

Gerardo Ortiz

List of Publications by Year in descending order

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88
papers

3,312
citations

159585
30
h-index

149698
56
g-index

89
all docs

89
docs citations

89
times ranked

2083
citing authors

#	ARTICLE	IF	CITATIONS
1	A Subsystem-Independent Generalization of Entanglement. Physical Review Letters, 2004, 92, 107902.	7.8	249
2	A symmetry principle for topological quantum order. Annals of Physics, 2009, 324, 977-1057.	2.8	180
3	Exactly-solvable models derived from a generalized Gaudin algebra. Nuclear Physics B, 2005, 707, 421-457.	2.5	146
4	Autocorrelations and thermal fragility of anyonic loops in topologically quantum ordered systems. Physical Review B, 2008, 77, .	3.2	133
5	Sufficient symmetry conditions for Topological Quantum Order. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16944-16949.	7.1	111
6	Algebraic approach to interacting quantum systems. Advances in Physics, 2004, 53, 1-82.	14.4	110
7	Generalizations of entanglement based on coherent states and convex sets. Physical Review A, 2003, 68, .	2.5	107
8	Optimal quantum measurements of expectation values of observables. Physical Review A, 2007, 75, .	2.5	106
9	Beyond the quantum adiabatic approximation: Adiabatic perturbation theory. Physical Review A, 2008, 78, .	2.5	105
10	Majorana Modes in Time-Reversal Invariant $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle mml:mi>s\langle/mml:mi\rangle\langle mml:math>$ -Wave Topological Superconductors. Physical Review Letters, 2012, 108, 036803.	7.8	99
11	Nature and measure of entanglement in quantum phase transitions. Physical Review A, 2004, 70, .	2.5	97
12	Dynamical non-ergodic scaling in continuous finite-order quantum phase transitions. Europhysics Letters, 2008, 84, 67008.	2.0	96
13	Dualities and the phase diagram of the p -clock model. Nuclear Physics B, 2012, 854, 780-814.	2.5	90
14	Hierarchical mean-field approach to the $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle mml:mrow>\langle mml:msub>\langle mml:mi>J\langle/mml:mi>\langle mml:mn>1\langle/mml:mn>\langle mml:msub>\langle mml:mtext>3\langle/mml:mtext>\langle mml:msub>\langle mml:mtext>8\langle/mml:mtext>\langle mml:msub>\langle mml:mtext>1\langle/mml:mtext>$ model on a square lattice. Physical Review B, 2009, 79, .	2.5	81
15	The bond-algebraic approach to dualities. Advances in Physics, 2011, 60, 679-798.	14.4	79
16	Quantum phase diagram of the integrable $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle mml:mrow>\langle mml:msub>\langle mml:mi>p\langle/mml:mi>\langle mml:mi>x\langle/mml:mi>\langle mml:msub>\langle mml:mtext>3\langle/mml:mtext>\langle mml:msub>\langle mml:mtext>8\langle/mml:mtext>\langle mml:msub>\langle mml:mtext>1\langle/mml:mtext>$ superfluid. Physical Review B, 2010, 82, .	2.5	78
17	BCS-to-BEC crossover from the exact BCS solution. Physical Review A, 2005, 72, .	2.5	73
18	Many-Body Characterization of Particle-Conserving Topological Superfluids. Physical Review Letters, 2014, 113, 267002.	7.8	72

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19	Bond algebras and exact solvability of Hamiltonians: SpinS=12multilayer systems. Physical Review B, 2009, 79, .	3.2	70
20	Quantum Approach to Classical Statistical Mechanics. Physical Review Letters, 2007, 99, 030603.	7.8	69
21	Quasicritical brain dynamics on a nonequilibrium Widom line. Physical Review E, 2014, 90, 062714.	2.1	66
22	Evidence for Quasicritical Brain Dynamics. Physical Review Letters, 2021, 126, 098101.	7.8	52
23	Unified Approach to Quantum and Classical Dualities. Physical Review Letters, 2010, 104, 020402.	7.8	43
24	Arbitrary dimensional Majorana dualities and architectures for topological matter. Physical Review B, 2012, 86, .	3.2	43
25	Fock parafermions and self-dual representations of the braid group. Physical Review A, 2014, 89, .	2.5	42
26	Generalization of Bloch's theorem for arbitrary boundary conditions: Theory. Physical Review B, 2017, 96, .	3.2	42
27	Holographic symmetries and generalized order parameters for topological matter. Physical Review B, 2013, 87, .	3.2	34
28	Exact Solution of Quadratic Fermionic Hamiltonians for Arbitrary Boundary Conditions. Physical Review Letters, 2016, 117, 076804.	7.8	33
29	Repulsive interactions in quantum Hall systems as a pairing problem. Physical Review B, 2013, 88, .	3.2	32
30	Effective and exact holographies from symmetries and dualities. Annals of Physics, 2012, 327, 2491-2521.	2.8	31
31	Anomalous nonergodic scaling in adiabatic multicritical quantum quenches. Physical Review B, 2009, 80, .	3.2	30
32	Integrable Models for Asymmetric Fermi Superfluids: Emergence of a New Exotic Pairing Phase. Physical Review Letters, 2006, 96, 180404.	7.8	29
33	Adiabatic theorem for quantum systems with spectral degeneracy. Physical Review A, 2012, 85, .	2.5	28
34	Bulk-boundary correspondence in three-dimensional topological insulators. Physical Review B, 2011, 84, .	3.2	27
35	Multiband<math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>s</mml:mi></mml:math>-wave topological superconductors: Role of dimensionality and magnetic field response. Physical Review B, 2013, 87, .	3.2	27
36	Dynamical critical scaling and effective thermalization in quantum quenches: Role of the initial state. Physical Review B, 2011, 83, .	3.2	26

#	ARTICLE	IF	CITATIONS
37	Majorana flat bands ins-wave gapless topological superconductors. Physical Review B, 2014, 89, .	3.2	26
38	Adiabatic Perturbation Theory and Geometric Phases for Degenerate Systems. Physical Review Letters, 2010, 104, 170406.	7.8	25
39	What is a particle-conserving Topological Superfluid? The fate of Majorana modes beyond mean-field theory. Annals of Physics, 2016, 372, 357-374.	2.8	25
40	Generalization of Bloch's theorem for arbitrary boundary conditions: Interfaces and topological surface band structure. Physical Review B, 2018, 98, .	3.2	25
41	Breached pairing in trapped three-color atomic Fermi gases. Physical Review A, 2009, 79, .	2.5	24
42	Entangled Pauli principles: The DNA of quantum Hall fluids. Physical Review B, 2018, 98, .	3.2	23
43	Inhomogeneity-induced superconductivity?. Europhysics Letters, 2000, 50, 540-546.	2.0	22
44	Unveiling contextual realities by microscopically entangling a neutron. Nature Communications, 2020, 11, 930.	12.8	22
45	Commensurate and incommensurate states of topological quantum matter. Physical Review B, 2014, 90, .	3.2	21
46	Unveiling causal activity of complex networks. Europhysics Letters, 2017, 119, 18003.	2.0	21
47	Squaring the fermion: The threefold way and the fate of zero modes. Physical Review B, 2020, 102, .	3.2	19
48	Orbital order driven quantum criticality. Europhysics Letters, 2008, 84, 36005.	2.0	18
49	On the role of self-adjointness in the continuum formulation of topological quantum phases. American Journal of Physics, 2016, 84, 858-868.	0.7	18
50	Exact solution of corner-modified banded block-Toeplitz eigensystems. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 195204.	2.1	18
51	Zero modes, bosonization, and topological quantum order: The Laughlin state in second quantization. Physical Review B, 2015, 91, .	3.2	17
52	Integrable two-channel<math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>p</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mo>+</mml:mo><mml:mo>*</mml:mo><mml:mi>i</mml:mi></math> model of a superfluid. Physical Review B, 2011, 84, .		
53	Chiral phases of two-dimensional hard-core bosons with frustrated ring exchange. Physical Review B, 2014, 89, .	3.2	16
54	Dynamical generation of Floquet Majorana flat bands in s-wave superconductors. Europhysics Letters, 2015, 110, 17004.	2.0	16

#	ARTICLE		IF	CITATIONS
55	Phase transitions in the $Z \times U(1)$ clock models. Physical Review B, 2019, 100, .	3.2	16	
56	Local Two-Body Parent Hamiltonians for the Entire Jain Sequence. Physical Review Letters, 2020, 124, 196803.	7.8	16	
57	Degenerate adiabatic perturbation theory: Foundations and applications. Physical Review A, 2014, 90, .	2.5	15	
58	Tunable unconventional Kondo effect on topological insulator surfaces. Physical Review B, 2015, 92, .	3.2	14	
59	Absence of finite temperature phase transitions in the X-Cube model and its Zp generalization. Annals of Physics, 2020, 412, 168018.	2.8	14	
60	Equivalence of topological insulators and superconductors. Physical Review B, 2015, 92, .	3.2	12	
61	Staircase of crystal phases of hard-core bosons on the kagome lattice. Physical Review B, 2016, 94, .	3.2	12	
62	Universality Classes of Stabilizer Code Hamiltonians. Physical Review Letters, 2019, 123, 230503.	7.8	12	
63	Non-Abelian fermion parity interferometry of Majorana bound states in a Fermi sea. Physical Review B, 2017, 95, .	3.2	10	
64	Operator analysis of contextuality-witness measurements for multimode-entangled single-neutron interferometry. Physical Review A, 2020, 101, .	2.5	10	
65	Fast quantum methods for optimization. European Physical Journal: Special Topics, 2015, 224, 35-49.	2.6	9	
66	Neutron-state entanglement with overlapping paths. Physical Review Research, 2021, 3, .	3.6	8	
67	Superconductivity in Strongly Repulsive Fermions: The Role of Kinetic-Energy Frustration. Physical Review Letters, 2010, 105, 187002.	7.8	7	
68	Certified quantum measurement of Majorana fermions. Physical Review A, 2020, 101, .	2.5	7	
69	Frustrated magnets and quantum paramagnetic phases at finite temperature. Physical Review B, 2012, 86, .	3.2	5	
70	Comment on "Quantum phase transition in the four-spin exchange antiferromagnet". Physical Review B, 2010, 82, .	3.2	4	
71	A solution to the non-Abelian duality problem. Nuclear Physics B, 2013, 877, 574-597.	2.5	4	
72	Berezinskii-Kosterlitz-Thouless Transition Through the Eyes of Duality. , 2013, , 93-134.		4	

#	ARTICLE	IF	CITATIONS
73	Robust topological degeneracy of classical theories. Physical Review B, 2016, 93, .	3.2	4
74	Mechanism for particle fractionalization and universal edge physics in quantum Hall fluids. Communications Physics, 2022, 5, .	5.3	4
75	Quantum entangled-probe scattering theory. New Journal of Physics, 2021, 23, 083022.	2.9	3
76	Quantum critical phenomena with broken particle-hole symmetry. Physical Review B, 2008, 77, .	3.2	2
77	GENERALIZED ENTANGLEMENT IN STATIC AND DYNAMIC QUANTUM PHASE TRANSITIONS. , 2008, , .		2
78	Integrable model of topological SO(5) superfluidity. Physical Review B, 2021, 104, .	3.2	2
79	The importance of being entangled. Nature Materials, 2009, 8, 541-542.	27.5	1
80	Quantum interval-valued probability: Contextuality and the Born rule. Physical Review A, 2018, 97, .	2.5	1
81	Binomial Spin Glass. Physical Review Letters, 2018, 121, 080601.	7.8	1
82	Topological superfluidity with repulsive alkaline-earth atoms in optical lattices. New Journal of Physics, 2019, 21, 073049.	2.9	1
83	Floquet Gauge Pumps as Sensors for Spectral Degeneracies Protected by Symmetry or Topology. Physical Review Letters, 2021, 126, 206602.	7.8	1
84	Integrable model of a p -wave bosonic superfluid. Physical Review Research, 2019, 1, .	3.6	1
85	TOPOLOGICAL QUANTUM ORDER: A NEW PARADIGM IN THE PHYSICS OF MATTER. , 2008, , .		1
86	Bloch and Bethe AnsÄtze for the Harper model: A butterfly with a boundary. Physical Review B, 2021, 104, .	3.2	1
87	FRANK VERSTRAETE: HERMANN KUEMMEL AWARD 2007. , 2008, , .		0
88	Topological superfluidity with repulsive fermionic atoms. , 2018, , 126-146.		0