

# Nature of the Correlated Insulator States in Twisted Bil

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Theory of correlated insulating behaviour and spin-triplet superconductivity in twisted double bilayer graphene. <i>Nature Communications</i> , 2019, 10, 5333.	5.8	171
2	Skyrmion and tetarton lattices in twisted bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	1.1	9
3	Quantum geometry and stability of moiré flatband ferromagnetism. <i>Physical Review B</i> , 2020, 102, .	1.1	17
4	Spectroscopic Evidence for a Spin- and Valley-Polarized Metallic State in a Nonmagic-Angle Twisted Bilayer Graphene. <i>ACS Nano</i> , 2020, 14, 13081-13090.	7.3	10
5	Switchable Asymmetric Moiré Patterns with Strongly Localized States. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9224-9229.	2.1	14
6	Correlated insulating phases of twisted bilayer graphene at commensurate filling fractions: A Hartree-Fock study. <i>Physical Review B</i> , 2020, 102, .	1.1	107
7	Graphene bilayers with a twist. <i>Nature Materials</i> , 2020, 19, 1265-1275.	13.3	416
8	Effect of bilayer stacking on the atomic and electronic structure of twisted double bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	1.1	24
9	Electrical switching of magnetic order in an orbital Chern insulator. <i>Nature</i> , 2020, 588, 66-70.	13.7	179
10	Functional renormalization group for a large moiré unit cell. <i>Physical Review B</i> , 2020, 102, .	1.1	14
11	Excitonic Laughlin states in ideal topological insulator flat bands and their possible presence in moiré superlattice materials. <i>Physical Review B</i> , 2020, 102, .	1.1	14
12	Symmetry breaking in the double moiré superlattices of relaxed twisted bilayer graphene on hexagonal boron nitride. <i>Physical Review B</i> , 2020, 102, .	1.1	17
13	Twistronics in Graphene, from Transfer Assembly to Epitaxy. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4690.	1.3	9
14	Non-Abelian Dirac node braiding and near-degeneracy of correlated phases at odd integer filling in magic-angle twisted bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	1.1	97
15	Ground State and Hidden Symmetry of Magic-Angle Graphene at Even Integer Filling. <i>Physical Review X</i> , 2020, 10, .	2.8	184
16	Correlated states in magic angle twisted bilayer graphene under the optical conductivity scrutiny. <i>Npj Quantum Materials</i> , 2020, 5, .	1.8	14
17	Optical and plasmonic properties of twisted bilayer graphene: Impact of interlayer tunneling asymmetry and ground-state charge inhomogeneity. <i>Physical Review B</i> , 2020, 102, .	1.1	33
18	Jahn-Teller coupling to moiré phonons in the continuum model formalism for small-angle twisted bilayer graphene. <i>European Physical Journal Plus</i> , 2020, 135, 630.	1.2	7

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19	Valley magnetism, nematicity, and density wave orders in twisted bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	1.1	36
20	Experimental evidence for orbital magnetic moments generated by moiré-scale current loops in twisted bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	1.1	38
21	Correlation-induced valley splitting and orbital magnetism in a strain-induced zero-energy flatband in twisted bilayer graphene near the magic angle. <i>Physical Review B</i> , 2020, 102, .	1.1	26
22	Renormalization Group Study of Hidden Symmetry in Twisted Bilayer Graphene with Coulomb Interactions. <i>Physical Review Letters</i> , 2020, 125, 257602.	2.9	80
23	Efficient simulation of moiré materials using the density matrix renormalization group. <i>Physical Review B</i> , 2020, 102, .	1.1	76
24	Current-Induced Reversal of Anomalous Hall Conductance in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2020, 125, 226401.	2.9	18
25	Voltage-Controlled Magnetic Reversal in Orbital Chern Insulators. <i>Physical Review Letters</i> , 2020, 125, 227702.	2.9	47
26	Interactions in the 8-orbital model for twisted bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	1.1	27
27	Anomalous Hall effect, magneto-optical properties, and nonlinear optical properties of twisted graphene systems. <i>Npj Computational Materials</i> , 2020, 6, .	3.5	42
28	Superconductivity and strong correlations in moiré flat bands. <i>Nature Physics</i> , 2020, 16, 725-733.	6.5	448
29	Ferromagnetism in Narrow Bands of Moiré Superlattices. <i>Physical Review Letters</i> , 2020, 124, 187601.	2.9	123
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32	Cascade of phase transitions and Dirac revivals in magic-angle graphene. <i>Nature</i> , 2020, 582, 203-208.	13.7	297
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35	Slave-rotor theory on magic-angle twisted bilayer graphene. <i>Physical Review B</i> , 2020, 101, .	1.1	5
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38	Critical role of device geometry for the phase diagram of twisted bilayer graphene. <i>Physical Review B</i> , 2020, 101, .	1.1	22
39	Giant orbital magnetoelectric effect and current-induced magnetization switching in twisted bilayer graphene. <i>Nature Communications</i> , 2020, 11, 1650.	5.8	74
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41	Mechanism for Anomalous Hall Ferromagnetism in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2020, 124, 166601.	2.9	231
42	Metal-insulator transition and dominant d+id pairing symmetry in twisted bilayer graphene. <i>Physical Review B</i> , 2020, 101, .	1.1	18
43	Topological flat bands in twisted trilayer graphene. <i>Science Bulletin</i> , 2021, 66, 18-22.	4.3	42
44	Multi-shaped strain soliton networks and moiré-potential-modulated band edge states in twisted bilayer SiC. <i>RSC Advances</i> , 2021, 11, 24366-24373.	1.7	2
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47	Correlation-Induced Insulating Topological Phases at Charge Neutrality in Twisted Bilayer Graphene. <i>Physical Review X</i> , 2021, 11, .	2.8	64
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57	Exciton Band Topology in Spontaneous Quantum Anomalous Hall Insulators: Applications to Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2021, 126, 137601.	2.9	28
58	Unveiling Atomic-Scale Moiré Features and Atomic Reconstructions in High-Angle Commensurately Twisted Transition Metal Dichalcogenide Homobilayers. <i>Nano Letters</i> , 2021, 21, 3262-3270.	4.5	15
59	Phase diagram and orbital Chern insulator in twisted double bilayer graphene. <i>Physical Review B</i> , 2021, 103, .	1.1	11
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61	Correlated insulators in twisted bilayer graphene. <i>Physical Review B</i> , 2021, 103, .	1.1	6
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64	Orbital magnetic states in moiré graphene systems. <i>Nature Reviews Physics</i> , 2021, 3, 367-382.	11.9	51
65	Twisted bilayer graphene. IV. Exact insulator ground states and phase diagram. <i>Physical Review B</i> , 2021, 103, .	1.1	123
66	Tunable large Berry dipole in strained twisted bilayer graphene. <i>Physical Review B</i> , 2021, 103, .	1.1	31
67	Twisted bilayer graphene. I. Matrix elements, approximations, perturbation theory, and a two-band model. <i>Physical Review B</i> , 2021, 103, .		
68	Twisted bilayer graphene. V. Exact analytic many-body excitations in Coulomb Hamiltonians: Charge gap, Goldstone modes, and absence of Cooper pairing. <i>Physical Review B</i> , 2021, 103, .	1.1	89
69	Towards holographic flat bands. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	1.6	8
70	Visualizing delocalized correlated electronic states in twisted double bilayer graphene. <i>Nature Communications</i> , 2021, 12, 2516.	5.8	30
71	Imaging orbital ferromagnetism in a moiré Chern insulator. <i>Science</i> , 2021, 372, 1323-1327.	6.0	94
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73	Importance of long-ranged electron-electron interactions for the magnetic phase diagram of twisted bilayer graphene. <i>Physical Review B</i> , 2021, 103, .	1.1	17

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75	Renormalization group study of systems with quadratic band touching. Physical Review B, 2021, 103, .	1.1	1
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96	Domain wall competition in the Chern insulating regime of twisted bilayer graphene. <i>Physical Review B</i> , 2021, 104, .	1.1	15
97	Spontaneous fractional Chern insulators in transition metal dichalcogenide moiré superlattices. <i>Physical Review Research</i> , 2021, 3, .	1.3	40
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101	Magnetic phases from competing Hubbard and extended Coulomb interactions in twisted bilayer graphene. <i>Physical Review B</i> , 2021, 104, .	1.1	5
102	Quantum metric and correlated states in two-dimensional systems. <i>Current Opinion in Solid State and Materials Science</i> , 2021, 25, 100952.	5.6	20
103	Correlation-driven topological phases in magic-angle twisted bilayer graphene. <i>Nature</i> , 2021, 589, 536-541.	13.7	151
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111	Ferromagnetism and its stability from the one-magnon spectrum in twisted bilayer graphene. <i>Physical Review B</i> , 2020, 102, .	1.1	30
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129	Valley-Polarized Quantum Anomalous Hall State in Moiré $\text{MoTe}_2$ Heterobilayers. <i>Physical Review Letters</i> , 2022, 128, 026402.	2.9	48
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131	Tuning Magnetic Order in CrI <sub>3</sub> Bilayers via Moiré Patterns. <i>Advanced Theory and Simulations</i> , 0, , 2100307.	1.3	4
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133	Higher-order Van Hove singularity in magic-angle twisted trilayer graphene. <i>Physical Review Research</i> , 2022, 4, .	1.3	19
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147	Strange Metals from Melting Correlated Insulators in Twisted Bilayer Graphene. <i>Physical Review Letters</i> , 2021, 127, 266601.	2.9	11
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157	Excitonic fractional quantum Hall hierarchy in moiré heterostructures. <i>Physical Review B</i> , 2022, 105, .	1.1	1
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165	Giant nonlinear Hall effect in strained twisted bilayer graphene. Physical Review B, 2022, 106, .	1.1	22
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173	Magic angles in twisted bilayer graphene near commensuration: Towards a hypermagic regime. Physical Review B, 2022, 106, .	1.1	11
174	Moiré Phonons in Magic-Angle Twisted Bilayer Graphene. Nano Letters, 2022, 22, 7791-7797.	4.5	14
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178	Nonlinear Hall effects in strained twisted bilayer WSe <sub>2</sub> . Communications Physics, 2022, 5, .	2.0	9
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181	Magic-angle twisted bilayer systems with quadratic band touching: Exactly flat bands with high Chern number. Physical Review Research, 2022, 4, .	1.3	4

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