Nathalie L Rochefort

List of Publications by Year
in descending order

27 papers	2,911 citations	361413 20 h-index	526287 27 g-index
33 all docs	33 docs citations	33 times ranked	3712 citing authors

#	Article	IF	Citations
1	Dendritic organization of sensory input to cortical neurons in vivo. Nature, 2010, 464, 1307-1312.	27.8	464
2	Functional mapping of single spines in cortical neurons in vivo. Nature, 2011, 475, 501-505.	27.8	360
3	Dendritic spines: from structure to in vivo function. EMBO Reports, 2012, 13, 699-708.	4.5	248
4	Sparsification of neuronal activity in the visual cortex at eye-opening. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15049-15054.	7.1	240
5	Behavioral-state modulation of inhibition is context-dependent and cell type specific in mouse visual cortex. ELife, 2016, 5, .	6.0	211
6	High-fidelity multimode fibre-based endoscopy for deep brain in vivo imaging. Light: Science and Applications, 2018, 7, 92.	16.6	211
7	In vivo two-photon imaging of sensory-evoked dendritic calcium signals in cortical neurons. Nature Protocols, 2011, 6, 28-35.	12.0	156
8	Development of Direction Selectivity in Mouse Cortical Neurons. Neuron, 2011, 71, 425-432.	8.1	156
9	Staged decline of neuronal function in vivo in an animal model of Alzheimer's disease. Nature Communications, 2012, 3, 774.	12.8	116
10	Action and learning shape the activity of neuronal circuits in the visual cortex. Current Opinion in Neurobiology, 2018, 52, 88-97.	4.2	90
11	Reward Association Enhances Stimulus-Specific Representations in Primary Visual Cortex. Current Biology, 2020, 30, 1866-1880.e5.	3.9	83
12	Optimization of interneuron function by direct coupling of cell migration and axonal targeting. Nature Neuroscience, 2018, 21, 920-931.	14.8	72
13	LOTOS-based two-photon calcium imaging of dendritic spines in vivo. Nature Protocols, 2012, 7, 1818-1829.	12.0	67
14	A cerebellar-thalamocortical pathway drives behavioral context-dependent movement initiation. Neuron, 2021, 109, 2326-2338.e8.	8.1	63
15	The Impact of Visual Cues, Reward, and Motor Feedback on the Representation of Behaviorally Relevant Spatial Locations in Primary Visual Cortex. Cell Reports, 2018, 24, 2521-2528.	6.4	61
16	FISSA: A neuropil decontamination toolbox for calcium imaging signals. Scientific Reports, 2018, 8, 3493.	3.3	59
17	Reactivation of the Same Synapses during Spontaneous Up States and Sensory Stimuli. Cell Reports, 2013, 4, 31-39.	6.4	52
18	Neocortex saves energy by reducing coding precision during food scarcity. Neuron, 2022, 110, 280-296.e10.	8.1	43

#	Article	IF	Citations
19	Calcium imaging in the living brain: prospects for molecular medicine. Trends in Molecular Medicine, 2008, 14, 389-399.	6.7	42
20	High and asymmetric somato-dendritic coupling of V1 layer 5 neurons independent of visual stimulation and locomotion. ELife, 2019, 8, .	6.0	39
21	Spatial navigation signals in rodent visual cortex. Current Opinion in Neurobiology, 2021, 67, 163-173.	4.2	27
22	Genetically encoded Ca2+ sensors come of age. Nature Methods, 2008, 5, 761-762.	19.0	18
23	Defying Expectations: How Neurons Compute Prediction Errors in Visual Cortex. Neuron, 2020, 108, 1016-1019.	8.1	8
24	Chronic Two-Photon Calcium Imaging in the Visual Cortex of Awake Behaving Mice. Handbook of Behavioral Neuroscience, 2018, , 235-251.	0.7	3
25	Parametric Copula-GP model for analyzing multidimensional neuronal and behavioral relationships. PLoS Computational Biology, 2022, 18, e1009799.	3.2	2
26	Loss of Inhibition Gives Perspective: Developmental Apoptosis of GABAergic Chandelier Cells Primes Binocular Vision. Neuron, 2021, 109, 398-400.	8.1	0
27	Putting Visual Information Into Context. , 2018, , .		0