

Christopher Marc Mudry

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.

95
papers

4,208
citations

38
h-index

62
g-index

106
ext. papers

4,733
ext. citations

4.4
avg, IF

5.42
L-index

#	Paper	IF	Citations
95	Spiral order from orientationally correlated random bonds in classical XY models. <i>Physical Review Research</i> , 2020 , 2,	3.9	4
94	Testing of asymptomatic individuals for fast feedback-control of COVID-19 pandemics. <i>Physical Biology</i> , 2020 ,	3	13
93	Using Uniaxial Stress to Probe the Relationship between Competing Superconducting States in a Cuprate with Spin-stripe Order. <i>Physical Review Letters</i> , 2020 , 125, 097005	7.4	9
92	Ground-state degeneracy of non-Abelian topological phases from coupled wires. <i>Physical Review B</i> , 2019 , 99,	3.3	9
91	Quantum phase transitions beyond Landau-Ginzburg theory in one-dimensional space revisited. <i>Physical Review B</i> , 2019 , 99,	3.3	13
90	Model of spin liquids with and without time-reversal symmetry. <i>Physical Review B</i> , 2019 , 99,	3.3	1
89	Hierarchical Majoranas in a programmable nanowire network. <i>Physical Review B</i> , 2019 , 99,	3.3	8
88	Spin fluctuation induced Weyl semimetal state in the paramagnetic phase of EuCdAs. <i>Science Advances</i> , 2019 , 5, eaaw4718	14.3	48
87	Topological many-body scar states in dimensions one, two, and three. <i>Physical Review Research</i> , 2019 , 1,	3.9	44
86	Multiferroic Magnetic Spirals Induced by Random Magnetic Exchanges. <i>Physical Review X</i> , 2018 , 8,	9.1	6
85	Giant Pressure Dependence and Dimensionality Switching in a Metal-Organic Quantum Antiferromagnet. <i>Physical Review Letters</i> , 2018 , 121, 117201	7.4	9
84	Coupled spin-1/2 ladders as microscopic models for non-Abelian chiral spin liquids. <i>Physical Review B</i> , 2017 , 95,	3.3	7
83	Model of chiral spin liquids with Abelian and non-Abelian topological phases. <i>Physical Review B</i> , 2017 , 96,	3.3	9
82	Weyl-type topological phase transitions in fractional quantum Hall like systems. <i>Physical Review B</i> , 2017 , 96,	3.3	18
81	Wire constructions of Abelian topological phases in three or more dimensions. <i>Physical Review B</i> , 2016 , 93,	3.3	23
80	Non-Abelian topological spin liquids from arrays of quantum wires or spin chains. <i>Physical Review B</i> , 2016 , 93,	3.3	32
79	Fractional (Chern and topological) insulators. <i>Physica Scripta</i> , 2015 , T164, 014005	2.6	22

78	Anderson localization and the topology of classifying spaces. <i>Physical Review B</i> , 2015 , 91,	3-3	25
77	Breakdown of the topological classification Z for gapped phases of noninteracting fermions by quartic interactions. <i>Physical Review B</i> , 2015 , 92,	3-3	72
76	Spin-directed network model for the surface states of weak three-dimensional Z_2 topological insulators. <i>Physical Review B</i> , 2014 , 89,	3-3	27
75	Wire deconstructionism of two-dimensional topological phases. <i>Physical Review B</i> , 2014 , 90,	3-3	88
74	Topological BF theory of the quantum hydrodynamics of incompressible polar fluids. <i>Physical Review B</i> , 2014 , 90,	3-3	5
73	Accessing topological order in fractionalized liquids with gapped edges. <i>Physical Review B</i> , 2014 , 90,	3-3	9
72	Fractional Chern insulators with strong interactions that far exceed band gaps. <i>Physical Review Letters</i> , 2014 , 112, 126806	7-4	27
71	Symmetry-protected entangling boundary zero modes in crystalline topological insulators. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014 , 2014, P09014	1-9	12
70	Measuring the quantum geometry of Bloch bands with current noise. <i>Physical Review B</i> , 2013 , 87,	3-3	55
69	Noncommutative geometry for three-dimensional topological insulators. <i>Physical Review B</i> , 2012 , 86,	3-3	40
68	Topological Hubbard model and its high-temperature quantum Hall effect. <i>Physical Review Letters</i> , 2012 , 108, 046806	7-4	26
67	Magnetic translation algebra with or without magnetic field in the continuum or on arbitrary Bravais lattices in any dimension. <i>Physical Review B</i> , 2012 , 86,	3-3	11
66	Enhancing the stability of a fractional Chern insulator against competing phases. <i>Physical Review B</i> , 2012 , 86,	3-3	52
65	Elementary formula for the Hall conductivity of interacting systems. <i>Physical Review B</i> , 2012 , 86,	3-3	12
64	Global phase diagram of two-dimensional Dirac fermions in random potentials. <i>Physical Review B</i> , 2012 , 85,	3-3	10
63	Masses and Majorana fermions in graphene. <i>Physica Scripta</i> , 2012 , T146, 014013	2-6	16
62	Fractional topological liquids with time-reversal symmetry and their lattice realization. <i>Physical Review B</i> , 2011 , 84,	3-3	124
61	Time-reversal symmetric hierarchy of fractional incompressible liquids. <i>Physical Review B</i> , 2011 , 84,	3-3	42

60	Fractional quantum Hall states at zero magnetic field. <i>Physical Review Letters</i> , 2011 , 106, 236804	7.4	531
59	Counting Majorana zero modes in superconductors. <i>Physical Review B</i> , 2011 , 83,	3.3	22
58	Superconductivity on the surface of topological insulators and in two-dimensional noncentrosymmetric materials. <i>Physical Review B</i> , 2010 , 81,	3.3	48
57	The \mathbb{Z}_2 network model for the quantum spin Hall effect: two-dimensional Dirac fermions, topological quantum numbers and corner multifractality. <i>New Journal of Physics</i> , 2010 , 12, 065005	2.9	22
56	High-gradient operators in perturbed Wess-Zumino-Witten field theories in two dimensions. <i>Nuclear Physics B</i> , 2010 , 839, 341-376	2.8	5
55	Topological qubits in graphenelike systems. <i>Physical Review B</i> , 2010 , 82,	3.3	15
54	Deconfined fractional electric charges in graphene at high magnetic fields. <i>Physical Review B</i> , 2010 , 81,	3.3	53
53	Unconventional Fermi surface spin textures in the $\text{Bi}_2\text{Pb}_{1-x}\text{Ag}_x(111)$ surface alloy. <i>Physical Review B</i> , 2009 , 79,	3.3	35
52	Spectroscopic evidence for preformed Cooper pairs in the pseudogap phase of cuprates. <i>Europhysics Letters</i> , 2009 , 88, 27008	1.6	21
51	The superspin approach to a disordered quantum wire in the chiral-unitary symmetry class with an arbitrary number of channels. <i>Nuclear Physics B</i> , 2009 , 822, 424-466	2.8	1
50	Spin-glass state and long-range magnetic order in $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$ seen via neutron scattering and muon spin rotation. <i>Physical Review B</i> , 2009 , 79,	3.3	55
49	Masses in graphenelike two-dimensional electronic systems: Topological defects in order parameters and their fractional exchange statistics. <i>Physical Review B</i> , 2009 , 80,	3.3	139
48	Electron fractionalization for two-dimensional Dirac fermions. <i>Physical Review B</i> , 2008 , 77,	3.3	68
47	Quantum Hall effect of massless dirac fermions in a vanishing magnetic field. <i>Physical Review Letters</i> , 2008 , 100, 246806	7.4	55
46	Electronic structure near the $1/8$ -anomaly in La-based cuprates. <i>New Journal of Physics</i> , 2008 , 10, 103016.9	2.9	51
45	Irrational versus rational charge and statistics in two-dimensional quantum systems. <i>Physical Review Letters</i> , 2008 , 100, 110405	7.4	52
44	Anisotropic quasiparticle scattering rates in slightly underdoped to optimally doped high-temperature $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ superconductors. <i>Physical Review B</i> , 2008 , 78,	3.3	43
43	Boundary criticality at the Anderson transition between a metal and a quantum spin Hall insulator in two dimensions. <i>Physical Review B</i> , 2008 , 78,	3.3	37

42	Coherent d-wave superconducting gap in underdoped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ by angle-resolved photoemission spectroscopy. <i>Physical Review Letters</i> , 2008 , 101, 047002	7.4	78
41	Landauer conductance and twisted boundary conditions for Dirac fermions in two space dimensions. <i>Physical Review B</i> , 2007 , 75,	3.3	92
40	Zero-temperature Kosterlitz-Thouless transition in a two-dimensional quantum system. <i>Annals of Physics</i> , 2007 , 322, 903-934	2.5	18
39	When low- and high-energy electronic responses meet in cuprate superconductors. <i>Physical Review B</i> , 2007 , 75,	3.3	48
38	Z ₂ topological term, the global anomaly, and the two-dimensional symplectic symmetry class of Anderson localization. <i>Physical Review Letters</i> , 2007 , 99, 116601	7.4	91
37	Electron fractionalization in two-dimensional graphenelike structures. <i>Physical Review Letters</i> , 2007 , 98, 186809	7.4	308
36	Magnetic-field-induced spin excitations and renormalized spin gap of the underdoped $\text{La}_{1.895}\text{Sr}_{0.105}\text{CuO}_4$ superconductor. <i>Physical Review Letters</i> , 2007 , 98, 077004	7.4	30
35	Screening in (d+s)-wave superconductors: Application to Raman scattering. <i>Physical Review B</i> , 2007 , 75,	3.3	5
34	Two-dimensional spin-filtered chiral network model for the Z ₂ quantum spin-Hall effect. <i>Physical Review B</i> , 2007 , 76,	3.3	66
33	Conductance fluctuations in disordered superconductors with broken time-reversal symmetry near two dimensions. <i>Nuclear Physics B</i> , 2007 , 780, 105-142	2.8	3
32	High-temperature criticality in strongly constrained quantum systems. <i>Physical Review B</i> , 2006 , 73,	3.3	10
31	Scaling relations in the quasi-two-dimensional Heisenberg antiferromagnet. <i>Physical Review B</i> , 2006 , 74,	3.3	5
30	Universal scaling relations in strongly anisotropic materials. <i>Physical Review Letters</i> , 2006 , 96, 027215	7.4	6
29	Theory for inelastic neutron scattering in orthorhombic high-T _c superconductors. <i>Physical Review B</i> , 2006 , 73,	3.3	20
28	From quantum mechanics to classical statistical physics: Generalized Rokhsar-Kivelson Hamiltonians and the Stochastic Matrix Form Decomposition. <i>Annals of Physics</i> , 2005 , 318, 316-344	2.5	81
27	Quantum three-coloring dimer model and the disruptive effect of quantum glassiness on its line of critical points. <i>Physical Review B</i> , 2005 , 72,	3.3	17
26	Influence of higher d-wave gap harmonics on the dynamical magnetic susceptibility of high-temperature superconductors. <i>Physical Review B</i> , 2004 , 70,	3.3	22
25	Crossover of conductance and local density of states in a single-channel disordered quantum wire. <i>Physical Review B</i> , 2004 , 70,	3.3	7

24	Density of states for the \mathbb{F} lux state with bipartite real random hopping only: A weak disorder approach. <i>Physical Review B</i> , 2003 , 67,	3.3	51
23	Universality of delocalization in unconventional dirty superconducting wires with broken spin-rotation symmetry. <i>Physical Review B</i> , 2003 , 67,	3.3	29
22	Density of States of Disordered Dirac Particles: Infinitely Many Operators with Negative Scaling Dimensions and Freezing Transitions. <i>Journal of the Physical Society of Japan</i> , 2003 , 72, 219-220	1.5	
21	Zero modes in the random hopping model. <i>Physical Review B</i> , 2002 , 66,	3.3	28
20	Transport properties and density of states of quantum wires with off-diagonal disorder. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001 , 9, 333-339	3	8
19	Density of states for dirty d-wave superconductors: A unified and dual approach for different types of disorder. <i>Physical Review B</i> , 2001 , 63,	3.3	18
18	Fokker-Planck equations and density of states in disordered quantum wires. <i>Physical Review B</i> , 2001 , 63,	3.3	38
17	Crossover from the chiral to the standard universality classes in the conductance of a quantum wire with random hopping only. <i>Physical Review B</i> , 2000 , 62, 8249-8268	3.3	28
16	Localization and delocalization in dirty superconducting wires. <i>Physical Review Letters</i> , 2000 , 85, 1064-7	7.4	70
15	Nonuniversality in quantum wires with off-diagonal disorder: a geometric point of view. <i>Nuclear Physics B</i> , 2000 , 565, 653-663	2.8	30
14	Density of states in coupled chains with off-diagonal disorder. <i>Physical Review Letters</i> , 2000 , 84, 2913-6	7.4	51
13	Random magnetic flux problem in a quantum wire. <i>Physical Review B</i> , 1999 , 59, 13221-13234	3.3	37
12	Does quasi-long-range order in the two-dimensional XY model really survive weak random phase fluctuations?. <i>Nuclear Physics B</i> , 1999 , 549, 613-656	2.8	21
11	Random Dirac Fermions and Non-Hermitian Quantum Mechanics. <i>Physical Review Letters</i> , 1998 , 80, 4257-4260	7.4	38
10	Density of states in the non-Hermitian Lloyd model. <i>Physical Review B</i> , 1998 , 58, 13539-13543	3.3	38
9	Delocalization in Coupled One-Dimensional Chains. <i>Physical Review Letters</i> , 1998 , 81, 862-865	7.4	88
8	Exact calculation of multifractal exponents of the critical wave function of Dirac fermions in a random magnetic field. <i>Physical Review B</i> , 1997 , 56, 10668-10677	3.3	94
7	Two-dimensional conformal field theory for disordered systems at criticality. <i>Nuclear Physics B</i> , 1996 , 466, 383-443	2.8	112

6	Instability of the disordered critical points of Dirac fermions. <i>Physical Review B</i> , 1996 , 53, R7638-R7641	3-3	33
5	Localization in Two Dimensions, Gaussian Field Theories, and Multifractality. <i>Physical Review Letters</i> , 1996 , 77, 4194-4197	7-4	107
4	Liouville Theory as a Model for Prelocalized States in Disordered Conductors. <i>Physical Review Letters</i> , 1996 , 77, 707-710	7-4	76
3	Mechanism of spin and charge separation in one-dimensional quantum antiferromagnets. <i>Physical Review B</i> , 1994 , 50, 11409-11428	3-3	41
2	Separation of spin and charge quantum numbers in strongly correlated systems. <i>Physical Review B</i> , 1994 , 49, 5200-5219	3-3	73
1	Ground states of infinite-range spin-(1/2 quantum Heisenberg antiferromagnets. <i>Physical Review B</i> , 1989 , 40, 11177-11184	3-3	5