Dario Bercioux

List of Publications by Year
in descending order

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61 papers	1,892 citations	279798 23 h-index	254184 43 g-index
61 all docs	61 docs citations	61 times ranked	1636 citing authors

#	Article	IF	Citations
1	Topological phases for fermionic cold atoms on the Lieb lattice. Physical Review A, 2011, 83, .	2.5	186
2	Massless Dirac-Weyl fermions in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="script">T</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>optical lattice. Physical Review A, 2009, 80, .	2.5	175
3	Quantum transport in Rashba spinâ€“orbit materials: a review. Reports on Progress in Physics, 2015, 78, 106001.	20.1	163
4	Robust zero-energy modes in an electronic higher-order topological insulator. Nature Materials, 2019, 18, 1292-1297.	27.5	158
5	Barrier transmission of Dirac-like pseudospin-one particles. Physical Review B, 2011, 84, .	3.2	133
6	Spin-resolved scattering through spin-orbit nanostructures in graphene. Physical Review B, 2010, 81, .	3.2	97
7	Tutorial: Computing Topological Invariants in 2D Photonic Crystals. Advanced Quantum Technologies, 2020, 3, 1900117.	3.9	63
8	Engineering fragile topology in photonic crystals: Topological quantum chemistry of light. Physical Review Research, 2019, 1, .	3.6	62
9	Rashba-Effect-Induced Localization in Quantum Networks. Physical Review Letters, 2004, 93, 056802.	7.8	60
10	Robustness of topological corner modes in photonic crystals. Physical Review Research, 2020, 2, .	3.6	53
11	Spin polarization of electrons with Rashba double-refraction. Journal of Physics Condensed Matter, 2004, 16, 9143-9154.	1.8	52
12	Rashba effect in quantum networks. Physical Review B, 2005, 72, .	3.2	49
13	Rashba quantum wire: exact solution and ballistic transport. Journal of Physics Condensed Matter, 2007, 19, 186227.	1.8	43
14	Topology-induced phase transitions in quantum spin Hall lattices. Physical Review A, 2011, 83, .	2.5	43
15	Proposal for an on-demand source of polarized electrons into the edges of a topological insulator. Physical Review B, 2013, 88, .	3.2	41
16	Conductance of a large point contact with Rashba effect. European Physical Journal B, 2003, 36, 365-375.	1.5	35
17	Electron tunneling into a quantum wire in the Fabry-PÃ©rot regime. Physical Review B, 2009, 79, .	3.2	34
18	Quantum Dissipative Rashba Spin Ratchets. Physical Review Letters, 2008, 100, 230601.	7.8	29

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19	Signatures of spin-related phases in transport through regular polygons. Physical Review B, 2005, 72, .	3.2	27
20	Zeeman ratchets: pure spin current generation in mesoscopic conductors with non-uniform magnetic fields. New Journal of Physics, 2007, 9, 401-401.	2.9	26
21	Rashba spin-orbit-interaction-based quantum pump in graphene. Applied Physics Letters, 2012, 101, 122405.	3.3	26
22	Higher-order topology in plasmonic Kagome lattices. Applied Physics Letters, 2021, 118, .	3.3	26
23	Coherent spin ratchets: A spin-orbit based quantum ratchet mechanism for spin-polarized currents in ballistic conductors. Physical Review B, 2007, 76, .	3.2	24
24	Rashba spin-orbit interaction in graphene armchair nanoribbons. European Physical Journal B, 2013, 86, 1.	1.5	21
25	Electron Scattering in Intrananotube Quantum Dots. Physical Review Letters, 2009, 102, 245505.	7.8	19
26	Corner modes of the breathing kagome lattice: Origin and robustness. Physical Review B, 2022, 105, .	3.2	18
27	Defect-induced multicomponent electron scattering in single-walled carbon nanotubes. Physical Review B, 2011, 83, .	3.2	16
28	Solitons in Oneâ€Dimensional Lattices with a Flat Band. Annalen Der Physik, 2017, 529, 1600262.	2.4	16
29	Bloch's theory in periodic structures with Rashba's spin-orbit interaction. Europhysics Letters, 2007, 80, 27003.	2.0	15
30	Dirac-Weyl electrons in a periodic spin-orbit potential. Europhysics Letters, 2011, 96, 27006.	2.0	13
31	Time-evolution patterns of electrons in twisted bilayer graphene. Physical Review B, 2019, 99, .	3.2	13
32	Zeeman ratchets for ballistic spin currents. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4235-4238.	0.8	12
33	Long-Range Propagation and Interference of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>d</mml:mi></mml:mrow></mml:math> -wave Superconducting Pairs in Graphene. Physical Review Letters, 2020, 125, 087002.	7.8	12
34	Living on the edge: Topology, electrostatics, and disorder. Physical Review Research, 2020, 2, .	3.6	11
35	Dynamics of a qubit coupled to a dissipative nonlinear quantum oscillator: An effective-bath approach. Physical Review A, 2011, 83, .	2.5	10
36	Ground state features of the Frï¿½hlich model. European Physical Journal B, 2003, 36, 65-73.	1.5	9

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37	Volkov-Pankratov states in topological graphene nanoribbons. Physical Review Research, 2020, 2, .	3.6	9
38	Interplay between quantum dissipation and an in-plane magnetic field in the spin ratchet effect. Physical Review B, 2008, 78, .	3.2	8
39	Superconducting Proximity Effect in dâ€Wave Cuprate/Graphene Heterostructures. Annalen Der Physik, 2022, 534, .	2.4	8
40	Quantum fractals. Nature Physics, 2019, 15, 111-112.	16.7	7
41	Energy density as a probe of band representations in photonic crystals. Journal of Physics Condensed Matter, 2022, 34, 314002.	1.8	6
42	Charge ratchet from spin flip: Space-time symmetry paradox. Physical Review B, 2009, 80, .	3.2	5
43	Adiabatic pumping in the quasi-one-dimensional triangle lattice. Physical Review B, 2013, 87, .	3.2	5
44	Transport Properties of an Electron-Hole Bilayer in Contact with a Superconductor Hybrid Junction. Physical Review Letters, 2017, 119, 067001.	7.8	5
45	Confined electron and hole states in semiconducting carbon nanotube sub-10â€¯nm artificial quantum dots. Carbon, 2018, 132, 304-311.	10.3	5
46	Metallic carbon nanotube quantum dots with broken symmetries as a platform for tunable terahertz detection. Applied Physics Reviews, 2021, 8, .	11.3	5
47	Optical Hall response of bilayer graphene: Manifestation of chiral hybridized states in broken mirror symmetry lattices. Physical Review Research, 2020, 2, .	3.6	5
48	Spinâ€“orbit based coherent spin ratchets. Chemical Physics, 2010, 375, 276-283.	1.9	4
49	Pseudospin-dependent scattering in carbon nanotubes. Physical Review B, 2011, 84, .	3.2	4
50	Focus on nonequilibrium fluctuation relations: from classical to quantum. New Journal of Physics, 2015, 17, 020201.	2.9	4
51	Andreev spectrum of a Josephson junction with spin-split superconductors. Europhysics Letters, 2016, 115, 67001.	2.0	4
52	Quantum network approach to spin interferometry driven by Abelian and non-Abelian fields. Physical Review B, 2021, 103, .	3.2	4
53	Solid-state platforms. Nature Physics, 2017, 13, 628-629.	16.7	3
54	Quasiparticle cooling using a topological insulatorâ€“superconductor hybrid junction. European Physical Journal: Special Topics, 2018, 227, 1361-1375.	2.6	3

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55	Spin-orbit interaction and snake states in a graphene p-n junction. Physical Review B, 2019, 100, .	3.2	3
56	The spin-double refraction in two-dimensional electron gas. Superlattices and Microstructures, 2005, 37, 337-340.	3.1	2
57	Quantum Transport Properties of an Exciton Insulator/Superconductor Hybrid Junction. Advanced Quantum Technologies, 2019, 2, 1800049.	3.9	2
58	Wave-particle duality of electrons with spin-momentum locking. European Physical Journal Plus, 2020, 135, 1.	2.6	1
59	Pseudo-spin filter in metallic single-walled carbon nanotubes. , 2012, , .		0
60	Topological Characterization of Photonic Crystals. , 2021, , .		0
61	Topological photonics: Mistaken paradigms and new opportunities. , 2021, , .		0