Su-Yang Xu

List of Publications by Year
in descending order

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Version: 2024-02-01

98 papers	19,752 citations	20817 60 h-index	36028 97 g-index

101 all docs	101 docs citations	101 times ranked	10532 citing authors

#	Article	IF	Citations
1	Weyl, Dirac and high-fold chiralÂfermions in topological quantum matter. Nature Reviews Materials, 2021, 6, 784-803.	48.7	82
2	Layer Hall effect in a 2D topological axion antiferromagnet. Nature, 2021, 595, 521-525.	27.8	136
3	Supercurrents in a topological antiferromagnet. Nature Materials, 2021, 20, 1306-1307.	27.5	0
4	Growth, characterization, and Chern insulator state in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>MnBi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mn></mml:mn></mml:mrow></mml:math> via the chemical vapor transport method. Physical Review Materials, 2021, 5, .	2.4	16
5	Observation of Weyl fermions in a magnetic non-centrosymmetric crystal. Nature Communications, 2020, 11, 3356.	12.8	55
6	Unconventional ferroelectricity in moirÃ© heterostructures. Nature, 2020, 588, 71-76.	27.8	165
7	Realization of an intrinsic ferromagnetic topological state in MnBi ₈ Te ₁₃. Science Advances, 2020, 6, eaba4275.	10.3	122
8	Field-Induced Metalâ€“Insulator Transition in Î²-EuP3. Chinese Physics Letters, 2020, 37, 107501.	3.3	9
9	Observation of sixfold degenerate fermions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>PdS</mml:mi><mml:msub><mml:mi mathvariant="normal">b</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 101, .	3.2	20
10	High-frequency rectification via chiral Bloch electrons. Science Advances, 2020, 6, eaay2497.	10.3	100
11	Spontaneous gyrotropic electronic order in a transition-metal dichalcogenide. Nature, 2020, 578, 545-549.	27.8	80
12	Unconventional Photocurrents from Surface Fermi Arcs in Topological Chiral Semimetals. Physical Review Letters, 2020, 124, 166404.	7.8	40
13	Discovery of topological Weyl fermion lines and drumhead surface states in a room temperature magnet. Science, 2019, 365, 1278-1281.	12.6	374
14	Topology on a new facet of bismuth. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13255-13259.	7.1	61
15	Unconventional topological phase transition in non-symmorphic material KHgX (Xâ€‰=â€‰As, Sb, Bi). Npj Computational Materials, 2019, 5, .	8.7	9
16	Topological chiral crystals with helicoid-arc quantum states. Nature, 2019, 567, 500-505.	27.8	249
17	Transport of Topological Semimetals. Annual Review of Materials Research, 2019, 49, 207-252.	9.3	155
18	Giant intrinsic photoresponse in pristine graphene. Nature Nanotechnology, 2019, 14, 145-150.	31.5	61

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19	Observation of the nonlinear Hall effect under time-reversal-symmetric conditions. Nature, 2019, 565, 337-342.	27.8	372
20	Topological superconductor in quasi-one-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Tl</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review B, 2018, 97, .	3.2	12
21	Observation of time-reversal-symmetric Weyl fermion semimetals in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="italic">R</mml:mi><mml:mi		

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37	Ultraquantum magnetoresistance in the Kramers-Weyl semimetal candidate Î²â^'Ag2Se. Physical Review B, 2017, 96, .	3.2	27
38	Magnetic-tunnelling-induced Weyl node annihilation in TaP. Nature Physics, 2017, 13, 979-986.	16.7	80
39	Type-II Symmetry-Protected Topological Dirac Semimetals. Physical Review Letters, 2017, 119, 026404.	7.8	145
40	Magnetotransport properties of the single-crystalline nodal-line semimetal candidates<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Ca</mml:mi><mml:mi>T</mml:mi><mml:mi>X</mml:mi><mml:mo>(Physical Review B, 2017, 95, .	3.2	66
41	Discovery of Lorentz-violating type II Weyl fermions in LaAlGe. Science Advances, 2017, 3, e1603266.	10.3	176
42	Atomic-Scale Visualization of Quasiparticle Interference on a Type-II Weyl Semimetal Surface. Physical Review Letters, 2016, 117, 266804.	7.8	56
43	Room-temperature magnetic topological Weyl fermion and nodal line semimetal states in half-metallic Heusler Co2TiX (X=Si, Ge, or Sn). Scientific Reports, 2016, 6, 38839.	3.3	148
44	Discovery of a new type of topological Weyl fermion semimetal state in MoxW1â^'xTe2. Nature Communications, 2016, 7, 13643.	12.8	163
45	Fermi arc electronic structure and Chern numbers in the type-II Weyl semimetal candidate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Mo</mml:mi><mml:mi>x</mml:mi></mml: mathvariant="normal">W</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow> Physical Review B, 2016, 94, .	3.2	115
46	Superconducting properties in single crystals of the topological nodal semimetal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PbTaSe</mml:mi><mml:mn>2</mml:mn></mml:msub></ Physical Review B, 2016, 93, .	3.2	52
47	Drumhead surface states and topological nodal-line fermions in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TlTaSe</mml:mi><mml:mn>2</mml:mn></mml:msub> Physical Review B, 2016, 93, .	3.2	208
48	Observation of topological nodal fermion semimetal phase in ZrSiS. Physical Review B, 2016, 93, .	3.2	309
49	Observation of metallic surface states in the strongly correlated Kitaev-Heisenberg candidate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Na</mml:mi><mml:mn>2</mml:mn></ Physical Review B, 2016, 93, .	3.2	16
50	Signatures of Fermi Arcs in the Quasiparticle Interferences of the Weyl Semimetals TaAs and NbP. Physical Review Letters, 2016, 116, 066601.	7.8	54
51	Spin Polarization and Texture of the Fermi Arcs in the Weyl Fermion Semimetal TaAs. Physical Review Letters, 2016, 116, 096801.	7.8	102
52	Topological Dirac surface states and superconducting pairing correlations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PbTaSe</mml:mi><mml:mn>2</mml:mn></mml:msub></ Physical Review B, 2016, 93, .	3.2	79
53	Weyl semimetals, Fermi arcs and chiral anomalies. Nature Materials, 2016, 15, 1140-1144.	27.5	255
54	A strongly robust type II Weyl fermion semimetal state in Ta ₃ S ₂. Science Advances, 2016, 2, e1600295.	10.3	114

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55	Observation of the spin-polarized surface state in a noncentrosymmetric superconductor BiPd. Nature Communications, 2016, 7, 13315.	12.8	42
56	Signatures of the Adlerâ€“Bellâ€“Jackiw chiral anomaly in a Weyl fermion semimetal. Nature Communications, 2016, 7, 10735.	12.8	603
57	Electronic structure and relaxation dynamics in a superconducting topological material. Scientific Reports, 2016, 6, 22557.	3.3	21
58	Atomic-Scale Visualization of Quantum Interference on a Weyl Semimetal Surface by Scanning Tunneling Microscopy. ACS Nano, 2016, 10, 1378-1385.	14.6	112
59	Prediction of an arc-tunable Weyl Fermion metallic state in MoxW1â^'xTe2. Nature Communications, 2016, 7, 10639.	12.8	249
60	Topological nodal-line fermions in spin-orbit metal PbTaSe2. Nature Communications, 2016, 7, 10556.	12.8	688
61	Criteria for Directly Detecting Topological Fermi Arcs in Weyl Semimetals. Physical Review Letters, 2016, 116, 066802.	7.8	134
62	New type of Weyl semimetal with quadratic double Weyl fermions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1180-1185.	7.1	291
63	Engineering Electronic Structure of a Two-Dimensional Topological Insulator Bi(111) Bilayer on Sb Nanofilms by Quantum Confinement Effect. ACS Nano, 2016, 10, 3859-3864.	14.6	29
64	Two distinct topological phases in the mixed-valence compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>YbB</mml:mtext><mml:mn>6</mml:mn></mml:msub> its differences from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>SmB</mml:mtext><mml:mn>6</mml:mn></mml:msub> Physical Review B, 2015, 91, .	3.2	19
65	Surface versus bulk Dirac state tuning in a three-dimensional topological Dirac semimetal. Physical Review B, 2015, 91, .	3.2	16
66	Lifshitz transition and Van Hove singularity in a three-dimensional topological Dirac semimetal. Physical Review B, 2015, 92, .	3.2	31
67	Topological phase diagram and saddle point singularity in a tunable topological crystalline insulator. Physical Review B, 2015, 92, .	3.2	25
68	Fermi surface topology and hot spot distribution in the Kondo lattice system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="bold">CeB</mml:mi><mml:mn mathvariant="bold">6</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 92, .	3.2	29
69	Tunable spin helical Dirac quasiparticles on the surface of three-dimensional HgTe. Physical Review B, 2015, 92, .	3.2	19
70	Fermi surface interconnectivity and topology in Weyl fermion semimetals TaAs, TaP, NbAs, and NbP. Physical Review B, 2015, 92, .	3.2	127
71	Gigantic Surface Lifetime of an Intrinsic Topological Insulator. Physical Review Letters, 2015, 115, 116801.	7.8	84
72	Experimental discovery of a topological Weyl semimetal state in TaP. Science Advances, 2015, 1, e1501092.	10.3	337

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73	Kondo-like Electronic Structure in the Correlated Rare-Earth Hexaboride<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mtext mathvariant="bold">Y</mml:mtext><mml:mtext mathvariant="bold">b</mml:mtext><mml:mtext mathvariant="bold">B</mml:mtext></mml:mrow><mml:mn>6</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2015, 114, 016403.	7.8	46
74	A Weyl Fermion semimetal with surface Fermi arcs in the transition metal monopnictide TaAs class. Nature Communications, 2015, 6, 7373.	12.8	1,336
75	Discovery of a Weyl fermion semimetal and topological Fermi arcs. Science, 2015, 349, 613-617.	12.6	2,753
76	Unconventional transformation of spin Dirac phase across a topological quantum phase transition. Nature Communications, 2015, 6, 6870.	12.8	34
77	Bulk crystal growth and electronic characterization of the 3D Dirac semimetal Na3Bi. APL Materials, 2015, 3, .	5.1	76
78	Topological insulators, topological superconductors and Weyl fermion semimetals: discoveries, perspectives and outlooks. Physica Scripta, 2015, T164, 014001.	2.5	123
79	Discovery of a Weyl fermion state with Fermi arcs in niobium arsenide. Nature Physics, 2015, 11, 748-754.	16.7	817
80	Observation of Fermi arc surface states in a topological metal. Science, 2015, 347, 294-298.	12.6	603
81	Observation of a three-dimensional topological Dirac semimetal phase in high-mobility Cd3As2. Nature Communications, 2014, 5, 3786.	12.8	1,166
82	Observation of quantum-tunnelling-modulated spin texture in ultrathin topological insulator Bi2Se3 films. Nature Communications, 2014, 5, 3841.	12.8	112
83	Momentum-space imaging of Cooper pairing in a half-Dirac-gas topological superconductor. Nature Physics, 2014, 10, 943-950.	16.7	134
84	Fermi-level electronic structure of a topological-insulator/cuprate-superconductor based heterostructure in the superconducting proximity effect regime. Physical Review B, 2014, 90, .	3.2	34
85	Spin-correlated electronic state on the surface of a spin-orbit Mott system. Physical Review B, 2014, 90, .	3.2	11
86	Observation of monolayer valence band spin-orbit effect and induced quantum well states in MoX2. Nature Communications, 2014, 5, 4673.	12.8	121
87	Optical evidence of surface state suppression in Bi-based topological insulators. Physical Review B, 2014, 89, .	3.2	56
88	Structural and electronic properties of highly doped topological insulator Bi₂Se₃ crystals. Physica Status Solidi - Rapid Research Letters, 2013, 7, 133-135.	2.4	45
89	Nontrivial spin texture of the coaxial Dirac cones on the surface of topological crystalline insulator SnTe. Physical Review B, 2013, 87, .	3.2	65
90	Theory of quasiparticle interference in mirror-symmetric two-dimensional systems and its application to surface states of topological crystalline insulators. Physical Review B, 2013, 88, .	3.2	31

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91	rface topology and low-lying electronic structure of the iron-based superconductor Ca<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow		