Aires Ferreira

List of Publications by Year
in descending order

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45 papers	2,976 citations	304602 22 h-index	254106 43 g-index
45 all docs	45 docs citations	45 times ranked	2558 citing authors

#	Article	IF	Citations
1	Optomechanical Entanglement between a Movable Mirror and a Cavity Field. Physical Review Letters, 2007, 98, 030405.	2.9	888
2	A PRIMER ON SURFACE PLASMON-POLARITONS IN GRAPHENE. International Journal of Modern Physics B, 2013, 27, 1341001.	1.0	325
3	Giant spin Hall effect in graphene grown by chemical vapour deposition. Nature Communications, 2014, 5, 4748.	5.8	179
4	Unified description of the dc conductivity of monolayer and bilayer graphene at finite densities based on resonant scatterers. Physical Review B, 2011, 83, .	1.1	152
5	Graphene-based photodetector with two cavities. Physical Review B, 2012, 85, .	1.1	142
6	Faraday effect in graphene enclosed in an optical cavity and the equation of motion method for the study of magneto-optical transport in solids. Physical Review B, 2011, 84, .	1.1	125
7	Extrinsic Spin Hall Effect Induced by Resonant Skew Scattering in Graphene. Physical Review Letters, 2014, 112, 066601.	2.9	105
8	Optimal Charge-to-Spin Conversion in Graphene on Transition-Metal Dichalcogenides. Physical Review Letters, 2017, 119, 196801.	2.9	99
9	Critical Delocalization of Chiral Zero Energy Modes in Graphene. Physical Review Letters, 2015, 115, 106601.	2.9	97
10	Complete light absorption in graphene-metamaterial corrugated structures. Physical Review B, 2012, 86, .	1.1	80
11	Macroscopic Thermal Entanglement Due to Radiation Pressure. Physical Review Letters, 2006, 96, 060407.	2.9	70
12	Transport properties of graphene with one-dimensional charge defects. Europhysics Letters, 2011, 94, 28003.	0.7	63
13	Confined magneto-optical waves in graphene. Physical Review B, 2012, 85, .	1.1	54
14	Gate-Tunable Reversible Rashbaâ€“Edelstein Effect in a Few-Layer Graphene/2H-TaS₂ Heterostructure at Room Temperature. ACS Nano, 2020, 14, 5251-5259.	7.3	50
15	Scattering theory of spin-orbit active adatoms on graphene. Physical Review B, 2014, 90, .	1.1	48
16	Covariant Conservation Laws and the Spin Hall Effect in Dirac-Rashba Systems. Physical Review Letters, 2017, 119, 246801.	2.9	46
17	Microscopic theory of spin relaxation anisotropy in graphene with proximity-induced spin-orbit coupling. Physical Review B, 2018, 98, .	1.1	43
18	Effect of charged line defects on conductivity in graphene: Numerical Kubo and analytical Boltzmann approaches. Physical Review B, 2013, 87, .	1.1	37

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19	Exact solution for square-wave grating covered with graphene: surface plasmon-polaritons in the terahertz range. Journal of Physics Condensed Matter, 2013, 25, 125303.	0.7	33
20	Anomalous Hall Effect in 2D Dirac Materials. Physical Review Letters, 2018, 121, 126802.	2.9	33
21	KITE: high-performance accurate modelling of electronic structure and response functions of large molecules, disordered crystals and heterostructures. Royal Society Open Science, 2020, 7, 191809.	1.1	30
22	Quantum diagrammatic theory of the extrinsic spin Hall effect in graphene. Physical Review B, 2016, 94, .	1.1	29
23	Crystal-field effects in graphene with interface-induced spin-orbit coupling. Physical Review B, 2018, 98, .	1.1	22
24	Light scattering by a medium with a spatially modulated optical conductivity: the case of graphene. Journal of Physics Condensed Matter, 2012, 24, 245303.	0.7	20
25	Electrically tunable resonant scattering in fluorinated bilayer graphene. Physical Review B, 2015, 92, .	1.1	20
26	Skew-scattering-induced giant antidamping spin-orbit torques: Collinear and out-of-plane Edelstein effects at two-dimensional material/ferromagnet interfaces. Physical Review Research, 2020, 2, .	1.3	19
27	Impact of complex adatom-induced interactions on quantum spin Hall phases. Physical Review B, 2018, 98, .	1.1	17
28	Numerical calculation of the Casimir-Polder interaction between a graphene sheet with vacancies and an atom. Physical Review B, 2016, 94, .	1.1	15
29	Analytic results on long-distance entanglement mediated by gapped spin chains. Physical Review A, 2008, 77, .	1.0	14
30	Crossover to the anomalous quantum regime in the extrinsic spin Hall effect of graphene. Physical Review B, 2016, 94, .	1.1	14
31	Proposal for Unambiguous Electrical Detection of Spin-Charge Conversion in Lateral Spin Valves. Physical Review Letters, 2020, 124, 236803.	2.9	14
32	Direct Visualization of Native Defects in Graphite and Their Effect on the Electronic Properties of Bernal-Stacked Bilayer Graphene. Nano Letters, 2021, 21, 7100-7108.	4.5	13
33	Efficient Multiscale Lattice Simulations of Strained and Disordered Graphene. Semiconductors and Semimetals, 2016, , 35-99.	0.4	12
34	Breakdown of universality in three-dimensional Dirac semimetals with random impurities. Physical Review Research, 2021, 3, .	1.3	11
35	Plasmon-Induced Hot Carriers from Interband and Intraband Transitions in Large Noble Metal Nanoparticles. , 2022, 1, .		11
36	Microscopic Linear Response Theory of Spin Relaxation and Relativistic Transport Phenomena in Graphene. Condensed Matter, 2018, 3, 18.	0.8	9

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37	Magnetic oscillation of optical phonon in ABA- and ABC-stacked trilayer graphene. Physical Review B, 2015, 91, .	1.1	8
38	Production of bright entangled photons from moving optical boundaries. Physical Review A, 2011, 83, .	1.0	7
39	Theory of spin injection in two-dimensional metals with proximity-induced spin-orbit coupling. Physical Review B, 2019, 100, .	1.1	5
40	Effect of proximity-induced spin-orbit coupling in graphene mesoscopic billiards. Physical Review B, 2021, 103, .	1.1	4
41	Theory of spinâ€“charge-coupled transport in proximitized graphene: an SO(5) algebraic approach. JPhys Materials, 2021, 4, 045006.	1.8	4
42	Emergence of robust gaps in two-dimensional antiferromagnets via additional spin-1/2 probes. Physical Review A, 2010, 82, .	1.0	3
43	Shubnikovâ€“de Haas oscillations in the anomalous Hall conductivity of Chern insulators. Physical Review B, 2018, 98, .	1.1	3
44	Spin Hall and inverse spin galvanic effects in graphene with strong interfacial spin-orbit coupling: A quasi-classical Green's function approach. Physical Review Research, 2021, 3, .	1.3	3
45	Graphene-based nanostructures: Plasmonics in the THz range. , 2015, , .		0