

# Di Xiao

## List of Publications by Year in descending order

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98  
papers

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citations

26630

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33894

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all docs

99  
docs citations

99  
times ranked

21391  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reversible strain-induced magnetic phase transition in a van der Waals magnet. Nature Nanotechnology, 2022, 17, 256-261.	31.5	93
2	Electric control of a canted-antiferromagnetic Chern insulator. Nature Communications, 2022, 13, 1668.	12.8	37
3	Light-induced ferromagnetism in moiré superlattices. Nature, 2022, 604, 468-473.	27.8	61
4	Direct observation of two-dimensional magnons in atomically thin CrI <sub>3</sub> . Nature Physics, 2021, 17, 20-25.	16.7	106
5	Interface-induced sign reversal of the anomalous Hall effect in magnetic topological insulator heterostructures. Nature Communications, 2021, 12, 79.	12.8	31
6	Chiral-Bubble-Induced Topological Hall Effect in Ferromagnetic Topological Insulator Heterostructures. Nano Letters, 2021, 21, 1108-1114.	9.1	15
7	Correlated insulating states at fractional fillings of the WS <sub>2</sub> /WSe <sub>2</sub> moiré lattice. Nature Physics, 2021, 17, 715-719.	16.7	157
8	Intertwined Topological and Magnetic Orders in Atomically Thin Chern Insulator MnBi <sub>2</sub> Te <sub>4</sub> . Nano Letters, 2021, 21, 2544-2550.	9.1	92
9	Highly anisotropic excitons and multiple phonon bound states in a van der Waals antiferromagnetic insulator. Nature Nanotechnology, 2021, 16, 655-660.	31.5	72
10	Quantum oscillations in the field-induced ferromagnetic state of MnBi <sub>2</sub> Te <sub>4</sub> . Physical Review B, 2021, 103, .		
11	Strong interaction between interlayer excitons and correlated electrons in WSe <sub>2</sub> /WS <sub>2</sub> moiré superlattice. Nature Communications, 2021, 12, 3608.	12.8	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, .	3.6	4
13	Observation of Giant Optical Linear Dichroism in a Zigzag Antiferromagnet FePS <sub>3</sub> . Nano Letters, 2021, 21, 6938-6945.	9.1	37
14	Direct measurement of ferroelectric polarization in a tunable semimetal. Nature Communications, 2021, 12, 5298.	12.8	42
15	Electric polarization in inhomogeneous crystals. Physical Review B, 2021, 104, .	3.2	6
16	Magnetism and Its Structural Coupling Effects in 2D Ising Ferromagnetic Insulator V <sub>2</sub> O <sub>3</sub> . Nano Letters, 2021, 21, 9180-9186.	9.1	28
17	Spin photovoltaic effect in magnetic van der Waals heterostructures. Science Advances, 2021, 7, eabg8094.	10.3	15
18	Nonlinear nanoelectrodynamics of a Weyl metal. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	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.	12.6	144
20	Intrinsic Nonlinear Hall Effect in Antiferromagnetic Tetragonal CuMnAs. <i>Physical Review Letters</i> , 2021, 127, 277201.	7.8	59
21	Spin waves and Dirac magnons in a honeycomb-lattice zigzag antiferromagnet $\text{BaNi}_2\text{As}_2$ . <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.	7.8	31
23	Absence of evidence for chiral Majorana modes in quantum anomalous Hall-superconductor devices. <i>Science</i> , 2020, 367, 64-67.	12.6	93
24	Tuning inelastic light scattering via symmetry control in the two-dimensional magnet CrI <sub>3</sub> . <i>Nature Nanotechnology</i> , 2020, 15, 212-216.	31.5	90
25	Demonstration of Dissipative Quasihelical Edge Transport in Quantum Anomalous Hall Insulators. <i>Physical Review Letters</i> , 2020, 125, 126801.	7.8	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.	12.8	20
27	Emergent phenomena and proximity effects in two-dimensional magnets and heterostructures. <i>Nature Materials</i> , 2020, 19, 1276-1289.	27.5	213
28	Stacking Domain Wall Magnons in Twisted van der Waals Magnets. <i>Physical Review Letters</i> , 2020, 125, 247201.	7.8	58
29	Linear magnetoresistance induced by intra-scattering semiclassics of Bloch electrons. <i>Physical Review B</i> , 2020, 101, .	3.2	24
30	Flat Bands and Mechanical Deformation Effects in the Moiré Superlattice of $\text{MoS}_2$ - $\text{WSe}_2$ Heterobilayers. <i>ACS Nano</i> , 2020, 14, 7564-7573.	14.6	38
31	Manipulating anomalous Hall antiferromagnets with magnetic fields. <i>Physical Review B</i> , 2020, 101, .	3.2	19
32	Semimetals for high-performance photodetection. <i>Nature Materials</i> , 2020, 19, 830-837.	27.5	181
33	Spontaneous gyrotropic electronic order in a transition-metal dichalcogenide. <i>Nature</i> , 2020, 578, 545-549.	27.8	80
34	Tunable Layer Circular Photogalvanic Effect in Twisted Bilayers. <i>Physical Review Letters</i> , 2020, 124, 077401.	7.8	51
35	Layer-resolved magnetic proximity effect in van der Waals heterostructures. <i>Nature Nanotechnology</i> , 2020, 15, 187-191.	31.5	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.	27.5	72

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37	Spin chirality fluctuation in two-dimensional ferromagnets with perpendicular magnetic anisotropy. Nature Materials, 2019, 18, 1054-1059.	27.5	85
38	Giant nonreciprocal second-harmonic generation from antiferromagnetic bilayer CrI <sub>3</sub> . Nature, 2019, 572, 497-501.	27.8	309
39	Topological spin Hall effects and tunable skyrmion Hall effects in uniaxial antiferromagnetic insulators. Physical Review B, 2019, 99, .	3.2	39
40	Thermal Hall Effect Induced by Magnon-Phonon Interactions. Physical Review Letters, 2019, 123, 167202.	7.8	75
41	Switching 2D magnetic states via pressure tuning of layer stacking. Nature Materials, 2019, 18, 1298-1302.	27.5	358
42	Voltage Control of a van der Waals Spin-Filter Magnetic Tunnel Junction. Nano Letters, 2019, 19, 915-920.	9.1	129
43	Nonreciprocal Directional Dichroism Induced by the Quantum Metric Dipole. Physical Review Letters, 2019, 122, 227402.	7.8	48
44	Magnetic domain wall skyrmions. Physical Review B, 2019, 99, .	3.2	51
45	Strain-fluctuation-induced near quantization of valley Hall conductivity in graphene systems. Physical Review B, 2019, 99, .	3.2	3
46	Atomically Thin CrCl <sub>3</sub> : An In-Plane Layered Antiferromagnetic Insulator. Nano Letters, 2019, 19, 3993-3998.	9.1	240
47	Anomalous Quantum Oscillations of Interacting Electron-Hole Gases in Inverted Type-II InAs/GaSb Quantum Wells. Physical Review Letters, 2019, 122, 186802.	7.8	20
48	Observation of Interfacial Antiferromagnetic Coupling between Magnetic Topological Insulator and Antiferromagnetic Insulator. Nano Letters, 2019, 19, 2945-2952.	9.1	23
49	Electrical control of 2D magnetism in bilayer CrI <sub>3</sub> . Nature Nanotechnology, 2018, 13, 544-548.	31.5	975
50	Microscopic theory of spin toroidization in periodic crystals. Physical Review B, 2018, 97, .	3.2	47
51	Tuning Ising superconductivity with layer and spin-orbit coupling in two-dimensional transition-metal dichalcogenides. Nature Communications, 2018, 9, 1427.	12.8	230
52	Optical Selection Rule of Excitons in Gapped Chiral Fermion Systems. Physical Review Letters, 2018, 120, 077401.	7.8	44
53	Transition-Metal Oxide (111) Bilayers. Journal of the Physical Society of Japan, 2018, 87, 041006.	1.6	20
54	Realization of the Axion Insulator State in Quantum Anomalous Hall Sandwich Heterostructures. Physical Review Letters, 2018, 120, 056801.	7.8	254

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55	Giant tunneling magnetoresistance in spin-filter van der Waals heterostructures. <i>Science</i> , 2018, 360, 1214-1218.	12.6	871
56	Ligand-field helical luminescence in a 2D ferromagnetic insulator. <i>Nature Physics</i> , 2018, 14, 277-281.	16.7	275
57	Stacking-Dependent Magnetism in Bilayer CrI <sub>3</sub> . <i>Nano Letters</i> , 2018, 18, 7658-7664.	9.1	475
58	Interlayer Couplings Mediated by Antiferromagnetic Magnons. <i>Physical Review Letters</i> , 2018, 121, 207202.	7.8	11
59	Nonabelian magnonics in antiferromagnets. <i>Physical Review B</i> , 2018, 98, .	3.2	38
60	Valley Manipulation by Optically Tuning the Magnetic Proximity Effect in WSe <sub>2</sub> /CrI <sub>3</sub> Heterostructures. <i>Nano Letters</i> , 2018, 18, 3823-3828.	9.1	281
61	Light-“valley interactions in 2D semiconductors. <i>Nature Photonics</i> , 2018, 12, 451-460.	31.4	316
62	Antiferromagnet-based magnonic spin-transfer torque. <i>Physical Review B</i> , 2018, 98, .	3.2	15
63	Spin-Nernst effect in the paramagnetic regime of an antiferromagnetic insulator. <i>Physical Review B</i> , 2018, 98, .	3.2	21
64	Two-dimensional itinerant ferromagnetism in atomically thin Fe <sub>3</sub> GeTe <sub>2</sub> . <i>Nature Materials</i> , 2018, 17, 778-782.	27.5	995
65	Valleytronics: Opportunities, Challenges, and Paths Forward. <i>Small</i> , 2018, 14, e1801483.	10.0	221
66	Layer-dependent ferromagnetism in a van der Waals crystal down to the monolayer limit. <i>Nature</i> , 2017, 546, 270-273.	27.8	3,824
67	Prediction of intrinsic two-dimensional ferroelectrics in In <sub>2</sub> Se <sub>3</sub> and other III <sub>2</sub> -VI <sub>3</sub> van der Waals materials. <i>Nature Communications</i> , 2017, 8, 14956.	12.8	830
68	Van der Waals engineering of ferromagnetic semiconductor heterostructures for spin and valleytronics. <i>Science Advances</i> , 2017, 3, e1603113.	10.3	635
69	Tunable Intrinsic Plasmons due to Band Inversion in Topological Materials. <i>Physical Review Letters</i> , 2017, 119, 266804.	7.8	15
70	Gate-Controllable Magneto-optic Kerr Effect in Layered Collinear Antiferromagnets. <i>Physical Review Letters</i> , 2016, 117, 267203.	7.8	93
71	Disorder-induced topological phase transitions in two-dimensional spin-orbit coupled superconductors. <i>Scientific Reports</i> , 2016, 6, 39188.	3.3	14
72	Dynamic Feedback in Ferromagnet-“Spin Hall Metal Heterostructures. <i>Physical Review Letters</i> , 2016, 117, 097202.	7.8	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, .	3.2	8
74	Antiferromagnetic Spin Wave Field-Effect Transistor. <i>Scientific Reports</i> , 2016, 6, 24223.	3.3	92
75	Multiple hot-carrier collection in photo-excited graphene Moiré superlattices. <i>Science Advances</i> , 2016, 2, e1600002.	10.3	42
76	Raman scattering and anomalous Stokes-anti-Stokes ratio in MoTe <sub>2</sub> atomic layers. <i>Scientific Reports</i> , 2016, 6, 28024.	3.3	41
77	Terahertz Antiferromagnetic Spin Hall Nano-Oscillator. <i>Physical Review Letters</i> , 2016, 116, 207603.	7.8	216
78	Spin Nernst Effect of Magnons in Collinear Antiferromagnets. <i>Physical Review Letters</i> , 2016, 117, 217202.	7.8	171
79	Synthesis of Ordered Ultra-long Manganite Nanowires via Electrospinning Method. <i>Chinese Physics Letters</i> , 2016, 33, 097501.	3.3	4
80	Magnetic ground state of semiconducting transition-metal trichalcogenide monolayers. <i>Physical Review B</i> , 2015, 91, .	3.2	352
81	Oxygen vacancies on SrO-terminated $\text{SrTiO}_3$ studied by scanning tunneling spectroscopy. <i>Physical Review B</i> , 2015, 91, .	3.2	22
82	RKKY interaction of magnetic impurities in Dirac and Weyl semimetals. <i>Physical Review B</i> , 2015, 92, .	3.2	96
83	Berry Phase Modification to the Energy Spectrum of Excitons. <i>Physical Review Letters</i> , 2015, 115, 166803.	7.8	93
84	Ultrafast switching of antiferromagnets via spin-transfer torque. <i>Physical Review B</i> , 2015, 91, .	3.2	78
85	Plasmon mode as a detection of the chiral anomaly in Weyl semimetals. <i>Physical Review B</i> , 2015, 91, .	3.2	121
86	Gate-tunable topological valley transport in bilayer graphene. <i>Nature Physics</i> , 2015, 11, 1027-1031.	16.7	301
87	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , 2015, 9, 11509-11539.	14.6	2,069
88	Generation and transport of valley-polarized current in transition-metal dichalcogenides. <i>Physical Review B</i> , 2014, 90, .	3.2	147
89	Two-dimensional material nanophotonics. <i>Nature Photonics</i> , 2014, 8, 899-907.	31.4	2,362
90	Spin and pseudospins in layered transition metal dichalcogenides. <i>Nature Physics</i> , 2014, 10, 343-350.	16.7	2,204

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91	Effect of doping and strain modulations on electron transport in monolayer MoS <sub>2</sub> . Physical Review B, 2014, 90, .	3.2	56
92	Spin-orbit-coupled quantum wires and Majorana fermions on zigzag edges of monolayer transition-metal dichalcogenides. Physical Review B, 2014, 89, .	3.2	60
93	Thickness-dependent carrier density at the surface of $\text{SrTiO}_3$ slabs. Physical Review B, 2014, 89, .	3.2	60
94	Correlation effects in (111) bilayers of perovskite transition-metal oxides. Physical Review B, 2014, 89, .	3.2	63
95	Topological classification of crystalline insulators with space group symmetry. Physical Review B, 2013, 88, .	3.2	128
96	Three-band tight-binding model for monolayers of group-VIB transition metal dichalcogenides. Physical Review B, 2013, 88, .	3.2	715
97	Spin Hall effect in spin-valley coupled monolayers of transition metal dichalcogenides. Physical Review B, 2013, 88, .	3.2	65
98	Berry phase effects on electronic properties. Reviews of Modern Physics, 2010, 82, 1959-2007.	45.6	3,479