Mohammad Zarenia

List of Publications by Year
in descending order

57	1,282	394421	361022
papers	citations	19 h-index	35 g-index

58	58	58	1187
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Energy levels of triangular and hexagonal graphene quantum dots: A comparative study between the tight-binding and Dirac equation approach. Physical Review B, 2011, 84, .	3.2	148
2	Strain-induced topological phase transition in phosphorene and in phosphorene nanoribbons. Physical Review B, 2016, 94, .	3.2	90
3	Electronic and optical properties of a circular graphene quantum dot in a magnetic field: Influence of the boundary conditions. Physical Review B, 2011, 84, .	3.2	84
4	Simplified model for the energy levels of quantum rings in single layer and bilayer graphene. Physical Review B, 2010, 81, .	3.2	75
5	Excitons and trions in monolayer transition metal dichalcogenides: A comparative study between the multiband model and the quadratic single-band model. Physical Review B, 2017, 96, .	3.2	61
6	Geometry and edge effects on the energy levels of graphene quantum rings: A comparison between tight-binding and simplified Dirac models. Physical Review B, 2014, 89, .	3.2	58
7	Chiral states in bilayer graphene: Magnetic field dependence and gap opening. Physical Review B, 2011, 84, .	3.2	53
8	Electrostatically Confined Quantum Rings in Bilayer Graphene. Nano Letters, 2009, 9, 4088-4092.	9.1	51
9	Excitons, trions, and biexcitons in transition-metal dichalcogenides: Magnetic-field dependence. Physical Review B, 2018, 97, .	3.2	45
10	Enhancement of electron-hole superfluidity in double few-layer graphene. Scientific Reports, 2014, 4, 7319.	3.3	42
11	Substrate-induced chiral states in graphene. Physical Review B, 2012, 86, .	3.2	41
12	Analytical study of the energy levels in bilayer graphene quantum dots. Carbon, 2014, 78, 392-400.	10.3	36
13	Electron-electron interactions in bilayer graphene quantum dots. Physical Review B, 2013, 88, .	3.2	32
14	Energy levels of hybrid monolayer-bilayer graphene quantum dots. Physical Review B, 2016, 93, .	3.2	30
15	Energy levels of bilayer graphene quantum dots. Physical Review B, 2015, 92, .	3.2	24
16	Magnetic field dependence of energy levels in biased bilayer graphene quantum dots. Physical Review B, 2016, 93, .	3.2	22
17	Wigner crystallization in transition metal dichalcogenides: A new approach to correlation energy. Physical Review B, 2017, 95, .	3.2	22
18	Strong valley Zeeman effect of dark excitons in monolayer transition metal dichalcogenides in a tilted magnetic field. Physical Review B, 2018, 97, .	3.2	22

#	Article	IF	Citations
19	High-temperature electron-hole superfluidity with strong anisotropic gaps in double phosphorene monolayers. Physical Review B, 2018, 97, .	3.2	21
20	Disorder-enabled hydrodynamics of charge and heat transport in monolayer graphene. 2D Materials, 2019, 6, 035024.	4.4	20
21	Magnetotransport in periodically modulated bilayer graphene. Physical Review B, 2012, 85, .	3.2	19
22	Circular quantum dots in twisted bilayer graphene. Physical Review B, 2020, 101, .	3.2	19
23	Snake states in graphene quantum dots in the presence of a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>junction. Physical Review B, 2013, 87, .	3.2	17
24	Gate tunable layer selectivity of transport in bilayer graphene nanostructures. Europhysics Letters, 2016, 113, 17006.	2.0	17
25	Breakdown of the Wiedemann-Franz law in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>A</mml:mi><mml:mi>B</mml:mi></mml:mrow></mml:m -stacked bilayer graphene. Physical Review B, 2019, 99, .	3.2	16
26	Magnetic properties of bilayer graphene quantum dots in the presence of uniaxial strain. Physical Review B, 2017, 96, .	3.2	14
27	Graphene quantum dot with a Coulomb impurity: Subcritical and supercritical regime. Physical Review B, 2017, 95, .	3.2	14
28	Inhomogeneous phases in coupled electron-hole bilayer graphene sheets: Charge Density Waves and Coupled Wigner Crystals. Scientific Reports, 2017, 7, 11510.	3.3	13
29	Quantum transport across van der Waals domain walls in bilayer graphene. Journal of Physics Condensed Matter, 2017, 29, 425303.	1.8	12
30	Thermal transport in compensated semimetals: Effect of electron-electron scattering on Lorenz ratio. Physical Review B, 2020, 102, .	3.2	11
31	Hexagonal-shaped monolayer-bilayer quantum disks in graphene: A tight-binding approach. Physical Review B, 2016, 94, .	3.2	10
32	Enhanced hydrodynamic transport in near magic angle twisted bilayer graphene. Physical Review B, 2020, 101, .	3.2	10
33	Energy levels of ABC-stacked trilayer graphene quantum dots with infinite-mass boundary conditions. Physical Review B, 2016, 94, .	3.2	9
34	Exciton states in a circular graphene quantum dot: Magnetic field induced intravalley to intervalley transition. Physical Review B, 2017, 95, .	3.2	9
35	Landau levels in biased graphene structures with monolayer-bilayer interfaces. Physical Review B, 2017, 96, .	3.2	9
36	Dirac Fermion Cloning, MoirÃ© Flat Bands, and Magic Lattice Constants in Epitaxial Monolayer Graphene. Advanced Materials, 2022, 34, e2200625.	21.0	9

#	Article	IF	Citations
37	OPTIMIZATION OF QUANTUM MONTE CARLO WAVE FUNCTION: STEEPEST DESCENT METHOD. International Journal of Modern Physics C, 2010, 21, 523-533.	1.7	8
38	Large gap electron-hole superfluidity and shape resonances in coupled graphene nanoribbons. Scientific Reports, 2016, 6, 24860.	3.3	8
39	Multiband Mechanism for the Sign Reversal of Coulomb Drag Observed in Double Bilayer Graphene Heterostructures. Physical Review Letters, 2018, 121, 036601.	7.8	8
40	Electrostatically confined trilayer graphene quantum dots. Physical Review B, 2017, 95, .	3.2	7
41	Interband optical absorption in a circular graphene quantum dot. Physica Scripta, 2012, T149, 014056.	2.5	6
42	Topological confinement in an antisymmetric potential in bilayer graphene in the presence of a magnetic field. Nanoscale Research Letters, 2011, 6, 452.	5.7	5
43	Transmission in grapheneâ€“topological insulator heterostructures. Physical Review B, 2017, 95, .	3.2	5
44	Comment on â€œImpurity spectra of graphene under electric and magnetic fieldsâ€• Physical Review B, 2018, 97, .	3.2	5
45	Many-body electron correlations in graphene. Journal of Physics: Conference Series, 2016, 702, 012008.	0.4	4
46	Correlation and current anomalies in helical quantum dots. Physical Review B, 2016, 94, .	3.2	4
47	Edge states in gated bilayer-monolayer graphene ribbons and bilayer domain walls. Journal of Applied Physics, 2018, 123, 204301.	2.5	4
48	Dynamic tracking of scaphoid, lunate, and capitate carpal bones using four-dimensional MRI. PLoS ONE, 2022, 17, e0269336.	2.5	3
49	Magnetic field dependence of atomic collapse in bilayer graphene. Physical Review B, 2018, 98, .	3.2	2
50	Coulomb drag in strongly coupled quantum wells: Temperature dependence of the many-body correlations. Applied Physics Letters, 2019, 115, .	3.3	2
51	Two distinctive regimes in the charge transport of a magnetic topological ultra thin film. New Journal of Physics, 2020, 22, 123004.	2.9	2
52	Temperature collapse of the electric conductivity in bilayer graphene. Physical Review Research, 2020, 2, .	3.6	2
53	Wave fronts and packets in 1D models of different meta-materials: Graphene, left-handed media and transmission line. Physica Status Solidi (B): Basic Research, 2015, 252, 2330-2338.	1.5	1
54	Charge transport in magnetic topological ultra-thin films: the effect of structural inversion asymmetry. Journal of Physics Condensed Matter, 2021, 33, 325702.	1.8	1

#	Article	IF	Citations
55	Landau-level dispersion and the quantum Hall plateaus in bilayer graphene. , 2013, , .		0
56	Anisotropic charge density wave in electron-hole double monolayers: Applied to phosphorene. Physical Review B, 2018, 98, .	3.2	0
57	Reply to â€œComment on â€˜Excitons, trions, and biexcitons in transition-metal dichalcogenides: Magnetic-field dependenceâ€™Ââ€• Physical Review B, 2020, 101, .	3.2	0