

Haiwen Liu

List of Publications by Year in descending order

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69
papers

2,619
citations

236833

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h-index

189801

50
g-index

69
all docs

69
docs citations

69
times ranked

3378
citing authors

#	ARTICLE	IF	CITATIONS
1	Signatures of a strange metal in a bosonic system. Nature, 2022, 601, 205-210.	13.7	27
2	Non-Abelian Braiding in Spin Superconductors Utilizing the Aharonov-Casher Effect. Physical Review Letters, 2022, 128, 106804.	2.9	6
3	Disorder effects on quantum transport and quantum phase transition in low-dimensional superconducting and topological systems. Advances in Physics: X, 2021, 6, .	1.5	7
4	Valley-selective Floquet Chern flat bands in twisted multilayer graphene. Physical Review B, 2021, 103, .	1.1	11
5	Magnetic field controllable planar Hall effect in SrO_4 films. Observation of thickness-tuned universality class in superconducting SrO_4 thin films. Science Bulletin, 2021, 66, 1830-1838.	1.1	3
6	Observation of In-Plane Quantum Griffiths Singularity in Two-Dimensional Crystalline Superconductors. Physical Review Letters, 2021, 127, 137001.	4.3	5
7	Multiorbital model reveals a second-order topological insulator in H_2O transition metal dichalcogenides. Physical Review B, 2021, 104, .	2.9	17
8	Electronic confinement in quantum dots of twisted bilayer graphene. Physical Review B, 2021, 104, .	1.1	3
9	Quantum to classical crossover under dephasing effects in a two-dimensional percolation model. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	2.0	6
10	Non-Abelian Braiding of Dirac Fermionic Modes Using Topological Corner States in Higher-Order Topological Insulator. Physical Review Letters, 2020, 125, 036801.	2.9	24
11	3D Quantum Hall Effect and a Global Picture of Edge States in Weyl Semimetals. Physical Review Letters, 2020, 125, 036602.	2.9	38
12	Unconventional Hall effect induced by Berry curvature. National Science Review, 2020, 7, 1879-1885.	4.6	19
13	Quasi-bound states in an NPN-type nanometer-scale graphene quantum dot under a magnetic field. Scientific Reports, 2020, 10, 20426.	1.6	7
14	Microwave-enhanced photovoltaic quantum oscillations of Weyl fermions. Physical Review B, 2020, 102, .	1.1	0
15	Relativistic Artificial Molecules Realized by Two Coupled Graphene Quantum Dots. Nano Letters, 2020, 20, 6738-6743.	4.5	15
16	Transport study of the wormhole effect in three-dimensional topological insulators. Physical Review B, 2020, 102, .	1.1	5
17	Evolution of quasi-bound states in the circular p junction of bilayer graphene under magnetic field. Scientific Reports, 2020, 10, 16256.	1.6	3

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19	Microscopic theory of in-plane critical field in two-dimensional Ising superconducting systems. Physical Review B, 2020, 102, .	1.1	7
20	Double-frequency Aharonov-Bohm effect and non-Abelian braiding properties of Jackiw-Rebbi zero-mode. National Science Review, 2020, 7, 572-578.	4.6	21
21	Andreev spectroscopy of the triplet-superconductor state in the Bi/Ni bilayer system. Physical Review B, 2020, 101, .	1.1	3
22	Type-II Ising pairing in few-layer stanene. Science, 2020, 367, 1454-1457.	6.0	81
23	Type-II Ising Superconductivity and Anomalous Metallic State in Macro-Size Ambient-Stable Ultrathin Crystalline Films. Nano Letters, 2020, 20, 5728-5734.	4.5	43
24	Majorana zero modes from topological kink states in the two-dimensional electron gas. Physical Review B, 2020, 101, .	1.1	4
25	Log-periodic quantum magneto-oscillations and discrete-scale invariance in topological material HfTe5. National Science Review, 2019, 6, 914-920.	4.6	15
26	Anomalous quantum Griffiths singularity in ultrathin crystalline lead films. Nature Communications, 2019, 10, 3633.	5.8	21
27	Dephasing effects in topological insulators. Frontiers of Physics, 2019, 14, 1.	2.4	10
28	Intermediate bosonic metallic state in the superconductor-insulator transition. Science, 2019, 366, 1505-1509.	6.0	88
29	Numerical study of negative nonlocal resistance and backflow current in a ballistic graphene system. Physical Review B, 2019, 100, .	1.1	4
30	3/2 fractional quantum Hall plateau in confined two-dimensional electron gas. Nature Communications, 2019, 10, 4351.	5.8	19
31	Planar Hall effect in tilted Weyl semimetals. Physical Review B, 2019, 99, .	1.1	53
32	Effect of Coulomb screening on the discrete scale invariance of quasibound states in three-dimensional topological semimetals. Physical Review B, 2019, 100, .	1.1	2
33	Log-periodic quantum oscillations in topological or Dirac materials. Frontiers of Physics, 2019, 14, 1.	2.4	1
34	Effects of Random Domains on the Zero Hall Plateau in the Quantum Anomalous Hall Effect. Physical Review Letters, 2019, 122, 026601.	2.9	21
35	Interface-Induced Zeeman-Protected Superconductivity in Ultrathin Crystalline Lead Films. Physical Review X, 2018, 8, .	2.8	36
36	Kondo effect with Weyl semimetal Fermi arcs. Physical Review B, 2018, 97, .	1.1	18

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37	Magnetic-field-controlled negative differential conductance in scanning tunneling spectroscopy of graphene npn junction resonators. <i>Physical Review B</i> , 2018, 97, .	1.1	17
38	Manipulation and Characterization of the Valley-Polarized Topological Kink States in Graphene-Based Interferometers. <i>Physical Review Letters</i> , 2018, 121, 156801.	2.9	36
39	Discovery of log-periodic oscillations in ultraquantum topological materials. <i>Science Advances</i> , 2018, 4, eaau5096.	4.7	54
40	Noise signatures for determining chiral Majorana fermion modes. <i>Physical Review B</i> , 2018, 98, .	1.1	13
41	Two-dimensional spinodal interface in one-step grown graphene-molybdenum carbide heterostructures. <i>Physical Review Materials</i> , 2018, 2, .	0.9	9
42	Bound states in nanoscale graphene quantum dots in a continuous graphene sheet. <i>Physical Review B</i> , 2017, 95, .	1.1	24
43	Ising Superconductivity and Quantum Phase Transition in Macro-Size Monolayer NbSe_2 . <i>Nano Letters</i> , 2017, 17, 6802-6807.	4.5	155
44	Numerical study of universal conductance fluctuations in three-dimensional topological semimetals. <i>Physical Review B</i> , 2017, 96, .	1.1	13
45	Scanning tunneling microscopy and spectroscopy of finite-size twisted bilayer graphene. <i>Physical Review B</i> , 2017, 96, .	1.1	11
46	Massless Dirac fermions trapping in a quasi-one-dimensional npn junction of a continuous graphene monolayer. <i>Physical Review B</i> , 2017, 95, .	1.1	24
47	Ultraquantum magnetoresistance in the Kramers-Weyl semimetal candidate $\hat{\Gamma}_2^{\text{Ag}}\text{Ag}_2\text{Se}$. <i>Physical Review B</i> , 2017, 96, .	1.1	27
48	Magnetic-tunnelling-induced Weyl node annihilation in TaP. <i>Nature Physics</i> , 2017, 13, 979-986.	6.5	80
49	Enhanced electron dephasing in three-dimensional topological insulators. <i>Nature Communications</i> , 2017, 8, 16071.	5.8	41
50	Global phase diagram of disordered type-II Weyl semimetals. <i>Physical Review B</i> , 2017, 96, .	1.1	17
51	Superconductor-graphene-superconductor Josephson junction in the quantum Hall regime. <i>Physical Review B</i> , 2017, 96, .	1.1	11
52	Effective spin dephasing mechanism in confined two-dimensional topological insulators. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016, 59, 1.	2.0	7
53	Higgs amplitude mode in massless Dirac fermion systems. <i>Physical Review B</i> , 2016, 93, .	1.1	9
54	Chiral anomaly and ultrahigh mobility in crystalline HfT_5e . <i>Physical Review B</i> , 2016, 93, .	1.1	53

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55	Positive magnetoconductivity of Weyl semimetals in the ultraquantum limit. Physical Review B, 2016, 93, .	1.1	21
56	Chiral wave-packet scattering in Weyl semimetals. Physical Review B, 2016, 93, .	1.1	28
57	Quantum interference in topological insulator Josephson junctions. Physical Review B, 2016, 93, .	1.1	15
58	Observation of quantum Griffiths singularity and ferromagnetism at the superconducting $\text{LaAlO}_3/\text{SrTiO}_3$ interface. Physical Review B, 2016, 94, .	1.1	39
59	Numerical study of the giant nonlocal resistance in spin-orbit coupled graphene. Physical Review B, 2016, 94, .	1.1	8
60	Observation of superconductivity induced by a point contact on 3D Dirac semimetal Cd_3As_2 crystals. Nature Materials, 2016, 15, 38-42.	13.3	209
61	Tunable Anderson metal-insulator transition in quantum spin-Hall insulators. Physical Review B, 2015, 91, .	1.1	21
62	Topological Imbert-Fedorov Shift in Weyl Semimetals. Physical Review Letters, 2015, 115, 156602.	2.9	104
63	Anisotropic Fermi Surface and Quantum Limit Transport in High Mobility Three-Dimensional Dirac Semimetal Cd_3As_2 . Physical Review X, 2015, 5, .	2.8	118
64	Anisotropic magnetotransport and exotic longitudinal linear magnetoresistance in WTe_2 crystals. Physical Review B, 2015, 92, .	1.1	156
65	Giant negative magnetoresistance induced by the chiral anomaly in individual Cd_3As_2 nanowires. Nature Communications, 2015, 6, 10137.	5.8	372
66	Quantum Griffiths singularity of superconductor-metal transition in Ga thin films. Science, 2015, 350, 542-545.	6.0	151
67	Dephasing Effect on Backscattering of Helical Surface States in 3D Topological Insulators. Physical Review Letters, 2014, 113, 046805.	2.9	18
68	Edge engineering of a topological $\text{Bi}(111)$ bilayer. Physical Review B, 2014, 90, .	1.1	32
69	Crossover between Weak Antilocalization and Weak Localization of Bulk States in Ultrathin Bi_2Se_3 Films. Scientific Reports, 2014, 4, 5817.	1.6	52