Guang Bian

List of Publications by Citations

99 papers	10,670 citations	41 h-index	103 g-index
103 ext. papers	12,763 ext. citations	9.2 avg, IF	5.69 L-index

#	Paper	IF	Citations
99	TOPOLOGICAL MATTER. Discovery of a Weyl fermion semimetal and topological Fermi arcs. *Science* , **2015**, 349, 613-7	33.3	2165
98	A Weyl Fermion semimetal with surface Fermi arcs in the transition metal monopnictide TaAs class. *Nature Communications*, **2015**, 6, 7373	17.4	1068
97	Observation of a three-dimensional topological Dirac semimetal phase in high-mobility Cd3As2. *Nature Communications*, **2014**, 5, 3786	17.4	938
96	Discovery of a Weyl fermion state with Fermi arcs in niobium arsenide. *Nature Physics*, **2015**, 11, 748-754	16.2	674
95	Topological nodal-line fermions in spin-orbit metal PbTaSe2. *Nature Communications*, **2016**, 7, 10556	17.4	514
94	Observation of Fermi arc surface states in a topological metal. *Science*, **2015**, 347, 294-8	33.3	488
93	Signatures of the Adler-Bell-Jackiw chiral anomaly in a Weyl fermion semimetal. *Nature Communications*, **2016**, 7, 10735	17.4	455
92	Experimental discovery of a topological Weyl semimetal state in TaP. *Science Advances*, **2015**, 1, e1501092	14.3	241
91	Prediction of an arc-tunable Weyl Fermion metallic state in Mo(x)W(1-x)Te2. *Nature Communications*, **2016**, 7, 10639	17.4	216
90	Drumhead surface states and topological nodal-line fermions in TlTaSe2. *Physical Review B*, **2016**, 93,	3.3	201
89	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, 1180-5	11.5	199
88	Discovery of topological Weyl fermion lines and drumhead surface states in a room temperature magnet. *Science*, **2019**, 365, 1278-1281	33.3	187
87	Visualizing electronic chirality and Berry phases in graphene systems using photoemission with circularly polarized light. *Physical Review Letters*, **2011**, 107, 166803	7.4	136
86	Discovery of a new type of topological Weyl fermion semimetal state in MoWTe. *Nature Communications*, **2016**, 7, 13643	17.4	134
85	Giant and anisotropic many-body spin-orbit tunability in a strongly correlated kagome magnet. *Nature*, **2018**, 562, 91-95	50.4	132
84	Discovery of Lorentz-violating type II Weyl fermions in LaAlGe. *Science Advances*, **2017**, 3, e1603266	14.3	124
83	Momentum-space imaging of Cooper pairing in a half-Dirac-gas topological superconductor. *Nature Physics*, **2014**, 10, 943-950	16.2	113

82	Room-temperature magnetic topological Weyl fermion and nodal line semimetal states in half-metallic Heusler CoTiX (X=Si, Ge, or Sn). *Scientific Reports*, **2016**, 6, 38839	4.9	113
81	Type-II Symmetry-Protected Topological Dirac Semimetals. *Physical Review Letters*, **2017**, 119, 026404	7.4	112
80	Criteria for Directly Detecting Topological Fermi Arcs in Weyl Semimetals. *Physical Review Letters*, **2016**, 116, 066802	7.4	107
79	Fermi arc electronic structure and Chern numbers in the type-II Weyl semimetal candidate MoxW1□Te2. *Physical Review B*, **2016**, 94,	3.3	106
78	Fermi surface interconnectivity and topology in Weyl fermion semimetals TaAs, TaP, NbAs, and NbP. *Physical Review B*, **2015**, 92,	3.3	102
77	Observation of quantum-tunnelling-modulated spin texture in ultrathin topological insulator Bi2Se3 films. *Nature Communications*, **2014**, 5, 3841	17.4	99
76	Nexus fermions in topological symmorphic crystalline metals. *Scientific Reports*, **2017**, 7, 1688	4.9	97
75	A strongly robust type II Weyl fermion semimetal state in TaS. *Science Advances*, **2016**, 2, e1600295	14.3	95
74	Topological insulators, topological superconductors and Weyl fermion semimetals: discoveries, perspectives and outlooks. *Physica Scripta*, **2015**, T164, 014001	2.6	94
73	Atomic-Scale Visualization of Quantum Interference on a Weyl Semimetal Surface by Scanning Tunneling Microscopy. *ACS Nano*, **2016**, 10, 1378-85	16.7	93
72	Observation of monolayer valence band spin-orbit effect and induced quantum well states in MoX2. *Nature Communications*, **2014**, 5, 4673	17.4	93
71	Magnetic and noncentrosymmetric Weyl fermion semimetals in the RAlGe family of compounds (R=rareearth). *Physical Review B*, **2018**, 97,	3.3	74
70	Spin Polarization and Texture of the Fermi Arcs in the Weyl Fermion Semimetal TaAs. *Physical Review Letters*, **2016**, 116, 096801	7.4	72
69	Gapped electronic structure of epitaxial stanene on InSb(111). *Physical Review B*, **2018**, 97,	3.3	68
68	Gigantic surface lifetime of an intrinsic topological insulator. *Physical Review Letters*, **2015**, 115, 116801	7.4	63
67	Interfacial protection of topological surface states in ultrathin Sb films. *Physical Review Letters*, **2012**, 108, 176401	7.4	61
66	Topological Dirac surface states and superconducting pairing correlations in PbTaSe2. *Physical Review B*, **2016**, 93,	3.3	58
65	Signatures of a time-reversal symmetric Weyl semimetal with only four Weyl points. *Nature Communications*, **2017**, 8, 942	17.4	57

64	Passage from spin-polarized surface states to unpolarized quantum well states in topologically nontrivial Sb films. *Physical Review Letters*, **2011**, 107, 036802	7.4	57
63	Atomic-Scale Visualization of Quasiparticle Interference on a Type-II Weyl Semimetal Surface. *Physical Review Letters*, **2016**, 117, 266804	7.4	50
62	Realization of a Type-II Nodal-Line Semimetal in MgBi. *Advanced Science*, **2019**, 6, 1800897	13.6	44
61	Signatures of Fermi Arcs in the Quasiparticle Interferences of the Weyl Semimetals TaAs and NbP. *Physical Review Letters*, **2016**, 116, 066601	7.4	43
60	Non-Kondo-like electronic structure in the correlated rare-earth hexaboride YbB(6). *Physical Review Letters*, **2015**, 114, 016403	7.4	42
59	Room-temperature intrinsic ferromagnetism in epitaxial CrTe ultrathin films. *Nature Communications*, **2021**, 12, 2492	17.4	42
58	Superconducting properties in single crystals of the topological nodal semimetal PbTaSe2. *Physical Review B*, **2016**, 93,	3.3	41
57	Fragility of surface states and robustness of topological order in Bi2Se3 against oxidation. *Physical Review Letters*, **2012**, 108, 096404	7.4	39
56	A novel artificial condensed matter lattice and a new platform for one-dimensional topological phases. *Science Advances*, **2017**, 3, e1501692	14.3	36
55	Electronic size effects in three-dimensional nanostructures. *Nano Letters*, **2013**, 13, 43-7	11.5	36
54	Illuminating the surface spin texture of the giant-Rashba quantum-well system Bi/Ag(111) by circularly polarized photoemission. *Physical Review Letters*, **2012**, 108, 186403	7.4	36
53	Electronic structure and surface-mediated metastability of Bi films on Si(111)-7⁄ studied by angle-resolved photoemission spectroscopy. *Physical Review B*, **2009**, 80,	3.3	34
52	Oscillatory surface dichroism of the insulating topological insulator Bi2Te2Se. *Physical Review B*, **2013**, 88,	3.3	33
51	Phonon-induced gaps in graphene and graphite observed by angle-resolved photoemission. *Physical Review Letters*, **2010**, 105, 136804	7.4	33
50	Origin of giant Rashba spin splitting in Bi/Ag surface alloys. *Physical Review B*, **2013**, 88,	3.3	31
49	Fermi-level electronic structure of a topological-insulator/cuprate-superconductor based heterostructure in the superconducting proximity effect regime. *Physical Review B*, **2014**, 90,	3.3	29
48	Unconventional transformation of spin Dirac phase across a topological quantum phase transition. *Nature Communications*, **2015**, 6, 6870	17.4	28
47	Lifshitz transition and Van Hove singularity in a three-dimensional topological Dirac semimetal. *Physical Review B*, **2015**, 92,	3.3	28

46	Fermi surface topology and hot spot distribution in the Kondo lattice system CeB6. *Physical Review B*, **2015**, 92,	3.3	26
45	Engineering Electronic Structure of a Two-Dimensional Topological Insulator Bi(111) Bilayer on Sb Nanofilms by Quantum Confinement Effect. *ACS Nano*, **2016**, 10, 3859-64	16.7	24
44	Topological limit of ultrathin quasi-free-standing Bi2Te3 films grown on Si(111). *Physical Review B*, **2012**, 85,	3.3	23
43	Topological phase diagram and saddle point singularity in a tunable topological crystalline insulator. *Physical Review B*, **2015**, 92,	3.3	21
42	First-principles and spectroscopic studies of Bi(110) films: Thickness-dependent Dirac modes and property oscillations. *Physical Review B*, **2014**, 90,	3.3	21
41	Experimental observation of two massless Dirac-fermion gases in graphene-topological insulator heterostructure. *2D Materials*, **2016**, 3, 021009	5.9	19
40	Realization of Symmetry-Enforced Two-Dimensional Dirac Fermions in Nonsymmorphic Bismuthene. *ACS Nano*, **2020**, 14, 1888-1894	16.7	18
39	Observation of Weyl fermions in a magnetic non-centrosymmetric crystal. *Nature Communications*, **2020**, 11, 3356	17.4	18
38	Mirror Protected Dirac Fermions on a Weyl Semimetal NbP Surface. *Physical Review Letters*, **2017**, 119, 196403	7.4	17
37	Tunable spin helical Dirac quasiparticles on the surface of three-dimensional HgTe. *Physical Review B*, **2015**, 92,	3.3	16
36	Field-free platform for Majorana-like zero mode in superconductors with a topological surface state. *Physical Review B*, **2020**, 101,	3.3	15
35	Weyl, Dirac and high-fold chiral fermions in topological quantum matter. *Nature Reviews Materials*, **2021**, 6, 784-803	73.3	13
34	Observation of metallic surface states in the strongly correlated Kitaev-Heisenberg candidate Na2IrO3. *Physical Review B*, **2016**, 93,	3.3	12
33	Surface versus bulk Dirac state tuning in a three-dimensional topological Dirac semimetal. *Physical Review B*, **2015**, 91,	3.3	12
32	Origin of the moir pattern in thin Bi films deposited on HOPG. *Physical Review B*, **2015**, 91,	3.3	12
31	Band Topology of Bismuth Quantum Films. *Crystals*, **2019**, 9, 510	2.3	11
30	Quantum oscillations in the noncentrosymmetric superconductor and topological nodal-line semimetal PbTaSe2. *Physical Review B*, **2019**, 99,	3.3	11
29	Electronic structure of the quantum spin Hall parent compound CdTe and related topological issues. *Physical Review B*, **2014**, 90,	3.3	11

28	Topological phase transition and Dirac fermion transfer in Bi 2 Se 3 films. *Europhysics Letters*, **2013**, 101, 27004	1.6	11
27	Wedgebox analysis of four-lepton events from neutralino pair production at the LHC. *European Physical Journal C*, **2008**, 53, 429-446	4.2	11
26	UV□Ozone Modified Sol□Gel Processed ZnO for Improved Diketopyrrolopyrrole-Based Hybrid Photodetectors. *ACS Applied Electronic Materials*, **2019**, 1, 2455-2462	4	10
25	Interfacial bonding and structure of Bi2Te3 topological insulator films on Si(111) determined by surface x-ray scattering. *Physical Review Letters*, **2013**, 110, 226103	7.4	10
24	Spectroscopic studies of CdTe(111) bulk and surface electronic structure. *Physical Review B*, **2015**, 91,	3.3	9
23	Symmetry-constrained reorganization of Dirac cones in topological insulators by surface modification. *Physical Review B*, **2011**, 84,	3.3	9
22	Topological spin-polarized electron layer above the surface of Ca-terminated Bi2Se3. *Physical Review B*, **2013**, 87,	3.3	8
21	111-Type Semiconductor ReGaSi Follows 14e Rules. *Inorganic Chemistry*, **2017**, 56, 5165-5172	5.1	7
20	Prediction of nontrivial band topology and superconductivity in Mg2Pb. *Physical Review Materials*, **2017**, 1,	3.2	7
19	Rashba splitting and dichroism of surface states in Bi/Ag surface alloy. *Journal of Electron Spectroscopy and Related Phenomena*, **2015**, 201, 36-41	1.7	6
18	Multiple topological electronic phases in superconductor MoC. *Physical Review Materials*, **2018**, 2,	3.2	6
17	Survey of electronic structure of Bi and Sb thin films by first-principles calculations and photoemission measurements. *Journal of Physics and Chemistry of Solids*, **2019**, 128, 109-117	3.9	6
16	STM driven modification of bismuth nanostructures. *Surface Science*, **2014**, 621, 140-145	1.8	5
15	Topological quantum well resonances in metal overlayers. *Physical Review B*, **2013**, 87,	3.3	5
14	Giant Topological Hall Effect in van der Waals Heterostructures of CrTe/BiTe. *ACS Nano*, **2021**, 15, 15710-15719	16.7	5
13	Pt-Bi Antibonding Interaction: The Key Factor for Superconductivity in Monoclinic BaPtBi. *Inorganic Chemistry*, **2018**, 57, 1698-1701	5.1	4
12	Experimental and theoretical electronic structure and symmetry effects in ultrathin NbSe2 films. *Physical Review Materials*, **2018**, 2,	3.2	4
11	Topological phase transitions in stanene and stanene-like systems by scaling the spin-orbit coupling. *Europhysics Letters*, **2016**, 115, 37010	1.6	4

10	An Effective Approach to Improving Cadmium Telluride (111)A Surface by Molecular-Beam-Epitaxy Growth of Tellurium Monolayer. *ACS Applied Materials & Interfaces*, **2016**, 8, 726-35	9.5	2
9	Direct transition resonance in atomically uniform topological Sb(111) thin films. *Physical Review B*, **2015**, 92,	3.3	2
8	Dirac semimetal films as spin conductors on topological substrates. *Physical Review B*, **2015**, 91,	3.3	2
7	Self-Intercalation Tunable Interlayer Exchange Coupling in a Synthetic van der Waals Antiferromagnet. *Advanced Functional Materials*,2202977	15.6	2
6	Atomic deuteration of epitaxial many-layer graphene on 4H-SiC(0001). *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2019**, 37, 041804	1.3	1
5	Observation of symmetry-protected Dirac states in nonsymmorphic antimonene. *Physical Review B*, **2021**, 104,	3.3	1
4	Identification and properties of the non-cubic phases of Mg2Pb. *AIP Advances*, **2016**, 6, 125108	1.5	1
3	Dirac Fermion Cloning, Moir Flat Bands and Magic Lattice Constants in Epitaxial Monolayer Graphene.. *Advanced Materials*, **2022**, e2200625	24	1
2	Antimony oxide nanostructures in the monolayer limit: self-assembly of van der Waals-bonded molecular building blocks. *Nanotechnology*, **2021**, 32, 125701	3.4	0
1	Topological phase transitions in antimony without gap parity reversal. *Europhysics Letters*, **2015**, 109, 17005	1.6	