Ming-Hao Liu

List of Publications by Year
in descending order

54	1,704	361413 20	276875 41
papers	citations	h-index	g-index

54	54	54	1866
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ballistic interferences in suspended graphene. Nature Communications, 2013, 4, 2342.	12.8	185
2	Unconventional ferroelectricity in moirÃ© heterostructures. Nature, 2020, 588, 71-76.	27.8	165
3	Transport Through a Network of Topological Channels in Twisted Bilayer Graphene. Nano Letters, 2018, 18, 6725-6730.	9.1	109
4	Snake trajectories in ultraclean graphene pâ€“n junctions. Nature Communications, 2015, 6, 6470.	12.8	93
5	New Generation of MoirÃ© Superlattices in Doubly Aligned hBN/Graphene/hBN Heterostructures. Nano Letters, 2019, 19, 2371-2376.	9.1	85
6	Fabry-PÃ©rot Interference in Gapped Bilayer Graphene with Broken Anti-Klein Tunneling. Physical Review Letters, 2014, 113, 116601.	7.8	81
7	Terahertz ratchet effects in graphene with a lateral superlattice. Physical Review B, 2016, 93, .	3.2	77
8	Scalable Tight-Binding Model for Graphene. Physical Review Letters, 2015, 114, 036601.	7.8	74
9	Spin-dependent Klein tunneling in graphene: Role of Rashba spin-orbit coupling. Physical Review B, 2012, 85, .	3.2	64
10	Guiding of Electrons in a Few-Mode Ballistic Graphene Channel. Nano Letters, 2015, 15, 5819-5825.	9.1	64
11	Creating and Steering Highly Directional Electron Beams in Graphene. Physical Review Letters, 2017, 118, 066801.	7.8	54
12	Persistent spin helix in Rashba-Dresselhaus two-dimensional electron systems. Physical Review B, 2006, 74, .	3.2	49
13	Gate tuneable beamsplitter in ballistic graphene. Applied Physics Letters, 2015, 107, .	3.3	44
14	Tuning Anti-Klein to Klein Tunneling in Bilayer Graphene. Physical Review Letters, 2018, 121, 127706.	7.8	39
15	The electronic thickness of graphene. Science Advances, 2020, 6, eaay8409.	10.3	35
16	Fabry-PÃ©rot Resonances in a Graphene/hBN MoirÃ© Superlattice. Nano Letters, 2017, 17, 328-333.	9.1	32
17	Gate-Tunable Two-Dimensional Superlattices in Graphene. Nano Letters, 2020, 20, 8046-8052.	9.1	27
18	Towards superlattices: Lateral bipolar multibarriers in graphene. Physical Review B, 2014, 89, .	3.2	26

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19	Commensurability Oscillations in One-Dimensional Graphene Superlattices. Physical Review Letters, 2018, 121, 026806.	7.8	24
20	Theory of carrier density in multigated doped graphene sheets with quantum correction. Physical Review B, 2013, 87, .	3.2	21
21	Spin precession due to spin-orbit coupling in a two-dimensional electron gas with spin injection via ideal quantum point contact. Physical Review B, 2005, 71, .	3.2	20
22	Edge state effects in junctions with graphene electrodes. Physical Review B, 2012, 86, .	3.2	20
23	Efficient quantum transport simulation for bulk graphene heterojunctions. Physical Review B, 2012, 86, .	3.2	20
24	Giant Valley-Isospin Conductance Oscillations in Ballistic Graphene. Nano Letters, 2017, 17, 5389-5393.	9.1	20
25	Coexistence of classical snake states and Aharonov-Bohm oscillations along graphene <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>p</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>n</mml:mi></mml:mrow></mml:math> junctions. Physical Review B, 2018, 98, .	3.2	20
26	Current-induced spin polarization in spin-orbit-coupled electron systems. Physical Review B, 2008, 78, .	3.2	19
27	Band gap and broken chirality in singleâ€layer and bilayer graphene. Physica Status Solidi - Rapid Research Letters, 2016, 10, 46-57.	2.4	19
28	Electrostatic superlattices on scaled graphene lattices. Communications Physics, 2020, 3, .	5.3	18
29	Upstanding Rashba spin in honeycomb lattices: Electrically reversible surface spin polarization. Physical Review B, 2009, 80, .	3.2	17
30	Nonuniform Rashba-Dresselhaus spin precession along arbitrary paths. Physical Review B, 2006, 74, .	3.2	16
31	Intrinsic spin-Hall accumulation in honeycomb lattices: Band structure effects. Physical Review B, 2007, 76, .	3.2	14
32	Datta-Das transistor: Significance of channel direction, size dependence of source contacts, and boundary effects. Physical Review B, 2006, 73, .	3.2	13
33	Spin and charge transport in U-shaped one-dimensional channels with spin-orbit couplings. Physical Review B, 2011, 84, .	3.2	13
34	Nonequilibrium spin transport on Au(111) surfaces. Physical Review B, 2008, 78, .	3.2	11
35	Anomalous spin Hall effects in Dresselhaus (110) quantum wells. Physical Review B, 2010, 82, .	3.2	11
36	Spin conductance of diffusive graphene nanoribbons: A probe of zigzag edge magnetization. Physical Review B, 2013, 88, .	3.2	11

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37	Anomalous Cyclotron Motion in Graphene Superlattice Cavities. Physical Review Letters, 2020, 125, 217701.	7.8	11
38	Gate-controlled conductance enhancement from quantum Hall channels along graphene pâ€“n junctions. Nanoscale, 2016, 8, 19910-19916.	5.6	10
39	Oscillating Magnetoresistance in Graphene pâ€“n Junctions at Intermediate Magnetic Fields. Nano Letters, 2017, 17, 2852-2857.	9.1	9
40	Dirac fermion optics and directed emission from single- and bilayer graphene cavities. Physical Review B, 2021, 104, .	3.2	9
41	Characterization of hydrogen plasma defined graphene edges. Carbon, 2019, 150, 417-424.	10.3	7
42	Mirror symmetry and exchange of magnetic impurities mediated by electrons of Rashba spinâ€“orbit interaction in a four-terminal Landauer setup. Journal Physics D: Applied Physics, 2010, 43, 015003.	2.8	6
43	Spin transport in a tubular two-dimensional electron gas with Rashba spin-orbit coupling. Journal of Applied Physics, 2010, 108, 033715.	2.5	6
44	Valley splitter and transverse valley focusing in twisted bilayer graphene. Physical Review Research, 2020, 2, .	3.6	6
45	Cloning of zero modes in one-dimensional graphene superlattices. Physical Review B, 2020, 102, .	3.2	5
46	Local spin density in a two-dimensional electron gas with a hexagonal boundary. Physical Review B, 2007, 76, .	3.2	4
47	Spin accumulation oscillation and current vortex in the Landauer setup with locally applied biases. Journal of Applied Physics, 2008, 103, 07B721.	2.5	4
48	Gate-induced carrier density modulation in bulk graphene: theories and electrostatic simulation using Matlab pdetool. Journal of Computational Electronics, 2013, 12, 188-202.	2.5	4
49	Manipulating electron waves in graphene using carbon nanotube gating. Physical Review B, 2022, 105, .	3.2	4
50	Rashba Spin Interferometer. IEEE Transactions on Magnetics, 2007, 43, 2869-2871.	2.1	3
51	Broken spin-Hall accumulation symmetry by magnetic field and coexisted Rashba and Dresselhaus interactions. Journal of Applied Physics, 2007, 101, 09D513.	2.5	2
52	Quantum capacitive coupling between large-angle twisted graphene layers. 2D Materials, 2022, 9, 025013.	4.4	2
53	Precessionless spin transport wire confined in quasi-two-dimensional electron systems. Journal of Applied Physics, 2006, 99, 08H707.	2.5	1
54	Bipolar Spin Switch Using Aharonovâ€“Bohm Ring With Embedded Double Quantum Dots. IEEE Transactions on Magnetics, 2007, 43, 2866-2868.	2.1	1