

John Wade

List of Publications by Year in descending order

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Version: 2024-02-01

30
papers

630
citations

933447

10
h-index

839539

18
g-index

30
all docs

30
docs citations

30
times ranked

558
citing authors

#	ARTICLE	IF	CITATIONS
1	SWAT: A Spiking Neural Network Training Algorithm for Classification Problems. IEEE Transactions on Neural Networks, 2010, 21, 1817-1830.	4.2	148
2	Bidirectional Coupling between Astrocytes and Neurons Mediates Learning and Dynamic Coordination in the Brain: A Multiple Modeling Approach. PLoS ONE, 2011, 6, e29445.	2.5	109
3	Potassium and sodium microdomains in thin astroglial processes: A computational model study. PLoS Computational Biology, 2018, 14, e1006151.	3.2	52
4	Self-repair in a bidirectionally coupled astrocyte-neuron (AN) system based on retrograde signaling. Frontiers in Computational Neuroscience, 2012, 6, 76.	2.1	48
5	SPANNER: A Self-Repairing Spiking Neural Network Hardware Architecture. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 1287-1300.	11.3	48
6	On the role of astroglial syncytia in self-repairing spiking neural networks. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 2370-2380.	11.3	42
7	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
8	A computational study of astrocytic glutamate influence on post-synaptic neuronal excitability. PLoS Computational Biology, 2018, 14, e1006040.	3.2	34
9	Self-repairing hardware with astrocyte-neuron networks. , 2016, , .		16
10	Calcium Microdomain Formation at the Perisynaptic Cradle Due to NCX Reversal: A Computational Study. Frontiers in Cellular Neuroscience, 2019, 13, 185.	3.7	16
11	Biophysically based computational models of astrocyte ~ neuron coupling and their functional significance. Frontiers in Computational Neuroscience, 2013, 7, 44.	2.1	13
12	Exploring retrograde signaling via astrocytes as a mechanism for self repair. , 2011, , .		8
13	SWAT: An unsupervised SNN training algorithm for classification problems. , 2008, , .		7
14	Problem solving techniques in cognitive science. Artificial Intelligence Review, 2010, 34, 221-234.	15.7	7
15	GABA Regulation of Burst Firing in Hippocampal Astrocyte Neural Circuit: A Biophysical Model. Frontiers in Cellular Neuroscience, 2019, 13, 335.	3.7	6
16	Astrocyte to spiking neuron communication using Networks-on-Chip ring topology. , 2016, , .		5
17	A Computational Study of Astrocytic GABA Release at the Glutamatergic Synapse: EAAT-2 and GAT-3 Coupled Dynamics. Frontiers in Cellular Neuroscience, 2021, 15, 682460.	3.7	5
18	The Si elegans Project – The Challenges and Prospects of Emulating Caenorhabditis elegans. Lecture Notes in Computer Science, 2014, , 436-438.	1.3	5

#	ARTICLE	IF	CITATIONS
19	Si elegans: FPGA hardware emulation of C. elegans nematode nervous system. , 2014, , .		4
20	Lateral inhibitory networks: Synchrony, edge enhancement, and noise reduction. , 2011, , .		3
21	Synchrony: A spiking-based mechanism for processing sensory stimuli. Neural Networks, 2012, 32, 26-34.	5.9	3
22	Self-repairing Learning Rule for Spiking Astrocyte-Neuron Networks. Lecture Notes in Computer Science, 2017, , 384-392.	1.3	3
23	Si elegans: Hardware architecture and communications protocol. , 2015, , .		2
24	Si elegans: Modeling the C. elegans Nematode Nervous System Using High Performance FPGAS. Biosystems and Biorobotics, 2016, , 31-45.	0.3	2
25	Exploring Neural Principles with Si elegans, a Neuromimetic Representation of the Nematode Caenorhabditis elegans. , 2014, , .		2
26	Si elegans - Computational Modelling of C. elegans Nematode Nervous System using FPGAs. , 2014, , .		1
27	Mathematical modelling of human P2X-mediated plasma membrane electrophysiology and calcium dynamics in microglia. PLoS Computational Biology, 2021, 17, e1009520.	3.2	1
28	On-chip communication for neuro-glia networks. IET Computers and Digital Techniques, 2018, 12, 130-138.	1.2	0
29	Computational Study of Astroglial Calcium Homeostasis in a Semi-isolated Synaptic Cleft. , 2020, , .		0
30	Online Remote Control of a Wireless Home Automation Network. International Journal of Ambient Computing and Intelligence, 2009, 1, 39-52.	1.1	0