Eran Stark

List of Publications by Year
in descending order

40 papers	4,200 citations	201385 27 h-index	329751 37 g-index
42 all docs	42 docs citations	42 times ranked	4814 citing authors

#	Article	IF	Citations
1	Monolithically Integrated Î¼LEDs on Silicon Neural Probes for High-Resolution Optogenetic Studies in Behaving Animals. Neuron, 2015, 88, 1136-1148.	3.8	372
2	Pyramidal Cell-Interneuron Interactions Underlie Hippocampal Ripple Oscillations. Neuron, 2014, 83, 467-480.	3.8	367
3	Transcranial Electric Stimulation Entrains Cortical Neuronal Populations in Rats. Journal of Neuroscience, 2010, 30, 11476-11485.	1.7	345
4	Inhibition-Induced Theta Resonance in Cortical Circuits. Neuron, 2013, 80, 1263-1276.	3.8	292
5	Tools for Probing Local Circuits: High-Density Silicon Probes Combined with Optogenetics. Neuron, 2015, 86, 92-105.	3.8	284
6	Large-scale, high-density (up to 512 channels) recording of local circuits in behaving animals. Journal of Neurophysiology, 2014, 111, 1132-1149.	0.9	276
7	Predicting Movement from Multiunit Activity. Journal of Neuroscience, 2007, 27, 8387-8394.	1.7	261
8	GABAergic circuits mediate the reinforcement-related signals of striatal cholinergic interneurons. Nature Neuroscience, 2012, 15, 123-130.	7.1	258
9	Diode probes for spatiotemporal optical control of multiple neurons in freely moving animals. Journal of Neurophysiology, 2012, 108, 349-363.	0.9	229
10	An implantable neural probe with monolithically integrated dielectric waveguide and recording electrodes for optogenetics applications. Journal of Neural Engineering, 2013, 10, 056012.	1.8	162
11	Sharp wave ripples during learning stabilize the hippocampal spatial map. Nature Neuroscience, 2017, 20, 845-853.	7.1	146
12	Excitation and Inhibition Compete to Control Spiking during Hippocampal Ripples: Intracellular Study in Behaving Mice. Journal of Neuroscience, 2014, 34, 16509-16517.	1.7	121
13	Local generation of multineuronal spike sequences in the hippocampal CA1 region. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10521-10526.	3.3	86
14	Fiberless multicolor neural optoelectrode for in vivo circuit analysis. Scientific Reports, 2016, 6, 30961.	1.6	81
15	Dual color optogenetic control of neural populations using low-noise, multishank optoelectrodes. Microsystems and Nanoengineering, 2018, 4, .	3.4	80
16	Large-scale Recording of Neurons by Movable Silicon Probes in Behaving Rodents. Journal of Visualized Experiments, 2012, , e3568.	0.2	78
17	Encoding of Reach and Grasp by Single Neurons in Premotor Cortex Is Independent of Recording Site. Journal of Neurophysiology, 2007, 97, 3351-3364.	0.9	76
18	In vivo optogenetic identification and manipulation of GABAergic interneuron subtypes. Current Opinion in Neurobiology, 2014, 26, 88-95.	2.0	74

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19	Unbiased estimation of precise temporal correlations between spike trains. Journal of Neuroscience Methods, 2009, 179, 90-100.	1.3	70
20	Dependence of Neuronal Correlations on Filter Characteristics and Marginal Spike Train Statistics. Neural Computation, 2008, 20, 2133-2184.	1.3	69
21	Spike sorting: Bayesian clustering of non-stationary data. Journal of Neuroscience Methods, 2006, 157, 303-316.	1.3	50
22	Comparison of Direction and Object Selectivity of Local Field Potentials and Single Units in Macaque Posterior Parietal Cortex During Prehension. Journal of Neurophysiology, 2007, 97, 3684-3695.	0.9	49
23	Parabolic movement primitives and cortical states: merging optimality with geometric invariance. Biological Cybernetics, 2009, 100, 159-184.	0.6	44
24	Partial Cross-Correlation Analysis Resolves Ambiguity in the Encoding of Multiple Movement Features. Journal of Neurophysiology, 2006, 95, 1966-1975.	0.9	38
25	Distinct movement parameters are represented by different neurons in the motor cortex. European Journal of Neuroscience, 2007, 26, 1055-1066.	1.2	38
26	Dynamical Organization of Directional Tuning in the Primate Premotor and Primary Motor Cortex. Journal of Neurophysiology, 2003, 89, 1136-1142.	0.9	35
27	Correlations between Groups of Premotor Neurons Carry Information about Prehension. Journal of Neuroscience, 2008, 28, 10618-10630.	1.7	32
28	Neuronal Activity in Motor Cortical Areas Reflects the Sequential Context of Movement. Journal of Neurophysiology, 2004, 91, 1748-1762.	0.9	31
29	The minimum information principle and its application to neural code analysis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3490-3495.	3.3	30
30	Motor cortical activity related to movement kinematics exhibits local spatial organization. Cortex, 2009, 45, 418-431.	1.1	28
31	Applying resampling methods to neurophysiological data. Journal of Neuroscience Methods, 2005, 145, 133-144.	1.3	24
32	Bidirectional Optogenetic Control of Inhibitory Neurons in Freely-Moving Mice. IEEE Transactions on Biomedical Engineering, 2021, 68, 416-427.	2.5	17
33	A novel low-noise movement tracking system with real-time analog output for closed-loop experiments. Journal of Neuroscience Methods, 2019, 318, 69-77.	1.3	13
34	Spike-Centered Jitter Can Mistake Temporal Structure. Neural Computation, 2017, 29, 783-803.	1.3	12
35	High Fidelity Theta Phase Rolling of CA1 Neurons. Journal of Neuroscience, 2022, 42, 3184-3196.	1.7	12
36	Network resonance can be generated independently at distinct levels of neuronal organization. PLoS Computational Biology, 2022, 18, e1010364.	1.5	7

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37	Deconvolution improves the detection and quantification of spike transmission gain from spike trains. Communications Biology, 2022, 5, .	2.0	6
38	Outan: An On-Head System for Driving ÂµLED Arrays Implanted in Freely Moving Mice. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 303-313.	2.7	3
39	Implantable neural probes for chronic electrical recording and optical stimulation. , 2013, , .		1
40	Response and sample bridging in a primate short-term memory task. Neurobiology of Learning and Memory, 2019, 166, 107106.	1.0	0