

Henning Sprekeler

List of Publications by Year in descending order

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Version: 2024-02-01

32
papers

1,991
citations

430442

18
h-index

433756

31
g-index

47
all docs

47
docs citations

47
times ranked

2045
citing authors

#	ARTICLE	IF	CITATIONS
1	Invariant neural subspaces maintained by feedback modulation. <i>ELife</i> , 2022, 11, .	2.8	7
2	Optimizing interneuron circuits for compartment-specific feedback inhibition. <i>PLoS Computational Biology</i> , 2022, 18, e1009933.	1.5	6
3	Learning excitatory-inhibitory neuronal assemblies in recurrent networks. <i>ELife</i> , 2021, 10, .	2.8	24
4	Self-organization of a doubly asynchronous irregular network state for spikes and bursts. <i>PLoS Computational Biology</i> , 2021, 17, e1009478.	1.5	5
5	Hebbian plasticity in parallel synaptic pathways: A circuit mechanism for systems memory consolidation. <i>PLoS Computational Biology</i> , 2021, 17, e1009681.	1.5	4
6	A thalamocortical top-down circuit for associative memory. <i>Science</i> , 2020, 370, 844-848.	6.0	63
7	Presynaptic inhibition rapidly stabilises recurrent excitation in the face of plasticity. <i>PLoS Computational Biology</i> , 2020, 16, e1008118.	1.5	9
8	Learning prediction error neurons in a canonical interneuron circuit. <i>ELife</i> , 2020, 9, .	2.8	35
9	Amplifying the redistribution of somato-dendritic inhibition by the interplay of three interneuron types. <i>PLoS Computational Biology</i> , 2019, 15, e1006999.	1.5	42
10	A local measure of symmetry and orientation for individual spikes of grid cells. <i>PLoS Computational Biology</i> , 2019, 15, e1006804.	1.5	7
11	Sparse bursts optimize information transmission in a multiplexed neural code. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E6329-E6338.	3.3	99
12	Learning place cells, grid cells and invariances with excitatory and inhibitory plasticity. <i>ELife</i> , 2018, 7, .	2.8	46
13	Functional consequences of inhibitory plasticity: homeostasis, the excitation-inhibition balance and beyond. <i>Current Opinion in Neurobiology</i> , 2017, 43, 198-203.	2.0	69
14	Nonlinear Bayesian filtering and learning: a neuronal dynamics for perception. <i>Scientific Reports</i> , 2017, 7, 8722.	1.6	24
15	Memory replay in balanced recurrent networks. <i>PLoS Computational Biology</i> , 2017, 13, e1005359.	1.5	64
16	Inhibition as a Binary Switch for Excitatory Plasticity in Pyramidal Neurons. <i>PLoS Computational Biology</i> , 2016, 12, e1004768.	1.5	42
17	Inheritance of Hippocampal Place Fields Through Hebbian Learning: Effects of Theta Modulation and Phase Precession on Structure Formation. <i>Neural Computation</i> , 2015, 27, 1624-1672.	1.3	14
18	Nonlinear Supervised Locality Preserving Projections for Visual Pattern Discrimination. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
19	Reinforcement Learning Using a Continuous Time Actor-Critic Framework with Spiking Neurons. PLoS Computational Biology, 2013, 9, e1003024.	1.5	121
20	The Silent Period of Evidence Integration in Fast Decision Making. PLoS ONE, 2013, 8, e46525.	1.1	9
21	Changing the responses of cortical neurons from sub- to suprathreshold using single spikes in vivo. ELife, 2013, 2, e00012.	2.8	26
22	Paradoxical Evidence Integration in Rapid Decision Processes. PLoS Computational Biology, 2012, 8, e1002382.	1.5	17
23	Theory and Simulation in Neuroscience. Science, 2012, 338, 60-65.	6.0	141
24	Perceptual learning, roving and the unsupervised bias. Vision Research, 2012, 61, 95-99.	0.7	28
25	Inhibitory Plasticity Balances Excitation and Inhibition in Sensory Pathways and Memory Networks. Science, 2011, 334, 1569-1573.	6.0	613
26	A Theory of Slow Feature Analysis for Transformation-Based Input Signals with an Application to Complex Cells. Neural Computation, 2011, 23, 303-335.	1.3	7
27	On the Relation of Slow Feature Analysis and Laplacian Eigenmaps. Neural Computation, 2011, 23, 3287-3302.	1.3	30
28	Functional Requirements for Reward-Modulated Spike-Timing-Dependent Plasticity. Journal of Neuroscience, 2010, 30, 13326-13337.	1.7	121
29	Predictive Coding and the Slowness Principle: An Information-Theoretic Approach. Neural Computation, 2008, 20, 1026-1041.	1.3	44
30	Slowness and Sparseness Lead to Place, Head-Direction, and Spatial-View Cells. PLoS Computational Biology, 2007, 3, e166.	1.5	153
31	Slowness: An Objective for Spike-Timing-Dependent Plasticity?. PLoS Computational Biology, 2007, 3, e112.	1.5	65
32	Understanding Slow Feature Analysis: A Mathematical Framework. SSRN Electronic Journal, 0, , .	0.4	4