Horng-Tay Jeng

List of Publications by Year
in descending order

96	10,314	94381 37	42364 92
papers	citations	h-index	g-index

98	98	98	10627
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Observation of a three-dimensional topological Dirac semimetal phase in high-mobility Cd3As2. Nature Communications, 2014, 5, 3786.	5.8	1,166
2	Direct observation of the transition from indirect to direct bandgap in atomically thin epitaxial MoSe2. Nature Nanotechnology, 2014, 9, 111-115.	15.6	1,129
3	Discovery of a Weyl fermion state with Fermi arcs in niobium arsenide. Nature Physics, 2015, 11, 748-754.	6.5	817
4	Topological nodal-line fermions in spin-orbit metal PbTaSe2. Nature Communications, 2016, 7, 10556.	5.8	688
5	Observation of Fermi arc surface states in a topological metal. Science, 2015, 347, 294-298.	6.0	603
6	Signatures of the Adlerâ€“Bellâ€“Jackiw chiral anomaly in a Weyl fermion semimetal. Nature Communications, 2016, 7, 10735.	5.8	603
7	Hedgehog spin texture and Berryâ€™s phase tuning in a magnetic topological insulator. Nature Physics, 2012, 8, 616-622.	6.5	353
8	Experimental discovery of a topological Weyl semimetal state in TaP. Science Advances, 2015, 1, e1501092.	4.7	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.	3.3	291
10	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></m Physical Review B, 2016, 93, .	3.7	268
11	Charge-Orbital Ordering and Verwey Transition in Magnetite. Physical Review Letters, 2004, 93, 156403.	2.9	249
12	Prediction of an arc-tunable Weyl Fermion metallic state in MoxW1â^'xTe2. Nature Communications, 2016, 7, 10639.	5.8	249
13	Largeâ€Area and Highâ€Quality 2D Transition Metal Telluride. Advanced Materials, 2017, 29, 1603471.	11.1	181
14	Discovery of Lorentz-violating type II Weyl fermions in LaAlGe. Science Advances, 2017, 3, e1603266.	4.7	176
15	Newtype single-layer magnetic semiconductor in transition-metal dichalcogenides VX2 (Xâ€‰=â€‰S, Se and) Tj ETQq1 1 0.784314	1.6	170
16	Discovery of a new type of topological Weyl fermion semimetal state in MoxW1â^'xTe2. Nature Communications, 2016, 7, 13643.	5.8	163
17	Type-II Symmetry-Protected Topological Dirac Semimetals. Physical Review Letters, 2017, 119, 026404.	2.9	145
18	Superconducting topological surface states in the noncentrosymmetric bulk superconductor PbTaSe ₂. Science Advances, 2016, 2, e1600894.	4.7	137

#	ARTICLE	IF	CITATIONS
19	Criteria for Directly Detecting Topological Fermi Arcs in Weyl Semimetals. Physical Review Letters, 2016, 116, 066802.	2.9	134
20	Magnetic and noncentrosymmetric 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		

#	Article	IF	Citations
37	Observation of the spin-polarized surface state in a noncentrosymmetric superconductor BiPd. Nature Communications, 2016, 7, 13315.	5.8	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.	1.6	36
39	Unconventional transformation of spin Dirac phase across a topological quantum phase transition. Nature Communications, 2015, 6, 6870.	5.8	34
40	Inter-Layer Coupling Induced Valence Band Edge Shift in Mono- to Few-Layer MoS2. Scientific Reports, 2017, 7, 40559.	1.6	32
41	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, .	1.1	29
42	Electric control of valley polarization in monolayer WSe2 using a van der Waals magnet. Nature Nanotechnology, 2022, 17, 721-728.	15.6	28
43	Ultraquantum magnetoresistance in the Kramers-Weyl semimetal candidate Î²â˜Ag2Se. Physical Review B, 2017, 96, .	1.1	27
44	First-principles investigations of the orbital magnetic moments in CrO2. Journal of Applied Physics, 2002, 92, 951-957.	1.1	25
45	Wide-range ideal 2D Rashba electron gas with large spin splitting in Bi2Se3/MoTe2 heterostructure. Npj Computational Materials, 2017, 3, .	3.5	25
46	Phase diagram of the layered oxide SnO: GW and electron-phonon studies. Scientific Reports, 2015, 5, 16359.	1.6	24
47	Enhancing Quantum Yield in Strained MoS₂ Bilayers by Morphology-Controlled Plasmonic Nanostructures toward Superior Photodetectors. Chemistry of Materials, 2020, 32, 2242-2252.	3.2	24
48	Ab initiostudy of thePbTaSe2-related superconducting topological metals. Physical Review B, 2016, 94, .	1.1	22
49	A first-principles study of rare earth quaternary Heusler compounds: RXVZ (R = Yb, Lu; X = Fe, Co, Ni; Z) Tj ETQq1 1 0.784314 rgBT /Ov	1.3	22
50	Green Treatment of Phosphate from Wastewater Using a Porous Bio-Templated Graphene Oxide/MgMn-Layered Double Hydroxide Composite. IScience, 2020, 23, 101065.	1.9	21
51	Mirror Protected Dirac Fermions on a Weyl Semimetal NbP Surface. Physical Review Letters, 2017, 119, 196403.	2.9	20
52	Charge-orbital ordering and ferroelectric polarization in multiferroic TbMn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"	1.1	19
53	(Invalid) 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></mml:math> 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></mml:math>. Physical Review B, 2015, 91, .	1.1	19
54	Tunable spin helical Dirac quasiparticles on the surface of three-dimensional HgTe. Physical Review B, 2015, 92, .	1.1	19

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55	Quasiparticle Interference on Cubic Perovskite Oxide Surfaces. Physical Review Letters, 2017, 119, 086801.	2.9	19
56	Modulation Doping Enables Ultrahigh Power Factor and Thermoelectric ZT in nâ€Type Bi₂Te_{2.7}Se_{0.3}. Advanced Science, 2022, 9, e2201353.	5.6	19
57	First-principles investigations of the magnetocrystalline anisotropy in strained Ni-substituted magnetite (NiFe2O4). Journal of Magnetism and Magnetic Materials, 2002, 240, 436-438.	1.0	18
58	High applicability of two-dimensional phosphorous in Kagome lattice predicted from first-principles calculations. Scientific Reports, 2016, 6, 23151.	1.6	18
59	Thermally Strain-Induced Band Gap Opening on Platinum Diselenide-Layered Films: A Promising Two-Dimensional Material with Excellent Thermoelectric Performance. Chemistry of Materials, 2021, 33, 3490-3498.	3.2	18
60	Electronic structure and orbital ordering of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Sr</mml:mi><mml:msub><mml:mi mathvariant="normal">Ru</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow><mml:mi mathvariant="normal">Ti</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>:	1.1	17
61	Surface versus bulk Dirac state tuning in a three-dimensional topological Dirac semimetal. Physical Review B, 2015, 91, .	1.1	16
62	Large transverse Hall-like signal in topological Dirac semimetal Cd3As2. Scientific Reports, 2016, 6, 27487.	1.6	16
63	Atomic-scale visualization of surface-assisted orbital order. Science Advances, 2017, 3, eaao0362.	4.7	14
64	Enhancement of catalytic activity by UV-light irradiation in CeO2 nanocrystals. Scientific Reports, 2019, 9, 8018.	1.6	14
65	Selective interlayer ferromagnetic coupling between the Cu spins in YBa2Cu3O7â^'x grown on top of La0.7Ca0.3MnO3. Scientific Reports, 2015, 5, 16690.	1.6	13
66	Selective Hydrogen Etching Leads to 2D Bi(111) Bilayers on Bi₂Se₃: Large Rashba Splitting in Topological Insulator Heterostructure. Chemistry of Materials, 2017, 29, 8992-9000.	3.2	13
67	Spin-correlated electronic state on the surface of a spin-orbit Mott system. Physical Review B, 2014, 90, .	1.1	11
68	Deeper insight into phase relations in ultrathin Pb films. Physical Review B, 2015, 92, .	1.1	11
69	Indirect interactions of metal nanoparticles through graphene. Carbon, 2021, 174, 132-137.	5.4	11
70	Multiple topological electronic phases in superconductor MoC. Physical Review Materials, 2018, 2, .	0.9	10
71	Unconventional topological phase transition in non-symmorphic material KHgX (Xâ€‰=â€‰As, Sb, Bi). Npj Computational Materials, 2019, 5, .	3.5	9
72	Relativistic density-functional calculations of interconfigurational energies for second and third transition-metal rows. Physical Review B, 2002, 66, .	1.1	8

#	ARTICLE	IF	CITATIONS
73	Topological Proximity-Induced Dirac Fermion in Two-Dimensional Antimonene. ACS Nano, 2021, 15, 15085-15095.	7.3	8
74	Prediction of nontrivial band topology and superconductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">g</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Pb</mml:mi></mml:mrow></mml:math>. Physical Review Materials, 2017, 1, .	0.9	8
75	Tunable disorder and localization in the rare-earth nickelates. Physical Review Materials, 2019, 3, .	0.9	8
76	Prominent role of oxygen in the multiferroicity ofDyMnO3andTbMnO3: A resonant soft x-ray scattering spectroscopy study. Physical Review B, 2016, 94, .	1.1	7
77	Orbital-enhanced warping effect in px,py-derived Rashba spin splitting of monatomic bismuth surface alloy. Npj Quantum Materials, 2020, 5, .	1.8	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.	3.8	6
79	Local property change of graphene induced by a Cu nanoparticle. Carbon, 2016, 98, 666-670.	5.4	6
80	Topological Phase and Quantum Anomalous Hall Effect in Ferromagnetic Transition-Metal Dichalcogenides Monolayer 1Tâ˜VSe2. Nanomaterials, 2021, 11, 1998.	1.9	6
81	Enormous Berry-Curvature-Based Anomalous Hall Effect in Topological Insulator (Bi,Sb)₂Te₃ on Ferrimagnetic Europium Iron Garnet beyond 400 K. ACS Nano, 2022, 16, 2369-2380.	7.3	6
82	Carrier-driven coupling in ferromagnetic oxide heterostructures. Physical Review B, 2017, 96, .	1.1	5
83	Topological Phase and Strong Correlation in Rare-Earth Hexaborides XB6 (X = La, Ce, Pr, Nd, Pm, Sm,) Tj ETQq1 1 0.784314 rgBT /Ove	1.3	5
84	First-Principles Calculations Predict Tunable Large Magnetic Anisotropy Due to Spin-Polarized Quantum-Well Resonances in Nanometer-Thick SrRuO₃ Films: Implications for Spintronic Devices. ACS Applied Nano Materials, 2021, 4, 5932-5939.	2.4	5
85	Electronic structure of a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mn>3</mml:mn>×<mml:mo>Ã—</mml:mo> silicon layer on Al(111). Physical Review Materials, 2020, 4, .	0.9	5
86	Strongly Enhanced Thermoelectric Performance over a Wide Temperature Range in Topological Insulator Thin Films. ACS Applied Energy Materials, 0, , .	2.5	4
87	Orbital ordering and magnetism in layered Perovskite Ruthenate Sr2RuO4. Scientific Reports, 2020, 10, 7089.	1.6	4
88	Reduction of dopant ions and enhancement of magnetic properties by UV irradiation in Ce-doped TiO2. Scientific Reports, 2021, 11, 7668.	1.6	4
89	Observing quantum trapping on MoS₂ through the lifetimes of resonant electrons: revealing the Pauli exclusion principle. Nanoscale Advances, 2020, 2, 5848-5856.	2.2	4
90	Direct transition resonance in atomically uniform topological Sb(111) thin films. Physical Review B, 2015, 92, .	1.1	3

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91	Threefold Fermions, Weyl Points, and Superconductivity in the Mirror Symmetry Lacking Semiconductor TlCd2Te4. Nanomaterials, 2022, 12, 679.	1.9	1
92	Superconducting proximity effect in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:msqrt><mml:mr Ni nanoislands on Pb(111). Physical Review Materials, 2022, 6, .	3.1	1
93	Impact of band structure on wave function dissipation in field emission resonance. Physical Review B, 2022, 105, .	1.1	1
94	First-Principles Calculation of the Orbital Magnetic Moment of O and Cr in Half-metallic CrO2. Materials Research Society Symposia Proceedings, 2002, 718, 1.	0.1	0
95	Magnetic Phase Transition of ${mathrm {La}}_{1-{mathrm x}}{mathrm {Sr}}_{mathrm x}{mathrm {MnO}}_3$ Induced by Charge Transfer and Interdiffusion. IEEE Magnetics Letters, 2017, 8, 1-5.	0.6	0
96	Magnetoconductance modulations due to interlayer tunneling in radial superlattices. Nanoscale Horizons, 2022, 7, 168-173.	4.1	0