

Wanjun Jiang

List of Publications by Year in descending order

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Compensated Ferrimagnet Based Artificial Synapse and Neuron for Ultrafast Neuromorphic Computing. <i>Advanced Functional Materials</i> , 2022, 32, 2107870.	7.8	29
2	The 20-nm Skyrmion Generated at Room Temperature by Spin-Orbit Torques. <i>Chinese Physics Letters</i> , 2022, 39, 017501.	1.3	12
3	Spin-Torque Switching in Rare-Earth-Free Compensated Ferrimagnet Mn_4N Films. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	8
4	Quantifying the Dzyaloshinskii-Moriya Interaction Induced by the Bulk Magnetic Asymmetry. <i>Physical Review Letters</i> , 2022, 128, 167202.	2.9	25
5	Electrically Reconfigurable 3D Spin-Orbitronics. <i>Advanced Functional Materials</i> , 2021, 31, 2007485.	7.8	16
6	Nonvolatile Magnetic Memory Combined With AND/NAND Boolean Logic Gates Based on Geometry-Controlled Magnetization Switching. <i>IEEE Magnetics Letters</i> , 2021, 12, 1-5.	0.6	0
7	Electric-field control of skyrmions in multiferroic heterostructure via magnetoelectric coupling. <i>Nature Communications</i> , 2021, 12, 322.	5.8	83
8	Absence of spin Hall magnetoresistance in Pt multilayers. <i>Physical Review B</i> , 2021, 103, .	1.1	0
9	N \odot -Type Elliptical Skyrmions in a Laterally Asymmetric Magnetic Multilayer. <i>Advanced Materials</i> , 2021, 33, e2006924.	11.1	32
10	Utilizing spin currents from the dual surfaces of a heavy metal Pt layer for simultaneous spin-torque switching in FeTb/Pt/FeTb trilayers. <i>Applied Physics Letters</i> , 2021, 118, 212406.	1.5	4
11	Atomic-scale insights into quantum-order parameters in bismuth-doped iron garnet. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	5
12	Rare-Earth Permanent Magnet $SmCo_5$ for Chiral Interfacial Spin-Orbitronics. <i>Advanced Functional Materials</i> , 2021, 31, 2104426.	7.8	12
13	Efficient Spintronics with Fully Compensated Ferrimagnets. <i>Journal of the Physical Society of Japan</i> , 2021, 90, 081006.	0.7	21
14	Imaging the spin chirality of ferrimagnetic N \odot el skyrmions stabilized on topological antiferromagnetic Mn_3 Physical Review Materials, 2021, 5, .	0.9	16
15	Optimized growth of compensated ferrimagnetic insulator $Gd_3Fe_5O_{12}$ with a perpendicular magnetic anisotropy*. <i>Chinese Physics B</i> , 2021, 30, 097503.	0.7	7
16	Fully Compensated Synthetic Antiferromagnets with Pronounced Anomalous Hall and Magneto-Optical Responses. <i>Physical Review Applied</i> , 2021, 16, .	1.5	11
17	Two-terminal current-in-plane giant magnetoresistance devices driven by the spin-orbit torque. <i>Applied Physics Letters</i> , 2021, 119, 192403.	1.5	0
18	Rapid Kerr imaging characterization of the magnetic properties of two-dimensional ferromagnetic Fe_3GeTe_2 . <i>Applied Physics Letters</i> , 2020, 117, .	1.5	14

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19	Thermal generation, manipulation and thermoelectric detection of skyrmions. Nature Electronics, 2020, 3, 672-679.	13.1	86
20	Imaging Magnetization Switching Induced by Spin-Orbit Torque in Perpendicularly Magnetized Ta/CoFeB Structure. IEEE Transactions on Magnetics, 2020, 56, 1-6.	1.2	0
21	High Spin Hall Conductivity in Large-Area Type-II Dirac Semimetal PtTe ₂ . Advanced Materials, 2020, 32, e2000513.	11.1	117
22	Topology-Dependent Brownian Gyromotion of a Single Skyrmion. Physical Review Letters, 2020, 125, 027206.	2.9	50
23	A Spin-Orbit Torque Memristive Device. Advanced Electronic Materials, 2019, 5, 1800782.	2.6	51
24	Quantifying chiral exchange interaction for Néel-type skyrmions via Lorentz transmission electron microscopy. Physical Review B, 2019, 99, .	1.1	21
25	Memristors: A Spin-Orbit Torque Memristive Device (Adv. Electron. Mater. 4/2019). Advanced Electronic Materials, 2019, 5, 1970022.	2.6	4
26	Generation and Hall effect of skyrmions enabled using nonmagnetic point contacts. Physical Review B, 2019, 100, .	1.1	14
27	Electric Field-Induced Creation and Directional Motion of Domain Walls and Skyrmion Bubbles. Nano Letters, 2019, 19, 353-361.	4.5	97
28	Observation of unconventional anomalous Hall effect in epitaxial CrTe thin films. Nano Research, 2018, 11, 3116-3121.	5.8	63
29	Room-Temperature Skyrmions in an Antiferromagnet-Based Heterostructure. Nano Letters, 2018, 18, 980-986.	4.5	98
30	Size analysis of sub-resolution objects by Kerr microscopy. Applied Physics Letters, 2018, 112, .	1.5	14
31	Imaging Magnetic Domains in Functional Nanoscale Heterostructures using Lorentz microscopy. Microscopy and Microanalysis, 2018, 24, 910-911.	0.2	0
32	Insulating Nanomagnets Driven by Spin Torque. Nano Letters, 2017, 17, 8-14.	4.5	29
33	Room-Temperature Skyrmion Shift Device for Memory Application. Nano Letters, 2017, 17, 261-268.	4.5	227
34	Skyrmions in magnetic multilayers. Physics Reports, 2017, 704, 1-49.	10.3	412
35	Unidirectional spin-torque driven magnetization dynamics. Physical Review B, 2017, 95, .	1.1	24
36	Direct observation of the skyrmion Hall effect. Nature Physics, 2017, 13, 162-169.	6.5	858

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37	Domain behavior in functional materials studied using Lorentz microscopy. <i>Microscopy and Microanalysis</i> , 2016, 22, 1680-1681.	0.2	0
38	Mobile Néel skyrmions at room temperature: status and future. <i>AIP Advances</i> , 2016, 6, .	0.6	38
39	Effect of heavy metal layer thickness on spin-orbit torque and current-induced switching in Hf CoFeB MgO structures. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	33
40	Perspective: Interface generation of spin-orbit torques. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	42
41	Research Update: Spin transfer torques in permalloy on monolayer MoS ₂ . <i>APL Materials</i> , 2016, 4, .	2.2	75
42	Spin Hall effects in metallic antiferromagnets – perspectives for future spin-orbitronics. <i>AIP Advances</i> , 2016, 6, .	0.6	21
43	Versatile Fabrication of Self-Aligned Nanoscale Hall Devices Using Nanowire Masks. <i>Nano Letters</i> , 2016, 16, 3109-3115.	4.5	4
44	Dynamic response of an artificial square spin ice. <i>Physical Review B</i> , 2016, 93, .	1.1	71
45	Generation of magnetic skyrmion bubbles by inhomogeneous spin Hall currents. <i>Physical Review B</i> , 2016, 93, .	1.1	45
46	Interface-driven spin-torque ferromagnetic resonance by Rashba coupling at the interface between nonmagnetic materials. <i>Physical Review B</i> , 2016, 93, .	1.1	65
47	Large Spin-Wave Bullet in a Ferrimagnetic Insulator Driven by the Spin Hall Effect. <i>Physical Review Letters</i> , 2016, 116, 057601.	2.9	66
48	All-electrical detection of spin dynamics in magnetic antidot lattices by the inverse spin Hall effect. <i>Applied Physics Letters</i> , 2016, 108, 052403.	1.5	9
49	All-electrical manipulation of magnetization dynamics in a ferromagnet by antiferromagnets with anisotropic spin Hall effects. <i>Physical Review B</i> , 2015, 92, .	1.1	95
50	Electric manipulation of skyrmions in metals and insulators. , 2015, , .		0
51	Spin pumping and inverse spin Hall effects – Insights for future spin-orbitronics (invited). <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	47
52	Blowing magnetic skyrmion bubbles. <i>Science</i> , 2015, 349, 283-286.	6.0	1,177
53	Reduced spin-Hall effects from magnetic proximity. <i>Physical Review B</i> , 2015, 91, .	1.1	74
54	Driving and detecting ferromagnetic resonance in insulators with the spin Hall effect. <i>Physical Review B</i> , 2015, 92, .	1.1	48

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55	Spin pumping and inverse Rashba-Edelstein effect in NiFe/Ag/Bi and NiFe/Ag/Sb. Journal of Applied Physics, 2015, 117, .	1.1	96
56	Spin waves in micro-structured yttrium iron garnet nanometer-thick films. Journal of Applied Physics, 2015, 117, .	1.1	50
57	New Pathways Towards Efficient Metallic Spin Hall Spintronics. Spin, 2015, 05, 1530005.	0.6	13
58	Switching of perpendicular magnetization by spin-orbit torques in the absence of external magnetic fields. Nature Nanotechnology, 2014, 9, 548-554.	15.6	753
59	Spin Hall Effects in Metallic Antiferromagnets. Physical Review Letters, 2014, 113, 196602.	2.9	313
60	Electrical Detection of Spin-Polarized Surface States Conduction in $(\text{Bi}_{0.53}\text{Sb}_{0.47})_2\text{Te}_3$ Topological Insulator. Nano Letters, 2014, 14, 5423-5429.	4.5	150
61	Electric-Field Control of Ferromagnetism in Mn-Doped ZnO Nanowires. Nano Letters, 2014, 14, 1823-1829.	4.5	76
62	Magnetization switching through spin-Hall-effect-induced chiral domain wall propagation. Physical Review B, 2014, 89, .	1.1	121
63	Proximity Induced High-Temperature Magnetic Order in Topological Insulator - Ferrimagnetic Insulator Heterostructure. Nano Letters, 2014, 14, 3459-3465.	4.5	192
64	Magnetization switching through giant spin-orbit torque in a magnetically doped topological insulator heterostructure. Nature Materials, 2014, 13, 699-704.	13.3	773
65	Manipulating Surface-Related Ferromagnetism in Modulation-Doped Topological Insulators. Nano Letters, 2013, 13, 4587-4593.	4.5	77
66	Interplay between Different Magnetisms in Cr-Doped Topological Insulators. ACS Nano, 2013, 7, 9205-9212.	7.3	114
67	Direct Imaging of Thermally Driven Domain Wall Motion in Magnetic Insulators. Physical Review Letters, 2013, 110, 177202.	2.9	124
68	Mapping the domain wall pinning profile by stochastic imaging reconstruction. Physical Review B, 2013, 87, .	1.1	7
69	Fluctuations in nanoscale magnetoelectronics devices. Journal of Applied Physics, 2012, 112, 094302.	1.1	2
70	Electrical Probing of Magnetic Phase Transition and Domain Wall Motion in Single-Crystalline Mn_5Ge_3 Nanowire. Nano Letters, 2012, 12, 6372-6379.	4.5	12
71	Revelation of Topological Surface States in Bi_2Se_3 Thin Films by <i>In Situ</i> Al Passivation. ACS Nano, 2012, 6, 295-302.	7.3	102
72	Surface-Dominated Conduction in a 6 nm thick Bi_2Se_3 Thin Film. Nano Letters, 2012, 12, 1486-1490.	4.5	162

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73	Coexistence of colossal magnetoresistance, a Griffiths-like phase, and a ferromagnetic insulating ground state in single crystal $\text{La}_{0.73}\text{Ba}_{0.27}\text{MnO}_3$. <i>Journal of Applied Physics</i> , 2010, 107, .	1.1	17
74	Correlation between the nucleation of a Griffiths-like Phase and Colossal Magnetoresistance across the compositional metal-insulator boundary in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$. <i>Journal of Physics: Conference Series</i> , 2010, 200, 012072.	0.3	1
75	Scaling the anomalous Hall effect: A connection between transport and magnetism. <i>Physical Review B</i> , 2010, 82, .	1.1	28
76	Critical behavior from the anomalous Hall effect in $(\text{GaMn})\text{As}$. <i>Physical Review B</i> , 2009, 80, .	1.1	5
77	Field-dependent ac susceptibility of $\text{Ce}_{2-x}\text{Fe}_{17-x}$. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 026018.	0.7	0
78	The evolution of Griffiths-phase-like features and colossal magnetoresistance in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ (0.18 $\leq x \leq$ 0.27) across the compositional metal-insulator boundary. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 415603.	0.7	23
79	Mechanisms underlying ferromagnetism across the metal-insulator transition in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$. <i>Physical Review B</i> , 2009, 79, .	1.1	20
80	Entropy changes accompanying the magnetic phase transitions in low Si-doped $\text{Ce}_2\text{Fe}_{17-x}\text{Si}_x$ Alloy. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, 930-935.	1.0	10
81	Anomalous field dependence of the inverse magnetocaloric effect in $\text{Ce}(\text{Fe}_{0.93}\text{Ru}_{0.07})_2$. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, 2144-2148.	1.0	4
82	Critical behavior and transport properties of single crystal $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$		