

# Horng-Tay Jeng

## List of Publications by Year in descending order

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96  
papers

10,314  
citations

94433

37  
h-index

42399

92  
g-index

98  
all docs

98  
docs citations

98  
times ranked

10627  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of a three-dimensional topological Dirac semimetal phase in high-mobility Cd <sub>3</sub> As <sub>2</sub> . Nature Communications, 2014, 5, 3786.	12.8	1,166
2	Direct observation of the transition from indirect to direct bandgap in atomically thin epitaxial MoSe <sub>2</sub> . Nature Nanotechnology, 2014, 9, 111-115.	31.5	1,129
3	Discovery of a Weyl fermion state with Fermi arcs in niobium arsenide. Nature Physics, 2015, 11, 748-754.	16.7	817
4	Topological nodal-line fermions in spin-orbit metal PbTaSe <sub>2</sub> . Nature Communications, 2016, 7, 10556.	12.8	688
5	Observation of Fermi arc surface states in a topological metal. Science, 2015, 347, 294-298.	12.6	603
6	Signatures of the Adler-Bell-Jackiw chiral anomaly in a Weyl fermion semimetal. Nature Communications, 2016, 7, 10735.	12.8	603
7	Hedgehog spin texture and Berry's phase tuning in a magnetic topological insulator. Nature Physics, 2012, 8, 616-622.	16.7	353
8	Experimental discovery of a topological Weyl semimetal state in TaP. Science Advances, 2015, 1, e1501092.	10.3	337
9	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
10	Drumhead surface states and topological nodal-line fermions in TlTaSe <sub>2</sub> . Physical Review B, 2016, 93, .	12.8	268
11	Charge-Orbital Ordering and Verwey Transition in Magnetite. Physical Review Letters, 2004, 93, 156403.	7.8	249
12	Prediction of an arc-tunable Weyl Fermion metallic state in Mo <sub>x</sub> W <sub>1-x</sub> Te <sub>2</sub> . Nature Communications, 2016, 7, 10639.	12.8	249
13	Large Area and High Quality 2D Transition Metal Telluride. Advanced Materials, 2017, 29, 1603471.	21.0	181
14	Discovery of Lorentz-violating type II Weyl fermions in LaAlGe. Science Advances, 2017, 3, e1603266.	10.3	176
15	Newtype single-layer magnetic semiconductor in transition-metal dichalcogenides VX <sub>2</sub> (X=S, Se and Tl) and Tl <sub>2</sub> Te. Nature Communications, 2017, 8, 1470.	10.784314	170
16	Discovery of a new type of topological Weyl fermion semimetal state in Mo <sub>x</sub> W <sub>1-x</sub> Te <sub>2</sub> . Nature Communications, 2016, 7, 13643.	12.8	163
17	Type-II Symmetry-Protected Topological Dirac Semimetals. Physical Review Letters, 2017, 119, 026404.	7.8	145
18	Superconducting topological surface states in the noncentrosymmetric bulk superconductor PbTaSe <sub>2</sub> . Science Advances, 2016, 2, e1600894.	10.3	137

#	ARTICLE	IF	CITATIONS
19	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
20			

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37	Observation of the spin-polarized surface state in a noncentrosymmetric superconductor BiPd. Nature Communications, 2016, 7, 13315.	12.8	42
38	Thickness dependence of spin polarization and electronic structure of ultra-thin films of MoS2 and related transition-metal dichalcogenides. Scientific Reports, 2014, 4, 6270.	3.3	36
39	Unconventional transformation of spin Dirac phase across a topological quantum phase transition. Nature Communications, 2015, 6, 6870.	12.8	34
40	Inter-Layer Coupling Induced Valence Band Edge Shift in Mono- to Few-Layer MoS2. Scientific Reports, 2017, 7, 40559.	3.3	32
41	Fermi surface topology and hot spot distribution in the Kondo lattice system $CeB_6$ . Physical Review B, 2015, 92, .	3.2	29
42	Electric control of valley polarization in monolayer WSe2 using a van der Waals magnet. Nature Nanotechnology, 2022, 17, 721-728.	31.5	28
43	Ultraquantum magnetoresistance in the Kramers-Weyl semimetal candidate $\hat{\nu}Ag_2Se$ . Physical Review B, 2017, 96, .	3.2	27
44	First-principles investigations of the orbital magnetic moments in CrO2. Journal of Applied Physics, 2002, 92, 951-957.	2.5	25
45	Wide-range ideal 2D Rashba electron gas with large spin splitting in Bi2Se3/MoTe2 heterostructure. Npj Computational Materials, 2017, 3, .	8.7	25
46	Phase diagram of the layered oxide SnO: GW and electron-phonon studies. Scientific Reports, 2015, 5, 16359.	3.3	24
47	Enhancing Quantum Yield in Strained MoS2 Bilayers by Morphology-Controlled Plasmonic Nanostructures toward Superior Photodetectors. Chemistry of Materials, 2020, 32, 2242-2252.	6.7	24
48	Ab initio study of the PbTaSe2-related superconducting topological metals. Physical Review B, 2016, 94, .	3.2	22
49	A first-principles study of rare earth quaternary Heusler compounds: RXVZ (R = Yb, Lu; X = Fe, Co, Ni; Z = Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn). Scientific Reports, 2020, 10, 10784.	2.8	22
50	Green Treatment of Phosphate from Wastewater Using a Porous Bio-Templated Graphene Oxide/MgMn-Layered Double Hydroxide Composite. Science, 2020, 23, 101065.	4.1	21
51	Mirror Protected Dirac Fermions on a Weyl Semimetal NbP Surface. Physical Review Letters, 2017, 119, 196403.	7.8	20
52	Charge-orbital ordering and ferroelectric polarization in multiferroic TbMnO3. Physical Review B, 2015, 91, .	3.2	19
53	Two distinct topological phases in the mixed valence compound YbB6. Physical Review B, 2015, 91, .	3.2	19
54	Tunable spin helical Dirac quasiparticles on the surface of three-dimensional HgTe. Physical Review B, 2015, 92, .	3.2	19

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55	Quasiparticle Interference on Cubic Perovskite Oxide Surfaces. <i>Physical Review Letters</i> , 2017, 119, 086801.	7.8	19
56	Modulation Doping Enables Ultrahigh Power Factor and Thermoelectric ZT in $\text{Bi}_{2-x}\text{Te}_{2.7}\text{Se}_{0.3}$ . <i>Advanced Science</i> , 2022, 9, e2201353.	11.2	19
57	First-principles investigations of the magnetocrystalline anisotropy in strained Ni-substituted magnetite ( $\text{NiFe}_2\text{O}_4$ ). <i>Journal of Magnetism and Magnetic Materials</i> , 2002, 240, 436-438.	2.3	18
58	High applicability of two-dimensional phosphorous in Kagome lattice predicted from first-principles calculations. <i>Scientific Reports</i> , 2016, 6, 23151.	3.3	18
59	Thermally Strain-Induced Band Gap Opening on Platinum Diselenide-Layered Films: A Promising Two-Dimensional Material with Excellent Thermoelectric Performance. <i>Chemistry of Materials</i> , 2021, 33, 3490-3498.	6.7	18
60	Electronic structure and orbital ordering of $\text{Sr}_{1-x}\text{Ru}_x\text{Ti}_x\text{O}_3$	3.2	17
61	Surface versus bulk Dirac state tuning in a three-dimensional topological Dirac semimetal. <i>Physical Review B</i> , 2015, 91, .	3.2	16
62	Large transverse Hall-like signal in topological Dirac semimetal $\text{Cd}_3\text{As}_2$ . <i>Scientific Reports</i> , 2016, 6, 27487.	3.3	16
63	Atomic-scale visualization of surface-assisted orbital order. <i>Science Advances</i> , 2017, 3, eaao0362.	10.3	14
64	Enhancement of catalytic activity by UV-light irradiation in $\text{CeO}_2$ nanocrystals. <i>Scientific Reports</i> , 2019, 9, 8018.	3.3	14
65	Selective interlayer ferromagnetic coupling between the Cu spins in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ grown on top of $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ . <i>Scientific Reports</i> , 2015, 5, 16690.	3.3	13
66	Selective Hydrogen Etching Leads to 2D $\text{Bi}(111)$ Bilayers on $\text{Bi}_2\text{Se}_3$ : Large Rashba Splitting in Topological Insulator Heterostructure. <i>Chemistry of Materials</i> , 2017, 29, 8992-9000.	6.7	13
67	Spin-correlated electronic state on the surface of a spin-orbit Mott system. <i>Physical Review B</i> , 2014, 90, .	3.2	11
68	Deeper insight into phase relations in ultrathin Pb films. <i>Physical Review B</i> , 2015, 92, .	3.2	11
69	Indirect interactions of metal nanoparticles through graphene. <i>Carbon</i> , 2021, 174, 132-137.	10.3	11
70	Multiple topological electronic phases in superconductor MoC. <i>Physical Review Materials</i> , 2018, 2, .	2.4	10
71	Unconventional topological phase transition in non-symmorphic material $\text{KHgX}$ ( $X = \text{As, Sb, Bi}$ ). <i>Npj Computational Materials</i> , 2019, 5, .	8.7	9
72	Relativistic density-functional calculations of interconfigurational energies for second and third transition-metal rows. <i>Physical Review B</i> , 2002, 66, .	3.2	8

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73	Topological Proximity-Induced Dirac Fermion in Two-Dimensional Antimonene. ACS Nano, 2021, 15, 15085-15095.	14.6	8
74	Prediction of nontrivial band topology and superconductivity in $Mg_{1-x}Pb_x$ . Physical Review Materials, 2017, 1, .	2.4	8
75	Tunable disorder and localization in the rare-earth nickelates. Physical Review Materials, 2019, 3, .	2.4	8
76	Prominent role of oxygen in the multiferroicity of DyMnO <sub>3</sub> and TbMnO <sub>3</sub> : A resonant soft x-ray scattering spectroscopy study. Physical Review B, 2016, 94, .	3.2	7
77	Orbital-enhanced warping effect in px,py-derived Rashba spin splitting of monatomic bismuth surface alloy. Npj Quantum Materials, 2020, 5, .	5.2	7
78	Newtype large Rashba splitting in quantum well states induced by spin chirality in metal/topological insulator heterostructures. NPG Asia Materials, 2016, 8, e332-e332.	7.9	6
79	Local property change of graphene induced by a Cu nanoparticle. Carbon, 2016, 98, 666-670.	10.3	6
80	Topological Phase and Quantum Anomalous Hall Effect in Ferromagnetic Transition-Metal Dichalcogenides Monolayer 1Tâˆ™VSe <sub>2</sub> . Nanomaterials, 2021, 11, 1998.	4.1	6
81	Enormous Berry-Curvature-Based Anomalous Hall Effect in Topological Insulator (Bi,Sb) <sub>2</sub> Te <sub>3</sub> on Ferrimagnetic Europium Iron Garnet beyond 400 K. ACS Nano, 2022, 16, 2369-2380.	14.6	6
82	Carrier-driven coupling in ferromagnetic oxide heterostructures. Physical Review B, 2017, 96, .	3.2	5
83	Topological Phase and Strong Correlation in Rare-Earth Hexaborides XB <sub>6</sub> (X = La, Ce, Pr, Nd, Pm, Sm). Tj ETQq1 1 0,784314 rgBT /Overlo	2.9	5
84	First-Principles Calculations Predict Tunable Large Magnetic Anisotropy Due to Spin-Polarized Quantum-Well Resonances in Nanometer-Thick SrRuO <sub>3</sub> Films: Implications for Spintronic Devices. ACS Applied Nano Materials, 2021, 4, 5932-5939.	5.0	5
85	Electronic structure of a $Mo_5\bar{A}$ silicon layer on Al(111). Physical Review Materials, 2020, 4, .	2.4	5
86	Strongly Enhanced Thermoelectric Performance over a Wide Temperature Range in Topological Insulator Thin Films. ACS Applied Energy Materials, 0, , .	5.1	4
87	Orbital ordering and magnetism in layered Perovskite Ruthenate Sr <sub>2</sub> RuO <sub>4</sub> . Scientific Reports, 2020, 10, 7089.	3.3	4
88	Reduction of dopant ions and enhancement of magnetic properties by UV irradiation in Ce-doped TiO <sub>2</sub> . Scientific Reports, 2021, 11, 7668.	3.3	4
89	Observing quantum trapping on MoS <sub>2</sub> through the lifetimes of resonant electrons: revealing the Pauli exclusion principle. Nanoscale Advances, 2020, 2, 5848-5856.	4.6	4
90	Direct transition resonance in atomically uniform topological Sb(111) thin films. Physical Review B, 2015, 92, .	3.2	3

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91	Threefold Fermions, Weyl Points, and Superconductivity in the Mirror Symmetry Lacking Semiconductor TlCd <sub>2</sub> Te <sub>4</sub> . Nanomaterials, 2022, 12, 679.	4.1	1
92	Superconducting proximity effect in $\sqrt{3} \times \sqrt{3}$ Ni nanoislands on Pb(111). Physical Review Materials, 2022, 6, .	0.4	0
93	Impact of band structure on wave function dissipation in field emission resonance. Physical Review B, 2022, 105, .	3.2	1
94	First-Principles Calculation of the Orbital Magnetic Moment of O and Cr in Half-metallic CrO <sub>2</sub> . Materials Research Society Symposia Proceedings, 2002, 718, 1.	0.1	0
95	Magnetic Phase Transition of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ Induced by Charge Transfer and Interdiffusion. IEEE Magnetics Letters, 2017, 8, 1-5.	1.1	0
96	Magnetoconductance modulations due to interlayer tunneling in radial superlattices. Nanoscale Horizons, 2022, 7, 168-173.	8.0	0