

Hua Jiang

List of Publications by Year in descending order

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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	Low-energy effective Hamiltonian involving spin-orbit coupling in silicene and two-dimensional germanium and tin. <i>Physical Review B</i> , 2011, 84, .	3.2	1,130
2	Numerical study of the topological Anderson insulator in HgTe/CdTe quantum wells. <i>Physical Review B</i> , 2009, 80, .	3.2	209
3	Two-Dimensional Topological Insulator State and Topological Phase Transition in Bilayer Graphene. <i>Physical Review Letters</i> , 2011, 107, 256801.	7.8	156
4	Anisotropic magnetotransport and exotic longitudinal linear magnetoresistance in WTe ₂ crystals. <i>Physical Review B</i> , 2015, 92, .	3.2	156
5	Direct imaging of topological edge states at a bilayer graphene domain wall. <i>Nature Communications</i> , 2016, 7, 11760.	12.8	155
6	Microscopic theory of quantum anomalous Hall effect in graphene. <i>Physical Review B</i> , 2012, 85, .	3.2	147
7	Quantum anomalous Hall effect with tunable Chern number in magnetic topological insulator film. <i>Physical Review B</i> , 2012, 85, .	3.2	127
8	Disorder and Metal-Insulator Transitions in Weyl Semimetals. <i>Physical Review Letters</i> , 2015, 115, 246603.	7.8	124
9	Topological Invariants of Metals and the Related Physical Effects. <i>Chinese Physics Letters</i> , 2013, 30, 027101.	3.3	110
10	Two-dimensional carbon allotrope with strong electronic anisotropy. <i>Physical Review B</i> , 2013, 87, .	3.2	108
11	Topological Imbert-Fedorov Shift in Weyl Semimetals. <i>Physical Review Letters</i> , 2015, 115, 156602.	7.8	104
12	Stabilizing Topological Phases in Graphene via Random Adsorption. <i>Physical Review Letters</i> , 2012, 109, 116803.	7.8	101
13	Spin polarization and giant magnetoresistance effect induced by magnetization in zigzag graphene nanoribbons. <i>Physical Review B</i> , 2010, 81, .	3.2	95
14	Topological Insulator: A New Quantized Spin Hall Resistance Robust to Dephasing. <i>Physical Review Letters</i> , 2009, 103, 036803.	7.8	88
15	Dependence of topological Anderson insulator on the type of disorder. <i>Physical Review B</i> , 2012, 85, .	3.2	67
16	Topological Valley Transport in Two-dimensional Honeycomb Photonic Crystals. <i>Scientific Reports</i> , 2018, 8, 1588.	3.3	67
17	Gapped topological kink states and topological corner states in honeycomb lattice. <i>Science Bulletin</i> , 2020, 65, 531-537.	9.0	59
18	Planar Hall effect in tilted Weyl semimetals. <i>Physical Review B</i> , 2019, 99, .	3.2	53

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19	One-dimensional quantum channel in a graphene line defect. <i>Physical Review B</i> , 2012, 86, .	3.2	49
20	Topological phases in gated bilayer graphene: Effects of Rashba spin-orbit coupling and exchange field. <i>Physical Review B</i> , 2013, 87, .	3.2	45
21	Giant spin-valley polarization and multiple Hall effect in functionalized bismuth monolayers. <i>Npj Quantum Materials</i> , 2018, 3, .	5.2	44
22	Valley-polarized quantum anomalous Hall phase and disorder-induced valley-filtered chiral edge channels. <i>Physical Review B</i> , 2015, 91, .	3.2	43
23	Quantum spin-valley quantum anomalous Hall effect with tunable edge states in Sb monolayer-based heterostructures. <i>Physical Review B</i> , 2016, 94, .	3.2	42
24	Topological flat bands in twisted trilayer graphene. <i>Science Bulletin</i> , 2021, 66, 18-22.	9.0	42
25	Topological Anderson insulator in electric circuits. <i>Physical Review B</i> , 2019, 100, .	3.2	40
26	Generating atomically sharp p-n junctions in graphene and testing quantum electron optics on the nanoscale. <i>Physical Review B</i> , 2018, 97, .	3.2	39
27	3D Quantum Hall Effect and a Global Picture of Edge States in Weyl Semimetals. <i>Physical Review Letters</i> , 2020, 125, 036602.	7.8	38
28	Manipulation and Characterization of the Valley-Polarized Topological Kink States in Graphene-Based Interferometers. <i>Physical Review Letters</i> , 2018, 121, 156801.	7.8	36
29	Edge engineering of a topological Bi(111) bilayer. <i>Physical Review B</i> , 2014, 90, .	3.2	32
30	Splitting of Van Hove singularities in slightly twisted bilayer graphene. <i>Physical Review B</i> , 2017, 96, .	3.2	31
31	Two-dimensional lattice model for the surface states of topological insulators. <i>Physical Review B</i> , 2017, 95, .	3.2	30
32	The valley filter efficiency of monolayer graphene and bilayer graphene line defect model. <i>New Journal of Physics</i> , 2016, 18, 103024.	2.9	29
33	Anderson Localization from the Berry-Curvature Interchange in Quantum Anomalous Hall Systems. <i>Physical Review Letters</i> , 2016, 117, 056802.	7.8	29
34	Massless Dirac fermions trapping in a quasi-one-dimensional n-p-n junction of a continuous graphene monolayer. <i>Physical Review B</i> , 2017, 95, .	3.2	29
35	Chiral wave-packet scattering in Weyl semimetals. <i>Physical Review B</i> , 2016, 93, .	3.2	28
36	Disorder effects in topological states: Brief review of the recent developments. <i>Chinese Physics B</i> , 2016, 25, 117311.	1.4	28

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55	Novel Chern insulators with half-metallic edge states. NPG Asia Materials, 2018, 10, e467-e467.	7.9	20
56	Real-space topological invariant and higher-order topological Anderson insulator in two-dimensional non-Hermitian systems. Physical Review B, 2021, 103, .	3.2	20
57	Spontaneous spin-triplet exciton condensation in ABC-stacked trilayer graphene. Physical Review B, 2012, 86, .	3.2	18
58	Dephasing Effect on Backscattering of Helical Surface States in 3D Topological Insulators. Physical Review Letters, 2014, 113, 046805.	7.8	18
59	Global phase diagram of disordered type-II Weyl semimetals. Physical Review B, 2017, 96, .	3.2	17
60	Perfect valley filter based on a topological phase in a disordered Sb monolayer heterostructure. Physical Review B, 2018, 97, .	3.2	17
61	Magnetic-field-controlled negative differential conductance in scanning tunneling spectroscopy of graphene <i>p-n</i> junction resonators. Physical Review B, 2018, 97, .	3.2	17
62	Effects of intervalley scattering on the transport properties in one-dimensional valleytronic devices. Scientific Reports, 2016, 6, 23211.	3.3	16
63	Global phase diagram of disordered higher-order Weyl semimetals. Physical Review B, 2021, 104, .	3.2	16
64	Relativistic Artificial Molecules Realized by Two Coupled Graphene Quantum Dots. Nano Letters, 2020, 20, 6738-6743.	9.1	15
65	Nanoscale detection of valley-dependent spin splitting around atomic defects of graphene. 2D Materials, 2019, 6, 031005.	4.4	14
66	Non-synchronous bulk photovoltaic effect in two-dimensional interlayer-sliding ferroelectrics. Npj Computational Materials, 2022, 8, .	8.7	14
67	Effect of magnetic field on a magnetic topological insulator film with structural inversion asymmetry. Physical Review B, 2014, 89, .	3.2	13
68	Numerical study of universal conductance fluctuations in three-dimensional topological semimetals. Physical Review B, 2017, 96, .	3.2	13
69	Noise signatures for determining chiral Majorana fermion modes. Physical Review B, 2018, 98, .	3.2	13
70	Doubled Shapiro steps in a topological Josephson junction. Physical Review B, 2018, 97, .	3.2	12
71	Chiral interface states and related quantized transport in disordered Chern insulators. Physical Review B, 2021, 103, .	3.2	12
72	Scanning tunneling microscopy and spectroscopy of finite-size twisted bilayer graphene. Physical Review B, 2017, 96, .	3.2	11

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73	Transverse shift in crossed Andreev reflection. <i>Physical Review B</i> , 2018, 98, .	3.2	11
74	Dephasing effects in topological insulators. <i>Frontiers of Physics</i> , 2019, 14, 1.	5.0	10
75	Building programmable integrated circuits through disordered Chern insulators. <i>Physical Review B</i> , 2021, 104, .	3.2	10
76	Intrinsic superconductivity in ABA-stacked trilayer graphene. <i>AIP Advances</i> , 2012, 2, 041405.	1.3	9
77	Goos-Hänchen-like shifts at a metal/superconductor interface. <i>Physical Review B</i> , 2018, 98, .	3.2	9
78	Numerical study of Klein quantum dots in graphene systems. <i>Science China: Physics, Mechanics and Astronomy</i> , 2019, 62, 1.	5.1	9
79	Numerical study of the giant nonlocal resistance in spin-orbit coupled graphene. <i>Physical Review B</i> , 2016, 94, .	3.2	8
80	Quantum Hall effect in wedge-shaped samples. <i>Physical Review B</i> , 2020, 102, .	3.2	8
81	Transport property of inhomogeneous strained graphene*. <i>Chinese Physics B</i> , 2021, 30, 030504.	1.4	8
82	Effective spin dephasing mechanism in confined two-dimensional topological insulators. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016, 59, 1.	5.1	7
83	Disorder effects on quantum transport and quantum phase transition in low-dimensional superconducting and topological systems. <i>Advances in Physics: X</i> , 2021, 6, .	4.1	7
84	Realistic flat-band model based on degenerate p-orbitals in two-dimensional ionic materials. <i>Science Bulletin</i> , 2021, 66, 765-770.	9.0	7
85	Quantum pump effect induced by a linearly polarized microwave in a two-dimensional electron gas. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 215304.	1.8	6
86	Building topological devices through emerging robust helical surface states. <i>New Journal of Physics</i> , 2015, 17, 113040.	2.9	6
87	Floquet Majorana fermions in driven hexagonal lattice systems. <i>Solid State Communications</i> , 2015, 215-216, 18-26.	1.9	6
88	Engineering a topological quantum dot device through planar magnetization in bismuthene. <i>Physical Review B</i> , 2019, 99, .	3.2	6
89	Quantum to classical crossover under dephasing effects in a two-dimensional percolation model. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	5.1	6
90	Emergent Z ₂ topological invariant and robust helical edge states in two-dimensional topological metals. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	5.1	6

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91	Topological kink states in graphene. <i>Nanotechnology</i> , 2021, 32, 402001.	2.6	6
92	NUMERICAL STUDY OF TRANSPORT PROPERTIES IN TOPOLOGICAL INSULATOR QUANTUM DOTS UNDER MAGNETIC FIELD. <i>Modern Physics Letters B</i> , 2013, 27, 1350104.	1.9	5
93	Current noises in a topological Josephson junction. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018, 61, 1.	5.1	5
94	Transport study of the wormhole effect in three-dimensional topological insulators. <i>Physical Review B</i> , 2020, 102, .	3.2	5
95	Transmission phase shift of phonon-assisted tunneling through a quantum dot. <i>Physical Review B</i> , 2008, 77, .	3.2	4
96	Numerical study of negative nonlocal resistance and backflow current in a ballistic graphene system. <i>Physical Review B</i> , 2019, 100, .	3.2	4
97	Majorana zero modes from topological kink states in the two-dimensional electron gas. <i>Physical Review B</i> , 2020, 101, .	3.2	4
98	Theory of quantum spin Hall effect detection by measurements of the polarization resistance. <i>Physical Review B</i> , 2011, 83, .	3.2	3
99	A disorder induced field effect transistor in bilayer and trilayer graphene. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 105303.	1.8	3
100	Transport properties in monolayer–bilayer–monolayer graphene planar junctions. <i>Chinese Physics B</i> , 2017, 26, 067202.	1.4	2
101	Unveiling non-Abelian statistics of vortex Majorana bound states in iron-based superconductors using fermionic modes. <i>Physical Review B</i> , 2022, 105, .	3.2	2
102	The realization of quantum anomalous Hall effect in two dimensional electron gas. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 105701.	1.8	1
103	Suppression of magneto-optical transport in tilted Weyl semimetals by orbital magnetic moment. <i>Physical Review B</i> , 2022, 105, .	3.2	1
104	Spin current through an ESR quantum dot: A real-time study. <i>Physical Review B</i> , 2010, 81, .	3.2	0
105	Nonlocal resistance in multi-terminal graphene system. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2017, 66, 217201.	0.5	0