

Markus Meister

List of Publications by Year in descending order

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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	Individual neurons dissociated from rat suprachiasmatic nucleus express independently phased circadian firing rhythms. <i>Neuron</i> , 1995, 14, 697-706.	8.1	1,325
2	Synchronous Bursts of Action Potentials in Ganglion Cells of the Developing Mammalian Retina. <i>Science</i> , 1991, 252, 939-943.	12.6	1,108
3	Ventromedial hypothalamic neurons control a defensive emotion state. <i>ELife</i> , 2015, 4, .	6.0	926
4	Loss of Sex Discrimination and Male-Male Aggression in Mice Deficient for TRP2. <i>Science</i> , 2002, 295, 1493-1500.	12.6	774
5	Eye Smarter than Scientists Believed: Neural Computations in Circuits of the Retina. <i>Neuron</i> , 2010, 65, 150-164.	8.1	577
6	Rapid Neural Coding in the Retina with Relative Spike Latencies. <i>Science</i> , 2008, 319, 1108-1111.	12.6	534
7	Transient period of correlated bursting activity during development of the mammalian retina. <i>Neuron</i> , 1993, 11, 923-938.	8.1	530
8	Adaptation of retinal processing to image contrast and spatial scale. <i>Nature</i> , 1997, 386, 69-73.	27.8	467
9	Fast and Slow Contrast Adaptation in Retinal Circuitry. <i>Neuron</i> , 2002, 36, 909-919.	8.1	460
10	Rapid Innate Defensive Responses of Mice to Looming Visual Stimuli. <i>Current Biology</i> , 2013, 23, 2011-2015.	3.9	447
11	Segregation of object and background motion in the retina. <i>Nature</i> , 2003, 423, 401-408.	27.8	440
12	Anticipation of moving stimuli by the retina. <i>Nature</i> , 1999, 398, 334-338.	27.8	439
13	Dynamic predictive coding by the retina. <i>Nature</i> , 2005, 436, 71-77.	27.8	422
14	The Neural Code of the Retina. <i>Neuron</i> , 1999, 22, 435-450.	8.1	389
15	Multi-neuronal signals from the retina: acquisition and analysis. <i>Journal of Neuroscience Methods</i> , 1994, 51, 95-106.	2.5	368
16	Tuning and Topography in an Odor Map on the Rat Olfactory Bulb. <i>Journal of Neuroscience</i> , 2001, 21, 1351-1360.	3.6	365
17	Molecular identification of a retinal cell type that responds to upward motion. <i>Nature</i> , 2008, 452, 478-482.	27.8	361
18	Decoding Visual Information From a Population of Retinal Ganglion Cells. <i>Journal of Neurophysiology</i> , 1997, 78, 2336-2350.	1.8	336

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19	Refractoriness and Neural Precision. <i>Journal of Neuroscience</i> , 1998, 18, 2200-2211.	3.6	328
20	Predicting Every Spike. <i>Neuron</i> , 2001, 30, 803-817.	8.1	310
21	Retinal Ganglion Cells with Distinct Directional Preferences Differ in Molecular Identity, Structure, and Central Projections. <i>Journal of Neuroscience</i> , 2011, 31, 7753-7762.	3.6	300
22	Precision and diversity in an odor map on the olfactory bulb. <i>Nature Neuroscience</i> , 2009, 12, 210-220.	14.8	290
23	A Novel Signaling Pathway from Rod Photoreceptors to Ganglion Cells in Mammalian Retina. <i>Neuron</i> , 1998, 21, 481-493.	8.1	258
24	Responses of Vomeronasal Neurons to Natural Stimuli. <i>Science</i> , 2000, 289, 1569-1572.	12.6	257
25	Laminar Restriction of Retinal Ganglion Cell Dendrites and Axons: Subtype-Specific Developmental Patterns Revealed with Transgenic Markers. <i>Journal of Neuroscience</i> , 2010, 30, 1452-1462.	3.6	257
26	The most numerous ganglion cell type of the mouse retina is a selective feature detector. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E2391-8.	7.1	256
27	Rapid rotation of flagellar bundles in swimming bacteria. <i>Nature</i> , 1987, 325, 637-640.	27.8	233
28	Mechanisms of Concerted Firing among Retinal Ganglion Cells. <i>Neuron</i> , 1998, 20, 527-539.	8.1	231
29	Four alpha ganglion cell types in mouse retina: Function, structure, and molecular signatures. <i>PLoS ONE</i> , 2017, 12, e0180091.	2.5	194
30	The proton flux through the bacterial flagellar motor. <i>Cell</i> , 1987, 49, 643-650.	28.9	189
31	Decorrelation and efficient coding by retinal ganglion cells. <i>Nature Neuroscience</i> , 2012, 15, 628-635.	14.8	183
32	Neurodata Without Borders: Creating a Common Data Format for Neurophysiology. <i>Neuron</i> , 2015, 88, 629-634.	8.1	171
33	A Retinal Circuit That Computes Object Motion. <i>Journal of Neuroscience</i> , 2008, 28, 6807-6817.	3.6	170
34	A neuronal circuit for colour vision based on rod-cone opponency. <i>Nature</i> , 2016, 532, 236-239.	27.8	167
35	Local Retinal Circuits of Melanopsin-Containing Ganglion Cells Identified by Transsynaptic Viral Tracing. <i>Current Biology</i> , 2007, 17, 981-988.	3.9	165
36	A wireless multi-channel neural amplifier for freely moving animals. <i>Nature Neuroscience</i> , 2011, 14, 263-269.	14.8	161

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37	Rat Olfactory Bulb Mitral Cells Receive Sparse Glomerular Inputs. <i>Neuron</i> , 2008, 59, 802-814.	8.1	152
38	Multineuronal Firing Patterns in the Signal from Eye to Brain. <i>Neuron</i> , 2003, 37, 499-511.	8.1	151
39	Age-Related Alterations in Neurons of the Mouse Retina. <i>Journal of Neuroscience</i> , 2011, 31, 16033-16044.	3.6	149
40	Physical limits to magnetogenetics. <i>ELife</i> , 2016, 5, .	6.0	147
41	β3-Protocadherins regulate neuronal survival but are dispensable for circuit formation in retina. <i>Development (Cambridge)</i> , 2008, 135, 4141-4151.	2.5	139
42	The Light Response of Retinal Ganglion Cells Is Truncated by a Displaced Amacrine Circuit. <i>Neuron</i> , 1997, 18, 637-650.	8.1	126
43	Neural Encoding of Rapidly Fluctuating Odors. <i>Neuron</i> , 2009, 61, 570-586.	8.1	114
44	Benefits of Pathway Splitting in Sensory Coding. <i>Journal of Neuroscience</i> , 2014, 34, 12127-12144.	3.6	114
45	Orientation columns in the mouse superior colliculus. <i>Nature</i> , 2015, 519, 229-232.	27.8	104
46	Retinal Ganglion Cells Can Rapidly Change Polarity from Off to On. <i>PLoS Biology</i> , 2007, 5, e65.	5.6	99
47	Genetically engineered mice with an additional class of cone photoreceptors: Implications for the evolution of color vision. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11706-11711.	7.1	98
48	How to measure the information gained from one symbol. <i>Network: Computation in Neural Systems</i> , 1999, 10, 325-340.	3.6	95
49	On the dimensionality of odor space. <i>ELife</i> , 2015, 4, e07865.	6.0	94
50	Divergence of visual channels in the inner retina. <i>Nature Neuroscience</i> , 2012, 15, 1581-1589.	14.8	89
51	The sifting of visual information in the superior colliculus. <i>ELife</i> , 2020, 9, .	6.0	77
52	Synchronous Period-Doubling in Flicker Vision of Salamander and Man. <i>Journal of Neurophysiology</i> , 1998, 79, 1869-1878.	1.8	75
53	Reconstruction of genetically identified neurons imaged by serial-section electron microscopy. <i>ELife</i> , 2016, 5, .	6.0	75
54	How to measure the information gained from one symbol. <i>Network: Computation in Neural Systems</i> , 1999, 10, 325-340.	3.6	69

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55	Constraints on flagellar rotation. <i>Journal of Molecular Biology</i> , 1985, 184, 645-656.	4.2	68
56	LED Arrays as Cost Effective and Efficient Light Sources for Widefield Microscopy. <i>PLoS ONE</i> , 2008, 3, e2146.	2.5	66
57	Neural Circuit Inference from Function to Structure. <i>Current Biology</i> , 2017, 27, 189-198.	3.9	66
58	Retinal Adaptation to Object Motion. <i>Neuron</i> , 2007, 56, 689-700.	8.1	65
59	Bayesian model of dynamic image stabilization in the visual system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 19525-19530.	7.1	61
60	Modeling convergent ON and OFF pathways in the early visual system. <i>Biological Cybernetics</i> , 2008, 99, 263-278.	1.3	52
61	Dynamical Adaptation in Photoreceptors. <i>PLoS Computational Biology</i> , 2013, 9, e1003289.	3.2	48
62	Mice in a labyrinth show rapid learning, sudden insight, and efficient exploration. <i>ELife</i> , 2021, 10, .	6.0	48
63	A Neural Computation for Visual Acuity in the Presence of Eye Movements. <i>PLoS Biology</i> , 2007, 5, e331.	5.6	42
64	The Projective Field of Retinal Bipolar Cells and Its Modulation by Visual Context. <i>Neuron</i> , 2014, 81, 641-652.	8.1	40
65	Computing Complex Visual Features with Retinal Spike Times. <i>PLoS ONE</i> , 2013, 8, e53063.	2.5	38
66	Functional Architecture of Motion Direction in the Mouse Superior Colliculus. <i>Current Biology</i> , 2020, 30, 3304-3315.e4.	3.9	36
67	Augmented reality powers a cognitive assistant for the blind. <i>ELife</i> , 2018, 7, .	6.0	36
68	Retina versus Cortex. <i>Neuron</i> , 2004, 42, 5-7.	8.1	35
69	Nonlinear Dynamics Support a Linear Population Code in a Retinal Target-Tracking Circuit. <i>Journal of Neuroscience</i> , 2013, 33, 16971-16982.	3.6	35
70	The Projective Field of a Retinal Amacrine Cell. <i>Journal of Neuroscience</i> , 2011, 31, 8595-8604.	3.6	30
71	Functional diversity among sensory neurons from efficient coding principles. <i>PLoS Computational Biology</i> , 2019, 15, e1007476.	3.2	27
72	The retinal readout array. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1991, 310, 389-394.	1.6	16

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73	Rats maintain a binocular field centered on the horizon. F1000Research, 2013, 2, 176.	1.6	13
74	Learning, fast and slow. Current Opinion in Neurobiology, 2022, 75, 102555.	4.2	13
75	Electrode pooling can boost the yield of extracellular recordings with switchable silicon probes. Nature Communications, 2021, 12, 5245.	12.8	4
76	Fine-Grained System Identification of Nonlinear Neural Circuits. , 2021, , .		2