Timothy P Lillicrap

List of Publications by Year
in descending order

24 papers	21,388 citations	430874 18 h-index	610901 24 g-index
25 all docs	25 docs citations	25 times ranked	16938 citing authors

#	Article	IF	Citations
1	Mastering the game of Go with deep neural networks and tree search. Nature, 2016, 529, 484-489.	27.8	9,796
2	Mastering the game of Go without human knowledge. Nature, 2017, 550, 354-359.	27.8	5,208
3	A general reinforcement learning algorithm that masters chess, shogi, and Go through self-play. Science, 2018, 362, 1140-1144.	12.6	1,704
4	Grandmaster level in StarCraft II using multi-agent reinforcement learning. Nature, 2019, 575, 350-354.	27.8	1,491
5	Mastering Atari, Go, chess and shogi by planning with a learned model. Nature, 2020, 588, 604-609.	27.8	570
6	A deep learning framework for neuroscience. Nature Neuroscience, 2019, 22, 1761-1770.	14.8	563
7	Vector-based navigation using grid-like representations in artificial agents. Nature, 2018, 557, 429-433.	27.8	414
8	Random synaptic feedback weights support error backpropagation for deep learning. Nature Communications, 2016, 7, 13276.	12.8	412
9	Backpropagation and the brain. Nature Reviews Neuroscience, 2020, 21, 335-346.	10.2	385
10	Towards deep learning with segregated dendrites. ELife, 2017, 6, .	6.0	237
11	Temporal Evolution of "Automatic Gain-Scaling" Journal of Neurophysiology, 2009, 102, 992-1003.	1.8	128
12	Preference Distributions of Primary Motor Cortex Neurons Reflect Control Solutions Optimized for Limb Biomechanics. Neuron, 2013, 77, 168-179.	8.1	111
13	Dendritic solutions to the credit assignment problem. Current Opinion in Neurobiology, 2019, 54, 28-36.	4.2	88
14	Backpropagation through time and the brain. Current Opinion in Neurobiology, 2019, 55, 82-89.	4.2	60
15	dm_control: Software and tasks for continuous control. Software Impacts, 2020, 6, 100022.	1.4	48
16	Deep Learning with Dynamic Spiking Neurons and Fixed Feedback Weights. Neural Computation, 2017, 29, 578-602.	2.2	47
17	Adapting to inversion of the visual field: a new twist on an old problem. Experimental Brain Research, 2013, 228, 327-339.	1.5	42
18	Optimizing agent behavior over long time scales by transporting value. Nature Communications, 2019, 10, 5223.	12.8	22

#	Article	IF	Citations
19	Temporal evolution of both premotor and motor cortical tuning properties reflect changes in limb biomechanics. Journal of Neurophysiology, 2015, 113, 2812-2823.	1.8	16
20	Clonal Relationships Impact Neuronal Tuning within a Phylogenetically Ancient Vertebrate Brain Structure. Current Biology, 2014, 24, 1929-1933.	3.9	10
21	Complex Spatiotemporal Tuning in Human Upper-Limb Muscles. Journal of Neurophysiology, 2010, 103, 564-572.	1.8	7
22	The Brain-Computer Metaphor Debate Is Useless: A Matter of Semantics. Frontiers in Computer Science, 2022, 4, .	2.8	7
23	Can neocortical feedback alter the sign of plasticity?. Nature Reviews Neuroscience, 2018, 19, 636-636.	10.2	6
24	Temporal Encoding of Movement in Motor Cortical Neurons. Journal of Neuroscience, 2007, 27, 10076-10077.	3.6	1