generating Squares of Natural Numbers. Lecture Notes in Computer Science, 2006, , 233-249.	1.0	5
53	ON A PARTIAL AFFIRMATIVE ANSWER FOR A PÄ‚UN'S CONJECTURE. International Journal of Foundations of Computer Science, 2011, 22, 55-64.	0.8	4
54	Using Membrane Computing for Effective Homology. Applicable Algebra in Engineering, Communications and Computing, 2012, 23, 233-249.	0.3	4

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55	Antimatter as a Frontier of Tractability in Membrane Computing. Fundamenta Informaticae, 2014, 134, 83-96.	0.3	4
56	Representative datasets for neural networks. Electronic Notes in Discrete Mathematics, 2018, 68, 89-94.	0.4	4
57	A Logarithmic Bound for Solving Subset Sum with P Systems. , 2007, , 257-270.		4
58	A fast solution to the partition problem by using tissue-like P systems. , 2008, , .		3
59	An Approach to the Bio-Inspired Control of Self-reconfigurable Robots. Communications in Computer and Information Science, 2017, , 24-38.	0.4	3
60	Logic Negation with Spiking Neural P Systems. Neural Processing Letters, 2020, 52, 1583-1599.	2.0	3
61	Simplicial-Map Neural Networks Robust to Adversarial Examples. Mathematics, 2021, 9, 169.	1.1	3
62	PBIL for Optimizing Hyperparameters of Convolutional Neural Networks and STL Decomposition. Lecture Notes in Computer Science, 2020, , 147-159.	1.0	3
63	Simulating Turing Machines with Polarizationless P Systems with Active Membranes. Lecture Notes in Computer Science, 2014, , 229-240.	1.0	3
64	Characterizing tractability with membrane creation. , 2005, , .		2
65	How to express tumours using membrane systems. Progress in Natural Science: Materials International, 2007, 17, 449-457.	1.8	2
66	On the efficiency of cell-like and tissue-like recognizing membrane systems. International Journal of Intelligent Systems, 2009, 24, 747-765.	3.3	2
67	An extension of GHMMs for environments with occlusions and automatic goal discovery for person trajectory prediction. , 2015, , .		2
68	Robot path planning using rapidly-exploring random trees: A membrane computing approach. , 2018, , .		2
69	Implementing P Systems Parallelism by Means of GPUs. Lecture Notes in Computer Science, 2010, , 227-241.	1.0	2
70	Searching Partially Bounded Regions with P Systems. Advances in Intelligent Systems and Computing, 2014, , 45-54.	0.5	2
71	Cellular Solutions to Some Numerical NP-Complete Problems. Advances in Web Services Research Series, 0, , 115-149.	0.0	2
72	Simulation of P Systems with Active Membranes on CUDA. , 2009, , .		1

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73	Searching Previous Configurations in Membrane Computing. Lecture Notes in Computer Science, 2010, , 301-315.	1.0	1
74	Skeletonizing Digital Images with Cellular Automata. Emergence, Complexity and Computation, 2014, , 47-63.	0.2	1
75	Optimizing the Simplicial-Map Neural Network Architecture. Journal of Imaging, 2021, 7, 173.	1.7	1
76	Some Notes on (Mem)Brane Computation. Lecture Notes in Computer Science, 2006, , 262-271.	1.0	1
77	Forward and Backward Chaining with P Systems. International Journal of Natural Computing Research, 2011, 2, 56-66.	0.5	1
78	A Quasi-Metric for Machine Learning. Lecture Notes in Computer Science, 2002, , 193-203.	1.0	1
79	Generalizing Programs via Subsumption. Lecture Notes in Computer Science, 2003, , 115-126.	1.0	1
80	Implementation on CUDA of the Smoothing Problem with Tissue-Like P Systems. , 2014, , 184-193.		1
81	Solving the Bin-Packing Problem by Means of Tissue P System with 2-Division. Lecture Notes in Computer Science, 2017, , 170-181.	1.0	1
82	Efficient computation in rational-valued P systems. Mathematical Structures in Computer Science, 2009, 19, 1125-1139.	0.5	0
83	Descriptional Complexity of Tissue-Like P Systems with Cell Division. Lecture Notes in Computer Science, 2009, , 168-178.	1.0	0
84	Forward and Backward Chaining with P Systems. , 2014, , 149-158.		0
85	Local Search with P Systems. , 2014, , 139-148.		0
86	Bio-inspired parallel computing of representative geometrical objects of holes of binary 2D-images. International Journal of Bio-Inspired Computation, 2017, 9, 77.	0.6	0
87	Other Buds in Membrane Computing. Lecture Notes in Computer Science, 2018, , 142-154.	1.0	0
88	Forward and Backward Chaining with P Systems. , 0, , 1522-1531.		0