Liam McDaid

List of Publications by Year
in descending order

24 papers	262 citations	1307594 7 h-index	1058476 14 g-index
25 all docs	25 docs citations	25 times ranked	205 citing authors

#	Article	IF	Citations
1	Predicting Networks-on-Chip traffic congestion with Spiking Neural Networks. Journal of Parallel and Distributed Computing, 2021, 154, 82-93.	4.1	4
2	Mathematical modelling of human P2X-mediated plasma membrane electrophysiology and calcium dynamics in microglia. PLoS Computational Biology, 2021, 17, e1009520.	3.2	1
3	Spiking Neural Network-based Structural Health Monitoring Hardware System. , 2021, , .		0
4	Minimising Impact of Local Congestion in Networks-on-Chip Performance by Predicting Buffer Utilisation. , 2020, , .		1
5	Case Study—Spiking Neural Network Hardware System for Structural Health Monitoring. Sensors, 2020, 20, 5126.	3.8	15
6	Computational Study of Astroglial Calcium Homeostasis in a Semi-isolated Synaptic Cleft. , 2020, , .		0
7	Exploring Spiking Neural Networks for Prediction of Traffic Congestion in Networks-on-Chip. , 2020, , .		8
8	AstroByte: Multi-FPGA Architecture for Accelerated Simulations of Spiking Astrocyte Neural Networks. , 2020, , .		4
9	GABA Regulation of Burst Firing in Hippocampal Astrocyte Neural Circuit: A Biophysical Model. Frontiers in Cellular Neuroscience, 2019, 13, 335.	3.7	6
10	Scalable Bio-inspired Fault Detection, Isolation and Recovery in NoCs. , 2018, , .		0
11	Bio-inspired Anomaly Detection for Low-cost Gas Sensors. , 2018, , .		1
12	Time-multiplexed System-on-Chip using Fault-tolerant Astrocyte-Neuron Networks. , 2018, , .		6
13	Low Cost Interconnected Architecture for the Hardware Spiking Neural Networks. Frontiers in Neuroscience, 2018, 12, 857.	2.8	11
14	FPGA-based Fault-injection and Data Acquisition of Self-repairing Spiking Neural Network Hardware. , 2018, , .		7
15	Rapid application prototyping for hardware modular spiking neural network architectures. Neural Computing and Applications, 2017, 28, 2767-2779.	5.6	1
16	Layered tile architecture for efficient hardware spiking neural networks. Microprocessors and Microsystems, 2017, 53, 21-32.	2.8	6
17	Fixed latency on-chip interconnect for hardware spiking neural network architectures. Parallel Computing, 2013, 39, 357-371.	2.1	25
18	Advancing interconnect density for spiking neural network hardware implementations using traffic-aware adaptive network-on-chip routers. Neural Networks, 2012, 33, 42-57.	5.9	54

#	Article	IF	Citations
19	Investigating Power Reduction for NoC-Based Spiking Neural Network Platforms using Channel Encoding. International Journal of Adaptive Resilient and Autonomic Systems, 2012, 3, 1-16.	0.3	0
20	Hardware spiking neural network prototyping and application. Genetic Programming and Evolvable Machines, 2011, 12, 257-280.	2.2	41
21	Adaptive Routing Strategies for Large Scale Spiking Neural Network Hardware Implementations. Lecture Notes in Computer Science, 2011, , 77-84.	1.3	7
22	Computing with Biologically Inspired Neural Oscillators: Application to Colour Image Segmentation. Advances in Artificial Intelligence, 2010, 2010, 1-21.	0.9	2
23	EMBRACE-SysC for analysis of NoC-based Spiking Neural Network architectures. , 2010, , .		8
24	A Reconfigurable and Biologically Inspired Paradigm for Computation Using Network-On-Chip and Spiking Neural Networks. International Journal of Reconfigurable Computing, 2009, 2009, 1-13.	0.2	46