Leon Lagnado

List of Publications by Year
in descending order

53 papers	3,422 citations	172457 29 h-index	182427 51 g-index
69 all docs	69 docs citations	69 times ranked	2773 citing authors

#	Article	IF	Citations
1	Clathrin-Mediated Endocytosis Is the Dominant Mechanism of Vesicle Retrieval at Hippocampal Synapses. Neuron, 2006, 51, 773-786.	8.1	575
2	A genetically encoded reporter of synaptic activity in vivo. Nature Methods, 2009, 6, 883-889.	19.0	202
3	Continuous Vesicle Cycling in the Synaptic Terminal of Retinal Bipolar Cells. Neuron, 1996, 17, 957-967.	8.1	179
4	The kinetics of exocytosis and endocytosis in the synaptic terminal of goldfish retinal bipolar cells. Journal of Physiology, 1999, 515, 181-202.	2.9	162
5	Bulk Membrane Retrieval in the Synaptic Terminal of Retinal Bipolar Cells. Journal of Neuroscience, 2003, 23, 1329-1339.	3.6	161
6	High Mobility of Vesicles Supports Continuous Exocytosis at a Ribbon Synapse. Current Biology, 2004, 14, 173-183.	3.9	124
7	Two Actions of Calcium Regulate the Supply of Releasable Vesicles at the Ribbon Synapse of Retinal Bipolar Cells. Journal of Neuroscience, 1999, 19, 6309-6317.	3.6	117
8	Clathrin-Dependent and Clathrin-Independent Retrieval of Synaptic Vesicles in Retinal Bipolar Cells. Neuron, 2005, 46, 869-878.	8.1	113
9	Computational processing of optical measurements of neuronal and synaptic activity in networks. Journal of Neuroscience Methods, 2010, 188, 141-150.	2.5	91
10	Arousal Modulates Retinal Output. Neuron, 2020, 107, 487-495.e9.	8.1	90
11	Synaptic mechanisms of adaptation and sensitization in the retina. Nature Neuroscience, 2013, 16, 934-941.	14.8	88
12	Synaptic Depression and the Kinetics of Exocytosis in Retinal Bipolar Cells. Journal of Neuroscience, 2000, 20, 568-578.	3.6	86
13	Endogenous Calcium Buffers Regulate Fast Exocytosis in the Synaptic Terminal of Retinal Bipolar Cells. Neuron, 2002, 33, 101-112.	8.1	86
14	Calcium and Protein Kinase C Regulate the Actin Cytoskeleton in the Synaptic Terminal of Retinal Bipolar Cells. Journal of Cell Biology, 1998, 143, 1661-1672.	5.2	82
15	Encoding of Luminance and Contrast by Linear and Nonlinear Synapses in the Retina. Neuron, 2012, 73, 758-773.	8.1	82
16	Electrical resonance and Ca2+influx in the synaptic terminal of depolarizing bipolar cells from the Goldfish retina. Journal of Physiology, 1997, 505, 571-584.	2.9	79
17	G-protein deactivation is rate-limiting for shut-off of the phototransduction cascade. Nature, 1997, 389, 392-395.	27.8	75
18	Spikes in Retinal Bipolar Cells Phase-Lock to Visual Stimuli with Millisecond Precision. Current Biology, 2011, 21, 1859-1869.	3.9	66

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19	Real-Time Measurement of Exocytosis and Endocytosis Using Interference of Light. Neuron, 2003, 40, 1075-1086.	8.1	64
20	Expansion of calcium microdomains regulates fast exocytosis at a ribbon synapse. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10700-10705.	7.1	64
21	Ribbon Synapses and Visual Processing in the Retina. Annual Review of Vision Science, 2015, 1, 235-262.	4.4	58
22	In vivo evidence that retinal bipolar cells generate spikes modulated by light. Nature Neuroscience, 2011, 14, 951-952.	14.8	56
23	Spikes and ribbon synapses in early vision. Trends in Neurosciences, 2013, 36, 480-488.	8.6	56
24	An amplitude code transmits information at a visual synapse. Nature Neuroscience, 2019, 22, 1140-1147.	14.8	51
25	Endophilin Drives the Fast Mode of Vesicle Retrieval in a Ribbon Synapse. Journal of Neuroscience, 2011, 31, 8512-8519.	3.6	50
26	A Synaptic Mechanism for Temporal Filtering of Visual Signals. PLoS Biology, 2014, 12, e1001972.	5.6	44
27	Motor Behavior Selectively Inhibits Hair Cells Activated by Forward Motion in the Lateral Line of Zebrafish. Current Biology, 2020, 30, 150-157.e3.	3.9	40
28	Optical reporters of synaptic activity in neural circuits. Experimental Physiology, 2011, 96, 4-12.	2.0	39
29	Olfactory Stimulation Selectively Modulates the OFF Pathway in the Retina of Zebrafish. Neuron, 2013, 79, 97-110.	8.1	38
30	Crossover Inhibition Generates Sustained Visual Responses in the Inner Retina. Neuron, 2016, 90, 308-319.	8.1	37
31	The actions of barium and strontium on exocytosis and endocytosis in the synaptic terminal of goldfish bipolar cells. Journal of Physiology, 2001, 535, 809-824.	2.9	33
32	General features of the retinal connectome determine the computation of motion anticipation. ELife, 2015, 4, .	6.0	32
33	Synaptic Convergence Patterns onto Retinal Ganglion Cells Are Preserved despite Topographic Variation in Pre- and Postsynaptic Territories. Cell Reports, 2018, 25, 2017-2026.e3.	6.4	31
34	A Retinal Circuit Generating a Dynamic Predictive Code for Oriented Features. Neuron, 2019, 102, 1211-1222.e3.	8.1	30
35	The Transfer Characteristics of Hair Cells Encoding Mechanical Stimuli in the Lateral Line of Zebrafish. Journal of Neuroscience, 2019, 39, 112-124.	3.6	28
36	Rapid mapping of visual receptive fields by filtered back projection: application to multiâ€neuronal electrophysiology and imaging. Journal of Physiology, 2014, 592, 4839-4854.	2.9	27

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37	Dynamic assembly of ribbon synapses and circuit maintenance in a vertebrate sensory system. Nature Communications, 2019, 10, 2167.	12.8	24
38	The Emergence of a Stable Neuronal Ensemble from a Wider Pool of Activated Neurons in the Dorsal Medial Prefrontal Cortex during Appetitive Learning in Mice. Journal of Neuroscience, 2020, 40, 395-410.	3.6	20
39	Ribbon synapses. Current Biology, 2003, 13, R631.	3.9	17
40	Regulation of thalamocortical axon branching by BDNF and synaptic vesicle cycling. Frontiers in Neural Circuits, 2013, 7, 202.	2.8	17
41	A Novel Tool to Measure Extracellular Glutamate in the Zebrafish Nervous System In Vivo. Zebrafish, 2017, 14, 284-286.	1.1	13
42	Signal Amplification: Let's Turn Down The Lights. Current Biology, 2002, 12, R215-R217.	3.9	12
43	Correction of zâ€motion artefacts to allow population imaging of synaptic activity in behaving mice. Journal of Physiology, 2020, 598, 1809-1827.	2.9	11
44	Opposite forms of adaptation in mouse visual cortex are controlled by distinct inhibitory microcircuits. Nature Communications, 2022, 13, 1031.	12.8	9
45	Visual Signals in the Retina: From Photons to Synapses. Experimental Physiology, 2000, 85, 1-15.	2.0	7
46	Î¼SPIM Toolset: A software platform for selective plane illumination microscopy. Journal of Neuroscience Methods, 2021, 347, 108952.	2.5	5
47	Spikeling: A low-cost hardware implementation of a spiking neuron for neuroscience teaching and outreach. PLoS Biology, 2018, 16, e2006760.	5.6	4
48	Diurnal changes in the efficiency of information transmission at a sensory synapse. Nature Communications, 2022, 13, 2613.	12.8	4
49	Ribbon Synapses: Anchors away for a Fishy Tale. Current Biology, 2005, 15, R102-R105.	3.9	1
50	Leon Lagnado. Current Biology, 2013, 23, R181-R183.	3.9	1
51	Extinction of cueâ€evoked foodâ€seeking recruits a GABAergic interneuron ensemble in the dorsal medial prefrontal cortex of mice. European Journal of Neuroscience, 2020, 52, 3723-3737.	2.6	1
52	Visual signals in the retina: from photons to synapses. Experimental Physiology, 2000, 85, 1-15.	2.0	1
53	Modulation of the cGMP-gated channel by calcium. Behavioral and Brain Sciences, 1995, 18, 486-486.	0.7	0