Jeil Jung

List of Publications by Citations

72 papers	4,745 citations	33 h-index	68 g-index
73 ext. papers	5,856 ext. citations	8.1 avg, IF	5.9 L-index

#	Paper	IF	Citations
72	Capacitance of carbon-based electrical double-layer capacitors. *Nature Communications*, **2014**, 5, 3317	17.4	463
71	Ultrathin high-temperature oxidation-resistant coatings of hexagonal boron nitride. *Nature Communications*, **2013**, 4, 2541	17.4	418
70	Spontaneous quantum Hall states in chirally stacked few-layer graphene systems. *Physical Review Letters*, **2011**, 106, 156801	7.4	326
69	Evidence of a gate-tunable Mott insulator in a trilayer graphene moiré superlattice. *Nature Physics*, **2019**, 15, 237-241	16.2	274
68	Signatures of tunable superconductivity in a trilayer graphene moiré superlattice. *Nature*, **2019**, 572, 215-219	50.4	264
67	Transport spectroscopy of symmetry-broken insulating states in bilayer graphene. *Nature Nanotechnology*, **2012**, 7, 156-60	28.7	237
66	Origin of band gaps in graphene on hexagonal boron nitride. *Nature Communications*, **2015**, 6, 6308	17.4	192
65	Direct chemical conversion of graphene to boron- and nitrogen- and carbon-containing atomic layers. *Nature Communications*, **2014**, 5, 3193	17.4	169
64	Electronic and magnetic properties of single-layer MPX3 metal phosphorous trichalcogenides. *Physical Review B*, **2016**, 94,	3.3	166
63	Ab initio theory of moiré superlattice bands in layered two-dimensional materials. *Physical Review B* , **2014**, 89,	3.3	155
62	Dynamic band-structure tuning of graphene moiré superlattices with pressure. *Nature*, **2018**, 557, 404-408	50.4	154
61	Gaps induced by inversion symmetry breaking and second-generation Dirac cones in graphene/hexagonal boron nitride. *Nature Physics*, **2016**, 12, 1111-1115	16.2	136
60	Theory of interedge superexchange in zigzag edge magnetism. *Physical Review Letters*, **2009**, 102, 227205	7.4	127
59	Electronic highways in bilayer graphene. *Nano Letters*, **2011**, 11, 3453-9	11.5	120
58	Valley-Hall kink and edge states in multilayer graphene. *Physical Review B*, **2011**, 84,	3.3	103
57	Lattice theory of pseudospin ferromagnetism in bilayer graphene: Competing interaction-induced quantum Hall states. *Physical Review B*, **2011**, 83,	3.3	95
56	Flat bands in twisted double bilayer graphene. *Physical Review B*, **2019**, 99,	3.3	86

55	Local spectroscopy of moir□nduced electronic structure in gate-tunable twisted bilayer graphene. *Physical Review B*, **2015**, 92,	3.3	86
54	Gate-Tunable Topological Flat Bands in Trilayer Graphene Boron-Nitride Moir□Superlattices. *Physical Review Letters*, **2019**, 122, 016401	7.4	82
53	Transport properties of graphene nanoroads in boron nitride sheets. *Nano Letters*, **2012**, 12, 2936-40	11.5	77
52	PT Symmetry and Singularity-Enhanced Sensing Based on Photoexcited Graphene Metasurfaces. *Physical Review Applied*, **2016**, 5,	4.3	70
51	Accurate tight-binding models for the □bands of bilayer graphene. *Physical Review B*, **2014**, 89,	3.3	62
50	Van der Waals force: a dominant factor for reactivity of graphene. *Nano Letters*, **2015**, 15, 319-25	11.5	49
49	Current Partition at Topological Channel Intersections. *Physical Review Letters*, **2014**, 112,	7.4	45
48	Single-valley engineering in graphene superlattices. *Physical Review B*, **2015**, 91,	3.3	44
47	Moir□band model and band gaps of graphene on hexagonal boron nitride. *Physical Review B*, **2017**, 96,	3.3	44
46	Spectroscopic Visualization of Grain Boundaries of Monolayer Molybdenum Disulfide by Stacking Bilayers. *ACS Nano*, **2015**, 9, 11042-8	16.7	42
45	Pseudospin order in monolayer, bilayer and double-layer graphene. *Physica Scripta*, **2012**, T146, 014012	2.6	40
44	Wannier pairs in superconducting twisted bilayer graphene and related systems. *Physical Review B*, **2019**, 99,	3.3	38
43	Accurate Gap Determination in Monolayer and Bilayer Graphene/ h-BN Moir□Superlattices. *Nano Letters*, **2018**, 18, 7732-7741	11.5	38
42	Tight-binding model for graphene □bands from maximally localized Wannier functions. *Physical Review B*, **2013**, 87,	3.3	36
41	Visualization of the flat electronic band in twisted bilayer graphene near the magic angle twist. *Nature Physics*, **2021**, 17, 184-188	16.2	36
40	Pressure induced compression of flatbands in twisted bilayer graphene. *Electronic Structure*, **2019**, 1, 015001	2.6	34
39	Tunability of 1/f Noise at Multiple Dirac Cones in hBN Encapsulated Graphene Devices. *Nano Letters* , **2016**, 16, 1042-9	11.5	31
38	Transport and particle-hole asymmetry in graphene on boron nitride. *Physical Review B*, **2015**, 91,	3.3	27

37	Two interacting electrons confined within a sphere: An accurate solution. *Journal of Chemical Physics*, **2003**, 118, 10825-10834	3.9	27
36	Enhancement of nonlocal exchange near isolated band crossings in graphene. *Physical Review B*, **2011**, 84,	3.3	24
35	Carrier- and strain-tunable intrinsic magnetism in two-dimensional MAX3 transition metal chalcogenides. *Physical Review B*, **2020**, 101,	3.3	21
34	Nonlocal exchange effects in zigzag-edge magnetism of neutral graphene nanoribbons. *Physical Review B*, **2011**, 83,	3.3	20
33	Magnetic ground state of the multiferroic hexagonal LuFeO3. *Physical Review B*, **2018**, 97,	3.3	20
32	Unbalanced edge modes and topological phase transition in gated trilayer graphene. *Physical Review B*, **2012**, 85,	3.3	18
31	Gate-tunable topological flat bands in twisted monolayer-bilayer graphene. *Physical Review B*, **2020**, 102,	3.3	17
30	Emergence of Tertiary Dirac Points in Graphene Moiré Superlattices. *Nano Letters*, **2017**, 17, 3576-3581	11.5	16
29	Gapped broken symmetry states in ABC-stacked trilayer graphene. *Physical Review B*, **2013**, 88,	3.3	16
28	Zero-line modes at stacking faulted domain walls in multilayer graphene. *Physical Review B*, **2016**, 94,	3.3	14
27	Role of geometry and topological defects in the one-dimensional zero-line modes of graphene. *Physical Review B*, **2015**, 92,	3.3	14
26	Gate-tunable current partition in graphene-based topological zero lines. *Physical Review B*, **2017**, 95,	3.3	13
25	Moiré pattern interlayer potentials in van der Waals materials in the random-phase approximation. *Physical Review B*, **2017**, 96,	3.3	13
24	Ultrahigh-resolution scanning microwave impedance microscopy of moiré lattices and superstructures. *Science Advances*, **2020**, 6,	14.3	11
23	Fractional Hofstadter States in Graphene on Hexagonal Boron Nitride. *Physical Review Letters*, **2016**, 117, 036802	7.4	11
22	Graphene bubbles and their role in graphene quantum transport. *Nanoscale*, **2017**, 9, 6041-6047	7.7	10
21	Commensurate and incommensurate double moire interference in graphene encapsulated by hexagonal boron nitride. *2D Materials*, **2020**, 7, 031005	5.9	10
20	Topological flat bands without magic angles in massive twisted bilayer graphenes. *Physical Review B*, **2020**, 101,	3.3	8

19	Spontaneous Quantum Hall States and Novel Luttinger Liquids in Chiral Graphene. *Journal of Physics: Conference Series*, **2011**, 334, 012002	0.3	8
18	Carrier Depletion near the Grain Boundary of a SiC Bicrystal. *Scientific Reports*, **2019**, 9, 18014	4.9	8
17	Enhanced third-harmonic generation by manipulating the twist angle of bilayer graphene. *Light: Science and Applications*, **2021**, 10, 19	16.7	8
16	Persistent current states in bilayer graphene. *Physical Review B*, **2015**, 91,	3.3	7
15	Magnetic oscillation of optical phonon in ABA- and ABC-stacked trilayer graphene. *Physical Review B*, **2015**, 91,	3.3	7
14	Bulk valley transport and Berry curvature spreading at the edge of flat bands. *Nature Communications*, **2020**, 11, 5548	17.4	7
13	Modulating Curie Temperature and Magnetic Anisotropy in Nanoscale-Layered Cr2Te3 Films: Implications for Room-Temperature Spintronics. *ACS Applied Nano Materials*, **2021**, 4, 4810-4819	5.6	7
12	Metallic network of topological domain walls. *Physical Review B*, **2020**, 101,	3.3	6
11	Terahertz conductivity of graphene on boron nitride. *Physical Review B*, **2015**, 92,	3.3	6
10	Self-consistent density functional calculation of the image potential at a metal surface. *Journal of Physics Condensed Matter*, **2007**, 19, 266008	1.8	6
9	Magnetoelectric Response of Antiferromagnetic CrI Bilayers. *Nano Letters*, **2021**, 21, 1948-1954	11.5	5
8	. *IEEE Nanotechnology Magazine*, **2019**, 18, 55-61	2.6	4
7	Electron-hole asymmetry and band gaps of commensurate double moire patterns in twisted bilayer graphene on hexagonal boron nitride. *Physical Review B*, **2021**, 103,	3.3	4
6	Plasmons in realistic graphene/hexagonal boron nitride moir patterns. *Physical Review B*, **2019**, 99,	3.3	3
5	Broken-symmetry states at half-integer band fillings in twisted bilayer graphene. *Nature Physics*,	16.2	3
4	Broken sublattice symmetry states in Bernal stacked multilayer graphene. *2D Materials*, **2017**, 4, 021025	5.9	2
3	Valley current splitter in minimally twisted bilayer graphene. *Physical Review B*, **2020**, 102,	3.3	2
2	Topological phases in N-layer ABC graphene/boron nitride moir superlattices. *Physical Review B*, **2021**, 103,	3.3	1

1	Stacking and gate-tunable topological flat bands, gaps, and anisotropic strip patterns in twisted trilayer graphene. *Physical Review B*, **2021**, 104,	3.3	1