

# Kaushik

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

368  
papers

9,423  
citations

50  
h-index

82  
g-index

407  
ext. papers

12,048  
ext. citations

3.5  
avg, IF

6.93  
L-index

#	Paper	IF	Citations
368	Neuro-Ising: Accelerating Large Scale Travelling Salesman Problems via Graph Neural Network guided localized Ising Solvers. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2022</b> , 1-1	2.5	2
367	Foreword Special Issue on Spintronics-Devices and Circuits. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 69, 1622-1628	2.9	
366	Noise resilient leaky integrate-and-fire neurons based on multi-domain spintronic devices.. <i>Scientific Reports</i> , <b>2022</b> , 12, 8361	4.9	1
365	SPACE: Structured Compression and Sharing of Representational Space for Continual Learning. <i>IEEE Access</i> , <b>2021</b> , 9, 150480-150494	3.5	1
364	DIET-SNN: A Low-Latency Spiking Neural Network With Direct Input Encoding and Leakage and Threshold Optimization. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2021</b> , PP,	10.3	8
363	<b>2021</b> ,		3
362	Ferroelectric FET Based Coupled-Oscillatory Network for Edge Detection. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 1670-1673	4.4	2
361	BlocTrain: Block-Wise Conditional Training and Inference for Efficient Spike-Based Deep Learning. <i>Frontiers in Neuroscience</i> , <b>2021</b> , 15, 603433	5.1	0
360	Multi-Level Neuromorphic Devices Built on Emerging Ferroic Materials: A Review. <i>Frontiers in Neuroscience</i> , <b>2021</b> , 15, 661667	5.1	1
359	Magnetoresistive Circuits and Systems: Embedded Non-Volatile Memory to Crossbar Arrays. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2021</b> , 68, 2281-2294	3.9	3
358	. <i>IEEE Transactions on Magnetics</i> , <b>2021</b> , 57, 1-39	2	34
357	RxNN: A Framework for Evaluating Deep Neural Networks on Resistive Crossbars. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2021</b> , 40, 326-338	2.5	26
356	STDP Based Unsupervised Multimodal Learning With Cross-Modal Processing in Spiking Neural Networks. <i>IEEE Transactions on Emerging Topics in Computational Intelligence</i> , <b>2021</b> , 5, 143-153	4.1	5
355	Neural Computing With Magnetoelectric Domain-Wall-Based Neurosynaptic Devices. <i>IEEE Transactions on Magnetics</i> , <b>2021</b> , 57, 1-9	2	3
354	Roadmap on emerging hardware and technology for machine learning. <i>Nanotechnology</i> , <b>2021</b> , 32, 012003,4	3.4	45
353	IMPULSE: A 65-nm Digital Compute-in-Memory Macro With Fused Weights and Membrane Potential for Spike-Based Sequential Learning Tasks. <i>IEEE Solid-State Circuits Letters</i> , <b>2021</b> , 4, 137-140	2	3
352	Enabling Robust SOT-MTJ Crossbars for Machine Learning using Sparsity-Aware Device-Circuit Co-design <b>2021</b> ,		1

351	Quantifying the Brain Predictivity of Artificial Neural Networks With Nonlinear Response Mapping. <i>Frontiers in Computational Neuroscience</i> , <b>2021</b> , 15, 609721	3.5	0
350	Implicit adversarial data augmentation and robustness with Noise-based Learning. <i>Neural Networks</i> , <b>2021</b> , 141, 120-132	9.1	4
349	Neuromorphic learning with Mott insulator NiO. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	4
348	A 35.5-127.2 TOPS/W Dynamic Sparsity-Aware Reconfigurable-Precision Compute-in-Memory SRAM Macro for Machine Learning. <i>IEEE Solid-State Circuits Letters</i> , <b>2021</b> , 4, 129-132	2	4
347	Embracing Stochasticity to Enable Neuromorphic Computing at the Edge. <i>IEEE Design and Test</i> , <b>2021</b> , 1-1	1.4	2
346	Network Compression via Mixed Precision Quantization Using a Multi-Layer Perceptron for the Bit-Width Allocation. <i>IEEE Access</i> , <b>2021</b> , 1-1	3.5	2
345	Perovskite neural trees. <i>Nature Communications</i> , <b>2020</b> , 11, 2245	17.4	18
344	Revisiting Stochastic Computing in the Era of Nanoscale Nonvolatile Technologies. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2020</b> , 28, 2481-2494	2.6	3
343	Antiferroelectric Tunnel Junctions as Energy-Efficient Coupled Oscillators: Modeling, Analysis, and Application to Solving Combinatorial Optimization Problems. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 2974-2980	2.9	1
342	. <i>IEEE Transactions on Computers</i> , <b>2020</b> , 69, 1128-1142	2.5	18
341	Enabling Spike-Based Backpropagation for Training Deep Neural Network Architectures. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 119	5.1	71
340	IMAC: In-Memory Multi-Bit Multiplication and Accumulation in 6T SRAM Array. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2020</b> , 67, 2521-2531	3.9	27
339	Toward Scalable, Efficient, and Accurate Deep Spiking Neural Networks With Backward Residual Connections, Stochastic Softmax, and Hybridization. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 653	5.1	19
338	A Low Effort Approach to Structured CNN Design Using PCA. <i>IEEE Access</i> , <b>2020</b> , 8, 1347-1360	3.5	13
337	Functional Read Enabling In-Memory Computations in 1Transistor1Resistor Memory Arrays. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2020</b> , 67, 3347-3351	3.5	
336	Organismic materials for beyond von Neumann machines. <i>Applied Physics Reviews</i> , <b>2020</b> , 7, 011309	17.3	12
335	Controlled Forgetting: Targeted Stimulation and Dopaminergic Plasticity Modulation for Unsupervised Lifelong Learning in Spiking Neural Networks. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 7	5.1	3
334	Constructing energy-efficient mixed-precision neural networks through principal component analysis for edge intelligence. <i>Nature Machine Intelligence</i> , <b>2020</b> , 2, 43-55	22.5	10

333	sBSNN: Stochastic-Bits Enabled Binary Spiking Neural Network With On-Chip Learning for Energy Efficient Neuromorphic Computing at the Edge. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2020</b> , 67, 2546-2555	3.9	12
332	Erratum to "CASH-RAM: Enabling In-Memory Computations for Edge Inference Using Charge Accumulation and Sharing in Standard 8T-SRAM Arrays" <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2020</b> , 10, 588-588	5.2	
331	Spike-FlowNet: Event-Based Optical Flow Estimation with Energy-Efficient Hybrid Neural Networks. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 366-382	0.9	14
330	Inherent Adversarial Robustness of Deep Spiking Neural Networks: Effects of Discrete Input Encoding and Non-linear Activations. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 399-414	0.9	8
329	. <i>IEEE Access</i> , <b>2020</b> , 8, 4615-4628	3.5	30
328	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2020</b> , 39, 2361-2374	2.5	1
327	unsupervised learning using stochastic switching in magneto-electric magnetic tunnel junctions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2020</b> , 378, 20190157	3	5
326	In-Memory Computing in Emerging Memory Technologies for Machine Learning: An Overview <b>2020</b> ,		5
325	GENIEx: A Generalized Approach to Emulating Non-Ideality in Memristive Xbars using Neural Networks <b>2020</b> ,		16
324	Resistive Crossbars as Approximate Hardware Building Blocks for Machine Learning: Opportunities and Challenges. <i>Proceedings of the IEEE</i> , <b>2020</b> , 108, 2276-2310	14.3	18
323	A Quantum-Well Charge-Trap Synaptic Transistor With Highly Linear Weight Tunability. <i>IEEE Journal of the Electron Devices Society</i> , <b>2020</b> , 8, 834-840	2.3	3
322	CASH-RAM: Enabling In-Memory Computations for Edge Inference Using Charge Accumulation and Sharing in Standard 8T-SRAM Arrays. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2020</b> , 10, 295-305	5.2	8
321	i-SRAM: Interleaved Wordlines for Vector Boolean Operations Using SRAMs. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2020</b> , 67, 4651-4659	3.9	9
320	Bayesian Multi-objective Hyperparameter Optimization for Accurate, Fast, and Efficient Neural Network Accelerator Design. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 667	5.1	8
319	Pd/IGZO/p+-Si Synaptic Device with Self-Graded Oxygen Concentrations for Highly Linear Weight Adjustability and Improved Energy Efficiency. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 2390-2397	4	8
318	Biologically Plausible Class Discrimination Based Recurrent Neural Network Training for Motor Pattern Generation. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 772	5.1	
317	Circuits and Architectures for In-Memory Computing-Based Machine Learning Accelerators. <i>IEEE Micro</i> , <b>2020</b> , 40, 8-22	1.8	9
316	Gradual Channel Pruning While Training Using Feature Relevance Scores for Convolutional Neural Networks. <i>IEEE Access</i> , <b>2020</b> , 8, 171924-171932	3.5	9

315	RMP-SNN: Residual Membrane Potential Neuron for Enabling Deeper High-Accuracy and Low-Latency Spiking Neural Network <b>2020</b> ,		27
314	. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2020</b> , 67, 551-555	3.5	4
313	Logic Synthesis of Approximate Circuits. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2020</b> , 39, 2503-2515	2.5	8
312	Tree-CNN: A hierarchical Deep Convolutional Neural Network for incremental learning. <i>Neural Networks</i> , <b>2020</b> , 121, 148-160	9.1	63
311	Scaling Deep Spiking Neural Networks with Binary Stochastic Activations <b>2019</b> ,		6
310	Analysis of Liquid Ensembles for Enhancing the Performance and Accuracy of Liquid State Machines. <i>Frontiers in Neuroscience</i> , <b>2019</b> , 13, 504	5.1	11
309	Discretization Based Solutions for Secure Machine Learning Against Adversarial Attacks. <i>IEEE Access</i> , <b>2019</b> , 7, 70157-70168	3.5	11
308	Xcel-RAM: Accelerating Binary Neural Networks in High-Throughput SRAM Compute Arrays. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2019</b> , 66, 3064-3076	3.9	42
307	Going Deeper in Spiking Neural Networks: VGG and Residual Architectures. <i>Frontiers in Neuroscience</i> , <b>2019</b> , 13, 95	5.1	207
306	Optical Receiver With Helicity-Dependent Magnetization Reversal. <i>IEEE Transactions on Magnetics</i> , <b>2019</b> , 55, 1-6	2	1
305	Exploiting Inherent Error Resiliency of Deep Neural Networks to Achieve Extreme Energy Efficiency Through Mixed-Signal Neurons. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2019</b> , 27, 1365-1377	2.6	7
304	PUMA <b>2019</b> ,		107
303	Perovskite nickelates as bio-electronic interfaces. <i>Nature Communications</i> , <b>2019</b> , 10, 1651	17.4	21
302	ReStoCNet: Residual Stochastic Binary Convolutional Spiking Neural Network for Memory-Efficient Neuromorphic Computing. <i>Frontiers in Neuroscience</i> , <b>2019</b> , 13, 189	5.1	21
301	Effect of Dzyaloshinskii-Moriya Interaction at Ferrimagnet and Heavy Metal Interface. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 1599-1604	2.9	2
300	8T SRAM Cell as a Multibit Dot-Product Engine for Beyond Von Neumann Computing. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2019</b> , 27, 2556-2567	2.6	40
299	Fast switching in CoTb based ferrimagnetic tunnel junction. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 023901	2.5	5
298	Synthesizing Images From Spatio-Temporal Representations Using Spike-Based Backpropagation. <i>Frontiers in Neuroscience</i> , <b>2019</b> , 13, 621	5.1	5

297	A Comprehensive Analysis on Adversarial Robustness of Spiking Neural Networks <b>2019</b> ,		9
296	Structured Learning for Action Recognition in Videos. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2019</b> , 9, 475-484	5.2	
295	On Robustness of Spin-Orbit-Torque Based Stochastic Sigmoid Neurons for Spiking Neural Networks <b>2019</b> ,		5
294	SPARE: Spiking Neural Network Acceleration Using ROM-Embedded RAMs as In-Memory-Computation Primitives. <i>IEEE Transactions on Computers</i> , <b>2019</b> , 68, 1190-1200	2.5	10
293	Mimicking Leaky-Integrate-Fire Spiking Neuron Using Automaton of Domain Walls for Energy-Efficient Brain-Inspired Computing. <i>IEEE Transactions on Magnetics</i> , <b>2019</b> , 55, 1-7	2	13
292	Deep Spiking Convolutional Neural Network Trained With Unsupervised Spike-Timing-Dependent Plasticity. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , <b>2019</b> , 11, 384-394	3	37
291	Computing in Memory With Spin-Transfer Torque Magnetic RAM. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2018</b> , 26, 470-483	2.6	123
290	In-situ, In-Memory Stateful Vector Logic Operations based on Voltage Controlled Magnetic Anisotropy. <i>Scientific Reports</i> , <b>2018</b> , 8, 5738	4.9	13
289	1T Non-Volatile Memory Design Using Sub-10nm Ferroelectric FETs. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 359-362	4.4	31
288	ASP: Learning to Forget With Adaptive Synaptic Plasticity in Spiking Neural Networks. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2018</b> , 8, 51-64	5.2	21
287	High-Density SOT-MRAM Based on Shared Bitline Structure. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2018</b> , 26, 1600-1603	2.6	17
286	Computing-in-memory with spintronics <b>2018</b> ,		3
285	Biased Random Walk Using Stochastic Switching of Nanomagnets: Application to SAT Solver. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 1617-1624	2.9	1
284	Magnetic Skyrmion as a Spintronic Deep Learning Spiking Neuron Processor. <i>IEEE Transactions on Magnetics</i> , <b>2018</b> , 54, 1-7	2	22
283	Training Deep Spiking Convolutional Neural Networks With STDP-Based Unsupervised Pre-training Followed by Supervised Fine-Tuning. <i>Frontiers in Neuroscience</i> , <b>2018</b> , 12, 435	5.1	64
282	Area-Efficient Nonvolatile Flip-Flop Based on Spin Hall Effect. <i>IEEE Magnetics Letters</i> , <b>2018</b> , 9, 1-4	1.6	17
281	Analog Approach to Constraint Satisfaction Enabled by Spin Orbit Torque Magnetic Tunnel Junctions. <i>Scientific Reports</i> , <b>2018</b> , 8, 6940	4.9	1
280	DeltaFrame-BP: An Algorithm Using Frame Difference for Deep Convolutional Neural Networks Training and Inference on Video Data. <i>IEEE Transactions on Multi-Scale Computing Systems</i> , <b>2018</b> , 4, 624-634		1

279	M2CA: Modular Memristive Crossbar Arrays <b>2018</b> ,		4
278	Perspective: Stochastic magnetic devices for cognitive computing. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 210901	2.5	22
277	Designing Energy-Efficient Intermittently Powered Systems Using Spin-Hall-Effect-Based Nonvolatile SRAM. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2018</b> , 26, 294-307	2.6	12
276	Cross-Layer Design Exploration for Energy-Quality Tradeoffs in Spiking and Non-Spiking Deep Artificial Neural Networks. <i>IEEE Transactions on Multi-Scale Computing Systems</i> , <b>2018</b> , 4, 613-623		9
275	Hardware-Software Co-Design for an Analog-Digital Accelerator for Machine Learning <b>2018</b> ,		10
274	RECache: ROM-Embedded 8-Transistor SRAM Caches for Efficient Neural Computing <b>2018</b> ,		3
273	Neuromorphic Computing Across the Stack: Devices, Circuits and Architectures <b>2018</b> ,		3
272	Toward Fast Neural Computing using All-Photonic Phase Change Spiking Neurons. <i>Scientific Reports</i> , <b>2018</b> , 8, 12980	4.9	70
271	An All-Memristor Deep Spiking Neural Computing System: A Step Toward Realizing the Low-Power Stochastic Brain. <i>IEEE Transactions on Emerging Topics in Computational Intelligence</i> , <b>2018</b> , 2, 345-358	4.1	53
270	Technology Aware Training in Memristive Neuromorphic Systems for Nonideal Synaptic Crossbars. <i>IEEE Transactions on Emerging Topics in Computational Intelligence</i> , <b>2018</b> , 2, 335-344	4.1	39
269	Design and Comparative Analysis of Spintronic Memories Based on Current and Voltage Driven Switching. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 2682-2693	2.9	5
268	Capacitively Driven Global Interconnect With Energy-Efficient Receiver Based on Magneto-Electric Switching. <i>IEEE Magnetism Letters</i> , <b>2018</b> , 9, 1-5	1.6	
267	X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2018</b> , 65, 4219-4232	3.9	82
266	FALCON: Feature Driven Selective Classification for Energy-Efficient Image Recognition. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2017</b> , 36, 2017-2029	2.5	9
265	MESL: Proposal for a Non-volatile Cascadable Magneto-Electric Spin Logic. <i>Scientific Reports</i> , <b>2017</b> , 7, 39793	4.9	18
264	Energy-Efficient Memory Using Magneto-Electric Switching of Ferromagnets. <i>IEEE Magnetism Letters</i> , <b>2017</b> , 8, 1-5	1.6	10
263	Magnetic tunnel junction enabled all-spin stochastic spiking neural network <b>2017</b> ,		22
262	Fast, low power evaluation of elementary functions using radial basis function networks <b>2017</b> ,		4

261	Energy-Efficient Object Detection Using Semantic Decomposition. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2017</b> , 25, 2673-2677	2.6	3
260	Ising computation based combinatorial optimization using spin-Hall effect (SHE) induced stochastic magnetization reversal. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 193902	2.5	26
259	Design Space Exploration of Hysteresis-Free HfZrOx-Based Negative Capacitance FETs. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 1165-1167	4.4	42
258	Proposal for a Leaky-Integrate-Fire Spiking Neuron Based on Magnetoelectric Switching of Ferromagnets. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 1818-1824	2.9	42
257	Stochastic Quantization Using Magnetic Tunnel Junction Devices: A Simulation Study. <i>IEEE Transactions on Magnetics</i> , <b>2017</b> , 53, 1-6	2	
256	Skyrmion Sensor-Based Low-Power Global Interconnects. <i>IEEE Transactions on Magnetics</i> , <b>2017</b> , 53, 1-6	2	1
255	Magnetic Tunnel Junction as an On-Chip Temperature Sensor. <i>Scientific Reports</i> , <b>2017</b> , 7, 11764	4.9	18
254	RESPARC <b>2017</b> ,		41
253	Magnetoelectric oxide based stochastic spin device towards solving combinatorial optimization problems. <i>Scientific Reports</i> , <b>2017</b> , 7, 11276	4.9	4
252	An Energy-Efficient Mixed-Signal Neuron for Inherently Error-Resilient Neuromorphic Systems <b>2017</b> ,		2
251	Robust and Cascadable Nonvolatile Magnetoelectric Majority Logic. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 5209-5216	2.9	2
250	Energy efficient computation using injection locked bias-field free spin-hall nano-oscillator array with shared heavy metal <b>2017</b> ,		1
249	Habituation based synaptic plasticity and organismic learning in a quantum perovskite. <i>Nature Communications</i> , <b>2017</b> , 8, 240	17.4	60
248	EnsembleSNN: Distributed assistive STDP learning for energy-efficient recognition in spiking neural networks <b>2017</b> ,		2
247	Performance analysis and benchmarking of all-spin spiking neural networks (Special session paper) <b>2017</b> ,		9
246	Convolving over time via recurrent connections for sequential weight sharing in neural networks <b>2017</b> ,		1
245	Stochastic Spin-Orbit Torque Devices as Elements for Bayesian Inference. <i>Scientific Reports</i> , <b>2017</b> , 7, 14101	4.1	18
244	Spike timing dependent plasticity based enhanced self-learning for efficient pattern recognition in spiking neural networks <b>2017</b> ,		11



243	Büttiker Probe-Based Modeling of TDDB: Application to Dielectric Breakdown in MTJs and MOS Devices. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 3337-3345	2.9	2
242	Encoding neural and synaptic functionalities in electron spin: A pathway to efficient neuromorphic computing. <i>Applied Physics Reviews</i> , <b>2017</b> , 4, 041105	17.3	71
241	Stochastic Spiking Neural Networks Enabled by Magnetic Tunnel Junctions: From Nontelegraphic to Telegraphic Switching Regimes. <i>Physical Review Applied</i> , <b>2017</b> , 8,	4.3	33
240	TraNNsformer: Neural network transformation for memristive crossbar based neuromorphic system design <b>2017</b> ,		24
239	Learning to Generate Sequences with Combination of Hebbian and Non-hebbian Plasticity in Recurrent Spiking Neural Networks. <i>Frontiers in Neuroscience</i> , <b>2017</b> , 11, 693	5.1	16
238	Spintronic devices for ultra-low power neuromorphic computation (Special session paper) <b>2016</b> ,		7
237	Unsupervised regenerative learning of hierarchical features in Spiking Deep Networks for object recognition <b>2016</b> ,		43
236	Unsupervised incremental STDP learning using forced firing of dormant or idle neurons <b>2016</b> ,		8
235	Modeling and Design Space Exploration for Bit-Cells Based on Voltage-Assisted Switching of Magnetic Tunnel Junctions. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 3493-3500	2.9	17
234	On the energy benefits of spiking deep neural networks: A case study <b>2016</b> ,		12
233	Spin torque nano-oscillator based Oscillatory Neural Network <b>2016</b> ,		2
232	Magnetic Tunnel Junction Based Long-Term Short-Term Stochastic Synapse for a Spiking Neural Network with On-Chip STDP Learning. <i>Scientific Reports</i> , <b>2016</b> , 6, 29545	4.9	119
231	A low-voltage, low power STDP synapse implementation using domain-wall magnets for spiking neural networks <b>2016</b> ,		4
230	Area-Efficient SOT-MRAM With a Schottky Diode. <i>IEEE Electron Device Letters</i> , <b>2016</b> , 37, 982-985	4.4	24
229	Proposal for an All-Spin Artificial Neural Network: Emulating Neural and Synaptic Functionalities Through Domain Wall Motion in Ferromagnets. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2016</b> , 10, 1152-1160	5.1	109
228	Device-Circuit Cosimulation for Energy Efficiency in Sub-10-nm Gate Length Logic and Memory. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 2879-2886	2.9	4
227	Probabilistic Deep Spiking Neural Systems Enabled by Magnetic Tunnel Junction. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 2963-2970	2.9	73
226	Spin-Torque Sensors for Energy Efficient High-Speed Long Interconnects. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 800-808	2.9	6

225	Asymmetric Underlapped Sub-10-nm n-FinFETs for High-Speed and Low-Leakage 6T SRAMs. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 1034-1040	2.9	9
224	Modeling and Evaluation of Topological Insulator/Ferromagnet Heterostructure-Based Memory. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 1359-1367	2.9	9
223	Low-Power System for Detection of Symptomatic Patterns in Audio Biological Signals. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2016</b> , 24, 2679-2688	2.6	2
222	Magnetic Pattern Recognition Using Injection-Locked Spin-Torque Nano-Oscillators. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 1674-1680	2.9	11
221	Efficient embedded learning for IoT devices <b>2016</b> ,		10
220	Embedding Read-Only Memory in Spin-Transfer Torque MRAM-Based On-Chip Caches. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2016</b> , 24, 992-1002	2.6	8
219	Spin-Transfer Torque Devices for Logic and Memory: Prospects and Perspectives. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2016</b> , 35, 1-22	2.5	114
218	Multiplier-less Artificial Neurons exploiting error resiliency for energy-efficient neural computing <b>2016</b> ,		7
217	Significance driven hybrid 8T-6T SRAM for energy-efficient synaptic storage in artificial neural networks <b>2016</b> ,		19
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