

Gui-Bin Liu

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

46
papers

6,630
citations

21
h-index

52
g-index

52
ext. papers

7,931
ext. citations

7.3
avg, IF

5.96
L-index

#	Paper	IF	Citations
46	Coupled spin and valley physics in monolayers of MoS2 and other group-VI dichalcogenides. <i>Physical Review Letters</i> , 2012 , 108, 196802	7.4	2994
45	Optical signature of symmetry variations and spin-valley coupling in atomically thin tungsten dichalcogenides. <i>Scientific Reports</i> , 2013 , 3, 1608	4.9	659
44	Three-band tight-binding model for monolayers of group-VIB transition metal dichalcogenides. <i>Physical Review B</i> , 2013 , 88,	3.3	526
43	Electrical tuning of valley magnetic moment through symmetry control in bilayer MoS2. <i>Nature Physics</i> , 2013 , 9, 149-153	16.2	451
42	Electronic structures and theoretical modelling of two-dimensional group-VIB transition metal dichalcogenides. <i>Chemical Society Reviews</i> , 2015 , 44, 2643-63	58.5	398
41	Moiré excitons: From programmable quantum emitter arrays to spin-orbit-coupled artificial lattices. <i>Science Advances</i> , 2017 , 3, e1701696	14.3	247
40	Magnetoelectric effects and valley-controlled spin quantum gates in transition metal dichalcogenide bilayers. <i>Nature Communications</i> , 2013 , 4, 2053	17.4	246
39	Dirac cones and Dirac saddle points of bright excitons in monolayer transition metal dichalcogenides. <i>Nature Communications</i> , 2014 , 5, 3876	17.4	196
38	Stability, electronic, and magnetic properties of the magnetically doped topological insulators Bi2Se3, Bi2Te3, and Sb2Te3. <i>Physical Review B</i> , 2013 , 88,	3.3	100
37	Interlayer coupling in commensurate and incommensurate bilayer structures of transition-metal dichalcogenides. <i>Physical Review B</i> , 2017 , 95,	3.3	84
36	Artificial gravity field, astrophysical analogues, and topological phase transitions in strained topological semimetals. <i>Npj Quantum Materials</i> , 2017 , 2,	5	80
35	Even-odd layer-dependent magnetotransport of high-mobility Q-valley electrons in transition metal disulfides. <i>Nature Communications</i> , 2016 , 7, 12955	17.4	64
34	Nonlinear valley and spin currents from Fermi pocket anisotropy in 2D crystals. <i>Physical Review Letters</i> , 2014 , 113, 156603	7.4	64
33	Brightened spin-triplet interlayer excitons and optical selection rules in van der Waals heterobilayers. <i>2D Materials</i> , 2018 , 5, 035021	5.9	61
32	Spin-orbit-coupled quantum wires and Majorana fermions on zigzag edges of monolayer transition-metal dichalcogenides. <i>Physical Review B</i> , 2014 , 89,	3.3	54
31	Observation of intervalley quantum interference in epitaxial monolayer tungsten diselenide. <i>Nature Communications</i> , 2015 , 6, 8180	17.4	49
30	Intervalley coupling by quantum dot confinement potentials in monolayer transition metal dichalcogenides. <i>New Journal of Physics</i> , 2014 , 16, 105011	2.9	49

29	Intrinsic valley Hall transport in atomically thin MoS. <i>Nature Communications</i> , 2019 , 10, 611	17.4	46
28	Engineering symmetry breaking in 2D layered materials. <i>Nature Reviews Physics</i> , 2021 , 3, 193-206	23.6	45
27	Spin-valley qubit in nanostructures of monolayer semiconductors: Optical control and hyperfine interaction. <i>Physical Review B</i> , 2016 , 93,	3.3	44
26	Topological edge states in single- and multi-layer Bi ₄ Br ₄ . <i>New Journal of Physics</i> , 2015 , 17, 015004	2.9	24
25	Temperature-driven evolution of critical points, interlayer coupling, and layer polarization in bilayer MoS ₂ . <i>Physical Review B</i> , 2018 , 97,	3.3	18
24	Transport tuning of photonic topological edge states by optical cavities. <i>Physical Review A</i> , 2019 , 99,	2.6	14
23	First-principles investigations on the Berry phase effect in spin-orbit coupling materials. <i>Computational Materials Science</i> , 2016 , 112, 428-447	3.2	12
22	Strongly distinct electrical response between circular and valley polarization in bilayer transition metal dichalcogenides. <i>Physical Review B</i> , 2019 , 99,	3.3	10
21	Encyclopedia of emergent particles in three-dimensional crystals. <i>Science Bulletin</i> , 2021 , 67, 375-375	10.6	9
20	SpaceGroupRep: A package for irreducible representations of space group. <i>Computer Physics Communications</i> , 2021 , 265, 107993	4.2	9
19	Importance of Crystallographic Sites on Sodium-Ion Extraction from NASICON-Structured Cathodes for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 14312-14320	9.5	8
18	Robust circular polarization of indirect Q-K transitions in bilayer 3RWS ₂ . <i>Physical Review B</i> , 2019 , 100,	3.3	7
17	Dynamical Monte Carlo investigation of spin reversal and nonequilibrium magnetization of single-molecule magnets. <i>Physical Review B</i> , 2010 , 82,	3.3	7
16	Spin glass transition in canonical AuFe alloys: A numerical study. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012 , 376, 1898-1902	2.3	6
15	Tuning to the band gap by complex defects engineering: insights from hybrid functional calculations in CuInS ₂ . <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 025105	3	6
14	Nonequilibrium dynamical ferromagnetism of interacting single-molecule magnets. <i>Applied Physics Letters</i> , 2009 , 95, 183110	3.4	4
13	MagneticTB: A package for tight-binding model of magnetic and non-magnetic materials. <i>Computer Physics Communications</i> , 2022 , 270, 108153	4.2	4
12	Physical Fingerprints of the 2O-tB Phase in Phosphorene Stacking. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 3190-3196	6.4	3

11	Temperature-dependent striped antiferromagnetism of LaFeAsO in a GreenWfunction approach. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 195701	1.8	3
10	Chiral-glass transition in a diluted dipolar-interaction Heisenberg system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2011 , 375, 2041-2046	2.3	3
9	Si-related ferrimagnetic material consisting of Eu and Fe layers. <i>Journal of Alloys and Compounds</i> , 2019 , 776, 1-7	5.7	3
8	An efficient method for hybrid density functional calculation with spin-orbit coupling. <i>Computer Physics Communications</i> , 2018 , 224, 90-97	4.2	2
7	Systematic investigation of emergent particles in type-III magnetic space groups. <i>Physical Review B</i> , 2022 , 105,	3.3	2
6	The piezoconductive effect of suspended ultrathin graphene film. <i>Carbon</i> , 2019 , 143, 641-649	10.4	2
5	Fe-Vacancy-Induced Ferromagnetism in Tetragonal FeSe Thin Films. <i>Chinese Physics Letters</i> , 2009 , 26, 127505	1.8	1
4	A GreenWfunction model for ferromagnetism and spin excitations of (Ga, Mn)As diluted magnetic semiconductors. <i>Chinese Physics B</i> , 2009 , 18, 5047-5054	1.2	1
3	Domain structures of ultrathin magnetic nanobelts. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008 , 372, 3857-3860	2.3	1
2			
1	First-principles studies of graphene antidot lattices on monolayer h-BN substrate. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019 , 383, 125944	2.3	0