Armen Stepanyants

List of Publications by Year
in descending order

24 papers	1,715 citations	623734 14 h-index	713466 21 g-index
29 all docs	29 docs citations	29 times ranked	1903 citing authors

#	Article	IF	Citations
1	Noise in Neurons and Synapses Enables Reliable Associative Memory Storage in Local Cortical Circuits. ENeuro, 2021, 8, ENEURO.0302-20.2020.	1.9	5
2	Correction of topological errors in automated traces of neurites. , 2021, 11596, .		0
3	Robust Associative Learning Is Sufficient to Explain the Structural and Dynamical Properties of Local Cortical Circuits. Journal of Neuroscience, 2019, 39, 6888-6904.	3.6	16
4	Accurate registration of in vivo time-lapse images. , 2019, 10949, .		5
5	Artificial neural network filters for enhancing 3D optical microscopy images of neurites. , 2019, 10949, .		3
6	Computer assisted detection of axonal bouton structural plasticity in in vivo time-lapse images. ELife, 2017, 6, .	6.0	18
7	Neocortex: a lean mean memory storage machine. Nature Neuroscience, 2016, 19, 643-644.	14.8	9
8	Effects of homeostatic constraints on associative memory storage and synaptic connectivity of cortical circuits. Frontiers in Computational Neuroscience, 2015, 9, 74.	2.1	11
9	Active learning of neuron morphology for accurate automated tracing of neurites. Frontiers in Neuroanatomy, 2014, 8, 37.	1.7	50
10	DNA bridging and looping by HMO1 provides a mechanism for stabilizing nucleosome-free chromatin. Nucleic Acids Research, 2014, 42, 8996-9004.	14.5	49
11	Automated reconstruction of neural trees using front re-initialization. Proceedings of SPIE, 2012, 8314, .	0.8	7
12	Efficient associative memory storage in cortical circuits of inhibitory and excitatory neurons. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3614-22.	7.1	42
13	Automated Tracing of Neurites from Light Microscopy Stacks of Images. Neuroinformatics, 2011, 9, 263-278.	2.8	87
14	Statistical Traces of Long-Term Memories Stored in Strengths and Patterns of Synaptic Connections. Journal of Neuroscience, 2011, 31, 7657-7669.	3.6	6
15	Cooperative synapse formation in the neocortex. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16463-16468.	7.1	47
16	Maximization of the connectivity repertoire as a statistical principle governing the shapes of dendritic arbors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12536-12541.	7.1	117
17	Detection of the optimal neuron traces in confocal microscopy images. Journal of Neuroscience Methods, 2009, 178, 197-204.	2.5	50
18	The fractions of short- and long-range connections in the visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3555-3560.	7.1	184

#	Article	IF	Citations
19	Local Potential Connectivity in Cat Primary Visual Cortex. Cerebral Cortex, 2008, 18, 13-28.	2.9	124
20	Structural Plasticity of Circuits in Cortical Neuropil. Journal of Neuroscience, 2008, 28, 8477-8488.	3.6	31
21	Geometric and functional organization of cortical circuits. Nature Neuroscience, 2005, 8, 782-790.	14.8	236
22	Neurogeometry and potential synaptic connectivity. Trends in Neurosciences, 2005, 28, 387-394.	8.6	225
23	Class-Specific Features of Neuronal Wiring. Neuron, 2004, 43, 251-259.	8.1	111
24	Geometry and Structural Plasticity of Synaptic Connectivity. Neuron, 2002, 34, 275-288.	8.1	276