Liam Maguire

List of Publications by Year
in descending order

98 papers	2,401 citations	201674 27 h-index	243625 44 g-index
101 all docs	101 docs citations	101 times ranked	2403 citing authors

#	Article	IF	Citations
1	Speed of Rapid Serial Visual Presentation of Pictures, Numbers and Words Affects Event-Related Potential-Based Detection Accuracy. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 113-122.	4.9	16
2	Using simulation-based system dynamics and genetic algorithms to reduce the cash flow bullwhip in the supply chain. International Journal of Production Research, 2020, 58, 5253-5279.	7.5	27
3	Metastable neural dynamics underlies cognitive performance across multiple behavioural paradigms. Human Brain Mapping, 2020, 41, 3212-3234.	3.6	28
4	A practical computerized decision support system for predicting the severity of Alzheimer's disease of an individual. Expert Systems With Applications, 2019, 130, 157-171.	7.6	73
5	Primary care use of laboratory tests in Northern Ireland's Western Health and Social Care Trust: a cross-sectional study. BMJ Open, 2019, 9, e026647.	1.9	0
6	A Supervised Learning Algorithm for Learning Precise Timing of Multiple Spikes in Multilayer Spiking Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 5394-5407.	11.3	59
7	A Model-View-Controller (MVC) architecture for contextual visualisation of task-based multi-dimensional energy KPIs in a manufacturing process. International Journal of Ambient Energy, 2018, 39, 406-413.	2.5	3
8	A review of rapid serial visual presentation-based brain–computer interfaces. Journal of Neural Engineering, 2018, 15, 021001.	3.5	81
9	Quantitative analysis of breast cancer diagnosis using a probabilistic modelling approach. Computers in Biology and Medicine, 2018, 92, 168-175.	7.0	21
10	Simulation-based system dynamics optimization modelling of supply chain working capital management under lead time uncertainty. , 2018, , .		0
11	A hybrid computational approach for efficient Alzheimer's disease classification based on heterogeneous data. Scientific Reports, 2018, 8, 9774.	3.3	43
12	Case study: Impact of auxiliary energy in manufacturing operations. , 2018, , .		2
13	Metastable neural dynamics in Alzheimer's disease are disrupted by lesions to the structural connectome. NeuroImage, 2018, 183, 438-455.	4.2	34
14	Disrupted Thalamus White Matter Anatomy and Posterior Default Mode Network Effective Connectivity in Amnestic Mild Cognitive Impairment. Frontiers in Aging Neuroscience, 2017, 9, 370.	3.4	22
15	Multi-Kernel Learning with Dartel Improves Combined MRI-PET Classification of Alzheimer's Disease in AIBL Data: Group and Individual Analyses. Frontiers in Human Neuroscience, 2017, 11, 380.	2.0	32
16	Self-repairing hardware with astrocyte-neuron networks. , 2016, , .		16
17	Scalable Networks-on-Chip Interconnected Architecture for Astrocyte-Neuron Networks. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 2290-2303.	5.4	40
18	Dynamically Evolving Spiking Neural network for pattern recognition. , 2015, , .		4

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19	Modelling Cortical and Thalamocortical Synaptic Loss and Compensation Mechanisms in Alzheimerâ€™s Disease. Springer Series in Computational Neuroscience, 2015, , 221-275.	0.3	0
20	A cognitive robotic ecology approach to self-configuring and evolving AAL systems. Engineering Applications of Artificial Intelligence, 2015, 45, 269-280.	8.1	24
21	Low cost fault-tolerant routing algorithm for Networks-on-Chip. Microprocessors and Microsystems, 2015, 39, 358-372.	2.8	42
22	DL-ReSuMe: A Delay Learning-Based Remote Supervised Method for Spiking Neurons. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 3137-3149.	11.3	69
23	Fine-Grained Fault-Tolerant Adaptive Routing for Networks-on-Chip. Lecture Notes in Computer Science, 2015, , 492-505.	1.3	1
24	Compensating for thalamocortical synaptic loss in Alzheimer's disease. Frontiers in Computational Neuroscience, 2014, 8, 65.	2.1	22
25	INTRODUCTION. International Journal of Neural Systems, 2014, 24, 1403002.	5.2	0
26	Low Overhead Monitor Mechanism for Fault-Tolerant Analysis of NoC. , 2014, , .		6
27	Online traffic-aware fault detection for networks-on-chip. Journal of Parallel and Distributed Computing, 2014, 74, 1984-1993.	4.1	44
28	An experimental evaluation of novelty detection methods. Neurocomputing, 2014, 135, 313-327.	5.9	96
29	A locally adaptive boundary evolution algorithm for novelty detection using level set methods. , 2014, , .		4
30	Online fault detection for Networks-on-Chip interconnect. , 2014, , .		7
31	Maximum likelihood estimation for second level fMRI data analysis with expectation trust region algorithm. Magnetic Resonance Imaging, 2014, 32, 132-149.	1.8	1
32	An online supervised learning method for spiking neural networks with adaptive structure. Neurocomputing, 2014, 144, 526-536.	5.9	87
33	Compensating for synaptic loss in Alzheimerâ€™s disease. Journal of Computational Neuroscience, 2014, 36, 19-37.	1.0	33
34	Neural Circuit Models and Neuropathological Oscillations. , 2014, , 673-702.		3
35	Spectral and Non-linear Analysis of Thalamocortical Neural Mass Model Oscillatory Dynamics. , 2014, , 87-112.		4
36	Statistical Methods for fMRI Activation and Effective Connectivity Studies. , 2014, , 647-672.		0

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37	Development of a self sustaining cognitive architecture. Biologically Inspired Cognitive Architectures, 2013, 6, 96-108.	0.9	1
38	Model-based bifurcation and power spectral analyses of thalamocortical alpha rhythm slowing in Alzheimer's Disease. Neurocomputing, 2013, 115, 11-22.	5.9	33
39	A Least Trimmed Square Regression Method for Second Level fMRI Effective Connectivity Analysis. Neuroinformatics, 2013, 11, 105-118.	2.8	6
40	A visual attention model based on hierarchical spiking neural networks. Neurocomputing, 2013, 116, 3-12.	5.9	33
41	Evaluation of Sampling Methods for Learning from Imbalanced Data. Lecture Notes in Computer Science, 2013, , 392-401.	1.3	27
42	Development of Cognitive Capabilities for Smart Home using a Self-Organizing Fuzzy Neural Network. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 447-454.	0.4	6
43	Constructing minimum volume surfaces using level set methods for novelty detection. , 2012, , .		8
44	Synchrony: A spiking-based mechanism for processing sensory stimuli. Neural Networks, 2012, 32, 26-34.	5.9	3
45	Applying genetic algorithms to dampen the impact of price fluctuations in a supply chain. International Journal of Production Research, 2012, 50, 5396-5414.	7.5	12
46	Beta-amyloid induced changes in A-type K+ current can alter hippocampo-septal network dynamics. Journal of Computational Neuroscience, 2012, 32, 465-477.	1.0	27
47	Spiking Neural Network Model of Sound Localization Using the Interaural Intensity Difference. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 574-586.	11.3	29
48	Robotic UBIquitous COgnitive Network. Advances in Intelligent and Soft Computing, 2012, , 191-195.	0.2	16
49	Simulation of Visual Attention Using Hierarchical Spiking Neural Networks. Lecture Notes in Computer Science, 2012, , 26-31.	1.3	2
50	Lateral inhibitory networks: Synchrony, edge enhancement, and noise reduction. , 2011, , .		3
51	Employing neuronal networks to investigate the pathophysiological basis of abnormal cortical oscillations in Alzheimer's disease. , 2011, 2011, 2065-8.		3
52	Computational Study of Hippocampal-Septal Theta Rhythm Changes Due to Beta-Amyloid-Altered Ionic Channels. PLoS ONE, 2011, 6, e21579.	2.5	30
53	A Model Selection Method for Nonlinear System Identification Based fMRI Effective Connectivity Analysis. IEEE Transactions on Medical Imaging, 2011, 30, 1365-1380.	8.9	14
54	Selecting Critical Patterns Based on Local Geometrical and Statistical Information. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 1189-1201.	13.9	109

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55	Gray matter concentration and effective connectivity changes in Alzheimer's disease: a longitudinal structural MRI study. Neuroradiology, 2011, 53, 733-748.	2.2	53
56	Receptive field optimisation and supervision of a fuzzy spiking neural network. Neural Networks, 2011, 24, 247-256.	5.9	14
57	Long Timescale fMRI Neuronal Adaptation Effects in Human Amblyopic Cortex. PLoS ONE, 2011, 6, e26562.	2.5	7
58	Does Soft Computing Classify Research in Spiking Neural Networks?. International Journal of Computational Intelligence Systems, 2010, 3, 176-189.	2.7	0
59	Intra- and inter-connectivity influences on event related changes in thalamocortical alpha rhythms. , 2010, , .		2
60	Feature extraction from spectro-temporal signals using dynamic synapses, recurrency, and lateral inhibition. , 2010, , .		3
61	AN STDP TRAINING ALGORITHM FOR A SPIKING NEURAL NETWORK WITH DYNAMIC THRESHOLD NEURONS. International Journal of Neural Systems, 2010, 20, 463-480.	5.2	27
62	AN FPGA HARDWARE/SOFTWARE CO-DESIGN TOWARDS EVOLVABLE SPIKING NEURAL NETWORKS FOR ROBOTICS APPLICATION. International Journal of Neural Systems, 2010, 20, 447-461.	5.2	20
63	A least angle regression method for fMRI activation detection in phase-encoded experimental designs. NeuroImage, 2010, 52, 1390-1400.	4.2	13
64	Online versus offline learning for spiking neural networks: A review and new strategies. , 2010, , .		12
65	Thalamocortical circuitry and alpha rhythm slowing: An empirical study based on a classic computational model. , 2010, , .		7
66	Colour Image Segmentation Based on a Spiking Neural Network Model Inspired by the Visual System. Lecture Notes in Computer Science, 2010, , 49-57.	1.3	11
67	Remembering Key Features of Visual Images Based on Spike Timing Dependent Plasticity of Spiking Neurons. , 2009, , .		4
68	Dataset Selection for Training One-Class Support Vector Machines. , 2009, , .		2
69	Reducing the negative effects of sales promotions in supply chains using genetic algorithms. Expert Systems With Applications, 2009, 36, 7827-7837.	7.6	31
70	Downstream performance prediction for a manufacturing system using neural networks and six-sigma improvement techniques. Robotics and Computer-Integrated Manufacturing, 2009, 25, 513-521.	9.9	19
71	Detection of Straight Lines Using a Spiking Neural Network Model. , 2009, , .		4
72	Spiking Neural Network Performs Discrete Cosine Transform for Visual Images. Lecture Notes in Computer Science, 2009, , 21-29.	1.3	6

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73	2D co-ordinate transformation based on a spike timing-dependent plasticity learning mechanism. Neural Networks, 2008, 21, 1318-1327.	5.9	14
74	Processing visual stimuli using hierarchical spiking neural networks. Neurocomputing, 2008, 71, 2055-2068.	5.9	24
75	Intelligent User Support in Autonomous Remote Experimentation Environments. IEEE Transactions on Industrial Electronics, 2008, 55, 2355-2367.	7.9	33
76	Disentangling causal relationships of a manufacturing process using genetic algorithms and six-sigma techniques. International Journal of Production Research, 2008, 46, 6251-6268.	7.5	9
77	Motion Detection Using Spiking Neural Network Model. Lecture Notes in Computer Science, 2008, , 76-83.	1.3	11
78	Implementing Fuzzy Reasoning on a Spiking Neural Network. Lecture Notes in Computer Science, 2008, , 258-267.	1.3	6
79	Simulation of Intelligent Computational Models in Biological Systems. , 2007, , .		3
80	A comparison of fuzzy strategies for corporate acquisition analysis. Fuzzy Sets and Systems, 2007, 158, 2039-2056.	2.7	19
81	Challenges for large-scale implementations of spiking neural networks on FPGAs. Neurocomputing, 2007, 71, 13-29.	5.9	209
82	Client–server architecture for collaborative remote experimentation. Journal of Network and Computer Applications, 2007, 30, 1295-1308.	9.1	31
83	Learning Mechanisms in Networks of Spiking Neurons. , 2007, , 171-197.		13
84	Edge Detection Based on Spiking Neural Network Model. Lecture Notes in Computer Science, 2007, , 26-34.	1.3	30
85	Employing dynamic fuzzy membership functions to assess environmental performance in the supplier selection process. International Journal of Production Research, 2006, 44, 2379-2419.	7.5	120
86	A user-centred corporate acquisition system: a dynamic fuzzy membership functions approach. Decision Support Systems, 2006, 42, 162-185.	5.9	7
87	Learning under weight constraints in networks of temporal encoding spiking neurons. Neurocomputing, 2006, 69, 1912-1922.	5.9	50
88	Minimizing the bullwhip effect in a supply chain using genetic algorithms. International Journal of Production Research, 2006, 44, 1523-1543.	7.5	83
89	Area Efficient Architecture for Large Scale Implementation of Biologically Plausible Spiking Neural Networks on Reconfigurable Hardware. , 2006, , .		11
90	Comparative Investigation into Classical and Spiking Neuron Implementations on FPGAs. Lecture Notes in Computer Science, 2005, , 269-274.	1.3	13

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91	Using a fuzzy approach to support financial analysis in the corporate acquisition process. Expert Systems With Applications, 2004, 27, 533-547.	7.6	25
92	Statistical and computational intelligence techniques for inferential model development: a comparative evaluation and a novel proposition for fusion. Engineering Applications of Artificial Intelligence, 2004, 17, 871-885.	8.1	98
93	Knowledge Discovery from Decision Tables by the Use of Multiple-Valued Logic. Artificial Intelligence Review, 2003, 19, 153-176.	15.7	11
94	On-chip and Off-chip Real-Time Debugging for Remotely-Accessed Embedded Programmable Systems. Lecture Notes in Computer Science, 2003, , 1079-1082.	1.3	1
95	Fault diagnosis of electronic system using artificial intelligence. IEEE Instrumentation and Measurement Magazine, 2002, 5, 16-20.	1.6	13
96	Genetic algorithm driven hardware–software partitioning for dynamically reconfigurable embedded systems. Microprocessors and Microsystems, 2001, 25, 263-274.	2.8	16
97	Issues in the development of an integrated environment for embedded system design. Microprocessors and Microsystems, 1999, 23, 199-206.	2.8	6
98	Issues in the development of an integrated environment for embedded system design. Microprocessors and Microsystems, 1999, 23, 191-197.	2.8	4