Jiadong Zang

List of Publications by Year
in descending order

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57 papers	4,750 citations	172457 29 h-index	133252 59 g-index
60 all docs	60 docs citations	60 times ranked	4443 citing authors

#	Article	IF	Citations
1	Geometrically stabilized skyrmionic vortex in FeGe tetrahedral nanoparticles. Nature Materials, 2022, 21, 305-310.	27.5	11
2	Electrical manipulation of skyrmions in a chiral magnet. Nature Communications, 2022, 13, 1593.	12.8	51
3	Giant nonlinear anomalous Hall effect induced by spin-dependent band structure evolution. Physical Review Research, 2022, 4, .	3.6	14
4	Chiral-Bubble-Induced Topological Hall Effect in Ferromagnetic Topological Insulator Heterostructures. Nano Letters, 2021, 21, 1108-1114.	9.1	15
5	Possible Topological Hall Effect above Room Temperature in Layered Cr_{1.2}Te₂ Ferromagnet. Nano Letters, 2021, 21, 4280-4286.	9.1	35
6	Topological Hall effect in magnetic topological insulator films. Journal of Magnetism and Magnetic Materials, 2021, 528, 167700.	2.3	2
7	Manipulation of Magnetic Skyrmion in a 2D van der Waals Heterostructure via Both Electric and Magnetic Fields. Advanced Functional Materials, 2021, 31, 2104452.	14.9	40
8	Magnetic skyrmion bundles and their current-driven dynamics. Nature Nanotechnology, 2021, 16, 1086-1091.	31.5	110
9	Quantum-Well Bound States in Graphene Heterostructure Interfaces. Physical Review Letters, 2021, 127, 086805.	7.8	5
10	Electronic scattering off a magnetic hopfion. Physical Review B, 2021, 104, .	3.2	7
11	Current-induced dynamics and tunable spectra of a magnetic chiral bobber. Physical Review B, 2021, 104, .	3.2	3
12	Discrete quantum geometry and intrinsic spin Hall effect. Physical Review B, 2021, 104, .	3.2	1
13	NÃ©el-type skyrmion in WTe2/Fe3GeTe2 van der Waals heterostructure. Nature Communications, 2020, 11, 3860.	12.8	208
14	Kondo physics in antiferromagnetic Weyl semimetal Mn _{3+ x} Sn _{1â^' x} films. Science Advances, 2020, 6, eabc1977.	10.3	23
15	Three-Dimensional Dynamics of a Magnetic Hopfion Driven by Spin Transfer Torque. Physical Review Letters, 2020, 124, 127204.	7.8	56
16	Reversible manipulation of the magnetic state in SrRuO3 through electric-field controlled proton evolution. Nature Communications, 2020, 11, 184.	12.8	86
17	The 2020 skyrmionics roadmap. Journal Physics D: Applied Physics, 2020, 53, 363001.	2.8	245
18	Concurrence of quantum anomalous Hall and topological Hall effects in magnetic topological insulator sandwich heterostructures. Nature Materials, 2020, 19, 732-737.	27.5	72

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19	Magnetic resonance induced pseudoelectric field and giant current response in axion insulators. Physical Review B, 2019, 100, .	3.2	21
20	Collective modes of three-dimensional magnetic structures: A study of target skyrmions. Journal of Magnetism and Magnetic Materials, 2019, 489, 165447.	2.3	11
21	Quantifying chiral exchange interaction for NÃ©el-type skyrmions via Lorentz transmission electron microscopy. Physical Review B, 2019, 99, .	3.2	21
22	Thermally driven topology in frustrated systems. Physical Review B, 2019, 99, .	3.2	2
23	Planar Hall Effect in Antiferromagnetic MnTe Thin Films. Physical Review Letters, 2019, 122, 106602.	7.8	29
24	Giant perpendicular magnetic anisotropy in Fe/III-V nitride thin films. Science Advances, 2018, 4, eaar7814.	10.3	19
25	Shape dependent resonant modes of skyrmions in magnetic nanodisks. Journal of Magnetism and Magnetic Materials, 2018, 455, 9-13.	2.3	19
26	Binding a hopfion in a chiral magnet nanodisk. Physical Review B, 2018, 98, .	3.2	83
27	Thermally driven topology in chiral magnets. Physical Review B, 2017, 96, .	3.2	22
28	Skyrmions in magnetic multilayers. Physics Reports, 2017, 704, 1-49.	25.6	412
29	Field-driven oscillation and rotation of a multiskyrmion cluster in a nanodisk. Physical Review B, 2017, 95, .	3.2	16
30	Direct Imaging of a Zero-Field Target Skyrmion and Its Polarity Switch in a Chiral Magnetic Nanodisk. Physical Review Letters, 2017, 119, 197205.	7.8	156
31	Surface buckling of black phosphorus: Determination, origin, and influence on electronic structure. Physical Review Materials, 2017, 1, .	2.4	13
32	Unusual magnetoresistance in cubic B20 Fe_{0.85}Co_{0.15}Si chiral magnets. New Journal of Physics, 2016, 18, 065010.	2.9	15
33	Direct imaging of magnetic field-driven transitions of skyrmion cluster states in FeGe nanodisks. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4918-4923.	7.1	125
34	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">R</mml:mi><mml:msub><mml:mi mathvariant="normal">h</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">N</mml:mi></mml:mrow></mml:math>: Noncentrosymmetric<mml:math xmlns:	3.2	26
35	Spin-Josephson effects in exchange coupled antiferromagnetic insulators. Physical Review B, 2016, 94, .	3.2	9
36	Emergence of skyrmions from rich parent phases in the molybdenum nitrides. Physical Review B, 2016, 93, .	3.2	43

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37	Topological charge analysis of ultrafast single skyrmion creation. Physical Review B, 2016, 93, .	3.2	62
38	Transport theory of metallicB20helimagnets. Physical Review B, 2015, 91, .	3.2	20
39	U(1) symmetry of the spin-orbit coupled Hubbard model on the kagome lattice. Physical Review B, 2015, 92, .	3.2	9
40	Topological spin Hall effect resulting from magnetic skyrmions. Physical Review B, 2015, 92, .	3.2	53
41	Charged skyrmions on the surface of a topological insulator. Physical Review B, 2015, 91, .	3.2	34
42	Electrical probing of field-driven cascading quantized transitions of skyrmion cluster states in MnSi nanowires. Nature Communications, 2015, 6, 7637.	12.8	83
43	Edge-mediated skyrmion chain and its collective dynamics in a confined geometry. Nature Communications, 2015, 6, 8504.	12.8	199
44	Skyrmion creation and annihilation by spin waves. Applied Physics Letters, 2015, 107, .	3.3	39
45	Weyl fermions induced magnon electrodynamics in a Weyl semimetal. Physical Review B, 2014, 90, .	3.2	16
46	Electric-Field-Induced Skyrmion Distortion and Giant Lattice Rotation in the Magnetoelectric Insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Cu</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mr Physical Review Letters, 2014, 113, 107203.	7.8	169
47	Dynamics of an Insulating Skyrmion under a Temperature Gradient. Physical Review Letters, 2013, 111, 067203.	7.8	236
48	Size effects on transport properties in topological Anderson insulators. Physical Review B, 2011, 84, .	3.2	20
49	Dynamics of Skyrmion Crystals in Metallic Thin Films. Physical Review Letters, 2011, 107, 136804.	7.8	422
50	Slowly rotating neutron stars and hadronic stars in the chiral SU(3) quark mean-field model. European Physical Journal A, 2010, 43, 295-301.	2.5	2
51	Theoretical study of the dynamics of magnetization on the topological surface. Physical Review B, 2010, 81, .	3.2	147
52	Topological quantum phase transition in an<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi><mml:mo>=</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:math>spin chain. Physical Review B, 2010, 81, .	3.2	19
53	Current modulator based on topological insulator with sliding magnetic superlattice. Physical Review B, 2010, 81, .	3.2	1
54	Skyrmion lattice in a two-dimensional chiral magnet. Physical Review B, 2010, 82, .	3.2	162

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55	Monopole current and unconventional Hall response on a topological insulator. Physical Review B, 2010, 81, .	3.2	32
56	Inducing a Magnetic Monopole with Topological Surface States. Science, 2009, 323, 1184-1187.	12.6	824
57	Interacting dark energy and dark matter: Observational constraints from cosmological parameters. Nuclear Physics B, 2007, 778, 69-84.	2.5	173