Ah Castro Neto

List of Publications by Year
in descending order

70 papers	38,956 citations	66343 42 h-index	106344 65 g-index
71 all docs	71 docs citations	71 times ranked	33260 citing authors

#	Article	IF	Citations
1	The electronic properties of graphene. Reviews of Modern Physics, 2009, 81, 109-162.	45.6	20,779
2	2D materials and van der Waals heterostructures. Science, 2016, 353, aac9439.	12.6	4,958
3	Gate-tuning of graphene plasmons revealed by infrared nano-imaging. Nature, 2012, 487, 82-85.	27.8	1,780
4	Strain-Induced Gap Modification in Black Phosphorus. Physical Review Letters, 2014, 112, 176801.	7.8	1,303
5	Electronic properties of disordered two-dimensional carbon. Physical Review B, 2006, 73, .	3.2	1,292
6	Electron-Electron Interactions in Graphene: Current Status and Perspectives. Reviews of Modern Physics, 2012, 84, 1067-1125.	45.6	999
7	Observation of Van Hove singularities in twisted graphene layers. Nature Physics, 2010, 6, 109-113.	16.7	954
8	Electronic states and Landau levels in graphene stacks. Physical Review B, 2006, 73, .	3.2	591
9	Oxygen Defects in Phosphorene. Physical Review Letters, 2015, 114, 046801.	7.8	511
10	Impurity-Induced Spin-Orbit Coupling in Graphene. Physical Review Letters, 2009, 103, 026804.	7.8	461
11	Charge Density Wave, Superconductivity, and Anomalous Metallic Behavior in 2D Transition Metal Dichalcogenides. Physical Review Letters, 2001, 86, 4382-4385.	7.8	403
12	Conductance quantization in mesoscopic graphene. Physical Review B, 2006, 73, .	3.2	320
13	Creating a Stable Oxide at the Surface of Black Phosphorus. ACS Applied Materials & Interfaces, 2015, 7, 14557-14562.	8.0	318
14	Conductance quantization and transport gaps in disordered graphene nanoribbons. Physical Review B, 2009, 79, .	3.2	307
15	Probing the electronic structure of bilayer graphene by Raman scattering. Physical Review B, 2007, 76, .	3.2	303
16	Coulomb Blockade in Graphene Nanoribbons. Physical Review Letters, 2007, 99, 166803.	7.8	286
17	Electronic properties of bilayer and multilayer graphene. Physical Review B, 2008, 78, .	3.2	259
18	Coulomb interactions and ferromagnetism in pure and doped graphene. Physical Review B, 2005, 72, .	3.2	207

#	ARTICLE	IF	CITATIONS
19	Electron-electron interactions and the phase diagram of a graphene bilayer. Physical Review B, 2006, 73, .	3.2	200
20	Multiferroic Two-Dimensional Materials. Physical Review Letters, 2016, 116, 206803.	7.8	187
21	Origin of the energy bandgap in epitaxial graphene. Nature Materials, 2008, 7, 259-260.	27.5	175
22	Edge and surface states in the quantum Hall effect in graphene. Physical Review B, 2006, 73, .	3.2	164
23	Unified description of the dc conductivity of monolayer and bilayer graphene at finite densities based on resonant scatterers. Physical Review B, 2011, 83, .	3.2	152
24	Dirac fermion confinement in graphene. Physical Review B, 2006, 73, .	3.2	137
25	Excitons in anisotropic two-dimensional semiconducting crystals. Physical Review B, 2014, 90, .	3.2	136
26	Numerical studies of conductivity and Fano factor in disordered graphene. Physical Review B, 2008, 77, .	3.2	126
27	Transmission through a biased graphene bilayer barrier. Physical Review B, 2007, 76, .	3.2	125
28	Electrostatic interactions between graphene layers and their environment. Physical Review B, 2008, 77, .	3.2	125
29	Tailoring graphene with metals on top. Physical Review B, 2008, 77, .	3.2	110
30	Conductivity of suspended and non-suspended graphene at finite gate voltage. Physical Review B, 2008, 78, .	3.2	105
31	Extrinsic Spin Hall Effect Induced by Resonant Skew Scattering in Graphene. Physical Review Letters, 2014, 112, 066601.	7.8	105
32	Tunable van Hove singularities and correlated states in twisted monolayerâ€“bilayer graphene. Nature Physics, 2021, 17, 619-626.	16.7	103
33	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>f</mml:mi></mml:math>-sum rule and unconventional spectral weight transfer in graphene. Physical Review B, 2008, 78, .	3.2	64
34	Diluted quantum antiferromagnets:â€‚Spin excitations and long-range order. Physical Review B, 2002, 65, .	3.2	58
35	Ice: A strongly correlated proton system. Physical Review B, 2006, 74, .	3.2	56
36	Pinning of a two-dimensional membrane on top of a patterned substrate: The case of graphene. Physical Review B, 2011, 83, .	3.2	55

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37	Pseudomagnetic fields in graphene nanobubbles of constrained geometry: A molecular dynamics study. Physical Review B, 2014, 90, .	3.2	52
38	Nodal liquid ands-wave superconductivity in transition metal dichalcogenides. Physical Review B, 2005, 71, .	3.2	49
39	Spin-glass phase of cuprates. Physical Review B, 2004, 69, .	3.2	47
40	Mean-field study of the heavy-fermion metamagnetic transition. Physical Review B, 2008, 77, .	3.2	47
41	Quantum Magnetic Impurities in Magnetically Ordered Systems. Physical Review Letters, 2003, 91, 096401.	7.8	43
42	Effect of external conditions on the structure of scrolled graphene edges. Physical Review B, 2010, 81, .	3.2	43
43	Frustration of decoherence in open quantum systems. Physical Review B, 2005, 72, .	3.2	41
44	Collective excitations in 2D materials. Nature Reviews Physics, 2020, 2, 524-537.	26.6	37
45	Retardation effects in the Holstein-Hubbard chain at half filling. Physical Review B, 2007, 75, .	3.2	35
46	Renormalization-group approach to strong-coupled superconductors. Physical Review B, 2005, 72, .	3.2	34
47	Observation of the Kohn anomaly near the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>K</mml:mi></mml:math>point of bilayer graphene. Physical Review B, 2009, 80, .	3.2	32
48	Magnetism and magnetotransport in disordered graphene. Physical Review B, 2009, 80, .	3.2	31
49	Excitations and quantum fluctuations in site-diluted two-dimensional antiferromagnets. Physical Review B, 2004, 69, .	3.2	30
50	Collective modes in anisotropic double-layer systems. Physical Review B, 2015, 91, .	3.2	26
51	Exotic superconducting phases of ultracold atom mixtures on triangular lattices. Physical Review B, 2007, 75, .	3.2	23
52	Microscopic theory of the single impurity surface Kondo resonance. Physical Review B, 2005, 71, .	3.2	22
53	Coulomb gas approach to the anisotropic one-dimensional Kondo lattice model at arbitrary filling. Physical Review B, 2002, 66, .	3.2	21
54	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mi>N</mml:mi></mml:mrow></mml:math>expansion in correlated graphene. Physical Review B, 2009, 80, .	3.2	20

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55	Interaction effects in single layer and multi-layer graphene. European Physical Journal: Special Topics, 2007, 148, 117-125.	2.6	17
56	Electronic properties of bilayer graphene probed by Resonance Raman Scattering. Physica Status Solidi (B): Basic Research, 2008, 245, 2060-2063.	1.5	16
57	Renormalization-group approach to superconductivity: from weak to strong electronâ€“phonon coupling. Philosophical Magazine, 2006, 86, 2631-2641.	1.6	13
58	P-wave pairing and ferromagnetism in the metal-insulator transition in two dimensions. Physical Review B, 2001, 64, .	3.2	11
59	Negative hopping magnetoresistance and dimensional crossover in lightly doped cuprate superconductors. Physical Review B, 2007, 76, .	3.2	11
60	Phase diagram of the Holstein-Hubbard two-leg ladder using a functional renormalization-group method. Physical Review B, 2007, 75, .	3.2	10
61	Charge density wave formation in the low-temperature-tetragonal phase of cuprates. Physical Review B, 2002, 65, .	3.2	9
62	Electromagnetic response of layered superconductors with broken lattice inversion symmetry. Physical Review B, 2004, 69, .	3.2	8
63	Electron transmission between normal and heavy electron metallic phases in a Kondo lattice system. Physical Review B, 2007, 75, .	3.2	5
64	Microscopic theory of ionic motion in solids. Physical Review B, 2022, 105, .	3.2	5
65	Nonlinear excitations in one-dimensional correlated insulators. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 827-846.	0.6	4
66	Phonons and solitons in one-dimensional Mott insulators. Physical Review B, 2001, 64, .	3.2	0
67	Coupling of Longitudinal and Transverse Stripe Fluctuations. Journal of Superconductivity and Novel Magnetism, 2003, 16, 491-494.	0.5	0
68	An introduction to the physics of graphene layers. , 2007, , 111-143.		0
69	SUPERCONDUCTIVITY AND THE STRIPE STATE OF TRANSITION METAL OXIDES. , 2003, , .		0
70	DROPLETS IN DISORDERED METALLIC QUANTUM CRITICAL SYSTEMS. , 2007, , .		0