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List of Publications by Year
in descending order

Version: 2024-02-01

76 papers	17,234 citations	28274 55 h-index	74163 75 g-index
94 all docs	94 docs citations	94 times ranked	12841 citing authors

#	Article	IF	Citations
1	Learning, fast and slow. Current Opinion in Neurobiology, 2022, 75, 102555.	4.2	13
2	Mice in a labyrinth show rapid learning, sudden insight, and efficient exploration. ELife, 2021, 10, .	6.0	48
3	Fine-Grained System Identification of Nonlinear Neural Circuits. , 2021, , .		2
4	Electrode pooling can boost the yield of extracellular recordings with switchable silicon probes. Nature Communications, 2021, 12, 5245.	12.8	4
5	Functional Architecture of Motion Direction in the Mouse Superior Colliculus. Current Biology, 2020, 30, 3304-3315.e4.	3.9	36
6	The sifting of visual information in the superior colliculus. ELife, 2020, 9, .	6.0	77
7	Functional diversity among sensory neurons from efficient coding principles. PLoS Computational Biology, 2019, 15, e1007476.	3.2	27
8	Augmented reality powers a cognitive assistant for the blind. ELife, 2018, 7, .	6.0	36
9	Neural Circuit Inference from Function to Structure. Current Biology, 2017, 27, 189-198.	3.9	66
10	Four alpha ganglion cell types in mouse retina: Function, structure, and molecular signatures. PLoS ONE, 2017, 12, e0180091.	2.5	194
11	Physical limits to magnetogenetics. ELife, 2016, 5, .	6.0	147
12	Reconstruction of genetically identified neurons imaged by serial-section electron microscopy. ELife, 2016, 5, .	6.0	75
13	A neuronal circuit for colour vision based on rodâ€“cone opponency. Nature, 2016, 532, 236-239.	27.8	167
14	Ventromedial hypothalamic neurons control a defensive emotion state. ELife, 2015, 4, .	6.0	926
15	Neurodata Without Borders: Creating a Common Data Format for Neurophysiology. Neuron, 2015, 88, 629-634.	8.1	171
16	Orientation columns in the mouse superior colliculus. Nature, 2015, 519, 229-232.	27.8	104
17	On the dimensionality of odor space. ELife, 2015, 4, e07865.	6.0	94
18	Benefits of Pathway Splitting in Sensory Coding. Journal of Neuroscience, 2014, 34, 12127-12144.	3.6	114

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19	The Projective Field of Retinal Bipolar Cells and Its Modulation by Visual Context. Neuron, 2014, 81, 641-652.	8.1	40
20	Rapid Innate Defensive Responses of Mice to Looming Visual Stimuli. Current Biology, 2013, 23, 2011-2015.	3.9	447
21	Dynamical Adaptation in Photoreceptors. PLoS Computational Biology, 2013, 9, e1003289.	3.2	48
22	Nonlinear Dynamics Support a Linear Population Code in a Retinal Target-Tracking Circuit. Journal of Neuroscience, 2013, 33, 16971-16982.	3.6	35
23	Computing Complex Visual Features with Retinal Spike Times. PLoS ONE, 2013, 8, e53063.	2.5	38
24	Rats maintain a binocular field centered on the horizon. F1000Research, 2013, 2, 176.	1.6	13
25	Decorrelation and efficient coding by retinal ganglion cells. Nature Neuroscience, 2012, 15, 628-635.	14.8	183
26	The most numerous ganglion cell type of the mouse retina is a selective feature detector. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2391-8.	7.1	256
27	Divergence of visual channels in the inner retina. Nature Neuroscience, 2012, 15, 1581-1589.	14.8	89
28	A wireless multi-channel neural amplifier for freely moving animals. Nature Neuroscience, 2011, 14, 263-269.	14.8	161
29	Retinal Ganglion Cells with Distinct Directional Preferences Differ in Molecular Identity, Structure, and Central Projections. Journal of Neuroscience, 2011, 31, 7753-7762.	3.6	300
30	Age-Related Alterations in Neurons of the Mouse Retina. Journal of Neuroscience, 2011, 31, 16033-16044.	3.6	149
31	The Projective Field of a Retinal Amacrine Cell. Journal of Neuroscience, 2011, 31, 8595-8604.	3.6	30
32	Bayesian model of dynamic image stabilization in the visual system. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19525-19530.	7.1	61
33	Laminar Restriction of Retinal Ganglion Cell Dendrites and Axons: Subtype-Specific Developmental Patterns Revealed with Transgenic Markers. Journal of Neuroscience, 2010, 30, 1452-1462.	3.6	257
34	Eye Smarter than Scientists Believed: Neural Computations in Circuits of the Retina. Neuron, 2010, 65, 150-164.	8.1	577
35	Precision and diversity in an odor map on the olfactory bulb. Nature Neuroscience, 2009, 12, 210-220.	14.8	290
36	Neural Encoding of Rapidly Fluctuating Odors. Neuron, 2009, 61, 570-586.	8.1	114

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37	Modeling convergent ON and OFF pathways in the early visual system. Biological Cybernetics, 2008, 99, 263-278.	1.3	52
38	Molecular identification of a retinal cell type that responds to upward motion. Nature, 2008, 452, 478-482.	27.8	361
39	Rapid Neural Coding in the Retina with Relative Spike Latencies. Science, 2008, 319, 1108-1111.	12.6	534
40	Rat Olfactory Bulb Mitral Cells Receive Sparse Glomerular Inputs. Neuron, 2008, 59, 802-814.	8.1	152
41	Î³-Protocadherins regulate neuronal survival but are dispensable for circuit formation in retina. Development (Cambridge), 2008, 135, 4141-4151.	2.5	139
42	A Retinal Circuit That Computes Object Motion. Journal of Neuroscience, 2008, 28, 6807-6817.	3.6	170
43	LED Arrays as Cost Effective and Efficient Light Sources for Widefield Microscopy. PLoS ONE, 2008, 3, e2146.	2.5	66
44	A Neural Computation for Visual Acuity in the Presence of Eye Movements. PLoS Biology, 2007, 5, e331.	5.6	42
45	Retinal Adaptation to Object Motion. Neuron, 2007, 56, 689-700.	8.1	65
46	Retinal Ganglion Cells Can Rapidly Change Polarity from Off to On. PLoS Biology, 2007, 5, e65.	5.6	99
47	Local Retinal Circuits of Melanopsin-Containing Ganglion Cells Identified by Transsynaptic Viral Tracing. Current Biology, 2007, 17, 981-988.	3.9	165
48	Dynamic predictive coding by the retina. Nature, 2005, 436, 71-77.	27.8	422
49	Retina versus Cortex. Neuron, 2004, 42, 5-7.	8.1	35
50	Segregation of object and background motion in the retina. Nature, 2003, 423, 401-408.	27.8	440
51	Multineuronal Firing Patterns in the Signal from Eye to Brain. Neuron, 2003, 37, 499-511.	8.1	151
52	Genetically engineered mice with an additional class of cone photoreceptors: Implications for the evolution of color vision. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11706-11711.	7.1	98
53	Loss of Sex Discrimination and Male-Male Aggression in Mice Deficient for TRP2. Science, 2002, 295, 1493-1500.	12.6	774
54	Fast and Slow Contrast Adaptation in Retinal Circuitry. Neuron, 2002, 36, 909-919.	8.1	460

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55	Predicting Every Spike. Neuron, 2001, 30, 803-817.	8.1	310
56	Tuning and Topography in an Odor Map on the Rat Olfactory Bulb. Journal of Neuroscience, 2001, 21, 1351-1360.	3.6	365
57	Responses of Vomeronasal Neurons to Natural Stimuli. Science, 2000, 289, 1569-1572.	12.6	257
58	How to measure the information gained from one symbol. Network: Computation in Neural Systems, 1999, 10, 325-340.	3.6	95
59	Anticipation of moving stimuli by the retina. Nature, 1999, 398, 334-338.	27.8	439
60	The Neural Code of the Retina. Neuron, 1999, 22, 435-450.	8.1	389
61	How to measure the information gained from one symbol. Network: Computation in Neural Systems, 1999, 10, 325-340.	3.6	69
62	A Novel Signaling Pathway from Rod Photoreceptors to Ganglion Cells in Mammalian Retina. Neuron, 1998, 21, 481-493.	8.1	258
63	Mechanisms of Concerted Firing among Retinal Ganglion Cells. Neuron, 1998, 20, 527-539.	8.1	231
64	Refractoriness and Neural Precision. Journal of Neuroscience, 1998, 18, 2200-2211.	3.6	328
65	Synchronous Period-Doubling in Flicker Vision of Salamander and Man. Journal of Neurophysiology, 1998, 79, 1869-1878.	1.8	75
66	The Light Response of Retinal Ganglion Cells Is Truncated by a Displaced Amacrine Circuit. Neuron, 1997, 18, 637-650.	8.1	126
67	Decoding Visual Information From a Population of Retinal Ganglion Cells. Journal of Neurophysiology, 1997, 78, 2336-2350.	1.8	336
68	Adaptation of retinal processing to image contrast and spatial scale. Nature, 1997, 386, 69-73.	27.8	467
69	Individual neurons dissociated from rat suprachiasmatic nucleus express independently phased circadian firing rhythms. Neuron, 1995, 14, 697-706.	8.1	1,325
70	Multi-neuronal signals from the retina: acquisition and analysis. Journal of Neuroscience Methods, 1994, 51, 95-106.	2.5	368
71	Transient period of correlated bursting activity during development of the mammalian retina. Neuron, 1993, 11, 923-938.	8.1	530
72	The retinal readout array. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1991, 310, 389-394.	1.6	16

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73	Synchronous Bursts of Action Potentials in Ganglion Cells of the Developing Mammalian Retina. Science, 1991, 252, 939-943.	12.6	1,108
74	The proton flux through the bacterial flagellar motor. Cell, 1987, 49, 643-650.	28.9	189
75	Rapid rotation of flagellar bundles in swimming bacteria. Nature, 1987, 325, 637-640.	27.8	233
76	Constraints on flagellar rotation. Journal of Molecular Biology, 1985, 184, 645-656.	4.2	68