Greg J Stephens

List of Publications by Year
in descending order

30 papers	2,183 citations	516710 16 h-index	642732 23 g-index
42 all docs	42 docs citations	42 times ranked	2525 citing authors

#	Article	IF	Citations
1	Speaker–listener neural coupling underlies successful communication. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14425-14430.	7.1	805
2	Dimensionality and Dynamics in the Behavior of C. elegans. PLoS Computational Biology, 2008, 4, e1000028.	3.2	411
3	Functional structure of cortical neuronal networks grownin vitro. Physical Review E, 2007, 75, 021915.	2.1	152
4	A place for time: the spatiotemporal structure of neural dynamics during natural audition. Journal of Neurophysiology, 2013, 110, 2019-2026.	1.8	148
5	Emergence of long timescales and stereotyped behaviors in <i>Caenorhabditis elegans</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7286-7289.	7.1	82
6	Resolving coiled shapes reveals new reorientation behaviors in C. elegans. ELife, 2016, 5, .	6.0	65
7	Adaptive, locally linear models of complex dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1501-1510.	7.1	51
8	Statistical Thermodynamics of Natural Images. Physical Review Letters, 2013, 110, 018701.	7.8	49
9	From Modes to Movement in the Behavior of Caenorhabditis elegans. PLoS ONE, 2010, 5, e13914.	2.5	47
10	Capturing the continuous complexity of behaviour in Caenorhabditis elegans. Nature Physics, 2021, 17, 275-283.	16.7	46
11	OrganoidTracker: Efficient cell tracking using machine learning and manual error correction. PLoS ONE, 2020, 15, e0240802.	2.5	46
12	Hierarchical compression of<i>Caenorhabditis elegans</i>locomotion reveals phenotypic differences in the organization of behaviour. Journal of the Royal Society Interface, 2016, 13, 20160466.	3.4	43
13	Statistical mechanics of letters in words. Physical Review E, 2010, 81, 066119.	2.1	37
14	WormPose: Image synthesis and convolutional networks for pose estimation in C. elegans. PLoS Computational Biology, 2021, 17, e1008914.	3.2	34
15	Searching for simplicity in the analysis of neurons and behavior. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15565-15571.	7.1	28
16	Towards Dense Object Tracking in a 2D Honeybee Hive. , 2018, , .		23
17	Markerless tracking of an entire honey bee colony. Nature Communications, 2021, 12, 1733.	12.8	20
18	Flow-mediated olfactory communication in honeybee swarms. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	16

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19	See globally, spike locally: oscillations in a retinal model encode large visual features. Biological Cybernetics, 2006, 95, 327-348.	1.3	15
20	Energy consumption and cooperation for optimal sensing. Nature Communications, 2020, 11, 975.	12.8	11
21	Exploiting ecology in drug pulse sequences in favour of population reduction. PLoS Computational Biology, 2017, 13, e1005747.	3.2	8
22	Bias, belief, and consensus: Collective opinion formation on fluctuating networks. Physical Review E, 2016, 94, 052312.	2.1	7
23	Modelling the ballistic-to-diffusive transition in nematode motility reveals variation in exploratory behaviour across species. Journal of the Royal Society Interface, 2019, 16, 20190174.	3.4	7
24	Vortex description of the first-order phase transition in the two-dimensional Abelian-Higgs model. Physical Review E, 2003, 67, 066105.	2.1	1
25	OrganoidTracker: Efficient cell tracking using machine learning and manual error correction. , 2020, 15, e0240802.		0
26	OrganoidTracker: Efficient cell tracking using machine learning and manual error correction. , 2020, 15, e0240802.		0
27	OrganoidTracker: Efficient cell tracking using machine learning and manual error correction. , 2020, 15, e0240802.		0
28	OrganoidTracker: Efficient cell tracking using machine learning and manual error correction. , 2020, 15, e0240802.		0
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