Eric J Lang

List of Publications by Year
in descending order

56 papers	3,673 citations	201674 27 h-index	223800 46 g-index
58 all docs	58 docs citations	58 times ranked	2466 citing authors

#	Article	IF	Citations
1	Is the inferior olive central to essential tremor? Yes. International Review of Neurobiology, 2022, , 133-165.	2.0	6
2	Increased Purkinje Cell Complex Spike and Deep Cerebellar Nucleus Synchrony as a Potential Basis for Syndromic Essential Tremor. A Review and Synthesis of the Literature. Cerebellum, 2021, 20, 266-281.	2.5	23
3	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. PLoS Computational Biology, 2020, 16, e1008075.	3.2	15
4	Entrainment of cerebellar purkinje cells with directional AC electric fields in anesthetized rats. Brain Stimulation, 2020, 13, 1548-1558.	1.6	24
5	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. , 2020, 16, e1008075.		0
6	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. , 2020, 16, e1008075.		0
7	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. , 2020, 16, e1008075.		0
8	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. , 2020, 16, e1008075.		0
9	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. , 2020, 16, e1008075.		0
10	Electrical coupling controls dimensionality and chaotic firing of inferior olive neurons. , 2020, 16, e1008075.		0
11	Current Opinions and Consensus for Studying Tremor in Animal Models. Cerebellum, 2019, 18, 1036-1063.	2.5	27
12	Complex spike synchrony dependent modulation of rat deep cerebellar nuclear activity. ELife, 2019, 8, .	6.0	42
13	Multielectrode Arrays for Recording Complex Spike Activity. Neuromethods, 2018, , 73-85.	0.3	2
14	The Roles of the Olivocerebellar Pathway in Motor Learning and Motor Control. A Consensus Paper. Cerebellum, 2017, 16, 230-252.	2.5	89
15	Heterogeneity of Purkinje cell simple spikeâ€“complex spike interactions: zebrinâ€•and nonâ€zebrinâ€related variations. Journal of Physiology, 2017, 595, 5341-5357.	2.9	34
16	The dynamic relationship between cerebellar Purkinje cell simple spikes and the spikelet number of complex spikes. Journal of Physiology, 2017, 595, 283-299.	2.9	29
17	Synchrony is Key: Complex Spike Inhibition of the Deep Cerebellar Nuclei. Cerebellum, 2016, 15, 10-13.	2.5	33
18	Coordination of Reaching Movements. , 2016, , 197-217.		2

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19	Dysmyelination with preservation of transverse bands in a longâ€lived allele of the <i>quaking</i> mouse. Journal of Comparative Neurology, 2015, 523, 197-208.	1.6	2
20	Redefining the cerebellar cortex as an assembly of non-uniform Purkinje cell microcircuits. Nature Reviews Neuroscience, 2015, 16, 79-93.	10.2	253
21	Modulation of Purkinje cell complex spike waveform by synchrony levels in the olivocerebellar system. Frontiers in Systems Neuroscience, 2014, 8, 210.	2.5	20
22	Recurrence Plots and the Analysis of Multiple Spike Trains. , 2014, , 735-744.		3
23	Systematic Regional Variations in Purkinje Cell Spiking Patterns. PLoS ONE, 2014, 9, e105633.	2.5	84
24	Solution to the inverse problem of estimating gap-junctional and inhibitory conductance in inferior olive neurons from spike trains by network model simulation. Neural Networks, 2013, 47, 51-63.	5.9	13
25	Role of the olivo-cerebellar complex in motor learning and control. Frontiers in Neural Circuits, 2013, 7, 94.	2.8	40
26	Control of Cerebellar Nuclear Cells: A Direct Role for Complex Spikes?. Cerebellum, 2011, 10, 694-701.	2.5	26
27	Synaptic Action of the Olivocerebellar System on Cerebellar Nuclear Spike Activity. Journal of Neuroscience, 2011, 31, 14708-14720.	3.6	56
28	QUANTITATIVE MODELING OF SPATIO-TEMPORAL DYNAMICS OF INFERIOR OLIVE NEURONS WITH A SIMPLE CONDUCTANCE-BASED MODEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 583-603.	1.7	17
29	Local Changes in the Excitability of the Cerebellar Cortex Produce Spatially Restricted Changes in Complex Spike Synchrony. Journal of Neuroscience, 2009, 29, 14352-14362.	3.6	52
30	Testing a neural coding hypothesis using surrogate data. Journal of Neuroscience Methods, 2008, 172, 312-322.	2.5	14
31	Kv3.3 Channels at the Purkinje Cell Soma Are Necessary for Generation of the Classical Complex Spike Waveform. Journal of Neuroscience, 2008, 28, 1291-1300.	3.6	43
32	Relationship of complex spike synchrony bands and climbing fiber projection determined by reference to aldolase C compartments in crus IIa of the rat cerebellar cortex. Journal of Comparative Neurology, 2007, 501, 13-29.	1.6	58
33	Altered olivocerebellar activity patterns in the connexin36 knockout mouse. Cerebellum, 2007, 6, 287-299.	2.5	39
34	Olivocerebellar modulation of motor cortex ability to generate vibrissal movements in rat. Journal of Physiology, 2006, 571, 101-120.	2.9	74
35	Isochrony in the olivocerebellar system underlies complex spike synchrony. Journal of Physiology, 2006, 573, 277-279.	2.9	17
36	Block of Inferior Olive Gap Junctional Coupling Decreases Purkinje Cell Complex Spike Synchrony and Rhythmicity. Journal of Neuroscience, 2006, 26, 1739-1748.	3.6	120

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37	Inferior Olive Oscillations Gate Transmission of Motor Cortical Activity to the Cerebellum. Journal of Neuroscience, 2004, 24, 11356-11367.	3.6	59
38	Cerebellum. , 2004, , 271-310.		41
39	Excitatory afferent modulation of complex spike synchrony. Cerebellum, 2003, 2, 165-170.	2.5	33
40	Inhibitory control of rat lateral amygdaloid projection cells. Neuroscience, 2003, 121, 155-166.	2.3	16
41	Role of Myelination in the Development of a Uniform Olivocerebellar Conduction Time. Journal of Neurophysiology, 2003, 89, 2259-2270.	1.8	78
42	Excitatory afferent modulation of complex spike synchrony. Cerebellum, 2003, 2, 165-170.	2.5	2
43	GABAergic and Glutamatergic Modulation of Spontaneous and Motor-Cortex-Evoked Complex Spike Activity. Journal of Neurophysiology, 2002, 87, 1993-2008.	1.8	92
44	Oscillatory Properties of Inferior Olivary Neurons Modulate Transmission of Motor Cortical Activity to the Rat Cerebellum. Annals of the New York Academy of Sciences, 2002, 978, 530-532.	3.8	0
45	Organization of Olivocerebellar Activity in the Absence of Excitatory Glutamatergic Input. Journal of Neuroscience, 2001, 21, 1663-1675.	3.6	86
46	Patterns of Spontaneous Purkinje Cell Complex Spike Activity in the Awake Rat. Journal of Neuroscience, 1999, 19, 2728-2739.	3.6	213
47	Spontaneous activity of the perirhinal cortex in behaving cats. Neuroscience, 1999, 89, 1025-1039.	2.3	63
48	Calcium electrogenesis in neocortical pyramidal neuronsin vivo. European Journal of Neuroscience, 1998, 10, 3164-3170.	2.6	29
49	Synaptic responsiveness of interneurons of the cat lateral amygdaloid nucleus. Neuroscience, 1998, 83, 877-889.	2.3	110
50	Inhibitory control of somatodendritic interactions underlying action potentials in neocortical pyramidal neurons in vivo: An intracellular and computational study. Neuroscience, 1998, 84, 377-402.	2.3	44
51	Impact of Spontaneous Synaptic Activity on the Resting Properties of Cat Neocortical Pyramidal Neurons In Vivo. Journal of Neurophysiology, 1998, 79, 1450-1460.	1.8	398
52	A New Approach to the Analysis of Multidimensional Neuronal Activity: Markov Random Fields. Neural Networks, 1997, 10, 785-789.	5.9	18
53	Dynamic organization of motor control within the olivocerebellar system. Nature, 1995, 374, 453-457.	27.8	706
54	The inositol high-polyphosphate series blocks synaptic transmission by preventing vesicular fusion: a squid giant synapse study.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 12990-12993.	7.1	91

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55	Uniform olivocerebellar conduction time underlies Purkinje cell complex spike synchronicity in the rat cerebellum.. Journal of Physiology, 1993, 470, 243-271.	2.9	216
56	Mnemonic correlates of unit activity in the hippocampus. Brain Research, 1986, 399, 97-110.	2.2	120