Gabriele De Chiara

List of Publications by Year
in descending order

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106	4,329	116194	129628
papers	citations	36 h-index	63 g-index

107	107	107	2936
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Boosting engine performance with Boseâ€“Einstein condensation. New Journal of Physics, 2022, 24, 025001.	1.2	24
2	Driven quantum harmonic oscillators: A working medium for thermal machines. AVS Quantum Science, 2022, 4, 012001.	1.8	8
3	Harnessing nonadiabatic excitations promoted by a quantum critical point: Quantum battery and spin squeezing. Physical Review Research, 2022, 4, .	1.3	6
4	Quantum fluctuation theorem for dissipative processes. Physical Review Research, 2022, 4, .	1.3	3
5	Quantum thermodynamically consistent local master equations. Physical Review Research, 2021, 3, .	1.3	38
6	Power maximization of two-stroke quantum thermal machines. Physical Review A, 2021, 103, .	1.0	14
7	Collision Models Can Efficiently Simulate Any Multipartite Markovian Quantum Dynamics. Physical Review Letters, 2021, 126, 130403.	2.9	50
8	Quasistatic and quantum-adiabatic Otto engine for a two-dimensional material: The case of a graphene quantum dot. Physical Review E, 2020, 101, 012116.	0.8	18
9	Three-qubit refrigerator with two-body interactions. Physical Review E, 2020, 101, 012109.	0.8	27
10	Ultrafast critical ground state preparation via bangâ€“bang protocols. New Journal of Physics, 2020, 22, 093050.	1.2	6
11	Quantum machines powered by correlated baths. Physical Review Research, 2020, 2, .	1.3	28
12	Quantum Thermodynamics at Impurity Quantum Phase Transitions. Springer Proceedings in Physics, 2020, , 361-373.	0.1	0
13	Energetic cost of quantum control protocols. New Journal of Physics, 2019, 21, 103048.	1.2	32
14	Out of equilibrium thermodynamics of quantum harmonic chains. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 104014.	0.9	3
15	Thermodynamics of Weakly Coherent Collisional Models. Physical Review Letters, 2019, 123, 140601.	2.9	66
16	Genuine quantum correlations in quantum many-body systems: a review of recent progress. Reports on Progress in Physics, 2018, 81, 074002.	8.1	104
17	Rhombi-chain Bose-Hubbard model: Geometric frustration and interactions. Physical Review B, 2018, 98, .	1.1	12
18	Reconciliation of quantum local master equations with thermodynamics. New Journal of Physics, 2018, 20, 113024.	1.2	166

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19	Quantum correlations and thermodynamic performances of two-qubit engines with local and common baths. Physical Review A, 2018, 98, .	1.0	57
20	Experimental Determination of Irreversible Entropy Production in out-of-Equilibrium Mesoscopic Quantum Systems. Physical Review Letters, 2018, 121, 160604.	2.9	58
21	Schmidt gap in random spin chains. Physical Review B, 2018, 98, .	1.1	6
22	Entanglement scaling at first order quantum phase transitions. New Journal of Physics, 2018, 20, 043006.	1.2	8
23	Ancilla-Assisted Measurement of Quantum Work. Fundamental Theories of Physics, 2018, , 337-362.	0.1	3
24	Global and local thermometry schemes in coupled quantum systems. New Journal of Physics, 2017, 19, 103003.	1.2	29
25	Magnetic phases of spin-1 lattice gases with random interactions. Physical Review B, 2017, 95, .	1.1	8
26	Nonequilibrium quantum thermodynamics in Coulomb crystals. Physical Review A, 2017, 95, .	1.0	12
27	Tunable Polarons in Bose-Einstein Condensates. Scientific Reports, 2017, 7, 2355.	1.6	18
28	Dynamics and asymptotics of correlations in a many-body localized system. European Physical Journal D, 2017, 71, 1.	0.6	7
29	A self-contained quantum harmonic engine. Europhysics Letters, 2017, 120, 60006.	0.7	24
30	Vibrational assisted conduction in a molecular wire. Quantum Science and Technology, 2017, 2, 025006.	2.6	5
31	Thermodynamics of trajectories and local fluctuation theorems for harmonic quantum networks. New Journal of Physics, 2016, 18, 013009.	1.2	13
32	Equilibration and nonclassicality of a double-well potential. Scientific Reports, 2016, 6, 19730.	1.6	12
33	20Âyears of Boseâ€“Einstein condensates: current trends and applications of ultracold quantum gases. Journal of Modern Optics, 2016, 63, 1743-1743.	0.6	0
34	Work fluctuations in bosonic Josephson junctions. Physical Review A, 2016, 93, .	1.0	9
35	Nonequilibrium critical scaling in quantum thermodynamics. Physical Review B, 2016, 93, .	1.1	25
36	Work extraction and energy storage in the Dicke model. Physical Review E, 2016, 94, 052122.	0.8	37

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37	Cost of counterdiabatic driving and work output. Physical Review A, 2016, 94, .	1.0	73
38	Non-Gaussian distribution of collective operators in quantum spin chains. New Journal of Physics, 2016, 18, 103015.	1.2	15
39	Manipulating matter waves in an optical superlattice. Physical Review A, 2016, 94, .	1.0	4
40	Formation of helical ion chains. Physical Review B, 2016, 93, .	1.1	31
41	Thermodynamics of trajectories of a quantum harmonic oscillator coupled toNbaths. Physical Review A, 2015, 92, .	1.0	10
42	Low-energy behavior of strongly interacting bosons on a flat-band lattice above the critical filling factor. Physical Review B, 2015, 91, .	1.1	17
43	Dynamical symmetries and crossovers in a three-spin system with collective dissipation. New Journal of Physics, 2015, 17, 015010.	1.2	7
44	Nonclassicality and criticality in symmetry-protected magnetic phases. Physical Review B, 2015, 91, .	1.1	10
45	Thermometry precision in strongly correlated ultracold lattice gases. New Journal of Physics, 2015, 17, 055020.	1.2	50
46	Squeezing of mechanical motion via qubit-assisted control. New Journal of Physics, 2015, 17, 013034.	1.2	9
47	Out-of-equilibrium thermodynamics of quantum optomechanical systems. New Journal of Physics, 2015, 17, 035016.	1.2	40
48	Cavity-aided quantum parameter estimation in a bosonic double-well Josephson junction. Physical Review A, 2015, 91, .	1.0	11
49	Measuring work and heat in ultracold quantum gases. New Journal of Physics, 2015, 17, 035004.	1.2	56
50	Shortcut to Adiabaticity in the Lipkin-Meshkov-Glick Model. Physical Review Letters, 2015, 114, 177206.	2.9	101
51	Dynamics of the entanglement spectrum in spin chains. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P06001.	0.9	47
52	Entanglement properties of spin models in triangular lattices. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P10008.	0.9	8
53	Hybrid optomechanics for Quantum Technologies. Quantum Measurements and Quantum Metrology, 2014, 2, .	3.3	31
54	Assessing the Nonequilibrium Thermodynamics in a Quenched Quantum Many-Body System via Single Projective Measurements. Physical Review X, 2014, 4, .	2.8	68

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55	Case study of the uniaxial anisotropic spin-1 bilinear-biquadratic Heisenberg model on a triangular lattice. Physical Review B, 2014, 90, .	1.1	15
56	Detecting the work statistics through Ramsey-like interferometry. International Journal of Quantum Information, 2014, 12, 1461007.	0.6	14
57	Characterization of Bose-Hubbard models with quantum nondemolition measurements. Physical Review A, 2014, 90, .	1.0	19
58	Experimental Reconstruction of Work Distribution and Study of Fluctuation Relations in a Closed Quantum System. Physical Review Letters, 2014, 113, 140601.	2.9	288
59	Long-range multipartite entanglement close to a first-order quantum phase transition. Physical Review A, 2014, 89, .	1.0	27
60	Scaling of the entanglement spectrum near quantum phase transitions. Physical Review B, 2013, 87, .	1.1	63
61	Violation of Bell's inequalities with preamplified homodyne detection. Physical Review A, 2013, 87, .	1.0	10
62	Full characterization of the quantum linearâ€zigzag transition in atomic chains. Annalen Der Physik, 2013, 525, 827-832.	0.9	19
63	Global quantum correlations in finite-size spin chains. New Journal of Physics, 2013, 15, 043033.	1.2	59
64	Measuring the Characteristic Function of the Work Distribution. Physical Review Letters, 2013, 110, 230602.	2.9	200
65	Non-Markovian qubit dynamics induced by Coulomb crystals. Physical Review A, 2013, 88, .	1.0	15
66	Entanglement control via reservoir engineering in ultracold atomic gases. Europhysics Letters, 2013, 101, 60005.	0.7	32
67	Dynamical symmetry breaking with optimal control: Reducing the number of pieces. Physical Review B, 2013, 88, .	1.1	7
68	Entanglement Spectrum, Critical Exponents, and Order Parameters in Quantum Spin Chains. Physical Review Letters, 2012, 109, 237208.	2.9	122
69	Entanglement control in hybrid optomechanical systems. Physical Review A, 2012, 86, .	1.0	52
70	Robust non-Markovianity in ultracold gases. Physica Scripta, 2012, T151, 014060.	1.2	10
71	Probing magnetic order in ultracold lattice gases. Physical Review A, 2011, 83, .	1.0	19
72	Entanglement detection in hybrid optomechanical systems. Physical Review A, 2011, 83, .	1.0	88

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73	Quantum superpositions of crystalline structures. Physical Review A, 2011, 84, .	1.0	27
74	Quantifying, characterizing, and controlling information flow in ultracold atomic gases. Physical Review A, 2011, 84, .	1.0	111
75	Detection of Entanglement in Ultracold Lattice Gases. Journal of Low Temperature Physics, 2011, 165, 292-305.	0.6	7
76	Technological scenarios of variation transmission in multistage machining processes. Quality and Reliability Engineering International, 2011, 27, 651-658.	1.4	7
77	Bilinear-biquadratic spin-1 chain undergoing quadratic Zeeman effect. Physical Review B, 2011, 84, .	1.1	43
78	Entangling two distant oscillators with a quantum reservoir. Europhysics Letters, 2011, 95, 60008.	0.7	32
79	Cold-Atom-Induced Control of an Optomechanical Device. Physical Review Letters, 2010, 104, 243602.	2.9	56
80	Structural Defects in Ion Chains by Quenching the External Potential: The Inhomogeneous Kibble-Zurek Mechanism. Physical Review Letters, 2010, 105, 075701.	2.9	120
81	Quantum ground state of self-organized atomic crystals in optical resonators. Physical Review A, 2010, 81, .	1.0	71
82	Spontaneous nucleation of structural defects in inhomogeneous ion chains. New Journal of Physics, 2010, 12, 115003.	1.2	72
83	Collective decoherence of cold atoms coupled to a Boseâ€“Einstein condensate. New Journal of Physics, 2009, 11, 103055.	1.2	61
84	Thermal and quantum fluctuations in chains of ultracold polar molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 154026.	0.6	17
85	A Geometric Analysis of the Effects of Noise onÂBerryÂPhase. International Journal of Theoretical Physics, 2008, 47, 2165-2175.	0.5	6
86	Ground state of low-dimensional dipolar gases: Linear and zigzag chains. Physical Review A, 2008, 78, .	1.0	34
87	Structural phase transitions in low-dimensional ion crystals. Physical Review B, 2008, 77, .	1.1	130
88	Ramsey interferometry with a spin embedded in a Coulomb chain. Physical Review A, 2008, 78, .	1.0	26
89	Optimal control of atom transport for quantum gates in optical lattices. Physical Review A, 2008, 77, .	1.0	56
90	Density Matrix Renormalization Group for Dummies. Journal of Computational and Theoretical Nanoscience, 2008, 5, 1277-1288.	0.4	31

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91	CAN ENTANGLEMENT BE EXTRACTED FROM MANY BODY SYSTEMS?. International Journal of Quantum Information, 2007, 05, 125-130.	0.6	0
92	Increasing entanglement through engineered disorder in the random Ising chain. Physical Review B, 2007, 76, .	1.1	26
93	Berry phase in open quantum systems: a quantum Langevin equation approach. European Physical Journal D, 2007, 41, 179-183.	0.6	16
94	Anti-ferromagnetic spinor BECs in optical lattices. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S163-S175.	0.6	5
95	IMPLEMENTATION OF QUANTUM COMMUNICATION PROTOCOLS IN JOSEPHSON JUNCTION ARRAYS. International Journal of Quantum Information, 2006, 04, 519-529.	0.6	1
96	EFFECTS OF NOISE ON SPIN NETWORK CLONING. International Journal of Quantum Information, 2006, 04, 487-493.	0.6	0
97	A scheme for entanglement extraction from a solid. New Journal of Physics, 2006, 8, 95-95.	1.2	22
98	Entanglement entropy dynamics of Heisenberg chains. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P03001-P03001.	0.9	224
99	QUANTUM ERROR CORRECTION DRIVEN ENTANGLEMENT DYNAMICS IN THE PRESENCE OF CORRELATED NOISE. International Journal of Quantum Information, 2005, 03, 207-211.	0.6	1
100	Phase Diagram of Spin-1 Bosons on One-Dimensional Lattices. Physical Review Letters, 2005, 95, 240404.	2.9	101
101	Cloning transformations in spin networks without external control. Physical Review A, 2005, 72, .	1.0	25
102	From perfect to fractal transmission in spin chains. Physical Review A, 2005, 72, .	1.0	94
103	Quantum cloning in spin networks. Physical Review A, 2004, 70, .	1.0	60
104	Entanglement production by quantum error correction in the presence of correlated environment. Europhysics Letters, 2004, 67, 714-720.	0.7	4
105	Berry Phase for a Spin1/2Particle in a Classical Fluctuating Field. Physical Review Letters, 2003, 91, 090404.	2.9	202
106	Cavity assisted measurements of heat and work in optical lattices. Quantum - the Open Journal for Quantum Science, 0, 2, 42.	0.0	10