Charles M Gray

List of Publications by Year
in descending order

34 papers	9,230 citations	279798 23 h-index	477307 29 g-index
34 all docs	34 docs citations	34 times ranked	5863 citing authors

#	Article	IF	Citations
1	Oscillatory responses in cat visual cortex exhibit inter-columnar synchronization which reflects global stimulus properties. Nature, 1989, 338, 334-337.	27.8	4,087
2	Synchronous oscillations in neuronal systems: Mechanisms and functions. Journal of Computational Neuroscience, 1994, 1, 11-38.	1.0	707
3	Tetrodes markedly improve the reliability and yield of multiple single-unit isolation from multi-unit recordings in cat striate cortex. Journal of Neuroscience Methods, 1995, 63, 43-54.	2.5	654
4	The Temporal Correlation Hypothesis of Visual Feature Integration. Neuron, 1999, 24, 31-47.	8.1	504
5	Stimulus-Dependent Neuronal Oscillations in Cat Visual Cortex: Inter-Columnar Interaction as Determined by Cross-Correlation Analysis. European Journal of Neuroscience, 1990, 2, 588-606.	2.6	443
6	Cellular Mechanisms Contributing to Response Variability of Cortical NeuronsIn Vivo. Journal of Neuroscience, 1999, 19, 2209-2223.	3.6	384
7	Electrophysiological Classes of Cat Primary Visual Cortical Neurons In Vivo as Revealed by Quantitative Analyses. Journal of Neurophysiology, 2003, 89, 1541-1566.	1.8	361
8	Synchronization of oscillatory neuronal responses in cat striate cortex: Temporal properties. Visual Neuroscience, 1992, 8, 337-347.	1.0	358
9	Stimulus-Dependent Neuronal Oscillations in Cat Visual Cortex: Receptive Field Properties and Feature Dependence. European Journal of Neuroscience, 1990, 2, 607-619.	2.6	333
10	Adaptive Coincidence Detection and Dynamic Gain Control in Visual Cortical Neurons In Vivo. Neuron, 2003, 37, 513-523.	8.1	247
11	Orientation Selectivity in Pinwheel Centers in Cat Striate Cortex. Science, 1997, 276, 1551-1555.	12.6	186
12	Stimulus-Dependent Neuronal Oscillations and Local Synchronization in Striate Cortex of the Alert Cat. Journal of Neuroscience, 1997, 17, 3239-3253.	3.6	169
13	Dynamics of Striate Cortical Activity in the Alert Macaque: II. Fast Time Scale Synchronization. Cerebral Cortex, 2000, 10, 1117-1131.	2.9	133
14	Optimizing the Decoding of Movement Goals from Local Field Potentials in Macaque Cortex. Journal of Neuroscience, 2011, 31, 18412-18422.	3.6	100
15	Heterogeneity in the Responses of Adjacent Neurons to Natural Stimuli in Cat Striate Cortex. Journal of Neurophysiology, 2007, 97, 1326-1341.	1.8	85
16	A Large-Scale Semi-Chronic Microdrive Recording System for Non-Human Primates. Neuron, 2017, 96, 769-782.e2.	8.1	58
17	Feature-Based Visual Short-Term Memory Is Widely Distributed and Hierarchically Organized. Neuron, 2018, 99, 215-226.e4.	8.1	55
18	Frontoparietal Correlation Dynamics Reveal Interplay between Integration and Segregation during Visual Working Memory. Journal of Neuroscience, 2014, 34, 13600-13613.	3.6	48

#	Article	IF	Citations
19	Simulations of Intrinsically Bursting Neocortical Pyramidal Neurons. Neural Computation, 1994, 6, 1086-1110.	2.2	46
20	Natural Movies Evoke Spike Trains with Low Spike Time Variability in Cat Primary Visual Cortex. Journal of Neuroscience, 2011, 31, 15844-15860.	3.6	45
21	Modeling Higher-Order Correlations within Cortical Microcolumns. PLoS Computational Biology, 2014, 10, e1003684.	3.2	45
22	Multichannel Micromanipulator and Chamber System for Recording Multineuronal Activity in Alert, Non-Human Primates. Journal of Neurophysiology, 2007, 98, 527-536.	1.8	44
23	Heterogeneity in local distributions of orientation-selective neurons in the cat primary visual cortex. Visual Neuroscience, 1996, 13, 509-516.	1.0	43
24	Stimulusâ€selective spiking is driven by the relative timing of synchronous excitation and disinhibition in cat striate neurons in vivo. European Journal of Neuroscience, 2008, 28, 1286-1300.	2.6	23
25	Dynamics of Stimulus-Evoked Spike Timing Correlations in the Cat Lateral Geniculate Nucleus. Journal of Neurophysiology, 2010, 104, 3276-3292.	1.8	15
26	Sorting Overlapping Spike Waveforms from Electrode and Tetrode Recordings. Frontiers in Neuroinformatics, 2017, 11, 53.	2.5	14
27	Mechanisms Underlying the Generation of Neuronal Oscillations in Cat Visual Cortex. , 1992, , 29-45.		14
28	Methods, caveats and the future of large-scale microelectrode recordings in the non-human primate. Frontiers in Systems Neuroscience, 2015, 9, 149.	2.5	13
29	Experimental observation of phase-flip transitions in the brain. Physical Review E, 2016, 94, 042420.	2.1	10
30	Unitary Event Analysis of Synchronous Activities in Cat Lateral Geniculate Nucleus (LGN). , 2003, , 190-193.		2
31	Spatiotemporal Dynamics of Synchronous Activity across Multiple Areas of the Visual Cortex in the Alert Monkey. , 2011, , 233-254.		2
32	Responses of primary visual cortical neurons to natural movies in anesthetized cat. BMC Neuroscience, 2008, 9, .	1.9	1
33	Optimizing recording depth to decode movement goals from cortical field potentials. , 2011, , .		1
34	Sparse coding model captures V1 population response statistics to natural movies. BMC Neuroscience, 2013, 14, P334.	1.9	0