Stephen J Eglen

List of Publications by Year
in descending order

74 papers	2,390 citations	201674 27 h-index	243625 44 g-index
89 all docs	89 docs citations	89 times ranked	2937 citing authors

#	Article	IF	Citations
1	DeepClean: Self-Supervised Artefact Rejection for Intensive Care Waveform Data Using Deep Generative Learning. Acta Neurochirurgica Supplementum, 2021, 131, 235-241.	1.0	4
2	CODECHECK: an Open Science initiative for the independentÂexecution of computations underlying research articles during peer review to improve reproducibility. F1000Research, 2021, 10, 253.	1.6	5
3	CODECHECK: an Open Science initiative for the independentÂexecution of computations underlying research articles during peer review to improve reproducibility. F1000Research, 2021, 10, 253.	1.6	8
4	Causality indices for bivariate time series data: A comparative review of performance. Chaos, 2021, 31, 083111.	2.5	8
5	From random to regular: Variation in the patterning of retinal mosaics*. Journal of Comparative Neurology, 2020, 528, 2135-2160.	1.6	44
6	Ten simple rules for writing Dockerfiles for reproducible data science. PLoS Computational Biology, 2020, 16, e1008316.	3.2	42
7	Open Code and Peer Review. Open Science Talk, 2020, , .	0.1	0
8	Burst Detection Methods. Advances in Neurobiology, 2019, 22, 185-206.	1.8	8
9	Functional characterization of human pluripotent stem cell-derived cortical networks differentiated on laminin-521 substrate: comparison to rat cortical cultures. Scientific Reports, 2019, 9, 17125.	3.3	77
10	CODECHECK: An open-science initiative to facilitate sharing of computer programs and results presented in scientific publications. Septentrio Conference Series, 2019, , .	0.0	5
11	Recent developments in scholarly publishing to improve research practices in the life sciences. Emerging Topics in Life Sciences, 2018, 2, 775-778.	2.6	5
12	meaRtools: An R package for the analysis of neuronal networks recorded on microelectrode arrays. PLoS Computational Biology, 2018, 14, e1006506.	3.2	22
13	Toward standard practices for sharing computer code and programs in neuroscience. Nature Neuroscience, 2017, 20, 770-773.	14.8	87
14	A molecular mechanism for the topographic alignment of convergent neural maps. ELife, 2017, 6, .	6.0	17
15	Homeostatic Activity-Dependent Tuning of Recurrent Networks for Robust Propagation of Activity. Journal of Neuroscience, 2016, 36, 3722-3734.	3.6	18
16	A comparison of computational methods for detecting bursts in neuronal spike trains and their application to human stem cell-derived neuronal networks. Journal of Neurophysiology, 2016, 116, 306-321.	1.8	77
17	Characterization of Early Cortical Neural Network Development in Multiwell Microelectrode Array Plates. Journal of Biomolecular Screening, 2016, 21, 510-519.	2.6	61
18	Canalization of genetic and pharmacological perturbations in developing primary neuronal activity patterns. Neuropharmacology, 2016, 100, 47-55.	4.1	10

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19	Ten Simple Rules for Taking Advantage of Git and GitHub. PLoS Computational Biology, 2016, 12, e1004947.	3.2	96
20	Geniculo-Cortical Projection Diversity Revealed within the Mouse Visual Thalamus. PLoS ONE, 2016, 11, e0144846.	2.5	1
21	Quantitative assessment of computational models for retinotopic map formation. Developmental Neurobiology, 2015, 75, 641-666.	3.0	19
22	Estimating the location and size of retinal injections from orthogonal images of an intact retina. BMC Neuroscience, 2015, 16, 80.	1.9	4
23	Editorial: Quantitative Analysis of Neuroanatomy. Frontiers in Neuroanatomy, 2015, 9, 143.	1.7	12
24	Quantitative differences in developmental profiles of spontaneous activity in cortical and hippocampal cultures. Neural Development, 2015, 10, 1.	2.4	72
25	Retinotopic Development, Models of. , 2015, , 2631-2633.		0
26	Can Retinal Ganglion Cell Dipoles Seed Iso-Orientation Domains in the Visual Cortex?. PLoS ONE, 2014, 9, e86139.	2.5	12
27	Following the ontogeny of retinal waves: panâ€retinal recordings of population dynamics in the neonatal mouse. Journal of Physiology, 2014, 592, 1545-1563.	2.9	109
28	Detecting Pairwise Correlations in Spike Trains: An Objective Comparison of Methods and Application to the Study of Retinal Waves. Journal of Neuroscience, 2014, 34, 14288-14303.	3.6	153
29	A data repository and analysis framework for spontaneous neural activity recordings in developing retina. GigaScience, 2014, 3, 3.	6.4	36
30	Sharing your data is easier than you think. Nature, 2014, 510, 340-340.	27.8	3
31	Neural circuits for peristaltic wave propagation in crawling Drosophila larvae: analysis and modeling. Frontiers in Computational Neuroscience, 2013, 7, 24.	2.1	54
32	Parasol cell mosaics are unlikely to drive the formation of structured orientation maps in primary visual cortex. Visual Neuroscience, 2012, 29, 283-299.	1.0	22
33	GABAergic control of retinal ganglion cell dendritic development. Neuroscience, 2012, 227, 30-43.	2.3	12
34	Cellular Spacing: Analysis and Modelling of Retinal Mosaics. , 2012, , 365-385.		10
35	Compensatory redistribution of neuroligins and Nâ€cadherin following deletion of synaptic Î²1â€integrin. Journal of Comparative Neurology, 2012, 520, 2041-2052.	1.6	54
36	Neuronal clustering and fasciculation phenotype in Dscamâ€and Baxâ€deficient mouse retinas. Journal of Comparative Neurology, 2012, 520, 1349-1364.	1.6	33

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37	Neuronal clustering and fasciculation phenotype in Dscam- and Bax-deficient mouse retinas. Journal of Comparative Neurology, 2012, 520, Spc1-Spc1.	1.6	2
38	Modeling developmental patterns of spontaneous activity. Current Opinion in Neurobiology, 2011, 21, 679-684.	4.2	11
39	Analysis of simultaneous multielectrode recordings with 4,096 channels: changing dynamics of spontaneous activity in the developing retina. BMC Neuroscience, 2011, 12, .	1.9	1
40	Minimum Information about a Neuroscience Investigation (MINI): Electrophysiology. Nature Precedings, 2009, , .	0.1	10
41	Burst-Time-Dependent Plasticity Robustly Guides ON/OFF Segregation in the Lateral Geniculate Nucleus. PLoS Computational Biology, 2009, 5, e1000618.	3.2	40
42	A Quick Guide to Teaching R Programming to Computational Biology Students. PLoS Computational Biology, 2009, 5, e1000482.	3.2	24
43	A Multi-Component Model of the Developing Retinocollicular Pathway Incorporating Axonal and Synaptic Growth. PLoS Computational Biology, 2009, 5, e1000600.	3.2	31
44	Theoretical models of spontaneous activity generation and propagation in the developing retina. Molecular BioSystems, 2009, 5, 1527.	2.9	27
45	Selfâ€organization in the developing nervous system: Theoretical models. HFSP Journal, 2009, 3, 176-185.	2.5	14
46	Analysis of spatial relationships in three dimensions: tools for the study of nerve cell patterning. BMC Neuroscience, 2008, 9, 68.	1.9	19
47	Spatial constraints underlying the retinal mosaics of two types of horizontal cells in cat and macaque. Visual Neuroscience, 2008, 25, 209-214.	1.0	11
48	Minimum Information about a Neuroscience Investigation (MINI) Electrophysiology. Nature Precedings, 2008, , .	0.1	11
49	The Role of Simplifying Models in Neuroscience: Modelling Structure and Function. Lecture Notes in Computer Science, 2008, , 33-44.	1.3	1
50	Programmed cell death. , 2006, , 208-241.		3
51	Synaptogenesis and early neural activity. , 2006, , 265-287.		2
52	Retinal mosaics. , 2006, , 193-207.		5
53	Development of regular cellular spacing in the retina: theoretical models. Mathematical Medicine and Biology, 2006, 23, 79-99.	1.2	34
54	Modelling the Bivariate Spatial Distribution of Amacrine Cells. , 2006, , 215-233.		16

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55	Homotypic constraints dominate positioning of on- and off-center beta retinal ganglion cells. Visual Neuroscience, 2005, 22, 859-871.	1.0	28
56	LL5Î². Journal of Cell Biology, 2005, 169, 355-366.	5.2	78
57	Determinants of the exclusion zone in dopaminergic amacrine cell mosaics. Journal of Comparative Neurology, 2003, 461, 123-136.	1.6	61
58	Dopaminergic amacrine cells in the inner nuclear layer and ganglion cell layer comprise a single functional retinal mosaic. Journal of Comparative Neurology, 2003, 466, 343-355.	1.6	36
59	Mapping by Waves. Neuron, 2003, 40, 1053-1055.	8.1	21
60	Developmental Loss of Synchronous Spontaneous Activity in the Mouse Retina Is Independent of Visual Experience. Journal of Neuroscience, 2003, 23, 2851-2860.	3.6	151
61	Developmental Modulation of Retinal Wave Dynamics: Shedding Light on the GABA Saga. Journal of Neuroscience, 2003, 23, 7621-7629.	3.6	87
62	Influence of cell fate mechanisms upon retinal mosaic formation: a modelling study. Development (Cambridge), 2002, 129, 5399-5408.	2.5	49
63	Segregation of on and offRetinogeniculate Connectivity Directed by Patterned Spontaneous Activity. Journal of Neurophysiology, 2002, 88, 2311-2321.	1.8	42
64	Development of Retinal Ganglion Cell Structure and Function. Progress in Retinal and Eye Research, 2001, 20, 139-174.	15.5	181
65	Lateral cell movement driven by dendritic interactions is sufficient to form retinal mosaics. Network: Computation in Neural Systems, 2000, 11, 103-118.	3.6	40
66	t Differential Effects of Acetylcholine and Glutamate Blockade on the Spatiotemporal Dynamics of Retinal Waves. Journal of Neuroscience, 2000, 20, RC56-RC56.	3.6	44
67	Lateral cell movement driven by dendritic interactions is sufficient to form retinal mosaics. Network: Computation in Neural Systems, 2000, 11, 103-118.	3.6	11
68	The role of retinal waves and synaptic normalization in retinogeniculate development. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 497-506.	4.0	29
69	Unsupervised discovery of invariances. Network: Computation in Neural Systems, 1997, 8, 441-452.	3.6	5
70	Unsupervised discovery of invariances. Network: Computation in Neural Systems, 1997, 8, 441-452.	3.6	3
71	Automated feature extraction for the classification of humanin vivo13C NMR spectra using statistical pattern recognition and wavelets. Magnetic Resonance in Medicine, 1996, 35, 834-840.	3.0	19
72	Using Wavelets for Classifying Human in vivo Magnetic Resonance Spectra. Lecture Notes in Statistics, 1995, , 377-383.	0.2	5

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73	Emergence of light responses. , 0, , 288-304.		1
74	Sepsis-3 criteria in AmsterdamUMCdb: open-source code implementation. GigaByte, 0, 2022, 1-7.	0.0	3