Yue Zhang

List of Publications by Year
in descending order

114 papers	2,925 citations	186265 28 h-index	182427 51 g-index
115 all docs	115 docs citations	115 times ranked	2160 citing authors

#	Article	IF	Citations
1	Memristor Crossbar Arrays Performing Quantum Algorithms. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 552-563.	5.4	9
2	Domain wall motion driven by a wide range of current in coupled soft/hard ferromagnetic nanowires. Nanoscale Advances, 2022, 4, 1545-1550.	4.6	2
3	Efficient and controllable magnetization switching induced by intermixing-enhanced bulk spin–orbit torque in ferromagnetic multilayers. Applied Physics Reviews, 2022, 9, .	11.3	13
4	High On/Off Ratio Spintronic Multi-Level Memory Unit for Deep Neural Network. Advanced Science, 2022, 9, e2103357.	11.2	7
5	Anomalous Thermal-Assisted Spin–Orbit Torque-Induced Magnetization Switching for Energy-Efficient Logic-in-Memory. ACS Nano, 2022, 16, 8264-8272.	14.6	9
6	Asymmetrical magnetic domain wall motion in symmetrical heavy metal/ferromagnet multilayers. Physical Review B, 2022, 105, .	3.2	1
7	Terahertz bremsstrahlung and frequency comb induced by variable motion of an antiferromagnetic domain wall. Journal Physics D: Applied Physics, 2022, 55, 295302.	2.8	1
8	The aperiodic facility layout problem with time-varying demands and an optimal master-slave solution approach. International Journal of Production Research, 2021, 59, 5216-5235.	7.5	2
9	Fully coupled global equations for hydro-mechanical analysis of unsaturated soils. Computational Mechanics, 2021, 67, 107-125.	4.0	4
10	Strain-induced Megahertz Oscillation and Stable Velocity of an Antiferromagnetic Domain Wall. Physical Review Applied, 2021, 15, .	3.8	7
11	3D Ferrimagnetic Device for Multi-Bit Storage and Efficient In-Memory Computing. IEEE Electron Device Letters, 2021, 42, 152-155.	3.9	8
12	Time-Domain Computing in Memory Using Spintronics for Energy-Efficient Convolutional Neural Network. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 1193-1205.	5.4	39
13	Prediction of Hypertension Outcomes Based on Gain Sequence Forward Tabu Search Feature Selection and XGBoost. Diagnostics, 2021, 11, 792.	2.6	4
14	Ultrafast and Energy-Efficient Ferrimagnetic XNOR Logic Gates for Binary Neural Networks. IEEE Electron Device Letters, 2021, 42, 621-624.	3.9	6
15	An integrated multi-objective topology optimization method for automobile wheels made of lightweight materials. Structural and Multidisciplinary Optimization, 2021, 64, 1585-1605.	3.5	19
16	Status Set Sequential Pattern Mining Considering Time Windows and Periodic Analysis of Patterns. Entropy, 2021, 23, 738.	2.2	1
17	Field-free spin-orbit torque-induced switching of perpendicular magnetization in a ferrimagnetic layer with a vertical composition gradient. Nature Communications, 2021, 12, 4555.	12.8	105
18	A Machine-Learning Method of Predicting Vital Capacity Plateau Value for Ventilatory Pump Failure Based on Data Mining. Healthcare (Switzerland), 2021, 9, 1306.	2.0	9

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19	Angle-Dependent Anisotropic Magnetoresistance Under the Competition Between Anisotropic Field and Magnetic Field. IEEE Transactions on Magnetics, 2021, 57, 1-7.	2.1	1
20	Adaptive Surrogate Model for Failure Probability Estimation. , 2021, , .		0
21	A Computing-in-memory Scheme with Series Bit-cell in STT-MRAM for Efficient Multi-bit Analog Multiplication. , 2021, , .		3
22	A Fast Approximate Method for the Large-scale One-source P-median Problem. , 2021, , .		0
23	Guest Editorial: SPIN Special Section on Spintronics for In-Memory Processing. Spin, 2020, 10, 2002001.	1.3	0
24	Efficient Time-Domain In-Memory Computing Based on TST-MRAM. , 2020, , .		4
25	A Self-Matching Complementary-Reference Sensing Scheme for High-Speed and Reliable Toggle Spin Torque MRAM. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 4247-4258.	5.4	23
26	Perpendicular magnetization switching by large spin–orbit torques from sputtered Bi_2Te_3*. Chinese Physics B, 2020, 29, 078505.	1.4	23
27	Rectified Tunnel Magnetoresistance Device With High On/Off Ratio for In-Memory Computing. IEEE Electron Device Letters, 2020, 41, 928-931.	3.9	18
28	A Diode-Enhanced Scheme for Giant Magnetoresistance Amplification and Reconfigurable Logic. IEEE Access, 2020, 8, 87584-87591.	4.2	3
29	A Novel In-memory Computing Scheme Based on Toggle Spin Torque MRAM. , 2020, , .		3
30	Dynamic Gaming Case of the R-Interdiction Median Problem with Fortification and an MILP-Based Solution Approach. Sustainability, 2020, 12, 581.	3.2	1
31	An In-memory Highly Reconfigurable Logic Circuit Based on Diode-assisted Enhanced Magnetoresistance Device. , 2020, , .		0
32	Voltage-induced high-speed DW motion in a synthetic antiferromagnet. Journal Physics D: Applied Physics, 2019, 52, 495001.	2.8	5
33	Enhanced Spin-Orbit Torque and Multilevel Current-Induced Switching in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mrow><mml:mi mathvariant="normal">W</mml:mi></mml:mrow></mml:mrow><mml:mo>/</mml:mo><mml:mi>Co</mml:mi><mml:mtext>â̂</mml:mtext> Heterostructure. Physical Review Applied, 2019, 12, .	3.8	39
34	Skyrmion-Based Ultra-Low Power Electric-Field-Controlled Reconfigurable (SUPER) Logic Gate. IEEE Electron Device Letters, 2019, 40, 1984-1987.	3.9	45
35	Large Magnetoresistance and 15 Boolean Logic Functions Based on a ZnCoO Film and Diode Combined Device. Advanced Electronic Materials, 2019, 5, 1800812.	5.1	16
36	Efficient Magnetic Domain Nucleation and Domain Wall Motion With Voltage Control Magnetic Anisotropy Effect and Antiferromagnetic/Ferromagnetic Coupling. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	5

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37	Compact Modeling of Perpendicular-Magnetic-Anisotropy Double-Barrier Magnetic Tunnel Junction With Enhanced Thermal Stability Recording Structure. IEEE Transactions on Electron Devices, 2019, 66, 2431-2436.	3.0	51
38	Spintronic Solutions for Stochastic Computing. , 2019, , 165-183.		2
39	Voltage-Controlled Skyrmion Memristor for Energy-Efficient Synapse Applications. IEEE Electron Device Letters, 2019, 40, 635-638.	3.9	31
40	Ring-shaped content addressable memory based on spin orbit torque driven chiral domain wall motions. , 2019, , .		0
41	High speed and reliable Sensing Scheme with Three Voltages for STT-MRAM. , 2019, , .		1
42	Ultra-Dense Ring-Shaped Racetrack Memory Cache Design. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 215-225.	5.4	31
43	Negative Capacitance Enhanced All Spin Logic Devices With an Ultra-Low 1 mV Working Voltage. IEEE Journal of the Electron Devices Society, 2018, 6, 245-249.	2.1	9
44	Direct Observation of Domain-Wall Surface Tension by Deflating or Inflating a Magnetic Bubble. Physical Review Applied, 2018, 9, .	3.8	27
45	Skyrmions in Magnetic Tunnel Junctions. ACS Applied Materials & Interfaces, 2018, 10, 16887-16892.	8.0	68
46	Domain-wall motion at an ultrahigh speed driven by spin–orbit torque in synthetic antiferromagnets. Nanotechnology, 2018, 29, 175404.	2.6	11
47	Reconfigurable Skyrmion Logic Gates. Nano Letters, 2018, 18, 1180-1184.	9.1	201
48	A Clustering-Based Adaptive Multiple Access Protocol for Vehicular Ad Hoc Networks. , 2018, , .		1
49	A Clustering-Based Collision-Free Multichannel MAC Protocol for Vehicular Ad Hoc Networks. , 2018, , .		6
50	Emerging Spintronic Devices: From Ultra-High-Density Memory to Logic-In-Memory. , 2018, , .		0
51	The Impact of Tropospheric Anomalies on Sea-Based JPALS Integrity. Sensors, 2018, 18, 2579.	3.8	3
52	Variation-Resilient True Random Number Generators Based on Multiple STT-MTJs. IEEE Nanotechnology Magazine, 2018, 17, 1270-1281.	2.0	24
53	Design Space Exploration of Magnetic Tunnel Junction based Stochastic Computing in Deep Learning. , 2018, , .		1
54	Magnetoelectric laminate composites: an overview of methods for improving the DC and low-frequency response. Journal Physics D: Applied Physics, 2018, 51, 324005.	2.8	26

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55	Energy consumption analysis of graphene based all spin logic device with voltage controlled magnetic anisotropy. AIP Advances, 2017, 7, 055925.	1.3	4
56	Phase transition in lattice networks with heavy-tailed user behaviors. Physica A: Statistical Mechanics and Its Applications, 2017, 484, 367-377.	2.6	1
57	Interfacial Perpendicular Magnetic Anisotropy in Sub-20 nm Tunnel Junctions for Large-Capacity Spin-Transfer Torque Magnetic Random-Access Memory. IEEE Magnetics Letters, 2017, 8, 1-5.	1.1	25
58	Spin-orbit-torque-induced magnetic domain wall motion in Ta/CoFe nanowires with sloped perpendicular magnetic anisotropy. Scientific Reports, 2017, 7, 2047.	3.3	23
59	Phase transition and electronic properties of SbI_3: First-principles calculations. Modern Physics Letters B, 2017, 31, 1750200.	1.9	4
60	A true random number generator based on parallel STT-MTJs. , 2017, , .		31
61	Reliability-Enhanced Separated Pre-Charge Sensing Amplifier for Hybrid CMOS/MTJ Logic Circuits. IEEE Transactions on Magnetics, 2017, 53, 1-5.	2.1	19
62	Skyrmion-based high-frequency signal generator. Applied Physics Letters, 2017, 110, .	3.3	22
63	Gate-Driven Pure Spin Current in Graphene. Physical Review Applied, 2017, 8, .	3.8	39
64	Partial spin absorption induced magnetization switching and its voltage-assisted improvement in an asymmetrical all spin logic device at the mesoscopic scale. Applied Physics Letters, 2017, 111, .	3.3	14
65	Silicene spintronics: Fe(111)/silicene system for efficient spin injection. Applied Physics Letters, 2017, 111, .	3.3	9
66	Extracting error-related potentials from motion imagination EEG in noninvasive brain-computer interface. , 2017, , .		2
67	Compact modeling of high spin transfer torque efficiency double-barrier magnetic tunnel junction. , 2017, , .		4
68	Low power all spin logic device with voltage controlled magnetic anisotropy. , 2016, , .		3
69	Perspectives of Racetrack Memory for Large-Capacity On-Chip Memory: From Device to System. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 629-638.	5.4	18
70	Ring-shaped Racetrack memory based on spin orbit torque driven chiral domain wall motions. Scientific Reports, 2016, 6, 35062.	3.3	17
71	A novel application classification and its impact on network performance. Modern Physics Letters B, 2016, 30, 1650278.	1.9	7
72	Automatic cluster number selection by finding density peaks. , 2016, , .		2

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73	All Spin Artificial Neural Networks Based on Compound Spintronic Synapse and Neuron. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 828-836.	4.0	84
74	Low current writing perpendicular magnetic random access memory with high thermal stability. Materials and Design, 2016, 92, 1046-1051.	7.0	11
75	Compact Model of Dielectric Breakdown in Spin-Transfer Torque Magnetic Tunnel Junction. IEEE Transactions on Electron Devices, 2016, 63, 1762-1767.	3.0	132
76	Current-limiting challenges for all-spin logic devices. Scientific Reports, 2015, 5, 14905.	3.3	39
77	Magnetic non‐volatile flip‐flop with spin‐Hall assistance. Physica Status Solidi - Rapid Research Letters, 2015, 9, 375-378.	2.4	33
78	Tunnel Junction with Perpendicular Magnetic Anisotropy: Status and Challenges. Micromachines, 2015, 6, 1023-1045.	2.9	41
79	Peristaltic perpendicular-magnetic-anisotropy racetrack memory based on chiral domain wall motions. Journal Physics D: Applied Physics, 2015, 48, 105001.	2.8	10
80	Synchronous 8-bit Non-Volatile Full-Adder based on Spin Transfer Torque Magnetic Tunnel Junction. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1757-1765.	5.4	50
81	Current-Induced Magnetic Switching for High-Performance Computing. , 2015, , 1-51.		3
82	A Multilevel Cell for STT-MRAM Realized by Capping Layer Adjustment. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	14
83	Proposal for a graphene-based all-spin logic gate. Applied Physics Letters, 2015, 106, .	3.3	30
84	Compact Model of Subvolume MTJ and Its Design Application at Nanoscale Technology Nodes. IEEE Transactions on Electron Devices, 2015, 62, 2048-2055.	3.0	78
85	Perspectives of racetrack memory based on current-induced domain wall motion: From device to system. , 2015, , .		6
86	Spintronics. ACM Journal on Emerging Technologies in Computing Systems, 2015, 12, 1-42.	2.3	83
87	Design Optimization and Analysis of Multicontext STT-MTJ/CMOS Logic Circuits. IEEE Nanotechnology Magazine, 2015, 14, 169-177.	2.0	29
88	Effect on Electron Structure and Magneto-Optic Property of Heavy W-Doped Anatase TiO2. PLoS ONE, 2015, 10, e0122620.	2.5	7
89	Spintronics for low-power computing. , 2014, , .		16
90	Nonvolatile Boolean Logic Block Based on Ferroelectric Tunnel Memristor. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	20

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91	Synchronous Non-Volatile Logic Gate Design Based on Resistive Switching Memories. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 443-454.	5.4	90
92	Compact modelling of ferroelectric tunnel memristor and its use for neuromorphic simulation. Applied Physics Letters, 2014, 104, 053505.	3.3	32
93	Ultra Low Power Magnetic Flip-Flop Based on Checkpointing/Power Gating and Self-Enable Mechanisms. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 1755-1765.	5.4	79
94	A physics-based compact model of ferroelectric tunnel junction for memory and logic design. Journal Physics D: Applied Physics, 2014, 47, 045001.	2.8	24
95	An overview of spin-based integrated circuits. , 2014, , .		17
96	Spintronics for low-power computing. , 2014, , .		5
97	Electrical Modeling of Stochastic Spin Transfer Torque Writing in Magnetic Tunnel Junctions for Memory and Logic Applications. IEEE Transactions on Magnetics, 2013, 49, 4375-4378.	2.1	74
98	A low-cost built-in error correction circuit design for STT-MRAM reliability improvement. Microelectronics Reliability, 2013, 53, 1224-1229.	1.7	43
99	Low Power Magnetic Full-Adder Based on Spin Transfer Torque MRAM. IEEE Transactions on Magnetics, 2013, 49, 4982-4987.	2.1	126
100	Multi-level cell Spin Transfer Torque MRAM based on stochastic switching. , 2013, , .		16
101	Spin-electronics based logic fabrics. , 2013, , .		6
102	Racetrack memory based reconfigurable computing. , 2013, , .		11
103	Magnetic Adder Based on Racetrack Memory. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 1469-1477.	5.4	74
104	Low power magnetic flip-flop based on checkpointing and self-enable mechanism. , 2013, , .		3
105	Compact modelling for Co/BTO/LSMO Ferroelectric Tunnel Junction. , 2013, , .		0
106	THE EFFECT OF HIGH N-DOPED ANATASE TiO_2 ON THE BAND GAP NARROWING AND REDSHIFT BY FIRST-PRINCIPLES. Modern Physics Letters B, 2012, 26, 1250179.	1.9	5
107	Ultra-High Density Content Addressable Memory Based on Current Induced Domain Wall Motion in Magnetic Track. IEEE Transactions on Magnetics, 2012, 48, 3219-3222.	2.1	41
108	Self-Enabled â€œError-Freeâ€•Switching Circuit for Spin Transfer Torque MRAM and Logic. IEEE Transactions on Magnetics, 2012, 48, 2403-2406.	2.1	71

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109	Compact Modeling of Perpendicular-Anisotropy CoFeB/MgO Magnetic Tunnel Junctions. IEEE Transactions on Electron Devices, 2012, 59, 819-826.	3.0	330
110	High Performance SoC Design Using Magnetic Logic and Memory. International Federation for Information Processing, 2012, , 10-33.	0.4	12
111	PHASE TRANSFORMATION IN SiO2-Si3N4 SYSTEM WITH Li2CO3 ADDITIVE. International Journal of Modern Physics B, 2010, 24, 2875-2879.	2.0	0
112	THE MICROSTRUCTURE, CHEMICAL CHARACTERISTIC AND CRYSTALLIZATION BEHAVIOR OF THE POLYMER DERIVED Si-B-C-N AMORPHOUS CERAMIC. International Journal of Modern Physics B, 2010, 24, 3263-3268.	2.0	1
113	PREPARATION OF 1-3 CONNECTIVITY COMPOSITE FILMS OF WELL-ALIGNED ZnO WHISKER ARRAYS WITH AN ORGANIC RESIN. International Journal of Modern Physics B, 2006, 20, 3658-3662.	2.0	0
114	Effects of interfacial Dzyaloshinskiiâ€"Moriya interaction on magnetic dynamics. Journal Physics D: Applied Physics, 0, , .	2.8	3