

Ido Kanter

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

1,356
citations

430874

18
h-index

345221

36
g-index

53
all docs

53
docs citations

53
times ranked

1014
citing authors

#	ARTICLE	IF	CITATIONS
1	An optical ultrafast random bit generator. <i>Nature Photonics</i> , 2010, 4, 58-61.	31.4	413
2	Strong and Weak Chaos in Nonlinear Networks with Time-Delayed Couplings. <i>Physical Review Letters</i> , 2011, 107, 234102.	7.8	111
3	Fast Physical Random-Number Generation Based on Room-Temperature Chaotic Oscillations in Weakly Coupled Superlattices. <i>Physical Review Letters</i> , 2013, 111, 044102.	7.8	63
4	Synchronization of random bit generators based on coupled chaotic lasers and application to cryptography. <i>Optics Express</i> , 2010, 18, 18292.	3.4	59
5	Public Channel Cryptography: Chaos Synchronization and Hilbert's Tenth Problem. <i>Physical Review Letters</i> , 2008, 101, 084102.	7.8	56
6	Mutual learning in a tree parity machine and its application to cryptography. <i>Physical Review E</i> , 2002, 66, 066135.	2.1	54
7	New Types of Experiments Reveal that a Neuron Functions as Multiple Independent Threshold Units. <i>Scientific Reports</i> , 2017, 7, 18036.	3.3	47
8	Error-Correcting Codes That Nearly Saturate Shannon's Bound. <i>Physical Review Letters</i> , 1999, 83, 2660-2663.	7.8	46
9	Statistical properties of contact maps. <i>Physical Review E</i> , 1999, 59, 977-984.	2.1	36
10	The Entropy of a Binary Hidden Markov Process. <i>Journal of Statistical Physics</i> , 2005, 121, 343-360.	1.2	32
11	A computational paradigm for dynamic logic-gates in neuronal activity. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 52.	2.1	32
12	Simultaneous multi-patch-clamp and extracellular-array recordings: Single neuron reflects network activity. <i>Scientific Reports</i> , 2016, 6, 36228.	3.3	30
13	Synchronization of Mutually Coupled Chaotic Lasers in the Presence of a Shutter. <i>Physical Review Letters</i> , 2007, 98, 154101.	7.8	28
14	Cascading parity-check error-correcting codes. <i>Physical Review E</i> , 2000, 61, 2137-2140.	2.1	25
15	Mutual coupling and synchronization of optically coupled quantum-dot micropillar lasers at ultra-low light levels. <i>Nature Communications</i> , 2019, 10, 1539.	12.8	25
16	Spiking optical patterns and synchronization. <i>Physical Review E</i> , 2007, 76, 046207.	2.1	23
17	Efficient dendritic learning as an alternative to synaptic plasticity hypothesis. <i>Scientific Reports</i> , 2022, 12, 6571.	3.3	20
18	Computational capabilities of restricted two-layered perceptrons. <i>Physical Review E</i> , 1994, 50, 577-595.	2.1	19

#	ARTICLE	IF	CITATIONS
19	Adaptive nodes enrich nonlinear cooperative learning beyond traditional adaptation by links. Scientific Reports, 2018, 8, 5100.	3.3	19
20	THE THEORY OF NEURAL NETWORKS AND CRYPTOGRAPHY. , 2003, , .		18
21	Neuronal response impedance mechanism implementing cooperative networks with low firing rates and $\frac{1}{4}$ s precision. Frontiers in Neural Circuits, 2015, 9, 29.	2.8	18
22	Multichoice minority game. Physical Review E, 2001, 63, 066103.	2.1	15
23	Broadband macroscopic cortical oscillations emerge from intrinsic neuronal response failures. Frontiers in Neural Circuits, 2015, 9, 65.	2.8	13
24	Identifying universals of text translation*. Journal of Quantitative Linguistics, 2006, 13, 35-43.	1.2	12
25	Chaos synchronization in networks of semiconductor superlattices. Europhysics Letters, 2015, 112, 30007.	2.0	12
26	Learnability of periodic activation functions: General results. Physical Review E, 1998, 58, 3606-3609.	2.1	11
27	Synchronization among neuronal pools without common inputs: in vivo study. Brain Structure and Function, 2015, 220, 3721-3731.	2.3	11
28	Synchronization by elastic neuronal latencies. Physical Review E, 2013, 87, 012724.	2.1	9
29	Biological learning curves outperform existing ones in artificial intelligence algorithms. Scientific Reports, 2019, 9, 11558.	3.3	9
30	Power-law scaling to assist with key challenges in artificial intelligence. Scientific Reports, 2020, 10, 19628.	3.3	9
31	Multilayer Neural Networks with Extensively Many Hidden Units. Physical Review Letters, 2001, 87, 078101.	7.8	7
32	Fast reversible learning based on neurons functioning as anisotropic multiplex hubs. Europhysics Letters, 2017, 118, 46002.	2.0	7
33	Nonlocal Mechanism for Synchronization of Time Delay Networks. Journal of Statistical Physics, 2011, 145, 713-733.	1.2	6
34	Brain experiments imply adaptation mechanisms which outperform common AI learning algorithms. Scientific Reports, 2020, 10, 6923.	3.3	6
35	A minority of self-organizing autonomous vehicles significantly increase freeway traffic flow. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 414001.	2.1	6
36	Vitality of Neural Networks under Reoccurring Catastrophic Failures. Scientific Reports, 2016, 6, 31674.	3.3	5

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37	Dendritic Learning as a Paradigm Shift in Brain Learning. ACS Chemical Neuroscience, 2018, 9, 1230-1232.	3.5	5
38	Less Might Be More: Conduction Failure as a Factor Possibly Limiting the Efficacy of Higher Frequencies in rTMS Protocols. Frontiers in Neuroscience, 2018, 12, 358.	2.8	5
39	Secure Communication with Chaos Synchronization. , 0, , 301-324.		4
40	Error correction and fast detectors implemented by ultrafast neuronal plasticity. Physical Review E, 2014, 89, 042712.	2.1	4
41	Chaotic and non-chaotic phases in experimental responses of a single neuron. Europhysics Letters, 2014, 106, 46002.	2.0	4
42	Mimicking Collective Firing Patterns of Hundreds of Connected Neurons using a Single-Neuron Experiment. Frontiers in Neuroscience, 2016, 9, 508.	2.8	4
43	Oscillations in networks of networks stem from adaptive nodes with memory. Scientific Reports, 2017, 7, 2700.	3.3	4
44	Stationary log-normal distribution of weights stems from spontaneous ordering in adaptive node networks. Scientific Reports, 2018, 8, 13091.	3.3	4
45	Significant anisotropic neuronal refractory period plasticity. Europhysics Letters, 2021, 134, 60007.	2.0	4
46	Long anisotropic absolute refractory periods with rapid rise times to reliable responsiveness. Physical Review E, 2022, 105, 014401.	2.1	4
47	ON THE EQUIVALENCE OF TWO-LAYERED PERCEPTRONS WITH BINARY NEURONS. International Journal of Neural Systems, 1995, 06, 225-231.	5.2	2
48	Title is missing!. Journal of Statistical Physics, 2001, 105, 719-720.	1.2	0
49	Outsourcing the Complexity of Detection in MIMO Channels. , 2006, , .		0
50	Cluster synchronization in large laser networks. IEICE Proceeding Series, 2014, 1, 61-64.	0.0	0
51	Synthetic reverberating activity patterns embedded in networks of cortical neurons. IEICE Proceeding Series, 2014, 1, 386-386.	0.0	0