Charles F Stevens

List of Publications by Year
in descending order

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43 papers	9,820 citations	172457 29 h-index	254184 43 g-index
47 all docs	47 docs citations	47 times ranked	7417 citing authors

#	Article	IF	Citations
1	Synaptotagmin I: A major Ca2+ sensor for transmitter release at a central synapse. Cell, 1994, 79, 717-727.	28.9	1,377
2	Heterogeneity of Release Probability, Facilitation, and Depletion at Central Synapses. Neuron, 1997, 18, 995-1008.	8.1	1,036
3	Synaptotagmin I functions as a calcium regulator of release probability. Nature, 2001, 410, 41-49.	27.8	857
4	NMDA and non-NMDA receptors are co-localized at individual excitatory synapses in cultured rat hippocampus. Nature, 1989, 341, 230-233.	27.8	671
5	Presynaptic mechanism for long-term potentiation in the hippocampus. Nature, 1990, 346, 724-729.	27.8	649
6	Inactivity Produces Increases in Neurotransmitter Release and Synapse Size. Neuron, 2001, 32, 673-682.	8.1	537
7	Heterogeneous Release Properties of Visualized Individual Hippocampal Synapses. Neuron, 1997, 18, 599-612.	8.1	526
8	Facilitation and depression at single central synapses. Neuron, 1995, 14, 795-802.	8.1	468
9	Input synchrony and the irregular firing of cortical neurons. Nature Neuroscience, 1998, 1, 210-217.	14.8	462
10	Three modes of synaptic vesicular recycling revealed by single-vesicle imaging. Nature, 2003, 423, 607-613.	27.8	418
11	The small GTP-binding protein Rab3A regulates a late step in synaptic vesicle fusion. Nature, 1997, 387, 810-814.	27.8	399
12	Changes in reliability of synaptic function as a mechanism for plasticity. Nature, 1994, 371, 704-707.	27.8	340
13	What is memory? The present state of the engram. BMC Biology, 2016, 14, 40.	3.8	277
14	Synaptic vesicles retain their identity through the endocytic cycle. Nature, 1998, 392, 497-501.	27.8	254
15	Reversal of synaptic vesicle docking at central synapses. Nature Neuroscience, 1999, 2, 503-507.	14.8	209
16	A neural algorithm for a fundamental computing problem. Science, 2017, 358, 793-796.	12.6	150
17	The Synaptotagmin C2A Domain Is Part of the Calcium Sensor Controlling Fast Synaptic Transmission. Neuron, 2003, 39, 299-308.	8.1	138
18	Neurotransmitter Release at Central Synapses. Neuron, 2003, 40, 381-388.	8.1	137

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19	An evolutionary scaling law for the primate visual system and its basis in cortical function. Nature, 2001, 411, 193-195.	27.8	109
20	Structural uniformity of neocortex, revisited. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1488-1493.	7.1	103
21	What the flyâ€™s nose tells the flyâ€™s brain. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9460-9465.	7.1	92
22	Estimating the Distribution of Synaptic Reliabilities. Journal of Neurophysiology, 1997, 78, 2870-2880.	1.8	54
23	Predicting visual acuity from the structure of visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7815-7820.	7.1	50
24	Presynaptic function. Current Opinion in Neurobiology, 2004, 14, 341-345.	4.2	49
25	Darwin and Huxley revisited: the origin of allometry. Journal of Biology, 2009, 8, 14.	2.7	47
26	Short-term plasticity constrains spatial organization of a hippocampal presynaptic terminal. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14657-14662.	7.1	46
27	A Universal Property of Axonal and Dendritic Arbors. Neuron, 2010, 66, 45-56.	8.1	40
28	General design principle for scalable neural circuits in a vertebrate retina. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12931-12935.	7.1	36
29	Synaptotagmin mutants Y311N and K326/327A alter the calcium dependence of neurotransmission. Molecular and Cellular Neurosciences, 2005, 29, 462-470.	2.2	34
30	A neural data structure for novelty detection. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 13093-13098.	7.1	29
31	Probing synaptic vesicle fusion by altering mechanical properties of the neuronal surface membrane. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18018-18022.	7.1	27
32	A statistical property of fly odor responses is conserved across odors. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6737-6742.	7.1	27
33	A Statistical Description of Plant Shoot Architecture. Current Biology, 2017, 27, 2078-2088.e3.	3.9	27
34	The distributed circuit within the piriform cortex makes odor discrimination robust. Journal of Comparative Neurology, 2018, 526, 2725-2743.	1.6	26
35	Predicting Functional Properties of Visual Cortex from an Evolutionary Scaling Law. Neuron, 2002, 36, 139-142.	8.1	18
36	Conserved features of the primate face code. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 584-588.	7.1	17

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37	Preserving properties of object shape by computations in primary visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15524-15529.	7.1	16
38	Scaling Principles of Distributed Circuits. Current Biology, 2019, 29, 2533-2540.e7.	3.9	15
39	How does the speed of thought compare for brains and digital computers?. Current Biology, 2008, 18, R756-R758.	3.9	14
40	Brain Organization: Wiring Economy Works for the Large and Small. Current Biology, 2012, 22, R24-R25.	3.9	12
41	Deep(er) Learning. Journal of Neuroscience, 2018, 38, 7365-7374.	3.6	10
42	Novel neural circuit mechanism for visual edge detection. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 875-880.	7.1	5
43	A Universal Design Principle for Visual System Pinwheels. Brain, Behavior and Evolution, 2011, 77, 132-135.	1.7	3