Steven M Chase

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Neural constraints on learning. Nature, 2014, 512, 423-426.	27.8	535
2	Functional network reorganization during learning in a brain-computer interface paradigm. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19486-19491.	7.1	248
3	Learning by neural reassociation. Nature Neuroscience, 2018, 21, 607-616.	14.8	170
4	Control of a brainâ€"computer interface without spike sorting. Journal of Neural Engineering, 2009, 6, 055004.	3.5	148
5	New neural activity patterns emerge with long-term learning. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15210-15215.	7.1	145
6	Comparison of brainâ€"computer interface decoding algorithms in open-loop and closed-loop control. Journal of Computational Neuroscience, 2010, 29, 73-87.	1.0	127
7	Stabilization of a brainâ€"computer interface via the alignment of low-dimensional spaces of neural activity. Nature Biomedical Engineering, 2020, 4, 672-685.	22.5	118
8	Comprehensive chronic laminar single-unit, multi-unit, and local field potential recording performance with planar single shank electrode arrays. Journal of Neuroscience Methods, 2015, 242, 15-40.	2.5	116
9	Bias, optimal linear estimation, and the differences between open-loop simulation and closed-loop performance of spiking-based brainâ€"computer interface algorithms. Neural Networks, 2009, 22, 1203-1213.	5.9	114
10	Behavioral and neural correlates of visuomotor adaptation observed through a brain-computer interface in primary motor cortex. Journal of Neurophysiology, 2012, 108, 624-644.	1.8	106
11	A Reward-Modulated Hebbian Learning Rule Can Explain Experimentally Observed Network Reorganization in a Brain Control Task. Journal of Neuroscience, 2010, 30, 8400-8410.	3.6	104
12	Intracortical recording stability in human brainâ€"computer interface users. Journal of Neural Engineering, 2018, 15, 046016.	3.5	100
13	Brainâ€"computer interfaces for dissecting cognitive processes underlying sensorimotor control. Current Opinion in Neurobiology, 2016, 37, 53-58.	4.2	82
14	Constraints on neural redundancy. ELife, 2018, 7, .	6.0	56
15	Single-unit activity, threshold crossings, and local field potentials in motor cortex differentially encode reach kinematics. Journal of Neurophysiology, 2015, 114, 1500-1512.	1.8	53
16	Motor cortical control of movement speed with implications for brain-machine interface control. Journal of Neurophysiology, 2014, 112, 411-429.	1.8	52
17	Cues for Sound Localization Are Encoded in Multiple Aspects of Spike Trains in the Inferior Colliculus. Journal of Neurophysiology, 2008, 99, 1672-1682.	1.8	43
18	Internal models for interpreting neural population activity during sensorimotor control. ELife, 2015, 4, .	6.0	41

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19	Distinct types of neural reorganization during long-term learning. Journal of Neurophysiology, 2019, 121, 1329-1341.	1.8	40
20	Learning is shaped by abrupt changes in neural engagement. Nature Neuroscience, 2021, 24, 727-736.	14.8	39
21	Extracellular voltage threshold settings can be tuned for optimal encoding of movement and stimulus parameters. Journal of Neural Engineering, 2016, 13, 036009.	3.5	30
22	Feature selectivity is stable in primary visual cortex across a range of spatial frequencies. Scientific Reports, 2018, 8, 15288.	3.3	30
23	Latent Inputs Improve Estimates of Neural Encoding in Motor Cortex. Journal of Neuroscience, 2010, 30, 13873-13882.	3.6	28
24	Workshops of the Sixth International Brainâ€"Computer Interface Meeting: brainâ€"computer interfaces past, present, and future. Brain-Computer Interfaces, 2017, 4, 3-36.	1.8	24
25	Population activity structure of excitatory and inhibitory neurons. PLoS ONE, 2017, 12, e0181773.	2.5	24
26	Dynamic range adaptation in primary motor cortical populations. ELife, 2017, 6, .	6.0	22
27	Internal models engaged by brain-computer interface control. , 2012, 2012, 1327-30.		19
28	How learning unfolds in the brain: toward an optimization view. Neuron, 2021, 109, 3720-3735.	8.1	19
29	Inference from populations: going beyond models. Progress in Brain Research, 2011, 192, 103-112.	1.4	15
30	Recasting brain-machine interface design from a physical control system perspective. Journal of Computational Neuroscience, 2015, 39, 107-118.	1.0	12
31	Development of Natural Scene Representation in Primary Visual Cortex Requires Early Postnatal Experience. Current Biology, 2021, 31, 369-380.e5.	3.9	9
32	Direction and speed tuning of motor-cortex multi-unit activity and local field potentials during reaching movements. , 2013, 2013, 299-302.		8
33	Learning an Internal Dynamics Model from Control Demonstration. JMLR Workshop and Conference Proceedings, 2013, , 606-614.	1.4	8
34	Monkeys exhibit a paradoxical decrease in performance in high-stakes scenarios. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
35	Intracortical Brainâ€"Machine Interfaces. , 2020, , 185-221.		5
36	Existing function in primary visual cortex is not perturbed by new skill acquisition of a non-matched sensory task. Nature Communications, 2022, 13, .	12.8	5

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37	Distinct Kinematic Adjustments over Multiple Timescales Accompany Locomotor Skill Development in Mice. Neuroscience, 2021, 466, 260-272.	2.3	2
38	Functional network reorganization in motor cortex can be explained by reward-modulated Hebbian learning. Advances in Neural Information Processing Systems, 2009, 2009, 1105-1113.	2.8	2
39	Shedding light on learning. Nature Neuroscience, 2014, 17, 746-747.	14.8	1
40	A control-theoretic approach to brain-computer interface design. , 2016, , .		1
41	Neural manifolds: from basic science to practical improvements in brain-computer intefaces. , 2019, , .		1