Gui-Bin Liu

List of Publications by Year in Descending Order

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	Systematic investigation of emergent particles in type-III magnetic space groups. *Physical Review B*, **2022**, 105,	3.3	2
45	MagneticTB: A package for tight-binding model of magnetic and non-magnetic materials. *Computer Physics Communications*, **2022**, 270, 108153	4.2	4
44	Encyclopedia of emergent particles in three-dimensional crystals. *Science Bulletin*, **2021**, 67, 375-375	10.6	9
43	Importance of Crystallographic Sites on Sodium-Ion Extraction from NASICON-Structured Cathodes for Sodium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2021**, 13, 14312-14320	9.5	8
42	Engineering symmetry breaking in 2D layered materials. *Nature Reviews Physics*, **2021**, 3, 193-206	23.6	45
41	SpaceGroupIrep: A package for irreducible representations of space group. *Computer Physics Communications*, **2021**, 265, 107993	4.2	9
40	Physical Fingerprints of the 2O-tP Phase in Phosphorene Stacking. *Journal of Physical Chemistry Letters*, **2019**, 10, 3190-3196	6.4	3
39	Strongly distinct electrical response between circular and valley polarization in bilayer transition metal dichalcogenides. *Physical Review B*, **2019**, 99,	3.3	10
38	Transport tuning of photonic topological edge states by optical cavities. *Physical Review A*, **2019**, 99,	2.6	14
37	Intrinsic valley Hall transport in atomically thin MoS. *Nature Communications*, **2019**, 10, 611	17.4	46
36	First-principles studies of graphene antidot lattices on monolayer h-BN substrate. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2019**, 383, 125944	2.3	0
35	Robust circular polarization of indirect Q-K transitions in bilayer 3RWS2. *Physical Review B*, **2019**, 100,	3.3	7
34	The piezoconductive effect of suspended ultrathin graphene film. *Carbon*, **2019**, 143, 641-649	10.4	2
33	Si-related ferrimagnetic material consisting of Eu and Fe layers. *Journal of Alloys and Compounds*, **2019**, 776, 1-7	5.7	3
32	Temperature-driven evolution of critical points, interlayer coupling, and layer polarization in bilayer MoS2. *Physical Review B*, **2018**, 97,	3.3	18
31	An efficient method for hybrid density functional calculation with spin–orbit coupling. *Computer Physics Communications*, **2018**, 224, 90-97	4.2	2
30	Brightened spin-triplet interlayer excitons and optical selection rules in van der Waals heterobilayers. *2D Materials*, **2018**, 5, 035021	5.9	61

29	Tuning to the band gap by complex defects engineering: insights from hybrid functional calculations in CuInS2. *Journal Physics D: Applied Physics*, **2018**, 51, 025105	3	6
28	Artificial gravity field, astrophysical analogues, and topological phase transitions in strained topological semimetals. *Npj Quantum Materials*, **2017**, 2,	5	80
27	Interlayer coupling in commensurate and incommensurate bilayer structures of transition-metal dichalcogenides. *Physical Review B*, **2017**, 95,	3.3	84
26	Moiré excitons: From programmable quantum emitter arrays to spin-orbit-coupled artificial lattices. *Science Advances*, **2017**, 3, e1701696	14.3	247
25	First-principles investigations on the Berry phase effect in spin–orbit coupling materials. *Computational Materials Science*, **2016**, 112, 428-447	3.2	12
24	Spin-valley qubit in nanostructures of monolayer semiconductors: Optical control and hyperfine interaction. *Physical Review B*, **2016**, 93,	3.3	44
23	Even-odd layer-dependent magnetotransport of high-mobility Q-valley electrons in transition metal disulfides. *Nature Communications*, **2016**, 7, 12955	17.4	64
22	Topological edge states in single- and multi-layer Bi4Br4. *New Journal of Physics*, **2015**, 17, 015004	2.9	24
21	Observation of intervalley quantum interference in epitaxial monolayer tungsten diselenide. *Nature Communications*, **2015**, 6, 8180	17.4	49
20	Electronic structures and theoretical modelling of two-dimensional group-VIB transition metal dichalcogenides. *Chemical Society Reviews*, **2015**, 44, 2643-63	58.5	398
19	Nonlinear valley and spin currents from Fermi pocket anisotropy in 2D crystals. *Physical Review Letters*, **2014**, 113, 156603	7.4	64
18	Spin-orbit-coupled quantum wires and Majorana fermions on zigzag edges of monolayer transition-metal dichalcogenides. *Physical Review B*, **2014**, 89,	3.3	54
17	Dirac cones and Dirac saddle points of bright excitons in monolayer transition metal dichalcogenides. *Nature Communications*, **2014**, 5, 3876	17.4	196
16	Intervalley coupling by quantum dot confinement potentials in monolayer transition metal dichalcogenides. *New Journal of Physics*, **2014**, 16, 105011	2.9	49
15	Stability, electronic, and magnetic properties of the magnetically doped topological insulators Bi2Se3, Bi2Te3, and Sb2Te3. *Physical Review B*, **2013**, 88,	3.3	100
14	Three-band tight-binding model for monolayers of group-VIB transition metal dichalcogenides. *Physical Review B*, **2013**, 88,	3.3	526
13	Electrical tuning of valley magnetic moment through symmetry control in bilayer MoS2. *Nature Physics*, **2013**, 9, 149-153	16.2	451
12	Optical signature of symmetry variations and spin-valley coupling in atomically thin tungsten dichalcogenides. *Scientific Reports*, **2013**, 3, 1608	4.9	659

11	Magnetoelectric effects and valley-controlled spin quantum gates in transition metal dichalcogenide bilayers. *Nature Communications*, **2013**, 4, 2053	17.4	246
10	Spin glass transition in canonical AuFe alloys: A numerical study. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 376, 1898-1902	2.3	6
9	Coupled spin and valley physics in monolayers of MoS2 and other group-VI dichalcogenides. *Physical Review Letters*, **2012**, 108, 196802	7.4	2994
8	Chiral-glass transition in a diluted dipolar-interaction Heisenberg system. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2011**, 375, 2041-2046	2.3	3
7	Dynamical Monte Carlo investigation of spin reversal and nonequilibrium magnetization of single-molecule magnets. *Physical Review B*, **2010**, 82,	3.3	7
6	Nonequilibrium dynamical ferromagnetism of interacting single-molecule magnets. *Applied Physics Letters*, **2009**, 95, 183110	3.4	4
5	Temperature-dependent striped antiferromagnetism of LaFeAsO in a Green's function approach. *Journal of Physics Condensed Matter*, **2009**, 21, 195701	1.8	3
4	Fe-Vacancy-Induced Ferromagnetism in Tetragonal FeSe Thin Films. *Chinese Physics Letters*, **2009**, 26, 127505	1.8	1
3	A Green's function model for ferromagnetism and spin excitations of (Ga, Mn)As diluted magnetic semiconductors. *Chinese Physics B*, **2009**, 18, 5047-5054	1.2	1
2	Domain structures of ultrathin magnetic nanobelts. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2008**, 372, 3857-3860	2.3	1
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