

Eduardo V Castro

List of Publications by Year in descending order

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56
papers

3,581
citations

304368

22
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168136

53
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all docs

56
docs citations

56
times ranked

4243
citing authors

#	ARTICLE	IF	CITATIONS
1	Biased Bilayer Graphene: Semiconductor with a Gap Tunable by the Electric Field Effect. <i>Physical Review Letters</i> , 2007, 99, 216802.	2.9	1,728
2	Limits on Charge Carrier Mobility in Suspended Graphene due to Flexural Phonons. <i>Physical Review Letters</i> , 2010, 105, 266601.	2.9	347
3	Electronic properties of a biased graphene bilayer. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 175503.	0.7	209
4	Localized States at Zigzag Edges of Bilayer Graphene. <i>Physical Review Letters</i> , 2008, 100, 026802.	2.9	136
5	Low-Density Ferromagnetism in Biased Bilayer Graphene. <i>Physical Review Letters</i> , 2008, 100, 186803.	2.9	124
6	Temperature-dependent resistivity in bilayer graphene due to flexural phonons. <i>Physical Review B</i> , 2011, 83, .	1.1	86
7	Algebraic solution of a graphene layer in transverse electric and perpendicular magnetic fields. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 406231.	0.7	73
8	Charge instabilities and topological phases in the extended Hubbard model on the honeycomb lattice with enlarged unit cell. <i>Physical Review B</i> , 2013, 87, .	1.1	70
9	Interaction-driven phases in the half-filled spinless honeycomb lattice from exact diagonalization. <i>Physical Review B</i> , 2013, 88, .	1.1	59
10	Site dilution of quantum spins in the honeycomb lattice. <i>Physical Review B</i> , 2006, 73, .	1.1	53
11	Topological Fermi Liquids from Coulomb Interactions in the Doped Honeycomb Lattice. <i>Physical Review Letters</i> , 2011, 107, 106402.	2.9	48
12	New Type of Vacancy-Induced Localized States in Multilayer Graphene. <i>Physical Review Letters</i> , 2010, 104, 036802.	2.9	46
13	Scattering by flexural phonons in suspended graphene under back gate induced strain. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 963-966.	1.3	42
14	Collapse of Landau levels in Weyl semimetals. <i>Physical Review B</i> , 2017, 96, .	1.1	37
15	Quantum dark solitons as qubits in Bose-Einstein condensates. <i>Physical Review A</i> , 2017, 95, .	1.0	33
16	Valley Symmetry Breaking in Bilayer Graphene: A Test of the Minimal Model. <i>Physical Review Letters</i> , 2009, 103, 266804.	2.9	29
17	Anderson localization and topological transition in Chern insulators. <i>Physical Review B</i> , 2015, 92, .	1.1	29
18	Bilayer graphene: gap tunability and edge properties. <i>Journal of Physics: Conference Series</i> , 2008, 129, 012002.	0.3	28

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19	Change of an insulator's topological properties by a Hubbard interaction. <i>Physical Review B</i> , 2013, 87, .	1.1	27
20	Gaped graphene bilayer: disorder and magnetic field effects. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 2311-2316.	0.7	25
21	Localized states at zigzag edges of multilayer graphene and graphite steps. <i>Europhysics Letters</i> , 2008, 84, 17001.	0.7	25
22	Double Exchange Model for Magnetic Hexaborides. <i>Physical Review Letters</i> , 2004, 93, 147202.	2.9	22
23	Entanglement sudden death and revival in quantum dark-soliton qubits. <i>Physical Review A</i> , 2018, 98, .	1.0	22
24	Pinning and switching of magnetic moments in bilayer graphene. <i>New Journal of Physics</i> , 2009, 11, 095017.	1.2	18
25	Raise and collapse of pseudo Landau levels in graphene. <i>Physical Review B</i> , 2017, 96, .	1.1	18
26	Interplay of local order and topology in the extended Haldane-Hubbard model. <i>Physical Review B</i> , 2021, 103, .	1.1	18
27	Valley-polarized magnetic state in hole-doped monolayers of transition-metal dichalcogenides. <i>Physical Review B</i> , 2018, 98, .	1.1	17
28	Impact of complex adatom-induced interactions on quantum spin Hall phases. <i>Physical Review B</i> , 2018, 98, .	1.1	17
29	Symmetry Breaking and Lattice Kirigami. <i>Physical Review Letters</i> , 2018, 121, 221601.	2.9	16
30	Strain-induced topological phase transition at zigzag edges of monolayer transition-metal dichalcogenides. <i>Physical Review B</i> , 2016, 94, .	1.1	15
31	Effect of pressure on the magnetism of bilayer graphene. <i>Physical Review B</i> , 2011, 84, .	1.1	14
32	Interplay of interactions, disorder, and topology in the Haldane-Hubbard model. <i>Physical Review B</i> , 2021, 104, .	1.1	14
33	Hall conductivity as bulk signature of topological transitions in superconductors. <i>Europhysics Letters</i> , 2014, 105, 37011.	0.7	12
34	Haldane model under nonuniform strain. <i>Physical Review B</i> , 2017, 96, .	1.1	12
35	Spontaneous generation of phononic entanglement in quantum dark-soliton qubits. <i>Physical Review A</i> , 2019, 99, .	1.0	12
36	Disorder-Driven Multifractality Transition in Weyl Nodal Loops. <i>Physical Review Letters</i> , 2020, 124, 136405.	2.9	12

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37	Absence of localization in a class of topological systems. <i>Physical Review B</i> , 2016, 93, .	1.1	9
38	Temperature-Driven Gapless Topological Insulator. <i>Physical Review Letters</i> , 2019, 122, 126601.	2.9	9
39	Incommensurability-induced sub-ballistic narrow-band-states in twisted bilayer graphene. <i>2D Materials</i> , 2022, 9, 011001.	2.0	9
40	Vacancy induced zero energy modes in graphene stacks: The case of ABC trilayer. <i>Solid State Communications</i> , 2012, 152, 1483-1488.	0.9	8
41	Chern band insulators in a magnetic field. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 075501.	0.7	8
42	First-order ferromagnetic phase transition in the low electronic density regime of a biased graphene bilayer. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 335207.	0.7	6
43	Quantum quench dynamics and population inversion in bilayer graphene. <i>Physical Review B</i> , 2010, 82, .	1.1	6
44	Strain manipulation of Majorana fermions in graphene armchair nanoribbons. <i>Physical Review B</i> , 2018, 97, .	1.1	6
45	Robust one dimensionality at twin grain boundaries in MoSe ₂ . <i>Physical Review B</i> , 2019, 99, .	1.1	6
46	Edge magnetism in transition metal dichalcogenide nanoribbons: Mean field theory and determinant quantum Monte Carlo. <i>Physical Review B</i> , 2022, 105, .	1.1	6
47	Transmission across a bilayer graphene region. <i>Physical Review B</i> , 2019, 99, .	1.1	5
48	Slow sound in matter-wave dark soliton gases. <i>Physical Review B</i> , 2019, 99, .	1.1	4
49	Dirac points merging and wandering in a model Chern insulator. <i>Europhysics Letters</i> , 2018, 124, 67003.	0.7	2
50	Substitutional disorder and charge localization in manganites. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 075601.	0.7	1
51	Publisher's Note: Change of an insulator's topological properties by a Hubbard interaction [<i>Phys. Rev.</i> B87, 085109 (2013)]. <i>Physical Review B</i> , 2013, 87, .	1.1	1
52	Phononic phase gate with dark-soliton qubit. <i>Physica Scripta</i> , 2020, 95, 055103.	1.2	1
53	Static and Dynamic Disorder in Topological Systems: Localized, Critical and Extended States. <i>Acta Physica Polonica A</i> , 2019, 135, 1180-1190.	0.2	1
54	Site dilution of quantum spins in the honeycomb and square lattices. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 137-138.	1.3	0

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55	Multi-orbital physics of edge-magnetism in a Hubbard model of transition-metal dichalcogenide nanoribbons: Comparing Mean Field Theory and Determinant Quantum Monte Carlo. EPJ Web of Conferences, 2020, 233, 03003.	0.1	0
56	Robust band of critical states in time-reversal symmetry-broken fermionic systems with lattice selective disorder. Physical Review Research, 2019, 1, .	1.3	0