Elad Schneidman

List of Publications by Year
in descending order

40 papers	4,463 citations	257357 24 h-index	302012 39 g-index
48 all docs	48 docs citations	48 times ranked	4219 citing authors

#	Article	IF	Citations
1	Learning the Architectural Features That Predict Functional Similarity of Neural Networks. Physical Review X, 2022, 12, .	2.8	2
2	The geometry of neuronal representations during rule learning reveals complementary roles of cingulate cortex and putamen. Neuron, 2021, 109, 839-851.e9.	3.8	12
3	Learning probabilistic neural representations with randomly connected circuits. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25066-25073.	3.3	24
4	Social interactions drive efficient foraging and income equality in groups of fish. ELife, 2020, 9, .	2.8	29
5	Generalization of Object Localization From Whiskers to Other Body Parts in Freely Moving Rats. Frontiers in Integrative Neuroscience, 2019, 13, 64.	1.0	1
6	Dynamics of social representation in the mouse prefrontal cortex. Nature Neuroscience, 2019, 22, 2013-2022.	7.1	78
7	Probabilistic models of individual and collective animal behavior. PLoS ONE, 2018, 13, e0193049.	1.1	22
8	Information socialtaxis and efficient collective behavior emerging in groups of information-seeking agents. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5589-5594.	3.3	29
9	Discrete modes of social information processing predict individual behavior of fish in a group. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10149-10154.	3.3	40
10	Ucn3 and CRF-R2 in the medial amygdala regulate complex social dynamics. Nature Neuroscience, 2016, 19, 1489-1496.	7.1	91
11	Towards the design principles of neural population codes. Current Opinion in Neurobiology, 2016, 37, 133-140.	2.0	33
12	A thesaurus for a neural population code. ELife, 2015, 4, .	2.8	45
13	Searching for Collective Behavior in a Large Network of Sensory Neurons. PLoS Computational Biology, 2014, 10, e1003408.	1.5	190
14	Adaptation to Changes in Higher-Order Stimulus Statistics in the Salamander Retina. PLoS ONE, 2014, 9, e85841.	1.1	15
15	Retinal Metric: A Stimulus Distance Measure Derived from Population Neural Responses. Physical Review Letters, 2013, 110, 058104.	2.9	12
16	Stimulus-dependent Maximum Entropy Models of Neural Population Codes. PLoS Computational Biology, 2013, 9, e1002922.	1.5	80
17	High-order feature-based mixture models of classification learning predict individual learning curves and enable personalized teaching. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 684-689.	3.3	11
18	Adaptive Colour Contrast Coding in the Salamander Retina Efficiently Matches Natural Scene Statistics. PLoS ONE, 2013, 8, e79163.	1.1	4

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19	High-order social interactions in groups of mice. ELife, 2013, 2, e00759.	2.8	147
20	Perceptual convergence of multi-component mixtures in olfaction implies an olfactory white. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19959-19964.	3.3	117
21	Fast Feedback in Active Sensing: Touch-Induced Changes to Whisker-Object Interaction. PLoS ONE, 2012, 7, e44272.	1.1	76
22	The Natural Variation of a Neural Code. PLoS ONE, 2012, 7, e33149.	1.1	3
23	The Architecture of Functional Interaction Networks in the Retina. Journal of Neuroscience, 2011, 31, 3044-3054.	1.7	79
24	Synergy from Silence in a Combinatorial Neural Code. Journal of Neuroscience, 2011, 31, 15732-15741.	1.7	64
25	Sparse low-order interaction network underlies a highly correlated and learnable neural population code. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9679-9684.	3.3	181
26	Neural activity at the human olfactory epithelium reflects olfactory perception. Nature Neuroscience, 2011, 14, 1455-1461.	7.1	86
27	Smart Swarms of Bacteria-Inspired Agents with Performance Adaptable Interactions. PLoS Computational Biology, 2011, 7, e1002177.	1.5	60
28	Optimal population coding by noisy spiking neurons. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14419-14424.	3.3	145
29	Global Features of Neural Activity in the Olfactory System Form a Parallel Code That Predicts Olfactory Behavior and Perception. Journal of Neuroscience, 2010, 30, 9017-9026.	1.7	86
30	Odorant Concentration Dependence in Electroolfactograms Recorded From the Human Olfactory Epithelium. Journal of Neurophysiology, 2009, 102, 2121-2130.	0.9	18
31	Optimal correlation codes in populations of noisy spiking neurons. BMC Neuroscience, 2009, 10, .	0.8	1
32	How fast can we learn maximum entropy models of neural populations?. Journal of Physics: Conference Series, 2009, 197, 012020.	0.3	3
33	Role of Eye Movements in the Retinal Code for a Size Discrimination Task. Journal of Neurophysiology, 2007, 98, 1380-1391.	0.9	41
34	Weak pairwise correlations imply strongly correlated network states in a neural population. Nature, 2006, 440, 1007-1012.	13.7	1,377
35	Redundancy in the Population Code of the Retina. Neuron, 2005, 46, 493-504.	3.8	195
36	Network Information and Connected Correlations. Physical Review Letters, 2003, 91, 238701.	2.9	218

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37	Synergy, Redundancy, and Independence in Population Codes. Journal of Neuroscience, 2003, 23, 11539-11553.	1.7	404
38	Axons as computing devices: Basic insights gained from models. Journal of Physiology (Paris), 1999, 93, 263-270.	2.1	49
39	Ion Channel Stochasticity May Be Critical in Determining the Reliability and Precision of Spike Timing. Neural Computation, 1998, 10, 1679-1703.	1.3	375
40	Spike Timing Reliability in a Stochastic Hodgkin-Huxley Model. , 1998, , 261-266.		0