Fan Zhang

List of Publications by Year in Descending Order

79 papers	5,274 citations	37 h-index	72 g-index
88 ext. papers	6,514 ext. citations	10.6 avg, IF	6.13 L-index

#	Paper	IF	Citations
79	Gate-Tunable Transport in Quasi-One-Dimensional BiI Field Effect Transistors.. *Nano Letters*, **2022**,	11.5	2
78	Reproducibility in the fabrication and physics of moiré materials.. *Nature*, **2022**, 602, 41-50	50.4	11
77	Acoustic Möbius Insulators from Projective Symmetry.. *Physical Review Letters*, **2022**, 128, 116803	7.4	5
76	Intelligent infrared sensing enabled by tunable moiré quantum geometry.. *Nature*, **2022**, 604, 266-272	50.4	7
75	Room-temperature superconductivity in boron- and nitrogen-doped lanthanum superhydride. *Physical Review B*, **2021**, 104,	3.3	2
74	Quantum anomalous Hall octet driven by orbital magnetism in bilayer graphene. *Nature*, **2021**, 598, 53-58	50.4	9
73	Room-Temperature Topological Phase Transition in Quasi-One-Dimensional Material Bi4I4. *Physical Review X*, **2021**, 11,	9.1	4
72	Higher-Order Dirac Sonic Crystals. *Physical Review Letters*, **2021**, 127, 146601	7.4	5
71	Strong mid-infrared photoresponse in small-twist-angle bilayer graphene. *Nature Photonics*, **2020**, 14, 549-553	33.9	37
70	Unconventional valley-dependent optical selection rules and landau level mixing in bilayer graphene. *Nature Communications*, **2020**, 11, 2941	17.4	3
69	Line up for high-temperature Majoranas. *Science Bulletin*, **2020**, 65, 1234-1236	10.6	0
68	Zero-bias conductance peak in Dirac semimetal-superconductor devices. *Physical Review Research*, **2020**, 2,	3.9	5
67	Hole-doped room-temperature superconductivity in H3S1-xZ (Z=C, Si). *Materials Today Physics*, **2020**, 15, 100330	8	20
66	Moiré Band Topology in Twisted Bilayer Graphene. *Nano Letters*, **2020**, 20, 6076-6083	11.5	12
65	Observation of quadratic Weyl points and double-helicoid arcs. *Nature Communications*, **2020**, 11, 1820	17.4	10
64	Correlated insulating and superconducting states in twisted bilayer graphene below the magic angle. *Science Advances*, **2019**, 5, eaaw9770	14.3	75
63	Quantum parity Hall effect in Bernal-stacked trilayer graphene. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 10286-10290	11.5	5

62	Acoustic Landau quantization and quantum-Hall-like edge states. *Nature Physics*, **2019**, 15, 352-356	16.2	42
61	Intrinsic valley Hall transport in atomically thin MoS. *Nature Communications*, **2019**, 10, 611	17.4	46
60	Determining Interaction Enhanced Valley Susceptibility in Spin-Valley-Locked MoS. *Nano Letters*, **2019**, 19, 1736-1742	11.5	21
59	Composite Dirac semimetals. *Physical Review B*, **2019**, 100,	3.3	6
58	Circular dichroism and radial Hall effects in topological materials. *Physical Review B*, **2018**, 97,	3.3	14
57	and 4Josephson Effects Mediated by a Dirac Semimetal. *Physical Review Letters*, **2018**, 120, 177704	7.4	22
56	Valley Topological Phases in Bilayer Sonic Crystals. *Physical Review Letters*, **2018**, 120, 116802	7.4	111
55	Topological negative refraction of surface acoustic waves in a Weyl phononic crystal. *Nature*, **2018**, 560, 61-64	50.4	198
54	Topological Triply Degenerate Points Induced by Spin-Tensor-Momentum Couplings. *Physical Review Letters*, **2018**, 120, 240401	7.4	27
53	Valley-selective topologically ordered states in irradiated bilayer graphene. *2D Materials*, **2018**, 5, 011005	5.9	7
52	Majorana Doublets, Flat Bands, and Dirac Nodes in s-Wave Superfluids. *Physical Review Letters*, **2018**, 121, 185302	7.4	6
51	High-Temperature Majorana Corner States. *Physical Review Letters*, **2018**, 121, 186801	7.4	103
50	A missing step is a key step. *Nature Materials*, **2018**, 17, 851-852	27	6
49	Topological, Valleytronic, and Optical Properties of Monolayer PbS. *Advanced Materials*, **2017**, 29, 1604788	24	20
48	Odd-Integer Quantum Hall States and Giant Spin Susceptibility in p-Type Few-Layer WSe_{2}. *Physical Review Letters*, **2017**, 118, 067702	7.4	28
47	Observation of topological valley transport of sound in sonic crystals. *Nature Physics*, **2017**, 13, 369-374	16.2	444
46	Topological Majorana Two-Channel Kondo Effect. *Physical Review Letters*, **2017**, 119, 187701	7.4	16
45	Observation of acoustic valley vortex states and valley-chirality locked beam splitting. *Physical Review B*, **2017**, 95,	3.3	72

44	Hybrid Weyl semimetal. *Physical Review B*, **2016**, 94,	3.3	36
43	First-principles demonstration of superconductivity at 280 K in hydrogen sulfide with low phosphorus substitution. *Physical Review B*, **2016**, 93,	3.3	65
42	SU(3) Quantum Hall Ferromagnetism in SnTe. *Physical Review Letters*, **2016**, 116, 026803	7.4	17
41	Energy Gaps and Layer Polarization of Integer and Fractional Quantum Hall States in Bilayer Graphene. *Physical Review Letters*, **2016**, 116, 056601	7.4	16
40	Weak Topological Insulators and Composite Weyl Semimetals: □Bi4X4 (X=Br, I). *Physical Review Letters*, **2016**, 116, 066801	7.4	56
39	Even-odd layer-dependent magnetotransport of high-mobility Q-valley electrons in transition metal disulfides. *Nature Communications*, **2016**, 7, 12955	17.4	64
38	Universal low-temperature Ohmic contacts for quantum transport in transition metal dichalcogenides. *2D Materials*, **2016**, 3, 021007	5.9	78
37	Nanostructured Carbon Allotropes with Weyl-like Loops and Points. *Nano Letters*, **2015**, 15, 6974-8	11.5	248
36	Buckled honeycomb lattice materials and unconventional magnetic responses. *RSC Advances*, **2015**, 5, 83350-83360	3.7	4
35	Chirality-Dependent Hall Effect in Weyl Semimetals. *Physical Review Letters*, **2015**, 115, 156603	7.4	58
34	Structured Weyl Points in Spin-Orbit Coupled Fermionic Superfluids. *Physical Review Letters*, **2015**, 115, 265304	7.4	211
33	Perfect valley filter in a topological domain wall. *Physical Review B*, **2015**, 92,	3.3	42
32	Critical behavior of four-terminal conductance of bilayer graphene domain walls. *Physical Review B*, **2015**, 92,	3.3	4
31	The time reversal invariant fractional Josephson effect. *Physica Scripta*, **2015**, T164, 014011	2.6	12
30	Spontaneous chiral symmetry breaking in bilayer graphene. *Synthetic Metals*, **2015**, 210, 9-18	3.6	8
29	Superlattice valley engineering for designer topological insulators. *Scientific Reports*, **2014**, 4, 6397	4.9	24
28	Time-reversal-invariant Z4 fractional Josephson effect. *Physical Review Letters*, **2014**, 113, 036401	7.4	97
27	Anomalous topological pumps and fractional Josephson effects. *Physical Review B*, **2014**, 90,	3.3	47

26	Dirac and Weyl superconductors in three dimensions. *Physical Review Letters*, **2014**, 113, 046401	7.4	197
25	Competing ordered states with filling factor two in bilayer graphene. *Nature Communications*, **2014**, 5, 4550	17.4	18
24	Signatures of Majorana fermions in topological insulator Josephson junction devices. *Physical Review B*, **2014**, 89,	3.3	11
23	Spontaneous layer-pseudospin domain walls in bilayer graphene. *Physical Review Letters*, **2014**, 113, 116803	7.4	24
22	(111) surface states of SnTe. *Physical Review B*, **2014**, 90,	3.3	17
21	Topological mirror superconductivity. *Physical Review Letters*, **2013**, 111, 056403	7.4	142
20	Time-reversal-invariant topological superconductivity and Majorana Kramers pairs. *Physical Review Letters*, **2013**, 111, 056402	7.4	167
19	Magnetic control of the valley degree of freedom of massive Dirac fermions with application to transition metal dichalcogenides. *Physical Review B*, **2013**, 88,	3.3	87
18	Transport studies of dual-gated ABC and ABA trilayer graphene: band gap opening and band structure tuning in very large perpendicular electric fields. *Nano Letters*, **2013**, 13, 369-73	11.5	92
17	Surface state magnetization and chiral edge states on topological insulators. *Physical Review Letters*, **2013**, 110, 046404	7.4	125
16	Broken symmetry quantum Hall states in dual-gated ABA trilayer graphene. *Nano Letters*, **2013**, 13, 1627-31	11.5	31
15	Unconventional quantum Hall effect and tunable spin hall effect in Dirac materials: application to an isolated MoS2 trilayer. *Physical Review Letters*, **2013**, 110, 066803	7.4	141
14	Valley Chern numbers and boundary modes in gapped bilayer graphene. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 10546-51	11.5	222
13	Surface states of topological insulators. *Physical Review B*, **2012**, 86,	3.3	113
12	Transport spectroscopy of symmetry-broken insulating states in bilayer graphene. *Nature Nanotechnology*, **2012**, 7, 156-60	28.7	237
11	Distinguishing spontaneous quantum Hall states in bilayer graphene. *Physical Review Letters*, **2012**, 108, 186804	7.4	48
10	Pseudospin order in monolayer, bilayer and double-layer graphene. *Physica Scripta*, **2012**, T146, 014012	2.6	40
9	Evidence for a spontaneous gapped state in ultraclean bilayer graphene. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 10802-5	11.5	92

8	Competing ordered states in bilayer graphene. *Physical Review B*, **2012**, 86,	3.3	33
7	Hund₫s rules for the N=0 Landau levels of trilayer graphene. *Physical Review B*, **2012**, 85,	3.3	37
6	Spontaneous Quantum Hall States and Novel Luttinger Liquids in Chiral Graphene. *Journal of Physics: Conference Series*, **2011**, 334, 012002	0.3	8
5	Lattice theory of pseudospin ferromagnetism in bilayer graphene: Competing interaction-induced quantum Hall states. *Physical Review B*, **2011**, 83,	3.3	95
4	Spontaneous quantum Hall states in chirally stacked few-layer graphene systems. *Physical Review Letters*, **2011**, 106, 156801	7.4	326
3	Valley-Hall kink and edge states in multilayer graphene. *Physical Review B*, **2011**, 84,	3.3	103
2	Band structure of ABC-stacked graphene trilayers. *Physical Review B*, **2010**, 82,	3.3	213
1	Spontaneous inversion symmetry breaking in graphene bilayers. *Physical Review B*, **2010**, 81,	3.3	158