

# Rodney Douglas

## List of Publications by Year in descending order

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23  
papers

2,169  
citations

759233

12  
h-index

839539

18  
g-index

33  
all docs

33  
docs citations

33  
times ranked

1954  
citing authors

#	ARTICLE	IF	CITATIONS
1	A VLSI Array of Low-Power Spiking Neurons and Bistable Synapses With Spike-Timing Dependent Plasticity. IEEE Transactions on Neural Networks, 2006, 17, 211-221.	4.2	779
2	A silicon neuron. Nature, 1991, 354, 515-518.	27.8	408
3	CAVIAR: A 45k Neuron, 5M Synapse, 12G Connects/s AER Hardware Sensory-Processing-Actuating System for High-Speed Visual Object Recognition and Tracking. IEEE Transactions on Neural Networks, 2009, 20, 1417-1438.	4.2	285
4	A framework for modeling the growth and development of neurons and networks. Frontiers in Computational Neuroscience, 2009, 3, 25.	2.1	105
5	Orientation-selective aVLSI spiking neurons. Neural Networks, 2001, 14, 629-643.	5.9	97
6	Computation with Spikes in a Winner-Take-All Network. Neural Computation, 2009, 21, 2437-2465.	2.2	88
7	Temporal Coding in a Silicon Network of Integrate-and-Fire Neurons. IEEE Transactions on Neural Networks, 2004, 15, 1305-1314.	4.2	75
8	A Systematic Method for Configuring VLSI Networks of Spiking Neurons. Neural Computation, 2011, 23, 2457-2497.	2.2	57
9	Belief Propagation in Networks of Spiking Neurons. Neural Computation, 2009, 21, 2502-2523.	2.2	42
10	The crossed nigrostriatal projection decussates in the ventral tegmental decussation. Brain Research, 1987, 418, 111-121.	2.2	33
11	Quantification of a Spike-Based Winner-Take-All VLSI Network. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 3160-3169.	5.4	28
12	Adaptive Neural Coding Dependent on the Time-Varying Statistics of the Somatic Input Current. Neural Computation, 1999, 11, 1893-1913.	2.2	22
13	Quantifying Input and Output Spike Statistics of a Winner-Take-All Network in a Vision System. , 2007, , .		14
14	Conditioning by subthreshold synaptic input changes the intrinsic firing pattern of CA3 hippocampal neurons. Journal of Neurophysiology, 2020, 123, 90-106.	1.8	12
15	State-dependent sensory processing in networks of VLSI spiking neurons. , 2010, , .		11
16	An Instruction Language for Self-Construction in the Context of Neural Networks. Frontiers in Computational Neuroscience, 2011, 5, 57.	2.1	11
17	Spike-Based Probabilistic Inference in Analog Graphical Models Using Interspike-Interval Coding. Neural Computation, 2013, 25, 2303-2354.	2.2	9
18	Hemispheric disconnection and rotational behaviour. Behavioural Brain Research, 1985, 17, 257-263.	2.2	3

#	ARTICLE	IF	CITATIONS
19	Neuroinformatics as Explanatory Neuroscience. NeuroImage, 1996, 4, S25-S28.	4.2	3
20	Systematic Construction of Finite State Automata Using VLSI Spiking Neurons. Lecture Notes in Computer Science, 2012, , 382-383.	1.3	2
21	Live demonstration: State-dependent sensory processing in networks of VLSI spiking neurons. , 2010, , .		1
22	Constructive Cortical Computation. Procedia Computer Science, 2011, 7, 18-19.	2.0	0
23	Neuromorphic Cognition. , 2022, , 2313-2322.		0