

# 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	Discovery of a Weyl fermion semimetal and topological Fermi arcs. <i>Science</i> , 2015, 349, 613-617.	12.6	2,753
2	A Weyl Fermion semimetal with surface Fermi arcs in the transition metal monpnictide TaAs class. <i>Nature Communications</i> , 2015, 6, 7373.	12.8	1,336
3	Observation of a three-dimensional topological Dirac semimetal phase in high-mobility Cd <sub>3</sub> As <sub>2</sub> . <i>Nature Communications</i> , 2014, 5, 3786.	12.8	1,166
4	Discovery of a Weyl fermion state with Fermi arcs in niobium arsenide. <i>Nature Physics</i> , 2015, 11, 748-754.	16.7	817
5	Topological nodal-line fermions in spin-orbit metal PbTaSe <sub>2</sub> . <i>Nature Communications</i> , 2016, 7, 10556.	12.8	688
6	Observation of Fermi arc surface states in a topological metal. <i>Science</i> , 2015, 347, 294-298.	12.6	603
7	Signatures of the Adler-Bell-Jackiw chiral anomaly in a Weyl fermion semimetal. <i>Nature Communications</i> , 2016, 7, 10735.	12.8	603
8	Observation of a topological crystalline insulator phase and topological phase transition in Pb <sub>1-x</sub> Sn <sub>x</sub> Te. <i>Nature Communications</i> , 2012, 3, 1192.	12.8	574
9	A topological insulator surface under strong Coulomb, magnetic and disorder perturbations. <i>Nature Physics</i> , 2011, 7, 32-37.	16.7	527
10	Observation of topological order in a superconducting doped topological insulator. <i>Nature Physics</i> , 2010, 6, 855-859.	16.7	412
11	Topological Phase Transition and Texture Inversion in a Tunable Topological Insulator. <i>Science</i> , 2011, 332, 560-564.	12.6	404
12	Discovery of topological Weyl fermion lines and drumhead surface states in a room temperature magnet. <i>Science</i> , 2019, 365, 1278-1281.	12.6	374
13	Observation of the nonlinear Hall effect under time-reversal-symmetric conditions. <i>Nature</i> , 2019, 565, 337-342.	27.8	372
14	Hedgehog spin texture and Berry's phase tuning in a magnetic topological insulator. <i>Nature Physics</i> , 2012, 8, 616-622.	16.7	353
15	Discovery of Weyl Fermion Semimetals and Topological Fermi Arc States. <i>Annual Review of Condensed Matter Physics</i> , 2017, 8, 289-309.	14.5	349
16	Experimental discovery of a topological Weyl semimetal state in TaP. <i>Science Advances</i> , 2015, 1, e1501092.	10.3	337
17	Observation of topological nodal fermion semimetal phase in ZrSiS. <i>Physical Review B</i> , 2016, 93, .	3.2	309
18	New type of Weyl semimetal with quadratic double Weyl fermions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1180-1185.	7.1	291

#	ARTICLE	IF	CITATIONS
19	Direct optical detection of Weyl fermion chirality in a topological semimetal. Nature Physics, 2017, 13, 842-847.	16.7	291
20	Unconventional Chiral Fermions and Large Topological Fermi Arcs in RhSi. Physical Review Letters, 2017, 119, 206401.	7.8	270
21	Drumhead surface states and topological nodal-line fermions in $\text{TiTaSe}_2$ . Physical Review B, 2016, 93, .	7.8	268
22	Weyl semimetals, Fermi arcs and chiral anomalies. Nature Materials, 2016, 15, 1140-1144.	27.5	255
23	Giant and anisotropic many-body spin-orbit tunability in a strongly correlated kagome magnet. Nature, 2018, 562, 91-95.	27.8	255
24	Topological quantum properties of chiral crystals. Nature Materials, 2018, 17, 978-985.	27.5	252
25	Prediction of an arc-tunable Weyl Fermion metallic state in $\text{Mo}_x\text{W}_{1-x}\text{Te}_2$ . Nature Communications, 2016, 7, 10639.	12.8	249
26	Electrically switchable Berry curvature dipole in the monolayer topological insulator $\text{WTe}_2$ . Nature Physics, 2018, 14, 900-906.	16.7	249
27	Topological chiral crystals with helicoid-arc quantum states. Nature, 2019, 567, 500-505.	27.8	249
28	Topological Hopf and Chain Link Semimetal States and Their Application to $\text{Co}_2\text{Mn}_2\text{Te}_8$ . Physical Review Letters, 2017, 119, 156401.	7.8	183
29	Discovery of Lorentz-violating type II Weyl fermions in $\text{LaAlGe}$ . Science Advances, 2017, 3, e1603266.	10.3	176
30	Unconventional ferroelectricity in $\text{moiré}$ heterostructures. Nature, 2020, 588, 71-76.	27.8	165
31	Discovery of a new type of topological Weyl fermion semimetal state in $\text{Mo}_x\text{W}_{1-x}\text{Te}_2$ . Nature Communications, 2016, 7, 13643.	12.8	163
32	Transport of Topological Semimetals. Annual Review of Materials Research, 2019, 49, 207-252.	9.3	155
33	Room-temperature magnetic topological Weyl fermion and nodal line semimetal states in half-metallic Heusler $\text{Co}_2\text{TiX}$ ( $X=\text{Si}, \text{Ge}, \text{or Sn}$ ). Scientific Reports, 2016, 6, 38839.	3.3	148
34	Type-II Symmetry-Protected Topological Dirac Semimetals. Physical Review Letters, 2017, 119, 026404.	7.8	145
35	Layer Hall effect in a 2D topological axion antiferromagnet. Nature, 2021, 595, 521-525.	27.8	136
36	Momentum-space imaging of Cooper pairing in a half-Dirac-gas topological superconductor. Nature Physics, 2014, 10, 943-950.	16.7	134

#	ARTICLE	IF	CITATIONS
37	Criteria for Directly Detecting Topological Fermi Arcs in Weyl Semimetals. Physical Review Letters, 2016, 116, 066802. Magnetic and noncentrosymmetric Weyl fermion semimetals in the $R$	7.8	134
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#	ARTICLE	IF	CITATIONS
55	Magnetic-tunnelling-induced Weyl node annihilation in TaP. <i>Nature Physics</i> , 2017, 13, 979-986.	16.7	80
56	Spontaneous gyrotropic electronic order in a transition-metal dichalcogenide. <i>Nature</i> , 2020, 578, 545-549.	27.8	80
57	Topological Dirac surface states and superconducting pairing correlations in $\text{PbTaSe}_2$ . <i>Physical Review B</i> , 2016, 93, .	3.2	76
58	Bulk crystal growth and electronic characterization of the 3D Dirac semimetal $\text{Na}_3\text{Bi}$ . <i>APL Materials</i> , 2015, 3, .	5.1	76
59	Magnetotransport properties of the single-crystalline nodal-line semimetal candidates $\text{CaT}_2\text{X}_4$ . <i>Physical Review B</i> , 2017, 95, .	3.2	65
60	Nontrivial spin texture of the coaxial Dirac cones on the surface of topological crystalline insulator $\text{SnTe}$ . <i>Physical Review B</i> , 2013, 87, .	3.2	65
61	Topology on a new facet of bismuth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 13255-13259.	7.1	61
62	Giant intrinsic photoresponse in pristine graphene. <i>Nature Nanotechnology</i> , 2019, 14, 145-150.	31.5	61
63	Optical evidence of surface state suppression in Bi-based topological insulators. <i>Physical Review B</i> , 2014, 89, .	3.2	56
64	Atomic-Scale Visualization of Quasiparticle Interference on a Type-II Weyl Semimetal Surface. <i>Physical Review Letters</i> , 2016, 117, 266804.	7.8	56
65	Observation of Weyl fermions in a magnetic non-centrosymmetric crystal. <i>Nature Communications</i> , 2020, 11, 3356.	12.8	55
66	Signatures of Fermi Arcs in the Quasiparticle Interferences of the Weyl Semimetals TaAs and NbP. <i>Physical Review Letters</i> , 2016, 116, 066601.	7.8	54
67	Superconducting properties in single crystals of the topological nodal semimetal $\text{PbTaSe}_2$ . <i>Physical Review B</i> , 2016, 93, .	3.2	51
68	Topological surface electronic states in candidate nodal-line semimetal $\text{CaAgAs}$ . <i>Physical Review B</i> , 2017, 96, .	3.2	51
69	A novel artificial condensed matter lattice and a new platform for one-dimensional topological phases. <i>Science Advances</i> , 2017, 3, e1501692.	10.3	48
70	Quasiparticle interference and nonsymmorphic effect on a floating band surface state of $\text{ZrSiSe}$ . <i>Nature Communications</i> , 2018, 9, 4153.	12.8	48
71	Non-Kondo-like Electronic Structure in the Correlated Rare-Earth Hexaboride $\text{Yb}_6\text{B}$ . <i>Physical Review Letters</i> , 2015, 114, 016403.	7.8	46
72	Structural and electronic properties of highly doped topological insulator $\text{Bi}_2\text{Se}_3$ crystals. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013, 7, 133-135.	2.4	45

#	ARTICLE	IF	CITATIONS
73	Observation of the spin-polarized surface state in a noncentrosymmetric superconductor BiPd. Nature Communications, 2016, 7, 13315.	12.8	42
74	Unconventional Photocurrents from Surface Fermi Arcs in Topological Chiral Semimetals. Physical Review Letters, 2020, 124, 166404.	7.8	40
75	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
76	Unconventional transformation of spin Dirac phase across a topological quantum phase transition. Nature Communications, 2015, 6, 6870.	12.8	34
77	Spin-orbital ground states of superconducting doped topological insulators: A Majorana platform. Physical Review B, 2011, 83, 114511. Fermi-surface topology and low-lying electronic structure of the iron-based superconductor Ca <sub>1-x</sub> Fe <sub>x</sub> As <sub>2</sub>	3.2	33
78			

#	ARTICLE	IF	CITATIONS
91	Surface versus bulk Dirac state tuning in a three-dimensional topological Dirac semimetal. Physical Review B, 2015, 91, .	3.2	16
92	Observation of metallic surface states in the strongly correlated Kitaev-Heisenberg candidate $\text{Na}_2\text{Zr}_2\text{P}_2\text{O}_{14}$ Physical Review B, 2016, 93, .	3.2	16
93	Growth, characterization, and Chern insulator state in $\text{MnBi}_2\text{Te}_4$ via the chemical vapor transport method. Physical Review Materials, 2021, 5, .	3.2	16
94	Topological superconductor in quasi-one-dimensional $\text{Ti}_2\text{Te}_5$ Physical Review B, 2018, 97, .	3.2	16
95	Spin-correlated electronic state on the surface of a spin-orbit Mott system. Physical Review B, 2014, 90, .	3.2	11
96	Unconventional topological phase transition in non-symmorphic material $\text{KHgX}$ ( $X = \text{As, Sb, Bi}$ ). Npj Computational Materials, 2019, 5, .	8.7	9
97	Field-Induced Metal-Insulator Transition in $\text{U}^2\text{EuP}_3$ . Chinese Physics Letters, 2020, 37, 107501.	3.3	9
98	Supercurrents in a topological antiferromagnet. Nature Materials, 2021, 20, 1306-1307.	27.5	0