Vitor Manuel Pereira

List of Publications by Year
in descending order

56 papers	6,345 citations	136950 32 h-index	144013 57 g-index
60 all docs	60 docs citations	60 times ranked	6639 citing authors

#	Article	IF	Citations
1	Topological excitons. Nature Physics, 2022, 18, 6-7.	16.7	5
2	Low-symmetry topological materials for large charge-to-spin interconversion: The case of transition metal dichalcogenide monolayers. Physical Review Research, 2021, 3, .	3.6	11
3	Spinâ€Orbit Torque Magnetization Switching in MoTe₂/Permalloy Heterostructures. Advanced Materials, 2020, 32, e2002799.	21.0	40
4	Canted Persistent Spin Texture and Quantum Spin Hall Effect in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WTe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></r Physical Review Letters, 2020, 125, 256603.	7.8	38
5	Expeditious computation of nonlinear optical properties of arbitrary order with native electronic interactions in the time domain. Physical Review B, 2020, 102, .	3.2	4
6	Antiferromagnetism and chiral <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>d</mml:mi></mml:math> -wave superconductivity from an effective <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>t</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>J</mm model for twisted bilayer graphene. Physical Review B, 2020, 101, .	3.2	5
7	Measuring Valley Polarization in Two-Dimensional Materials with Second-Harmonic Spectroscopy. ACS Photonics, 2020, 7, 925-931.	6.6	22
8	Coexistence of large conventional and planar spin Hall effect with long spin diffusion length in a low-symmetry semimetal at room temperature. Nature Materials, 2020, 19, 292-298.	27.5	77
9	Correlated states of a triangular net of coupled quantum wires: Implications for the phase diagram of marginally twisted bilayer graphene. Physical Review B, 2020, 101, .	3.2	12
10	Frustrated supercritical collapse in tunable charge arrays on graphene. Nature Communications, 2019, 10, 477.	12.8	23
11	Anomalous Quantum Metal in a 2D Crystalline Superconductor with Electronic Phase Nonuniformity. Nano Letters, 2019, 19, 4126-4133.	9.1	22
12	Nonlinear magnetotransport shaped by Fermi surface topology and convexity. Nature Communications, 2019, 10, 1290.	12.8	38
13	Discommensuration-driven superconductivity in the charge density wave phases of transition-metal dichalcogenides. Physical Review B, 2019, 99, .	3.2	21
14	Purely rotational symmetry-protected topological crystalline insulator Î± -Bi₄Br₄. 2D Materials, 2019, 6, 031004.	4.4	41
15	Topological crystalline insulator states in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ca</mml:mi><mml:mn>2</mml:mn></mml:msub></mr family. Physical Review B, 2018, 98, .	3.2	28
16	Reproduction of the Charge Density Wave Phase Diagram in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mrow><mml:mi Exposes its Excitonic Character. Physical Review Letters, 2018, 121, 226602.	7.8	49
17	Reply to â€œComment on â€˜Piezoelectricity in planar boron nitride via a geometric phase' â€. Physical Review B, 2018, 98, .	3.2	0
18	Characterization of the second- and third-harmonic optical susceptibilities of atomically thin tungsten diselenide. Scientific Reports, 2018, 8, 10035.	3.3	57

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19	Excitonic structure of the optical conductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> monolayers. Physical Review B, 2018, 97, .	3.2	43
20	Second harmonic spectroscopy to optically detect valley polarization in 2D materials. 2D Materials, 2017, 4, 021027.	4.4	20
21	Charge Density Waves and the Hidden Nesting of Purple Bronze K0.9Mo6O17. Physical Review Letters, 2017, 118, 257601.	7.8	10
22	Quantized Transport, Strain-Induced Perfectly Conducting Modes, and Valley Filtering on Shape-Optimized Graphene Corbino Devices. Nano Letters, 2017, 17, 5304-5313.	9.1	32
23	Stable charge density wave phase in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mo>â€“</mml:mo></mml:math> monolayer. Physical Review B, 2017, 95, .	3.2	56
24	Nonlinear photocurrents in two-dimensional systems based on graphene and boron nitride. Physical Review B, 2016, 94, .	3.2	34
25	Piezoelectricity in planar boron nitride via a geometric phase. Physical Review B, 2016, 94, .	3.2	42
26	Graphene kirigami as a platform for stretchable and tunable quantum dot arrays. Physical Review B, 2016, 93, .	3.2	25
27	Boron and nitrogen doping in graphene antidot lattices. Physical Review B, 2016, 93, .	3.2	7
28	Conductance signatures of electron confinement induced by strained nanobubbles in graphene. Nanoscale, 2015, 7, 15300-15309.	5.6	35
29	Designing electronic properties of two-dimensional crystals through optimization of deformations. New Journal of Physics, 2014, 16, 093044.	2.9	20
30	Tuning Optical Conductivity of Largeâ€Scale CVD Graphene by Strain Engineering. Advanced Materials, 2014, 26, 1081-1086.	21.0	86
31	Pseudomagnetic fields in graphene nanobubbles of constrained geometry: A molecular dynamics study. Physical Review B, 2014, 90, .	3.2	52
32	Tunable optical absorption and interactions in graphene via oxygen plasma. Physical Review B, 2014, 89, .	3.2	42
33	Conductance across strain junctions in graphene nanoribbons. Physical Review B, 2013, 88, .	3.2	26
34	Resonant Tunneling in Graphene Pseudomagnetic Quantum Dots. Nano Letters, 2013, 13, 2692-2697.	9.1	49
35	Effective contact model for geometry-independent conductance calculations in graphene. Physical Review B, 2013, 88, .	3.2	7
36	Lattice-corrected strain-induced vector potentials in graphene. Physical Review B, 2012, 85, .	3.2	64

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37	Enhanced optical dichroism of graphene nanoribbons. Physical Review B, 2012, 86, .	3.2	18
38	Electron-Electron Interactions in Graphene: Current Status and Perspectives. Reviews of Modern Physics, 2012, 84, 1067-1125.	45.6	999
39	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, .	3.2	125
40	Geometry, Mechanics, and Electronics of Singular Structures and Wrinkles in Graphene. Physical Review Letters, 2010, 105, 156603.	7.8	177
41	Optical properties of strained graphene. Europhysics Letters, 2010, 92, 67001.	2.0	112
42	Distortion of the perfect lattice structure in bilayer graphene. Physical Review B, 2009, 79, .	3.2	11
43	Adatoms in graphene. Solid State Communications, 2009, 149, 1094-1100.	1.9	65
44	Strained graphene: tight-binding and density functional calculations. New Journal of Physics, 2009, 11, 115002.	2.9	197
45	Strain Engineering of Grapheneâ€™s Electronic Structure. Physical Review Letters, 2009, 103, 046801.	7.8	933
46	Tight-binding approach to uniaxial strain in graphene. Physical Review B, 2009, 80, .	3.2	1,094
47	Magnetism in strained graphene dots. Physical Review B, 2009, 80, .	3.2	41
48	Supercritical Coulomb impurities in gapped graphene. Physical Review B, 2008, 78, .	3.2	96
49	Modeling disorder in graphene. Physical Review B, 2008, 77, .	3.2	357
50	Polarization charge distribution in gapped graphene: Perturbation theory and exact diagonalization analysis. Physical Review B, 2008, 78, .	3.2	77
51	Coulomb Impurity Problem in Graphene. Physical Review Letters, 2007, 99, 166802.	7.8	261
52	Disorder Induced Localized States in Graphene. Physical Review Letters, 2006, 96, 036801.	7.8	543
53	Magneto-Optical Evidence of Double Exchange in a Percolating Lattice. Physical Review Letters, 2006, 96, 016403.	7.8	16
54	Double Exchange Model for Magnetic Hexaborides. Physical Review Letters, 2004, 93, 147202.	7.8	22

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55	Scaling study of the metal-insulator transition in one-dimensional Fermion systems. Physical Review B, 2002, 66, .	3.2	9
56	Effect of Oxygen Plasma on the Optical Properties of Monolayer Graphene. Advanced Materials Research, 0, 896, 510-513.	0.3	5