Miguel Maravall

List of Publications by Year
in descending order

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41 papers	2,103 citations	394421 19 h-index	361022 35 g-index
50 all docs	50 docs citations	50 times ranked	2492 citing authors

#	Article	IF	Citations
1	Non-telecentric two-photon microscopy for 3D random access mesoscale imaging. Nature Communications, 2022, 13, 544.	12.8	4
2	Sequence Learning Induces Selectivity to Multiple Task Parameters in Mouse Somatosensory Cortex. Current Biology, 2021, 31, 473-485.e5.	3.9	6
3	Sensory Decision-Making: Rats Sleuth Evidence through Active Sensing. Current Biology, 2019, 29, R317-R319.	3.9	0
4	A stochastic framework of neurogenesis underlies the assembly of neocortical cytoarchitecture. ELife, 2019, 8, .	6.0	79
5	Cortical Lifelogging: The Posterior Parietal Cortex as Sensory History Buffer. Neuron, 2018, 98, 249-252.	8.1	2
6	Organization of Sensory Feature Selectivity in the Whisker System. Neuroscience, 2018, 368, 70-80.	2.3	26
7	Spikeling: A low-cost hardware implementation of a spiking neuron for neuroscience teaching and outreach. PLoS Biology, 2018, 16, e2006760.	5.6	4
8	More than the Sum of its Parts: Perception and Neuronal Underpinnings of Sequence Processing. Neuroscience, 2018, 389, 1-3.	2.3	3
9	Barrel Cortex Function Special Issue Editorial. Neuroscience, 2018, 368, 1-2.	2.3	4
10	Variable Temporal Integration of Stimulus Patterns in the Mouse Barrel Cortex. Cerebral Cortex, 2017, 27, bhw006.	2.9	19
11	Interspersed Distribution of Selectivity to Kinematic Stimulus Features in Supragranular Layers of Mouse Barrel Cortex. Cerebral Cortex, 2017, 27, 3782-3789.	2.9	8
12	Learning and recognition of tactile temporal sequences by mice and humans. ELife, 2017, 6, .	6.0	14
13	Presynaptic Adenosine Receptor-Mediated Regulation of Diverse Thalamocortical Short-Term Plasticity in the Mouse Whisker Pathway. Frontiers in Neural Circuits, 2016, 10, 9.	2.8	3
14	Functional Principles of Whisker-Mediated Touch Perception. , 2015, , 169-193.		1
15	Diverse Thalamocortical Short-Term Plasticity Elicited by Ongoing Stimulation. Journal of Neuroscience, 2014, 34, 515-526.	3.6	31
16	Algorithms of whisker-mediated touch perception. Current Opinion in Neurobiology, 2014, 25, 176-186.	4.2	32
17	Hierarchical flow of sensory information in rat somatosensory cortex. BMC Neuroscience, 2014, 15, .	1.9	0
18	Lineage-specific laminar organization of cortical GABAergic interneurons. Nature Neuroscience, 2013, 16, 1199-1210.	14.8	113

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19	Coordinated Population Activity Underlying Texture Discrimination in Rat Barrel Cortex. Journal of Neuroscience, 2013, 33, 5843-5855.	3.6	59
20	Transformation of Adaptation and Gain Rescaling along the Whisker Sensory Pathway. PLoS ONE, 2013, 8, e82418.	2.5	29
21	Sensory Input Drives Multiple Intracellular Information Streams in Somatosensory Cortex. Journal of Neuroscience, 2010, 30, 10872-10884.	3.6	15
22	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
23	The Barrel Cortex as a Model to Study Dynamic Neuroglial Interaction. Neuroscientist, 2009, 15, 351-366.	3.5	25
24	Neural coding and contextual influences in the whisker system. Biological Cybernetics, 2009, 100, 427-446.	1.3	36
25	Diverse and Temporally Precise Kinetic Feature Selectivity in the VPm Thalamic Nucleus. Neuron, 2008, 60, 890-903.	8.1	87
26	Intrinsic Mechanisms for Adaptive Gain Rescaling in Barrel Cortex. Journal of Neuroscience, 2008, 28, 696-710.	3.6	91
27	Shifts in Coding Properties and Maintenance of Information Transmission during Adaptation in Barrel Cortex. PLoS Biology, 2007, 5, e19.	5.6	207
28	Role of Precise Spike Timing in Coding of Dynamic Vibrissa Stimuli in Somatosensory Thalamus. Journal of Neurophysiology, 2007, 98, 1871-1882.	1.8	76
29	Stimulus Dependence of Barrel Cortex Directional Selectivity. PLoS ONE, 2006, 1, e137.	2.5	19
30	Experience-dependent Changes in Basal Dendritic Branching of Layer 2/3 Pyramidal Neurons During a Critical Period for Developmental Plasticity in Rat Barrel Cortex. Cerebral Cortex, 2004, 14, 655-664.	2.9	66
31	Development of Intrinsic Properties and Excitability of Layer 2/3 Pyramidal Neurons During a Critical Period for Sensory Maps in Rat Barrel Cortex. Journal of Neurophysiology, 2004, 92, 144-156.	1.8	77
32	Rapid Development and Plasticity of Layer 2/3 Maps in Rat Barrel Cortex In Vivo. Neuron, 2001, 31, 305-315.	8.1	241
33	Ca2+ signaling in dendritic spines. Current Opinion in Neurobiology, 2001, 11, 349-356.	4.2	266
34	Estimating Intracellular Calcium Concentrations and Buffering without Wavelength Ratioing. Biophysical Journal, 2000, 78, 2655-2667.	0.5	362
35	2-Photon Excitation Laser Scanning Microscopy for High Resolution Imaging In Scattering Biological Tissues: Applications to Neuroscience. Microscopy and Microanalysis, 1999, 5, 1058-1059.	0.4	0
36	Numerical simulation of a binary communication channel: Comparison between a replica calculation and an exact solution. Europhysics Letters, 1999, 45, 739-744.	2.0	2

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37	An analysis of connectivity and function in hippocampal associative memory. Neurocomputing, 1999, 26-27, 427-434.	5.9	0
38	Sparsification from dilute connectivity in a neural network model of memory. Network: Computation in Neural Systems, 1999, 10, 15-39.	3.6	2
39	Sparsification from dilute connectivity in a neural network model of memory. Network: Computation in Neural Systems, 1999, 10, 15-39.	3.6	1
40	Sparsification from dilute connectivity in a neural network model of memory. Network: Computation in Neural Systems, 1999, 10, 15-39.	3.6	0
41	Electron emission in the neutralization of multiply-charged ions at low velocities on metal surfaces: the effect of secondary-electron cascades. Nuclear Instruments & Methods in Physics Research B, 1995, 100, 290-295.	1.4	3