

Di Xiao

List of Publications by Year in descending order

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27,157
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30551

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99
docs citations

99
times ranked

24704
citing authors

#	ARTICLE	IF	CITATIONS
1	Reversible strain-induced magnetic phase transition in a van der Waals magnet. Nature Nanotechnology, 2022, 17, 256-261.	15.6	93
2	Electric control of a canted-antiferromagnetic Chern insulator. Nature Communications, 2022, 13, 1668.	5.8	37
3	Light-induced ferromagnetism in moiré superlattices. Nature, 2022, 604, 468-473.	13.7	61
4	Direct observation of two-dimensional magnons in atomically thin CrI ₃ . Nature Physics, 2021, 17, 20-25.	6.5	106
5	Interface-induced sign reversal of the anomalous Hall effect in magnetic topological insulator heterostructures. Nature Communications, 2021, 12, 79.	5.8	31
6	Chiral-Bubble-Induced Topological Hall Effect in Ferromagnetic Topological Insulator Heterostructures. Nano Letters, 2021, 21, 1108-1114.	4.5	15
7	Correlated insulating states at fractional fillings of the WS ₂ /WSe ₂ moiré lattice. Nature Physics, 2021, 17, 715-719.	6.5	157
8	Intertwined Topological and Magnetic Orders in Atomically Thin Chern Insulator MnBi ₂ Te ₄ . Nano Letters, 2021, 21, 2544-2550.	4.5	92
9	Highly anisotropic excitons and multiple phonon bound states in a van der Waals antiferromagnetic insulator. Nature Nanotechnology, 2021, 16, 655-660.	15.6	72
10	Quantum oscillations in the field-induced ferromagnetic state of MnBi_2Te_4 . Physical Review B, 2021, 103, .		
11	Strong interaction between interlayer excitons and correlated electrons in WSe ₂ /WS ₂ moiré superlattice. Nature Communications, 2021, 12, 3608.	5.8	63
12	Mapping the phase diagram of the quantum anomalous Hall and topological Hall effects in a dual-gated magnetic topological insulator heterostructure. Physical Review Research, 2021, 3, .	1.3	4
13	Observation of Giant Optical Linear Dichroism in a Zigzag Antiferromagnet FePS ₃ . Nano Letters, 2021, 21, 6938-6945.	4.5	37
14	Direct measurement of ferroelectric polarization in a tunable semimetal. Nature Communications, 2021, 12, 5298.	5.8	42
15	Electric polarization in inhomogeneous crystals. Physical Review B, 2021, 104, .	1.1	6
16	Magnetism and Its Structural Coupling Effects in 2D Ising Ferromagnetic Insulator V ₂ O ₃ . Nano Letters, 2021, 21, 9180-9186.	4.5	28
17	Spin photovoltaic effect in magnetic van der Waals heterostructures. Science Advances, 2021, 7, eabg8094.	4.7	15
18	Nonlinear nanoelectrodynamics of a Weyl metal. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	15

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19	Direct visualization of magnetic domains and moiré magnetism in twisted 2D magnets. <i>Science</i> , 2021, 374, 1140-1144.	6.0	144
20	Intrinsic Nonlinear Hall Effect in Antiferromagnetic Tetragonal CuMnAs. <i>Physical Review Letters</i> , 2021, 127, 277201.	2.9	59
21	Spin waves and Dirac magnons in a honeycomb-lattice zigzag antiferromagnet BaNi_2As_2 . <i>Physical Review B</i> , 2021, 104, .		
22	Anomalous Thermal Hall Effect in an Insulating van der Waals Magnet. <i>Physical Review Letters</i> , 2021, 127, 247202.	2.9	31
23	Absence of evidence for chiral Majorana modes in quantum anomalous Hall-superconductor devices. <i>Science</i> , 2020, 367, 64-67.	6.0	93
24	Tuning inelastic light scattering via symmetry control in the two-dimensional magnet CrI ₃ . <i>Nature Nanotechnology</i> , 2020, 15, 212-216.	15.6	90
25	Demonstration of Dissipative Quasihelical Edge Transport in Quantum Anomalous Hall Insulators. <i>Physical Review Letters</i> , 2020, 125, 126801.	2.9	14
26	Scaling behavior of the quantum phase transition from a quantum-anomalous-Hall insulator to an axion insulator. <i>Nature Communications</i> , 2020, 11, 4532.	5.8	20
27	Emergent phenomena and proximity effects in two-dimensional magnets and heterostructures. <i>Nature Materials</i> , 2020, 19, 1276-1289.	13.3	213
28	Stacking Domain Wall Magnons in Twisted van der Waals Magnets. <i>Physical Review Letters</i> , 2020, 125, 247201.	2.9	58
29	Linear magnetoresistance induced by intra-scattering semiclassics of Bloch electrons. <i>Physical Review B</i> , 2020, 101, .	1.1	24
30	Flat Bands and Mechanical Deformation Effects in the MoS ₂ -WSe ₂ Heterobilayers. <i>ACS Nano</i> , 2020, 14, 7564-7573.	7.3	38
31	Manipulating anomalous Hall antiferromagnets with magnetic fields. <i>Physical Review B</i> , 2020, 101, .	1.1	19
32	Semimetals for high-performance photodetection. <i>Nature Materials</i> , 2020, 19, 830-837.	13.3	181
33	Spontaneous gyrotropic electronic order in a transition-metal dichalcogenide. <i>Nature</i> , 2020, 578, 545-549.	13.7	80
34	Tunable Layer Circular Photogalvanic Effect in Twisted Bilayers. <i>Physical Review Letters</i> , 2020, 124, 077401.	2.9	51
35	Layer-resolved magnetic proximity effect in van der Waals heterostructures. <i>Nature Nanotechnology</i> , 2020, 15, 187-191.	15.6	169
36	Concurrence of quantum anomalous Hall and topological Hall effects in magnetic topological insulator sandwich heterostructures. <i>Nature Materials</i> , 2020, 19, 732-737.	13.3	72

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37	Spin chirality fluctuation in two-dimensional ferromagnets with perpendicular magnetic anisotropy. <i>Nature Materials</i> , 2019, 18, 1054-1059.	13.3	85
38	Giant nonreciprocal second-harmonic generation from antiferromagnetic bilayer CrI ₃ . <i>Nature</i> , 2019, 572, 497-501.	13.7	309
39	Topological spin Hall effects and tunable skyrmion Hall effects in uniaxial antiferromagnetic insulators. <i>Physical Review B</i> , 2019, 99, .	1.1	39
40	Thermal Hall Effect Induced by Magnon-Phonon Interactions. <i>Physical Review Letters</i> , 2019, 123, 167202.	2.9	75
41	Switching 2D magnetic states via pressure tuning of layer stacking. <i>Nature Materials</i> , 2019, 18, 1298-1302.	13.3	358
42	Voltage Control of a van der Waals Spin-Filter Magnetic Tunnel Junction. <i>Nano Letters</i> , 2019, 19, 915-920.	4.5	129
43	Nonreciprocal Directional Dichroism Induced by the Quantum Metric Dipole. <i>Physical Review Letters</i> , 2019, 122, 227402.	2.9	48
44	Magnetic domain wall skyrmions. <i>Physical Review B</i> , 2019, 99, .	1.1	51
45	Strain-fluctuation-induced near quantization of valley Hall conductivity in graphene systems. <i>Physical Review B</i> , 2019, 99, .	1.1	3
46	Atomically Thin CrCl ₃ : An In-Plane Layered Antiferromagnetic Insulator. <i>Nano Letters</i> , 2019, 19, 3993-3998.	4.5	240
47	Anomalous Quantum Oscillations of Interacting Electron-Hole Gases in Inverted Type-II InAs/GaSb Quantum Wells. <i>Physical Review Letters</i> , 2019, 122, 186802.	2.9	20
48	Observation of Interfacial Antiferromagnetic Coupling between Magnetic Topological Insulator and Antiferromagnetic Insulator. <i>Nano Letters</i> , 2019, 19, 2945-2952.	4.5	23
49	Electrical control of 2D magnetism in bilayer CrI ₃ . <i>Nature Nanotechnology</i> , 2018, 13, 544-548.	15.6	975
50	Microscopic theory of spin toroidization in periodic crystals. <i>Physical Review B</i> , 2018, 97, .	1.1	47
51	Tuning Ising superconductivity with layer and spin-orbit coupling in two-dimensional transition-metal dichalcogenides. <i>Nature Communications</i> , 2018, 9, 1427.	5.8	230
52	Optical Selection Rule of Excitons in Gapped Chiral Fermion Systems. <i>Physical Review Letters</i> , 2018, 120, 077401.	2.9	44
53	Transition-Metal Oxide (111) Bilayers. <i>Journal of the Physical Society of Japan</i> , 2018, 87, 041006.	0.7	20
54	Realization of the Axion Insulator State in Quantum Anomalous Hall Sandwich Heterostructures. <i>Physical Review Letters</i> , 2018, 120, 056801.	2.9	254

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55	Giant tunneling magnetoresistance in spin-filter van der Waals heterostructures. <i>Science</i> , 2018, 360, 1214-1218.	6.0	871
56	Ligand-field helical luminescence in a 2D ferromagnetic insulator. <i>Nature Physics</i> , 2018, 14, 277-281.	6.5	275
57	Stacking-Dependent Magnetism in Bilayer CrI ₃ . <i>Nano Letters</i> , 2018, 18, 7658-7664.	4.5	475
58	Interlayer Couplings Mediated by Antiferromagnetic Magnons. <i>Physical Review Letters</i> , 2018, 121, 207202.	2.9	11
59	Nonabelian magnonics in antiferromagnets. <i>Physical Review B</i> , 2018, 98, .	1.1	38
60	Valley Manipulation by Optically Tuning the Magnetic Proximity Effect in WSe ₂ /CrI ₃ Heterostructures. <i>Nano Letters</i> , 2018, 18, 3823-3828.	4.5	281
61	Light-“valley interactions in 2D semiconductors. <i>Nature Photonics</i> , 2018, 12, 451-460.	15.6	316
62	Antiferromagnet-based magnonic spin-transfer torque. <i>Physical Review B</i> , 2018, 98, .	1.1	15
63	Spin-Nernst effect in the paramagnetic regime of an antiferromagnetic insulator. <i>Physical Review B</i> , 2018, 98, .	1.1	21
64	Two-dimensional itinerant ferromagnetism in atomically thin Fe ₃ GeTe ₂ . <i>Nature Materials</i> , 2018, 17, 778-782.	13.3	995
65	Valleytronics: Opportunities, Challenges, and Paths Forward. <i>Small</i> , 2018, 14, e1801483.	5.2	221
66	Layer-dependent ferromagnetism in a van der Waals crystal down to the monolayer limit. <i>Nature</i> , 2017, 546, 270-273.	13.7	3,824
67	Prediction of intrinsic two-dimensional ferroelectrics in In ₂ Se ₃ and other III ₂ -VI ₃ van der Waals materials. <i>Nature Communications</i> , 2017, 8, 14956.	5.8	830
68	Van der Waals engineering of ferromagnetic semiconductor heterostructures for spin and valleytronics. <i>Science Advances</i> , 2017, 3, e1603113.	4.7	635
69	Tunable Intrinsic Plasmons due to Band Inversion in Topological Materials. <i>Physical Review Letters</i> , 2017, 119, 266804.	2.9	15
70	Gate-Controllable Magneto-optic Kerr Effect in Layered Collinear Antiferromagnets. <i>Physical Review Letters</i> , 2016, 117, 267203.	2.9	93
71	Disorder-induced topological phase transitions in two-dimensional spin-orbit coupled superconductors. <i>Scientific Reports</i> , 2016, 6, 39188.	1.6	14
72	Dynamic Feedback in Ferromagnet-“Spin Hall Metal Heterostructures. <i>Physical Review Letters</i> , 2016, 117, 097202.	2.9	17

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73	Giant spin splitting, strong valley selective circular dichroism and valley-spin coupling induced in silicene. <i>Physical Review B</i> , 2016, 94, .	1.1	8
74	Antiferromagnetic Spin Wave Field-Effect Transistor. <i>Scientific Reports</i> , 2016, 6, 24223.	1.6	92
75	Multiple hot-carrier collection in photo-excited graphene Moiré superlattices. <i>Science Advances</i> , 2016, 2, e1600002.	4.7	42
76	Raman scattering and anomalous Stokes-anti-Stokes ratio in MoTe ₂ atomic layers. <i>Scientific Reports</i> , 2016, 6, 28024.	1.6	41
77	Terahertz Antiferromagnetic Spin Hall Nano-Oscillator. <i>Physical Review Letters</i> , 2016, 116, 207603.	2.9	216
78	Spin Nernst Effect of Magnons in Collinear Antiferromagnets. <i>Physical Review Letters</i> , 2016, 117, 217202.	2.9	171
79	Synthesis of Ordered Ultra-long Manganite Nanowires via Electrospinning Method. <i>Chinese Physics Letters</i> , 2016, 33, 097501.	1.3	4
80	Magnetic ground state of semiconducting transition-metal trichalcogenide monolayers. <i>Physical Review B</i> , 2015, 91, .	1.1	352
81	Oxygen vacancies on SrO-terminated SrTiO_3 studied by scanning tunneling spectroscopy. <i>Physical Review B</i> , 2015, 91, .	1.1	22
82	RKKY interaction of magnetic impurities in Dirac and Weyl semimetals. <i>Physical Review B</i> , 2015, 92, .	1.1	96
83	Berry Phase Modification to the Energy Spectrum of Excitons. <i>Physical Review Letters</i> , 2015, 115, 166803.	2.9	93
84	Ultrafast switching of antiferromagnets via spin-transfer torque. <i>Physical Review B</i> , 2015, 91, .	1.1	78
85	Plasmon mode as a detection of the chiral anomaly in Weyl semimetals. <i>Physical Review B</i> , 2015, 91, .	1.1	121
86	Gate-tunable topological valley transport in bilayer graphene. <i>Nature Physics</i> , 2015, 11, 1027-1031.	6.5	301
87	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , 2015, 9, 11509-11539.	7.3	2,069
88	Generation and transport of valley-polarized current in transition-metal dichalcogenides. <i>Physical Review B</i> , 2014, 90, .	1.1	147
89	Two-dimensional material nanophotonics. <i>Nature Photonics</i> , 2014, 8, 899-907.	15.6	2,362
90	Spin and pseudospins in layered transition metal dichalcogenides. <i>Nature Physics</i> , 2014, 10, 343-350.	6.5	2,204

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91	Effect of doping and strain modulations on electron transport in monolayer MoS ₂ . Physical Review B, 2014, 90, .	1.1	56
92	Spin-orbit-coupled quantum wires and Majorana fermions on zigzag edges of monolayer transition-metal dichalcogenides. Physical Review B, 2014, 89, .	1.1	60
93	Thickness-dependent carrier density at the surface of SrTiO_3 slabs. Physical Review B, 2014, 89, .	1.1	60
94	Correlation effects in (111) bilayers of perovskite transition-metal oxides. Physical Review B, 2014, 89, .	1.1	63
95	Topological classification of crystalline insulators with space group symmetry. Physical Review B, 2013, 88, .	1.1	128
96	Three-band tight-binding model for monolayers of group-VIB transition metal dichalcogenides. Physical Review B, 2013, 88, .	1.1	715
97	Spin Hall effect in spin-valley coupled monolayers of transition metal dichalcogenides. Physical Review B, 2013, 88, .	1.1	65
98	Berry phase effects on electronic properties. Reviews of Modern Physics, 2010, 82, 1959-2007.	16.4	3,479