

# Timothy P Lillicrap

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1877567/publications.pdf>

Version: 2024-02-01

24  
papers

21,388  
citations

430442

18  
h-index

610482

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.	13.7	9,796
2	Mastering the game of Go without human knowledge. Nature, 2017, 550, 354-359.	13.7	5,208
3	A general reinforcement learning algorithm that masters chess, shogi, and Go through self-play. Science, 2018, 362, 1140-1144.	6.0	1,704
4	Grandmaster level in StarCraft II using multi-agent reinforcement learning. Nature, 2019, 575, 350-354.	13.7	1,491
5	Mastering Atari, Go, chess and shogi by planning with a learned model. Nature, 2020, 588, 604-609.	13.7	570
6	A deep learning framework for neuroscience. Nature Neuroscience, 2019, 22, 1761-1770.	7.1	563
7	Vector-based navigation using grid-like representations in artificial agents. Nature, 2018, 557, 429-433.	13.7	414
8	Random synaptic feedback weights support error backpropagation for deep learning. Nature Communications, 2016, 7, 13276.	5.8	412
9	Backpropagation and the brain. Nature Reviews Neuroscience, 2020, 21, 335-346.	4.9	385
10	Towards deep learning with segregated dendrites. ELife, 2017, 6, .	2.8	237
11	Temporal Evolution of "Automatic Gain-Scaling". Journal of Neurophysiology, 2009, 102, 992-1003.	0.9	128
12	Preference Distributions of Primary Motor Cortex Neurons Reflect Control Solutions Optimized for Limb Biomechanics. Neuron, 2013, 77, 168-179.	3.8	111
13	Dendritic solutions to the credit assignment problem. Current Opinion in Neurobiology, 2019, 54, 28-36.	2.0	88
14	Backpropagation through time and the brain. Current Opinion in Neurobiology, 2019, 55, 82-89.	2.0	60
15	dm_control: Software and tasks for continuous control. Software Impacts, 2020, 6, 100022.	0.8	48
16	Deep Learning with Dynamic Spiking Neurons and Fixed Feedback Weights. Neural Computation, 2017, 29, 578-602.	1.3	47
17	Adapting to inversion of the visual field: a new twist on an old problem. Experimental Brain Research, 2013, 228, 327-339.	0.7	42
18	Optimizing agent behavior over long time scales by transporting value. Nature Communications, 2019, 10, 5223.	5.8	22

#	ARTICLE	IF	CITATIONS
19	Temporal evolution of both premotor and motor cortical tuning properties reflect changes in limb biomechanics. <i>Journal of Neurophysiology</i> , 2015, 113, 2812-2823.	0.9	16
20	Clonal Relationships Impact Neuronal Tuning within a Phylogenetically Ancient Vertebrate Brain Structure. <i>Current Biology</i> , 2014, 24, 1929-1933.	1.8	10
21	Complex Spatiotemporal Tuning in Human Upper-Limb Muscles. <i>Journal of Neurophysiology</i> , 2010, 103, 564-572.	0.9	7
22	The Brain-Computer Metaphor Debate Is Useless: A Matter of Semantics. <i>Frontiers in Computer Science</i> , 2022, 4, .	1.7	7
23	Can neocortical feedback alter the sign of plasticity?. <i>Nature Reviews Neuroscience</i> , 2018, 19, 636-636.	4.9	6
24	Temporal Encoding of Movement in Motor Cortical Neurons. <i>Journal of Neuroscience</i> , 2007, 27, 10076-10077.	1.7	1