Hua Jiang

List of Publications by Year
in descending order

105 papers	4,588 citations	159585 30 h-index	106344 65 g-index
105 all docs	105 docs citations	105 times ranked	4125 citing authors

#	Article	IF	Citations
1	Unveiling non-Abelian statistics of vortex Majorana bound states in iron-based superconductors using fermionic modes. Physical Review B, 2022, 105, .	3.2	2
2	Suppression of magneto-optical transport in tilted Weyl semimetals by orbital magnetic moment. Physical Review B, 2022, 105, .	3.2	1
3	Non-synchronous bulk photovoltaic effect in two-dimensional interlayer-sliding ferroelectrics. Npj Computational Materials, 2022, 8, .	8.7	14
4	Topological flat bands in twisted trilayer graphene. Science Bulletin, 2021, 66, 18-22.	9.0	42
5	Disorder effects on quantum transport and quantum phase transition in low-dimensional superconducting and topological systems. Advances in Physics: X, 2021, 6, .	4.1	7
6	Chiral interface states and related quantized transport in disordered Chern insulators. Physical Review B, 2021, 103, .	3.2	12
7	Transport property of inhomogeneous strained graphene*. Chinese Physics B, 2021, 30, 030504.	1.4	8
8	Realistic flat-band model based on degenerate p-orbitals in two-dimensional ionic materials. Science Bulletin, 2021, 66, 765-770.	9.0	7
9	Critical Behavior and Universal Signature of an Axion Insulator State. Physical Review Letters, 2021, 126, 156601.	7.8	23
10	Spin photogalvanic effect in two-dimensional collinear antiferromagnets. Npj Quantum Materials, 2021, 6, .	5.2	25
11	Real-space topological invariant and higher-order topological Anderson insulator in two-dimensional non-Hermitian systems. Physical Review B, 2021, 103, .	3.2	20
12	Topological kink states in graphene. Nanotechnology, 2021, 32, 402001.	2.6	6
13	Global phase diagram of disordered higher-order Weyl semimetals. Physical Review B, 2021, 104, .	3.2	16
14	Quantum Spin-Valley Hall Kink States: From Concept to Materials Design. Physical Review Letters, 2021, 127, 116402.	7.8	25
15	Multiorbital model reveals a second-order topological insulator in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>H</mml:mi></mml:mrow></mn transition metal dichalcogenides. Physical Review B, 2021, 104, .	3.2	26
16	The realization of quantum anomalous Hall effect in two dimensional electron gas. Journal of Physics Condensed Matter, 2021, 33, 105701.	1.8	1
17	Building programmable integrated circuits through disordered Chern insulators. Physical Review B, 2021, 104, .	3.2	10
18	Coexistence of Quantum Hall and Quantum Anomalous Hall Phases in Disordered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MnBi</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ Physical Review Letters, 2021, 127, 236402.	7.8	24

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19	Quantum to classical crossover under dephasing effects in a two-dimensional percolation model. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	5.1	6
20	Non-Abelian Braiding of Dirac Fermionic Modes Using Topological Corner States in Higher-Order Topological Insulator. Physical Review Letters, 2020, 125, 036801.	7.8	24
21	3D Quantum Hall Effect and a Global Picture of Edge States in Weyl Semimetals. Physical Review Letters, 2020, 125, 036602.	7.8	38
22	Relativistic Artificial Molecules Realized by Two Coupled Graphene Quantum Dots. Nano Letters, 2020, 20, 6738-6743.	9.1	15
23	Electrical detection of ferroelectriclike metals through the nonlinear Hall effect. Physical Review B, 2020, 102, .	3.2	22
24	Quantum Hall effect in wedge-shaped samples. Physical Review B, 2020, 102, .	3.2	8
25	Transport study of the wormhole effect in three-dimensional topological insulators. Physical Review B, 2020, 102, .	3.2	5
26	Double-frequency Aharonov-Bohm effect and non-Abelian braiding properties of Jackiw-Rebbi zero-mode. National Science Review, 2020, 7, 572-578.	9.5	21
27	Emergent Z2 topological invariant and robust helical edge states in two-dimensional topological metals. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	5.1	6
28	Topological Anderson insulator in two-dimensional non-Hermitian systems*. Chinese Physics B, 2020, 29, 050502.	1.4	21
29	Gapped topological kink states and topological corner states in honeycomb lattice. Science Bulletin, 2020, 65, 531-537.	9.0	59
30	Two-Dimensional Metals for Piezoelectriclike Devices Based on Berry-Curvature Dipole. Physical Review Applied, 2020, 13, .	3.8	22
31	Majorana zero modes from topological kink states in the two-dimensional electron gas. Physical Review B, 2020, 101, .	3.2	4
32	Dephasing effects in topological insulators. Frontiers of Physics, 2019, 14, 1.	5.0	10
33	Numerical study of negative nonlocal resistance and backflow current in a ballistic graphene system. Physical Review B, 2019, 100, .	3.2	4
34	Disorder induced phase transition in magnetic higher-order topological insulator: A machine learning study. Chinese Physics B, 2019, 28, 117301.	1.4	21
35	Numerical study of Klein quantum dots in graphene systems. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	9
36	Nanoscale detection of valley-dependent spin splitting around atomic defects of graphene. 2D Materials, 2019, 6, 031005.	4.4	14

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37	Engineering a topological quantum dot device through planar magnetization in bismuthene. Physical Review B, 2019, 99, .	3.2	6
38	Planar Hall effect in tilted Weyl semimetals. Physical Review B, 2019, 99, .	3.2	53
39	Topological Anderson insulator in electric circuits. Physical Review B, 2019, 100, .	3.2	40
40	Novel Chern insulators with half-metallic edge states. NPG Asia Materials, 2018, 10, e467-e467.	7.9	20
41	Perfect valley filter based on a topological phase in a disordered Sb monolayer heterostructure. Physical Review B, 2018, 97, .	3.2	17
42	Topological Valley Transport in Two-dimensional Honeycomb Photonic Crystals. Scientific Reports, 2018, 8, 1588.	3.3	67
43	Doubled Shapiro steps in a topological Josephson junction. Physical Review B, 2018, 97, .	3.2	12
44	Generating atomically sharp <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>p</mml:mi><mml:mo>â^'</mml:mo><mml:mi>n</mml:mi junctions in graphene and testing quantum electron optics on the nanoscale. Physical Review B, 2018, 97, .	3.2	39
45	Magnetic-field-controlled negative differential conductance in scanning tunneling spectroscopy of graphene <i>npn</i> junction resonators. Physical Review B, 2018, 97, .	3.2	17
46	Transverse shift in crossed Andreev reflection. Physical Review B, 2018, 98, .	3.2	11
47	Manipulation and Characterization of the Valley-Polarized Topological Kink States in Graphene-Based Interferometers. Physical Review Letters, 2018, 121, 156801.	7.8	36
48	Noise signatures for determining chiral Majorana fermion modes. Physical Review B, 2018, 98, .	3.2	13
49	Current noises in a topological Josephson junction. Science China: Physics, Mechanics and Astronomy, 2018, 61, 1.	5.1	5
50	Giant spin-valley polarization and multiple Hall effect in functionalized bismuth monolayers. Npj Quantum Materials, 2018, 3, .	5.2	44
51	Goos-HÃnchen-like shifts at a metal/superconductor interface. Physical Review B, 2018, 98, .	3.2	9
52	Bound states in nanoscale graphene quantum dots in a continuous graphene sheet. Physical Review B, 2017, 95, .	3.2	24
53	Transport properties in monolayerâ€"bilayerâ€"monolayer graphene planar junctions. Chinese Physics B, 2017, 26, 067202.	1.4	2
54	Numerical study of universal conductance fluctuations in three-dimensional topological semimetals. Physical Review B, 2017, 96, .	3.2	13

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55	Splitting of Van Hove singularities in slightly twisted bilayer graphene. Physical Review B, 2017, 96, .	3.2	31
56	Scanning tunneling microscopy and spectroscopy of finite-size twisted bilayer graphene. Physical Review B, 2017, 96, .	3.2	11
57	Massless Dirac fermions trapping in a quasi-one-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>n</mml:mi><mml:mi>p</mml:mi><mml:mi>n</mml:mi junction of a continuous graphene monolayer. Physical Review B, 2017, 95, .	3.2	29
58	Ultraquantum magnetoresistance in the Kramers-Weyl semimetal candidate Î²â˜'Ag2Se. Physical Review B, 2017, 96, .	3.2	27
59	Global phase diagram of disordered type-II Weyl semimetals. Physical Review B, 2017, 96, .	3.2	17
60	Two-dimensional lattice model for the surface states of topological insulators. Physical Review B, 2017, 95, .	3.2	30
61	Nonlocal resistance in multi-terminal graphene system. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 217201.	0.5	0
62	The valley filter efficiency of monolayer graphene and bilayer graphene line defect model. New Journal of Physics, 2016, 18, 103024.	2.9	29
63	Quantum spinâ€"quantum anomalous Hall effect with tunable edge states in Sb monolayer-based heterostructures. Physical Review B, 2016, 94, .	3.2	42
64	Effects of intervalley scattering on the transport properties in oneâ˜'dimensional valleytronic devices. Scientific Reports, 2016, 6, 23211.	3.3	16
65	Effective spin dephasing mechanism in confined two-dimensional topological insulators. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	5.1	7
66	Anderson Localization from the Berry-Curvature Interchange in Quantum Anomalous Hall Systems. Physical Review Letters, 2016, 117, 056802.	7.8	29
67	Positive magnetoconductivity of Weyl semimetals in the ultraquantum limit. Physical Review B, 2016, 93, .	3.2	21
68	Chiral wave-packet scattering in Weyl semimetals. Physical Review B, 2016, 93, .	3.2	28
69	Disorder effects in topological states: Brief review of the recent developments. Chinese Physics B, 2016, 25, 117311.	1.4	28
70	Direct imaging of topological edge states at a bilayer graphene domain wall. Nature Communications, 2016, 7, 11760.	12.8	155
71	Numerical study of the giant nonlocal resistance in spin-orbit coupled graphene. Physical Review B, 2016, 94, .	3.2	8
72	Valley-polarized quantum anomalous Hall phase and disorder-induced valley-filtered chiral edge channels. Physical Review B, 2015, 91, .	3.2	43

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73	Tunable Anderson metal-insulator transition in quantum spin-Hall insulators. Physical Review B, 2015, 91, .	3.2	21
74	Topological Imbert-Fedorov Shift in Weyl Semimetals. Physical Review Letters, 2015, 115, 156602.	7.8	104
75	Disorder and Metal-Insulator Transitions in Weyl Semimetals. Physical Review Letters, 2015, 115, 246603.	7.8	124
76	Anisotropic magnetotransport and exotic longitudinal linear magnetoresistance inWTe2crystals. Physical Review B, 2015, 92, .	3.2	156
77	Building topological devices through emerging robust helical surface states. New Journal of Physics, 2015, 17, 113040.	2.9	6
78	Floquet Majorana fermions in driven hexagonal lattice systems. Solid State Communications, 2015, 215-216, 18-26.	1.9	6
79	Effect of magnetic field on a magnetic topological insulator film with structural inversion asymmetry. Physical Review B, 2014, 89, .	3.2	13
80	Transport Discovery of Emerging Robust Helical Surface States inZ2=0Systems. Physical Review Letters, 2014, 112, 176601.	7.8	21
81	Dephasing Effect on Backscattering of Helical Surface States in 3D Topological Insulators. Physical Review Letters, 2014, 113, 046805.	7.8	18
82	Edge engineering of a topological Bi(111) bilayer. Physical Review B, 2014, 90, .	3.2	32
83	A disorder induced field effect transistor in bilayer and trilayer graphene. Journal of Physics Condensed Matter, 2013, 25, 105303.	1.8	3
84	Topological phases in gated bilayer graphene: Effects of Rashba spin-orbit coupling and exchange field. Physical Review B, 2013, 87, .	3.2	45
85	NUMERICAL STUDY OF TRANSPORT PROPERTIES IN TOPOLOGICAL INSULATOR QUANTUM DOTS UNDER MAGNETIC FIELD. Modern Physics Letters B, 2013, 27, 1350104.	1.9	5
86	Two-dimensional carbon allotrope with strong electronic anisotropy. Physical Review B, 2013, 87, .	3.2	108
87	Topological Invariants of Metals and the Related Physical Effects. Chinese Physics Letters, 2013, 30, 027101.	3.3	110
88	Quantum pump effect induced by a linearly polarized microwave in a two-dimensional electron gas. Journal of Physics Condensed Matter, 2012, 24, 215304.	1.8	6
89	Phase structure of the topological Anderson insulator. Physical Review B, 2012, 85, .	3.2	27
90	Microscopic theory of quantum anomalous Hall effect in graphene. Physical Review B, 2012, 85, .	3.2	147

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91	One-dimensional quantum channel in a graphene line defect. Physical Review B, 2012, 86, .	3.2	49
92	Pole expansion of self-energy and interaction effect for topological insulators. Physical Review B, 2012, 85, .	3.2	23
93	Spontaneous spin-triplet exciton condensation in ABC-stacked trilayer graphene. Physical Review B, 2012, 86, .	3.2	18
94	Intrinsic superconductivity in ABA-stacked trilayer graphene. AIP Advances, 2012, 2, 041405.	1.3	9
95	Dependence of topological Anderson insulator on the type of disorder. Physical Review B, 2012, 85, .	3.2	67
96	Quantum anomalous Hall effect with tunable Chern number in magnetic topological insulator film. Physical Review B, 2012, 85, .	3.2	127
97	Stabilizing Topological Phases in Graphene via Random Adsorption. Physical Review Letters, 2012, 109, 116803.	7.8	101
98	Low-energy effective Hamiltonian involving spin-orbit coupling in silicene and two-dimensional germanium and tin. Physical Review B, 2011, 84, .	3.2	1,130
99	Two-Dimensional Topological Insulator State and Topological Phase Transition in Bilayer Graphene. Physical Review Letters, 2011, 107, 256801.	7.8	156
100	Theory of quantum spin Hall effect detection by measurements of the polarization resistance. Physical Review B, 2011, 83, .	3.2	3
101	Spin current through an ESR quantum dot: A real-time study. Physical Review B, 2010, 81, .	3.2	0
102	Spin polarization and giant magnetoresistance effect induced by magnetization in zigzag graphene nanoribbons. Physical Review B, 2010, 81, .	3.2	95
103	Topological Insulator: A New Quantized Spin Hall Resistance Robust to Dephasing. Physical Review Letters, 2009, 103, 036803.	7.8	88
104	Numerical study of the topological Anderson insulator in HgTe/CdTe quantum wells. Physical Review B, 2009, 80, .	3.2	209
105	Transmission phase shift of phonon-assisted tunneling through a quantum dot. Physical Review B, 2008, 77, .	3.2	4