Damien Querlioz

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2535791/publications.pdf

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33	3,762	471061	552369
papers	citations	17 h-index	26 g-index

34	34	34	3715
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Binding events through the mutual synchronization of spintronic nano-neurons. Nature Communications, 2022, 13, 883.	5.8	18
2	Forecasting the outcome of spintronic experiments with Neural Ordinary Differential Equations. Nature Communications, 2022, 13, 1016.	5.8	17
3	Implementation of Ternary Weights With Resistive RAM Using a Single Sense Operation Per Synapse. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 138-147.	3.5	5
4	Tunable Stochasticity in an Artificial Spin Network. Advanced Materials, 2021, 33, e2008135.	11.1	7
5	Radio-Frequency Multiply-and-Accumulate Operations with Spintronic Synapses. Physical Review Applied, 2021, 15, .	1.5	21
6	Synaptic metaplasticity in binarized neural networks. Nature Communications, 2021, 12, 2549.	5.8	30
7	Ex Situ Transfer of Bayesian Neural Networks to Resistive Memoryâ€Based Inference Hardware. Advanced Intelligent Systems, 2021, 3, 2000103.	3.3	15
8	Training Dynamical Binary Neural Networks with Equilibrium Propagation. , 2021, , .		6
9	Model of the Weak Reset Process in HfO_x Resistive Memory for Deep Learning Frameworks. IEEE Transactions on Electron Devices, 2021, 68, 4925-4932.	1.6	3
10	In situ learning using intrinsic memristor variability via Markov chain Monte Carlo sampling. Nature Electronics, 2021, 4, 151-161.	13.1	93
11	Harnessing intrinsic memristor randomness with Bayesian neural networks. , 2021, , .		2
12	Hardware-Efficient Stochastic Binary CNN Architectures for Near-Sensor Computing. Frontiers in Neuroscience, 2021, 15, 781786.	1.4	4
13	Physics for neuromorphic computing. Nature Reviews Physics, 2020, 2, 499-510.	11.9	422
14	In-Memory Resistive RAM Implementation of Binarized Neural Networks for Medical Applications. , 2020, , .		5
15	Neuromorphic spintronics. Nature Electronics, 2020, 3, 360-370.	13.1	516
16	Designing Large Arrays of Interacting Spin-Torque Nano-Oscillators for Microwave Information Processing. Physical Review Applied, 2020, 13, .	1.5	9
17	(Invited) Memory-Centric Artificial Intelligence with Nanodevices. ECS Meeting Abstracts, 2020, MA2020-01, 1387-1387.	0.0	0
18	Outstanding Bit Error Tolerance of Resistive RAM-Based Binarized Neural Networks. , 2019, , .		31

#	Article	IF	Citations
19	Using Memristors for Robust Local Learning of Hardware Restricted Boltzmann Machines. Scientific Reports, 2019, 9, 1851.	1.6	21
20	Hybrid Analog-Digital Learning with Differential RRAM Synapses. , 2019, , .		7
21	Digital Biologically Plausible Implementation of Binarized Neural Networks With Differential Hafnium Oxide Resistive Memory Arrays. Frontiers in Neuroscience, 2019, 13, 1383.	1.4	51
22	Neural-like computing with populations of superparamagnetic basis functions. Nature Communications, 2018, 9, 1533.	5.8	139
23	In-Memory and Error-Immune Differential RRAM Implementation of Binarized Deep Neural Networks. , 2018, , .		62
24	Vowel recognition with four coupled spin-torque nano-oscillators. Nature, 2018, 563, 230-234.	13.7	356
25	Skyrmion Gas Manipulation for Probabilistic Computing. Physical Review Applied, 2018, 9, .	1.5	148
26	Neuromorphic computing with nanoscale spintronic oscillators. Nature, 2017, 547, 428-431.	13.7	893
27	Low-Energy Truly Random Number Generation with Superparamagnetic Tunnel Junctions for Unconventional Computing. Physical Review Applied, 2017, 8, .	1.5	106
28	Interplay of multiple synaptic plasticity features in filamentary memristive devices for neuromorphic computing. Scientific Reports, 2016, 6, 39216.	1.6	25
29	Controlling the phase locking of stochastic magnetic bits for ultra-low power computation. Scientific Reports, 2016, 6, 30535.	1.6	32
30	Bioinspired Programming of Memory Devices for Implementing an Inference Engine. Proceedings of the IEEE, 2015, 103, 1398-1416.	16.4	116
31	Synchronous Non-Volatile Logic Gate Design Based on Resistive Switching Memories. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 443-454.	3.5	90
32	Immunity to Device Variations in a Spiking Neural Network With Memristive Nanodevices. IEEE Nanotechnology Magazine, 2013, 12, 288-295.	1.1	321
33	Phase change memory as synapse for ultra-dense neuromorphic systems: Application to complex visual pattern extraction. , 2011, , .		185