

Sumanta Tewari

List of Publications by Year in descending order

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docs citations

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times ranked

4543
citing authors

#	ARTICLE	IF	CITATIONS
1	Chiral anomaly induced nonlinear Nernst and thermal Hall effects in Weyl semimetals. Physical Review B, 2022, 105, .	1.1	12
2	Partially separated Majorana modes in a disordered medium. Physical Review B, 2022, 105, .	1.1	14
3	Anomalous Hall and Nernst effects in Kane fermions. Physical Review B, 2022, 105, .	1.1	1
4	Nonlinear transport in Weyl semimetals induced by Berry curvature dipole. Physical Review B, 2021, 103, .	1.1	35
5	Topological properties of multilayer magnon insulators. Physical Review B, 2021, 104, .	1.1	0
6	Stabilizing topological superfluidity of lattice fermions. Physical Review A, 2021, 104, .	1.0	1
7	Topological superconductivity in spin-orbit-coupled semiconducting nanowires. Semiconductors and Semimetals, 2021, 108, 125-194.	0.4	3
8	Chiral anomaly induced nonlinear Hall effect in semimetals with multiple Weyl points. Physical Review B, 2021, 104, .	1.1	23
9	Majorana fermions go for a ride. Science, 2020, 367, 23-24.	6.0	1
10	Fermion parity gap and exponential ground state degeneracy of the one-dimensional Fermi gas with intrinsic attractive interaction. Physical Review B, 2020, 102, .	1.1	0
11	Sign of longitudinal magnetoconductivity and the planar Hall effect in Weyl semimetals. Physical Review B, 2020, 102, .	1.1	18
12	Feasibility of measurement-based braiding in the quasi-Majorana regime of semiconductor-superconductor heterostructures. Physical Review B, 2020, 102, .	1.1	10
13	Hybridization energy oscillations of Majorana and Andreev bound states in semiconductor-superconductor nanowire heterostructures. Physical Review B, 2020, 101, .	1.1	6
14	Fundamental relations for anomalous thermoelectric transport coefficients in the nonlinear regime. Physical Review Research, 2020, 2, .	1.3	29
15	Majorana Corner Modes with Solitons in an Attractive Hubbard-Hofstadter Model of Cold Atom Optical Lattices. Physical Review Letters, 2019, 123, 060402.	2.9	40
16	Robust low-energy Andreev bound states in semiconductor-superconductor structures: Importance of partial separation of component Majorana bound states. Physical Review B, 2019, 100, .	1.1	52
17	Transverse thermopower in Dirac and Weyl semimetals. Physical Review B, 2019, 100, .	1.1	11
18	Planar thermal Hall effect in Weyl semimetals. Physical Review B, 2019, 100, .	1.1	23

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19	Analytical solution of the finite-length Kitaev chain coupled to a quantum dot. Physical Review B, 2019, 99, .	1.1	9
20	Mirror anomaly and anomalous Hall effect in type-I Dirac semimetals. Physical Review B, 2019, 99, .	1.1	5
21	Flux-driven quantum spin liquids in kagome optical lattices. Physical Review A, 2019, 100, .	1.0	0
22	Nonlinear Nernst effect in bilayer WTe_2 . Physical Review B, 2019, 100, .	1.1	13
23	Two-terminal charge tunneling: Disentangling Majorana zero modes from partially separated Andreev bound states in semiconductor-superconductor heterostructures. Physical Review B, 2018, 97, .	1.1	174
24	Anomalous Nernst effect in type-II Weyl semimetals. European Physical Journal B, 2018, 91, 1.	0.6	28
25	Quantum anomalous Hall state from spatially decaying interactions on the decorated honeycomb lattice. Physical Review B, 2018, 97, .	1.1	13
26	Bulk band inversion and surface Dirac cones in LaSb and LaBi: Prediction of a new topological heterostructure. Scientific Reports, 2018, 8, 14867.	1.6	14
27	Berry phase theory of planar Hall effect in topological insulators. Scientific Reports, 2018, 8, 14983.	1.6	40
28	Quantized zero-bias conductance plateau in semiconductor-superconductor heterostructures without topological Majorana zero modes. Physical Review B, 2018, 98, .	1.1	144
29	Suppression of the Hall number due to charge density wave order in high- T_c cuprates. Physical Review B, 2018, 97, .	1.1	144
30	Chiral topological phases in optical lattices without synthetic fields. Physical Review A, 2018, 98, .	1.0	6
31	Nernst effect in Dirac and inversion-asymmetric Weyl semimetals. Physical Review B, 2017, 96, .	1.1	46
32	Chiral Anomaly as the Origin of the Planar Hall Effect in Weyl Semimetals. Physical Review Letters, 2017, 119, 176804.	2.9	238
33	Chiral anomaly and longitudinal magnetotransport in type-II Weyl semimetals. Physical Review B, 2017, 96, .	1.1	70
34	Effects of spin-orbit coupling on zero-energy bound states localized at magnetic impurities in multiband superconductors. Physical Review B, 2017, 95, .	1.1	4
35	Yu-Shiba-Rusinov states and topological superconductivity in Ising paired superconductors. Physical Review B, 2016, 94, .	1.1	28
36	Nernst and magnetothermal conductivity in a lattice model of Weyl fermions. Physical Review B, 2016, 93, .	1.1	142

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37	Calculation for polar Kerr effect in high-temperature cuprate superconductors. Physical Review B, 2016, 93, .	1.1	5
38	Tunneling conductance for Majorana fermions in spin-orbit coupled semiconductor-superconductor heterostructures using superconducting leads. Physical Review B, 2016, 93, .	1.1	11
39	Exceptional point description of one-dimensional chiral topological superconductors/superfluids in BDI class. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 79, 180-187.	1.3	12
40	Majorana fermions in quasi-one-dimensional and higher-dimensional ultracold optical lattices. Physical Review A, 2015, 92, .	1.0	8
41	Hidden-symmetry decoupling of Majorana bound states in topological superconductors. Physical Review B, 2015, 91, .	1.1	10
42	Control and braiding of Majorana fermions bound to magnetic domain walls. Physical Review B, 2015, 92, .	1.1	18
43	Proposal to probe quantum nonlocality of Majorana fermions in tunneling experiments. Physical Review B, 2015, 92, .	1.1	34
44	Equivalence of topological mirror superconductivity and chiral superconductivity in one dimension. Physical Review B, 2015, 92, .	1.1	3
45	Normal-state Nernst effect from bidirectional bond density wave state in high- T_c cuprates. Physical Review B, 2015, 92, .		
46	Optical activity as a test for dynamic chiral magnetic effect of Weyl semimetals. Physical Review B, 2015, 92, .	1.1	63
47	Majorana fermions in chiral topological ferromagnetic nanowires. Physical Review B, 2015, 91, .	1.1	70
48	Magnetic field response and chiral symmetry of time-reversal-invariant topological superconductors. Physical Review B, 2014, 90, .	1.1	44
49	Nonlocality of zero-bias anomalies in the topologically trivial phase of Majorana wires. Physical Review B, 2014, 89, .	1.1	35
50	Fermi-surface reconstruction and transport coefficients from a mean-field bidirectional charge-density wave state in the high- T_c cuprates. Physical Review B, 2014, 90, .	1.1	15
51	Axionic field theory of Weyl semimetals. Physical Review B, 2013, 88, .	3.0	300
52	Majorana fermions in semiconductor nanowires: fundamentals, modeling, and experiment. Journal of Physics Condensed Matter, 2013, 25, 233201.	0.7	372
53	Topological uniform superfluid and Fulde-Ferrell-Larkin-Ovchinnikov phases in three-dimensional to one-dimensional crossover of spin-orbit-coupled Fermi gases. Physical Review A, 2013, 88, .	1.0	7
54	Topological superconducting state and Majorana fermions in carbon nanotubes. Physical Review B, 2013, 88, .	1.1	34

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55	Topological properties of the time-reversal-symmetric Kitaev chain and applications to organic superconductors. <i>Physical Review B</i> , 2013, 88, .	1.1	39
56	Thermodynamic signatures for topological phase transitions to Majorana and Weyl superfluids in ultracold Fermi gases. <i>Physical Review A</i> , 2013, 87, .	1.0	19
57	Amplitude mode of the d -density-wave state and its relevance to high- T_c cuprates. <i>Physical Review B</i> , 2013, 87, .	1.1	5
58	Topologically trivial zero-bias conductance peak in semiconductor Majorana wires from boundary effects. <i>Physical Review B</i> , 2013, 88, .	1.1	62
59	Disentangling Majorana fermions from topologically trivial low-energy states in semiconductor Majorana wires. <i>Physical Review B</i> , 2013, 87, .	1.1	27
60	Majorana fermions under uniaxial stress in semiconductor-superconductor heterostructures. <i>Physical Review B</i> , 2013, 87, .	1.1	3
61	Probing a topological quantum critical point in semiconductor-superconductor heterostructures. <i>Physical Review B</i> , 2012, 85, .	1.1	25
62	To Close or Not to Close: The Fate of the Superconducting Gap Across the Topological Quantum Phase Transition in Majorana-Carrying Semiconductor Nanowires. <i>Physical Review Letters</i> , 2012, 109, 266402.	2.9	58
63	Topologically protected surface Majorana arcs and bulk Weyl fermions in ferromagnetic superconductors. <i>Physical Review B</i> , 2012, 86, .	1.1	68
64	Topological Invariants for Spin-Orbit Coupled Superconductor Nanowires. <i>Physical Review Letters</i> , 2012, 109, 150408.	2.9	217
65	Experimental and materials considerations for the topological superconducting state in electron- and hole-doped semiconductors: Searching for non-Abelian Majorana modes in 1D nanowires and 2D heterostructures. <i>Physical Review B</i> , 2012, 85, .	1.1	114
66	Hole-Doped Semiconductor Nanowire on Top of an s -Wave Superconductor: A New and Experimentally Accessible System for Majorana Fermions. <i>Physical Review Letters</i> , 2012, 108, 177001.	2.9	48
67	Topological minigap in quasi-one-dimensional spin-orbit-coupled semiconductor Majorana wires. <i>Physical Review B</i> , 2012, 86, .	1.1	48
68	Topological thermoelectric effects in spin-orbit coupled electron- and hole-doped semiconductors. <i>Physical Review B</i> , 2012, 85, .	1.1	8
69	Probing non-Abelian statistics with Majorana fermion interferometry in spin-orbit-coupled semiconductors. <i>Physical Review B</i> , 2011, 84, .	1.1	27
70	Controlling non-Abelian statistics of Majorana fermions in semiconductor nanowires. <i>Physical Review B</i> , 2011, 84, .	1.1	165
71	Evidence for surface states in pristine and Co-doped ZnO nanostructures: magnetization and nonlinear optical studies. <i>Nanotechnology</i> , 2011, 22, 095703.	1.3	24
72	Majorana fermion exchange in quasi-one-dimensional networks. <i>Physical Review B</i> , 2011, 84, .	1.1	95

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73	Anisotropic surface transport in topological insulators in proximity to a helical spin density wave. Physical Review B, 2011, 83, .	1.1	17
74	Diamagnetic Susceptibility Obtained from the Six-Vortex Model and Its Implications for the High-Temperature Diamagnetic State of Cuprate Superconductors. Physical Review Letters, 2011, 107, 177006.	2.9	6
75	BCS-BEC Crossover and Topological Phase Transition in 3D Spin-Orbit Coupled Degenerate Fermi Gases. Physical Review Letters, 2011, 107, 195303.	2.9	229
76	Topologically non-trivial superconductivity in spin-orbit-coupled systems: bulk phases and quantum phase transitions. New Journal of Physics, 2011, 13, 065004.	1.2	58
77	Universal quantum computation in a semiconductor quantum wire network. Physical Review A, 2010, 82, .	1.0	110
78	A theorem for the existence of Majorana fermion modes in spin-orbit-coupled semiconductors. Annals of Physics, 2010, 325, 219-231.	1.0	44
79	Non-Abelian quantum order in spin-orbit-coupled semiconductors: Search for topological Majorana particles in solid-state systems. Physical Review B, 2010, 82, .	1.1	408
80	Non-Abelian topological order in noncentrosymmetric superconductors with broken time-reversal symmetry. Physical Review B, 2010, 82, .	1.1	96
81	Quasiparticle Nernst effect in the cuprate superconductors from the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" > \langle \text{mml:mi} \rangle \text{d} \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ -density-wave theory of the pseudogap phase. Physical Review B, 2010, 81, .	1.1	11
82	Robustness of Majorana fermions in proximity-induced superconductors. Physical Review B, 2010, 82, .	1.1	147
83	Generic New Platform for Topological Quantum Computation Using Semiconductor Heterostructures. Physical Review Letters, 2010, 104, 040502.	2.9	1,575
84	Effects of fermions on the superfluid-insulator phase diagram of the Bose-Hubbard model. Physical Review B, 2009, 80, .	1.1	14
85	Loss of superfluidity by fermions in the boson Hubbard model on an optical lattice. Physical Review A, 2009, 79, .	1.0	24
86	Effects of Quasiparticle Ambipolarity on the Nernst Effect in Underdoped Cuprate Superconductors. Physical Review Letters, 2009, 103, 077001.	2.9	10
87	Berry-phase-mediated topological thermoelectric transport in gapped single and bilayer graphene. Physical Review B, 2009, 79, .	1.1	37
88	Testable Signatures of Quantum Nonlocality in a Two-Dimensional Chiral $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" > \langle \text{mml:mi} \rangle \text{p} \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ -Wave Superconductor. Physical Review Letters, 2008, 100, 027001.	2.9	87
89	Goldstone modes and electromagnon fluctuations in the conical cycloid state of a multiferroic. Physical Review B, 2008, 78, .	1.1	9
90	Time-Reversal Symmetry Breaking by a $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle$ Tj ETQq0 0 0 rgBT /Overlock Density-Wave State in Underdoped Cuprate Superconductors. Physical Review Letters, 2008, 100, 217004.	2.9	50

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91	Realizing the Strongly Correlated d-Wave Mott-Insulator State in a Fermionic Cold-Atom Optical Lattice. <i>Physical Review Letters</i> , 2008, 101, 150406.	2.9	6
92	Anomalous Nernst effect from a chiral d -density-wave state in underdoped cuprate superconductors. <i>Physical Review B</i> , 2008, 78, .	1.1	38
93	p -Wave Interactions of Fermionic Cold Atoms. <i>Physical Review Letters</i> , 2008, 101, 160401.	2.9	348
94	Ginzburg-Landau theory for the conical cycloid state in multiferroics: Applications to CoCr_2O_4 . <i>Physical Review B</i> , 2008, 78, .	1.1	5
95	Boson Hubbard model with weakly coupled fermions. <i>Physical Review B</i> , 2008, 78, .	1.1	12
96	Bell's Inequality and Universal Quantum Gates in a Cold-Atom Chiral Fermionic p -Wave Superfluid. <i>Physical Review Letters</i> , 2007, 99, 220502.	2.9	20
97	Index Theorem for the Zero Modes of Majorana Fermion Vortices in Chiral p -Wave Superconductors. <i>Physical Review Letters</i> , 2007, 99, 037001.	2.9	87
98	Quantum Computation using Vortices and Majorana Zero Modes of $apx+ipy$ Superfluid of Fermionic Cold Atoms. <i>Physical Review Letters</i> , 2007, 98, 010506.	2.9	244
99	Anyonic braiding in optical lattices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 18415-18420.	3.3	61
100	Topological degeneracy of non-Abelian states for dummies. <i>Annals of Physics</i> , 2007, 322, 1477-1498.	1.0	38
101	Proposal to stabilize and detect half-quantum vortices in strontium ruthenate thin films: Non-Abelian braiding statistics of vortices in $apx+ipy$ superconductor. <i>Physical Review B</i> , 2006, 73, .	1.1	257
102	Nature and boundary of the floating phase in a dissipative Josephson junction array. <i>Physical Review B</i> , 2006, 73, .	1.1	16
103	Emergence of Artificial Photons in an Optical Lattice. <i>Physical Review Letters</i> , 2006, 97, 200401.	2.9	31
104	Floating phase in a dissipative Josephson junction array. <i>Physical Review B</i> , 2005, 72, .	1.1	17
105	Crossover and scaling in a two-dimensional field-tuned superconductor. <i>Physical Review B</i> , 2004, 69, .	1.1	8
106	Spontaneous Flux Lattices in Ferromagnetic Spin-Triplet Superconductors. <i>Physical Review Letters</i> , 2004, 93, 177002.	2.9	12
107	Infrared Hall angle in the d -density-wave state: A comparison of theory and experiment. <i>Physical Review B</i> , 2004, 70, .	1.1	8
108	Angle-resolved photoemission spectra in the cuprates from the d -density wave theory. <i>Physical Review B</i> , 2003, 68, .	1.1	66

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109	Sharp Signature of $\nu=2$ Quantum Critical Point in the Hall Coefficient of Cuprate Superconductors. <i>Physical Review Letters</i> , 2002, 89, 277003.	2.9	43
110	Collective modes in the density-wave state of the cuprates. <i>Physical Review B</i> , 2002, 66, .	1.1	4
111	Spin and current correlation functions in the density-wave state of the cuprates. <i>Physical Review B</i> , 2001, 64, .	1.1	44
112	Kardar-Parisi-Zhang equation and the $\hat{\nu}$ expansion. <i>Physical Review E</i> , 1997, 55, R2097-R2099.	0.8	1