

# Vitor Manuel Pereira

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

54  
papers

5,243  
citations

27  
h-index

60  
g-index

60  
ext. papers

5,848  
ext. citations

7  
avg, IF

5.91  
L-index

#	Paper	IF	Citations
54	Expeditious computation of nonlinear optical properties of arbitrary order with native electronic interactions in the time domain. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	1
53	Antiferromagnetism and chiral d-wave superconductivity from an effective tDD model for twisted bilayer graphene. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	2
52	Measuring Valley Polarization in Two-Dimensional Materials with Second-Harmonic Spectroscopy. <i>ACS Photonics</i> , <b>2020</b> , 7, 925-931	6.3	8
51	Coexistence of large conventional and planar spin Hall effect with long spin diffusion length in a low-symmetry semimetal at room temperature. <i>Nature Materials</i> , <b>2020</b> , 19, 292-298	27	35
50	Correlated states of a triangular net of coupled quantum wires: Implications for the phase diagram of marginally twisted bilayer graphene. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	6
49	Spin-Orbit Torque Magnetization Switching in MoTe /Permalloy Heterostructures. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002799	24	21
48	Canted Persistent Spin Texture and Quantum Spin Hall Effect in WTe_{2}. <i>Physical Review Letters</i> , <b>2020</b> , 125, 256603	7.4	17
47	Frustrated supercritical collapse in tunable charge arrays on graphene. <i>Nature Communications</i> , <b>2019</b> , 10, 477	17.4	13
46	Anomalous Quantum Metal in a 2D Crystalline Superconductor with Electronic Phase Nonuniformity. <i>Nano Letters</i> , <b>2019</b> , 19, 4126-4133	11.5	9
45	Nonlinear magnetotransport shaped by Fermi surface topology and convexity. <i>Nature Communications</i> , <b>2019</b> , 10, 1290	17.4	15
44	Discommensuration-driven superconductivity in the charge density wave phases of transition-metal dichalcogenides. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	14
43	Purely rotational symmetry-protected topological crystalline insulator $\alpha$ -Bi <sub>4</sub> Br <sub>4</sub> . <i>2D Materials</i> , <b>2019</b> , 6, 031004	5.9	20
42	Excitonic structure of the optical conductivity in MoS <sub>2</sub> monolayers. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	27
41	Topological crystalline insulator states in the Ca <sub>2</sub> As family. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	24
40	Reproduction of the Charge Density Wave Phase Diagram in 1T-TiSe <sub>2</sub> Exposes its Excitonic Character. <i>Physical Review Letters</i> , <b>2018</b> , 121, 226602	7.4	33
39	Characterization of the second- and third-harmonic optical susceptibilities of atomically thin tungsten diselenide. <i>Scientific Reports</i> , <b>2018</b> , 8, 10035	4.9	37
38	Second harmonic spectroscopy to optically detect valley polarization in 2D materials. <i>2D Materials</i> , <b>2017</b> , 4, 021027	5.9	13

37	Charge Density Waves and the Hidden Nesting of Purple Bronze $K_{0.9}Mo_6O_{17}$ . <i>Physical Review Letters</i> , <b>2017</b> , 118, 257601	7.4	8
36	Quantized Transport, Strain-Induced Perfectly Conducting Modes, and Valley Filtering on Shape-Optimized Graphene Corbino Devices. <i>Nano Letters</i> , <b>2017</b> , 17, 5304-5313	11.5	26
35	Stable charge density wave phase in a $1T\text{-TiSe}_2$ monolayer. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	42
34	Piezoelectricity in planar boron nitride via a geometric phase. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	31
33	Graphene kirigami as a platform for stretchable and tunable quantum dot arrays. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	19
32	Boron and nitrogen doping in graphene antidot lattices. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	7
31	Nonlinear photocurrents in two-dimensional systems based on graphene and boron nitride. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	21
30	Conductance signatures of electron confinement induced by strained nanobubbles in graphene. <i>Nanoscale</i> , <b>2015</b> , 7, 15300-9	7.7	31
29	Pseudomagnetic fields in graphene nanobubbles of constrained geometry: A molecular dynamics study. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	44
28	Tunable optical absorption and interactions in graphene via oxygen plasma. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	37
27	Designing electronic properties of two-dimensional crystals through optimization of deformations. <i>New Journal of Physics</i> , <b>2014</b> , 16, 093044	2.9	19
26	Effect of Oxygen Plasma on the Optical Properties of Monolayer Graphene. <i>Advanced Materials Research</i> , <b>2014</b> , 896, 510-513	0.5	3
25	Tuning optical conductivity of large-scale CVD graphene by strain engineering. <i>Advanced Materials</i> , <b>2014</b> , 26, 1081-6	24	74
24	Conductance across strain junctions in graphene nanoribbons. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	22
23	Resonant tunneling in graphene pseudomagnetic quantum dots. <i>Nano Letters</i> , <b>2013</b> , 13, 2692-7	11.5	45
22	Effective contact model for geometry-independent conductance calculations in graphene. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	5
21	Enhanced optical dichroism of graphene nanoribbons. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	13
20	Electron-Electron Interactions in Graphene: Current Status and Perspectives. <i>Reviews of Modern Physics</i> , <b>2012</b> , 84, 1067-1125	40.5	833

19	Lattice-corrected strain-induced vector potentials in graphene. <i>Physical Review B</i> , <b>2012</b> , 85,	3-3	59
18	Faraday effect in graphene enclosed in an optical cavity and the equation of motion method for the study of magneto-optical transport in solids. <i>Physical Review B</i> , <b>2011</b> , 84,	3-3	104
17	Geometry, mechanics, and electronics of singular structures and wrinkles in graphene. <i>Physical Review Letters</i> , <b>2010</b> , 105, 156603	7-4	152
16	Optical properties of strained graphene. <i>Europhysics Letters</i> , <b>2010</b> , 92, 67001	1.6	99
15	Distortion of the perfect lattice structure in bilayer graphene. <i>Physical Review B</i> , <b>2009</b> , 79,	3-3	7
14	Adatoms in graphene. <i>Solid State Communications</i> , <b>2009</b> , 149, 1094-1100	1.6	52
13	Strained graphene: tight-binding and density functional calculations. <i>New Journal of Physics</i> , <b>2009</b> , 11, 115002	2.9	171
12	Strain engineering of graphene's electronic structure. <i>Physical Review Letters</i> , <b>2009</b> , 103, 046801	7-4	805
11	Tight-binding approach to uniaxial strain in graphene. <i>Physical Review B</i> , <b>2009</b> , 80,	3-3	918
10	Magnetism in strained graphene dots. <i>Physical Review B</i> , <b>2009</b> , 80,	3-3	40
9	Polarization charge distribution in gapped graphene: Perturbation theory and exact diagonalization analysis. <i>Physical Review B</i> , <b>2008</b> , 78,	3-3	69
8	Supercritical Coulomb impurities in gapped graphene. <i>Physical Review B</i> , <b>2008</b> , 78,	3-3	83
7	Modeling disorder in graphene. <i>Physical Review B</i> , <b>2008</b> , 77,	3-3	311
6	Coulomb impurity problem in graphene. <i>Physical Review Letters</i> , <b>2007</b> , 99, 166802	7-4	224
5	Magneto-optical evidence of double exchange in a percolating lattice. <i>Physical Review Letters</i> , <b>2006</b> , 96, 016403	7-4	15
4	Disorder induced localized States in graphene. <i>Physical Review Letters</i> , <b>2006</b> , 96, 036801	7-4	491
3	Double exchange model for magnetic hexaborides. <i>Physical Review Letters</i> , <b>2004</b> , 93, 147202	7-4	22
2	Scaling study of the metal-insulator transition in one-dimensional Fermion systems. <i>Physical Review B</i> , <b>2002</b> , 66,	3-3	9

1 Charge-to-Spin Interconversion in Low-Symmetry Topological Materials

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