Hector Ochoa de Eguileor

List of Publications by Year in descending order

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35 2,397 23 papers citations h-index

35 35 35 3246
all docs docs citations times ranked citing authors

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g-index

#	Article	IF	Citations
1	Limits on Charge Carrier Mobility in Suspended Graphene due to Flexural Phonons. Physical Review Letters, 2010, 105, 266601.	2.9	347
2	Novel effects of strains in graphene and other two dimensional materials. Physics Reports, 2016, 617, 1-54.	10.3	315
3	<i>Colloquium</i> : Spintronics in graphene and other two-dimensional materials. Reviews of Modern Physics, 2020, 92, .	16.4	265
4	Realization of the Haldane-Kane-Mele Model in a System of Localized Spins. Physical Review Letters, 2016, 117, 227201.	2.9	162
5	Spin-orbit-mediated spin relaxation in monolayer MoS <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> . Physical Review B, 2013, 87, .	1.1	152
6	Quantum Spin Hall Effect in Two-Dimensional Crystals of Transition-Metal Dichalcogenides. Physical Review Letters, 2014, 113, 077201.	2.9	139
7	Spatial variation of a giant spin–orbit effect induces electron confinement in graphene onÂPbÂislands. Nature Physics, 2015, 11, 43-47.	6.5	126
8	Elliot-Yafet Mechanism in Graphene. Physical Review Letters, 2012, 108, 206808.	2.9	114
9	Temperature-dependent resistivity in bilayer graphene due to flexural phonons. Physical Review B, 2011, 83, .	1.1	86
10	Enhanced tunable second harmonic generation from twistable interfaces and vertical superlattices in boron nitride homostructures. Science Advances, 2021, 7, .	4.7	73
11	Moiré nematic phase in twisted double bilayer graphene. Nature Physics, 2022, 18, 196-202.	6.5	51
12	Tunable strain soliton networks confine electrons in van der Waals materials. Nature Physics, 2020, 16, 1097-1102.	6.5	47
13	Scattering by flexural phonons in suspended graphene under back gate induced strain. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 963-966.	1.3	42
14	Spin-valley relaxation and quantum transport regimes in two-dimensional transition-metal dichalcogenides. Physical Review B, 2014, 90, .	1.1	38
15	Magnetic moments and Kondo effect near vacancies and resonant scatterers in graphene. Physical Review B, $2011,83,\ldots$	1.1	37
16	Spin-orbit coupling assisted by flexural phonons in graphene. Physical Review B, 2012, 86, .	1.1	34
17	Spin memory and spin-lattice relaxation in two-dimensional hexagonal crystals. Physical Review B, 2013, 88, .	1.1	34
18	Moir \tilde{A} ©-pattern fluctuations and electron-phason coupling in twisted bilayer graphene. Physical Review B, 2019, 100, .	1.1	34

#	Article	IF	Citations
19	Evidence of large spin-orbit coupling effects in quasi-free-standing graphene on Pb/lr(1 1 1). 2D Materials, 2018, 5, 035029.	2.0	33
20	Extrinsic spin Hall effect from anisotropic Rashba spin-orbit coupling in graphene. Physical Review B, 2016, 93, .	1.1	27
21	Emergent Gauge Fields from Curvature in Single Layers of Transition-Metal Dichalcogenides. Physical Review Letters, 2017, 118, 026801.	2.9	25
22	Spin hydrodynamics in amorphous magnets. Physical Review B, 2018, 98, .	1.1	25
23	Flat Bands and Chiral Optical Response of Moiré Insulators. Physical Review Letters, 2020, 125, 037402.	2.9	24
24	Chiral charge pumping in graphene deposited on a magnetic insulator. Physical Review B, 2017, 95, .	1.1	22
25	Generalized boundary conditions for spin transfer. Physical Review B, 2017, 96, .	1.1	22
26	Quantum skyrmionics. International Journal of Modern Physics B, 2019, 33, 1930005.	1.0	21
27	Topological spin-transfer drag driven by skyrmion diffusion. Physical Review B, 2016, 94, .	1.1	16
28	Spin relaxation in corrugated graphene. Physical Review B, 2017, 95, .	1.1	16
29	Proposal for dynamic imaging of antiferromagnetic domain wall via quantum-impurity relaxometry. Physical Review B, 2018, 98, .	1.1	16
30	Degradation of Phonons in Disordered Moiré Superlattices. Physical Review Letters, 2022, 128, 065901.	2.9	15
31	Hydrodynamics of three-dimensional skyrmions in frustrated magnets. Physical Review B, 2019, 100, .	1.1	12
32	Strain-induced excitonic instability in twisted bilayer graphene. Physical Review B, 2020, 102, .	1.1	12
33	Gyrotropic elastic response of skyrmion crystals to current-induced tensions. Physical Review B, 2017, 96, .	1.1	7
34	Exchange and collective behavior of magnetic impurities in a disordered helical metal. Physical Review B, 2015, 92, .	1.1	4
35	Self-induced spin-orbit torques in metallic ferromagnets. Journal of Magnetism and Magnetic Materials, 2021, 538, 168262.	1.0	4