Adrienne L Fairhall

List of Publications by Year
in descending order

62	4,674	147801 31	128289 60
papers	citations	h-index	g-index

68	68	68	3918
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dopamine neurons evaluate natural fluctuations in performance quality. Cell Reports, 2022, 38, 110574.	6.4	14
2	In Silico: Where Next?. ENeuro, 2021, 8, ENEURO.0131-21.2021.	1.9	4
3	Gender bias in academia: A lifetime problem that needs solutions. Neuron, 2021, 109, 2047-2074.	8.1	106
4	Tracking calcium dynamics from individual neurons in behaving animals. PLoS Computational Biology, 2021, 17, e1009432.	3.2	17
5	Context-dependent representations of movement in Drosophila dopaminergic reinforcement pathways. Nature Neuroscience, 2021, 24, 1555-1566.	14.8	54
6	Teaching Computation in Neuroscience: Notes on the 2019 Society for Neuroscience Professional Development Workshop on Teaching. Journal of Undergraduate Neuroscience Education: JUNE: A Publication of FUN, Faculty for Undergraduate Neuroscience, 2021, 19, A185-A191.	0.0	0
7	Reconfiguring Motor Circuits for a Joint Manual and BCI Task. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 248-257.	4.9	7
8	Capturing Multiple Timescales of Adaptation to Second-Order Statistics With Generalized Linear Models: Gain Scaling and Fractional Differentiation. Frontiers in Systems Neuroscience, 2020, 14, 60.	2.5	6
9	The Mind of a Mouse. Cell, 2020, 182, 1372-1376.	28.9	127
10	Acknowledging female voices. Nature Neuroscience, 2020, 23, 904-905.	14.8	8
11	Visual-Olfactory Integration in the Human Disease Vector Mosquito Aedes aegypti. Current Biology, 2019, 29, 2509-2516.e5.	3.9	64
12	Coding Principles in Adaptation. Annual Review of Vision Science, 2019, 5, 427-449.	4.4	67
13	The role of adaptation in neural coding. Current Opinion in Neurobiology, 2019, 58, 135-140.	4.2	29
14	Variation in sequence dynamics improves maintenance of stereotyped behavior in an example from bird song. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9592-9597.	7.1	12
15	Whither variability?. Nature Neuroscience, 2019, 22, 329-330.	14.8	4
16	Fast and flexible sequence induction in spiking neural networks via rapid excitability changes. ELife, 2019, 8, .	6.0	11
17	Computational Neuroscience: Mathematical and Statistical Perspectives. Annual Review of Statistics and Its Application, 2018, 5, 183-214.	7.0	48
18	History dependence in insect flight decisions during odor tracking. PLoS Computational Biology, 2018, 14, e1005969.	3.2	47

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19	Multiplexed Spike Coding and Adaptation in the Thalamus. Cell Reports, 2017, 19, 1130-1140.	6.4	43
20	Dopaminergic modulation of basal ganglia output through coupled excitationâ€“inhibition. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5713-5718.	7.1	29
21	Editorial overview: Computational neuroscience. Current Opinion in Neurobiology, 2017, 46, A1-A5.	4.2	4
22	Correlation-based model of artificially induced plasticity in motor cortex by a bidirectional brain-computer interface. PLoS Computational Biology, 2017, 13, e1005343.	3.2	8
23	Analysis of Neuronal Spike Trains, Deconstructed. Neuron, 2016, 91, 221-259.	8.1	71
24	Dimensionality reduction in neuroscience. Current Biology, 2016, 26, R656-R660.	3.9	72
25	Let Music Sound while She Doth Make Her Choice. Neuron, 2015, 87, 1126-1128.	8.1	0
26	Constructing Precisely Computing Networks with Biophysical Spiking Neurons. Journal of Neuroscience, 2015, 35, 10112-10134.	3.6	41
27	Mosquitoes Use Vision to Associate Odor Plumes with Thermal Targets. Current Biology, 2015, 25, 2123-2129.	3.9	235
28	Dual Dimensionality Reduction Reveals Independent Encoding of Motor Features in a Muscle Synergy for Insect Flight Control. PLoS Computational Biology, 2015, 11, e1004168.	3.2	13
29	Temporal dynamics in fMRI resting-state activity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5263-5264.	7.1	9
30	Intrinsic Neuronal Properties Switch the Mode of Information Transmission in Networks. PLoS Computational Biology, 2014, 10, e1003962.	3.2	29
31	Cellular mechanisms for integral feedback in visually guided behavior. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5700-5705.	7.1	63
32	Editorial overview: Theoretical and computational neuroscience. Current Opinion in Neurobiology, 2014, 25, v-viii.	4.2	5
33	Relationship between individual neuron and network spontaneous activity in developing mouse cortex. Journal of Neurophysiology, 2014, 112, 3033-3045.	1.8	11
34	Context-dependent coding in single neurons. Journal of Computational Neuroscience, 2014, 37, 459-480.	1.0	12
35	The receptive field is dead. Long live the receptive field?. Current Opinion in Neurobiology, 2014, 25, ix-xii.	4.2	24
36	Emergence of Adaptive Computation by Single Neurons in the Developing Cortex. Journal of Neuroscience, 2013, 33, 12154-12170.	3.6	46

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37	Information theoretic approaches to understanding circuit function. Current Opinion in Neurobiology, 2012, 22, 653-659.	4.2	38
38	Tonotopic Tuning in a Sound Localization Circuit. Journal of Neurophysiology, 2010, 103, 2857-2875.	1.8	30
39	Encoding properties of haltere neurons enable motion feature detection in a biological gyroscope. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3840-3845.	7.1	86
40	Multiple Timescale Encoding of Slowly Varying Whisker Stimulus Envelope in Cortical and Thalamic NeuronsIn Vivo. Journal of Neuroscience, 2010, 30, 5071-5077.	3.6	71
41	Feature Selection in Simple Neurons: How Coding Depends on Spiking Dynamics. Neural Computation, 2010, 22, 581-598.	2.2	24
42	Sensitivity of firing rate to input fluctuations depends on time scale separation between fast and slow variables in single neurons. Journal of Computational Neuroscience, 2009, 27, 277-290.	1.0	50
43	Timescales of Inference in Visual Adaptation. Neuron, 2009, 61, 750-761.	8.1	176
44	Fractional differentiation by neocortical pyramidal neurons. Nature Neuroscience, 2008, 11, 1335-1342.	14.8	556
45	Two Computational Regimes of a Single-Compartment Neuron Separated by a Planar Boundary in Conductance Space. Neural Computation, 2008, 20, 1239-1260.	2.2	33
46	Intrinsic Gain Modulation and Adaptive Neural Coding. PLoS Computational Biology, 2008, 4, e1000119.	3.2	31
47	Shifts in Coding Properties and Maintenance of Information Transmission during Adaptation in Barrel Cortex. PLoS Biology, 2007, 5, e19.	5.6	207
48	Single Neuron Computation: From Dynamical System to Feature Detector. Neural Computation, 2007, 19, 3133-3172.	2.2	50
49	Reinforcement Learning With Modulated Spike Timingâ€“Dependent Synaptic Plasticity. Journal of Neurophysiology, 2007, 98, 3648-3665.	1.8	110
50	Sensory adaptation. Current Opinion in Neurobiology, 2007, 17, 423-429.	4.2	461
51	Selectivity for Multiple Stimulus Features in Retinal Ganglion Cells. Journal of Neurophysiology, 2006, 96, 2724-2738.	1.8	130
52	Decoding Stimulus Variance from a Distributional Neural Code of Interspike Intervals. Journal of Neuroscience, 2006, 26, 9030-9037.	3.6	43
53	Factors Affecting Frequency Discrimination of Vibrotactile Stimuli: Implications for Cortical Encoding. PLoS ONE, 2006, 1, e100.	2.5	38
54	Two-Dimensional Time Coding in the Auditory Brainstem. Journal of Neuroscience, 2005, 25, 9978-9988.	3.6	80

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55	Computation in a Single Neuron: Hodgkin and Huxley Revisited. Neural Computation, 2003, 15, 1715-1749.	2.2	129
56	What Causes a Neuron to Spike?. Neural Computation, 2003, 15, 1789-1807.	2.2	105
57	Archaeology of type. Nature, 2001, 411, 997-997.	27.8	3
58	Efficiency and ambiguity in an adaptive neural code. Nature, 2001, 412, 787-792.	27.8	728
59	Fusion Rules in Navier-Stokes Turbulence: First Experimental Tests. Physical Review Letters, 1997, 79, 3174-3177.	7.8	20
60	Direct Numerical Simulations of the Kraichnan Model: Scaling Exponents and Fusion Rules. Physical Review Letters, 1997, 79, 4166-4169.	7.8	26
61	Anomalous scaling in a model of passive scalar advection: Exact results. Physical Review E, 1996, 53, 3518-3535.	2.1	58
62	Anomalous scaling in fluid mechanics: The case of the passive scalar. Physical Review E, 1994, 50, 4684-4704.	2.1	29