

Giovanna Morigi

List of Publications by Year in descending order

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142
papers

4,090
citations

134610

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57
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144
all docs

144
docs citations

144
times ranked

2956
citing authors

#	ARTICLE	IF	CITATIONS
1	Entanglement in the quantum Game of Life. <i>Physical Review A</i> , 2022, 105, .	1.0	7
2	Physarum-inspired multi-commodity flow dynamics. <i>Theoretical Computer Science</i> , 2022, , .	0.5	6
3	Reservoir-engineering shortcuts to adiabaticity. <i>Physical Review Research</i> , 2022, 4, .	1.3	3
4	Finite-temperature spectrum at the symmetry-breaking linear to zigzag transition. <i>Physical Review B</i> , 2021, 103, .	1.1	6
5	Ergodicity breaking with long-range cavity-induced quasiperiodic interactions. <i>Physical Review B</i> , 2021, 103, .	1.1	8
6	Interplay of periodic dynamics and noise: Insights from a simple adaptive system. <i>Physical Review E</i> , 2021, 104, 054215.	0.8	3
7	Retrieval of single photons from solid-state quantum transducers. <i>Physical Review A</i> , 2021, 104, .	1.0	1
8	Master equation for multilevel interference in a superradiant medium. <i>Physical Review A</i> , 2020, 102, .	1.0	2
9	Edge states of the long-range Kitaev chain: An analytical study. <i>Physical Review B</i> , 2020, 102, .	1.1	17
10	Staggered superfluid phases of dipolar bosons in two-dimensional square lattices. <i>Physical Review B</i> , 2020, 102, .	1.1	19
11	Superfluid phases induced by dipolar interactions. <i>Physical Review B</i> , 2020, 101, .	1.1	14
12	Static Kinks in Chains of Interacting Atoms. <i>Condensed Matter</i> , 2020, 5, 35.	0.8	3
13	Dynamics of entanglement creation between two spins coupled to a chain. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	2
14	Superradiant optomechanical phases of cold atomic gases in optical resonators. <i>Physical Review A</i> , 2020, 101, .	1.0	9
15	Dynamical Phase Transitions to Optomechanical Superradiance. <i>Physical Review Letters</i> , 2019, 123, 053601.	2.9	18
16	Sound of an axon's growth. <i>Physical Review E</i> , 2019, 99, 050401.	0.8	5
17	Mean-field phase diagram of the extended Bose-Hubbard model of many-body cavity quantum electrodynamics. <i>Physical Review A</i> , 2019, 99, .	1.0	10
18	Universal dynamical scaling of long-range topological superconductors. <i>Physical Review B</i> , 2019, 100, .	1.1	17

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19	Weak coherent pulses for single-photon quantum memories. <i>Physica Scripta</i> , 2019, 94, 014012.	1.2	3
20	Many-body localization in presence of cavity mediated long-range interactions. <i>SciPost Physics</i> , 2019, 7, .	1.5	32
21	Quenches across the self-organization transition in multimode cavities. <i>New Journal of Physics</i> , 2018, 20, 025004.	1.2	23
22	Neural network operations and Susukiâ€™Trotter evolution of neural network states. <i>International Journal of Quantum Information</i> , 2018, 16, 1840008.	0.6	15
23	Optimal storage of a single photon by a single intra-cavity atom. <i>New Journal of Physics</i> , 2018, 20, 105009.	1.2	31
24	Dynamical Critical Scaling of Long-Range Interacting Quantum Magnets. <i>Physical Review Letters</i> , 2018, 121, 240403.	2.9	48
25	Single-particle localization in dynamical potentials. <i>Physical Review A</i> , 2018, 98, .	1.0	12
26	Phases of cold atoms interacting via photon-mediated long-range forces. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 064002.	0.9	10
27	Enhanced Second-Order Nonlinearity for THz Generation by Resonant Interaction of Exciton-Polariton Rabi Oscillations with Optical Phonons. <i>Physical Review Letters</i> , 2017, 119, 127401.	2.9	9
28	Spectral properties of single photons from quantum emitters. <i>Physical Review A</i> , 2017, 96, .	1.0	10
29	Semiclassical theory of synchronization-assisted cooling. <i>Physical Review A</i> , 2017, 95, .	1.0	15
30	Multimode Bose-Hubbard model for quantum dipolar gases in confined geometries. <i>Physical Review A</i> , 2017, 95, .	1.0	5
31	Ultracold bosons with cavity-mediated long-range interactions: A local mean-field analysis of the phase diagram. <i>Physical Review A</i> , 2016, 94, .	1.0	44
32	Localization transition in the presence of cavity backaction. <i>Physical Review A</i> , 2016, 94, .	1.0	16
33	Mean-field theory of atomic self-organization in optical cavities. <i>Physical Review A</i> , 2016, 94, .	1.0	10
34	Buckling Transitions and Clock Order of Two-Dimensional Coulomb Crystals. <i>Physical Review X</i> , 2016, 6, .	2.8	7
35	Optomechanical many-body cooling to the ground state using frustration. <i>Physical Review A</i> , 2016, 94, .	1.0	11
36	Dissipation-Assisted Prethermalization in Long-Range Interacting Atomic Ensembles. <i>Physical Review Letters</i> , 2016, 117, 083001.	2.9	21

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37	Supercooling of Atoms in an Optical Resonator. <i>Physical Review Letters</i> , 2016, 116, 153002.	2.9	39
38	Crossover from Classical to Quantum Kibble-Zurek Scaling. <i>Physical Review Letters</i> , 2016, 116, 225701.	2.9	30
39	Master equation for high-precision spectroscopy. <i>Physical Review A</i> , 2016, 94, .	1.0	9
40	Laser and cavity cooling of a mechanical resonator with a nitrogen-vacancy center in diamond. <i>Physical Review A</i> , 2016, 94, .	1.0	4
41	Thermodynamics and dynamics of atomic self-organization in an optical cavity. <i>Physical Review A</i> , 2015, 92, .	1.0	17
42	Dissipative Quantum Control of a Spin Chain. <i>Physical Review Letters</i> , 2015, 115, 200502.	2.9	43
43	Nanofriction in Cavity Quantum Electrodynamics. <i>Physical Review Letters</i> , 2015, 115, 233602.	2.9	22
44	Interfacing microwave qubits and optical photons via spin ensembles. <i>Physical Review A</i> , 2015, 91, .	1.0	44
45	Stationary entanglement of photons and atoms in a high-finesse resonator. <i>Physical Review A</i> , 2014, 89, .	1.0	4
46	<i>Ab initio</i> characterization of the quantum linear-zigzag transition using density matrix renormalization group calculations. <i>Physical Review B</i> , 2014, 89, .	1.1	13
47	Structural transitions of nearly second order in classical dipolar gases. <i>Physical Review A</i> , 2014, 90, .	1.0	5
48	Electromagnetically-induced-transparency control of single-atom motion in an optical cavity. <i>Physical Review A</i> , 2014, 89, .	1.0	32
49	Arbitrary-quantum-state preparation of a harmonic oscillator via optimal control. <i>Physical Review A</i> , 2014, 90, .	1.0	23
50	Prethermalization of Atoms Due to Photon-Mediated Long-Range Interactions. <i>Physical Review Letters</i> , 2014, 113, 203002.	2.9	44
51	Quantum reservoirs with ion chains. <i>Physical Review A</i> , 2014, 90, .	1.0	12
52	Interfacing Superconducting Qubits and Telecom Photons via a Rare-Earth-Doped Crystal. <i>Physical Review Letters</i> , 2014, 113, 063603.	2.9	118
53	From classical to quantum criticality. <i>Physical Review B</i> , 2014, 89, .	1.1	16
54	Quantum phases of incommensurate optical lattices due to cavity backaction. <i>Physical Review A</i> , 2013, 88, .	1.0	19

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55	Single-photon frequency conversion in nonlinear crystals. <i>Physical Review A</i> , 2013, 88, .	1.0	6
56	Bose-Glass Phases of Ultracold Atoms due to Cavity Backaction. <i>Physical Review Letters</i> , 2013, 110, 075304.	2.9	81
57	Full characterization of the quantum linear zigzag transition in atomic chains. <i>Annalen Der Physik</i> , 2013, 525, 827-832.	0.9	19
58	Seeding patterns for self-organization of photons and atoms. <i>Physical Review A</i> , 2013, 88, .	1.0	13
59	Ion chains in high-finesse cavities. <i>Physical Review A</i> , 2013, 87, .	1.0	9
60	Entanglement detection by Bragg scattering. <i>Physical Review A</i> , 2013, 87, .	1.0	5
61	Cooling of atomic ensembles in optical cavities: Semiclassical limit. <i>Physical Review A</i> , 2013, 88, .	1.0	25
62	Stability and dynamics of ion rings in linear multipole traps. <i>Physical Review A</i> , 2013, 87, .	1.0	12
63	Quantum quenches of ion Coulomb crystals across structural instabilities. II. Thermal effects. <i>Physical Review A</i> , 2013, 87, .	1.0	4
64	Entangling two defects via a surrounding crystal. <i>Physical Review A</i> , 2013, 87, .	1.0	14
65	Generation of two-mode entangled states by quantum reservoir engineering. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 224001.	0.6	21
66	Low-Noise Frequency Down-Conversion at the Single Photon Level. , 2012, , .		0
67	Quantum quenches of ion Coulomb crystals across structural instabilities. <i>Physical Review A</i> , 2012, 86, .	1.0	25
68	Cavity cooling of a trapped atom using electromagnetically induced transparency. <i>New Journal of Physics</i> , 2012, 14, 023002.	1.2	33
69	Cooling the motion of a trapped atom with a cavity field. <i>Physical Review A</i> , 2012, 86, .	1.0	14
70	Statistical mechanics of entanglement mediated by a thermal reservoir. <i>Physical Review A</i> , 2012, 85, .	1.0	12
71	Structural Transitions of Ion Strings in Quantum Potentials. <i>Physical Review Letters</i> , 2012, 109, 053003.	2.9	26
72	Homodyne detection of matter-wave fields. <i>Physical Review A</i> , 2012, 85, .	1.0	4

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73	Quantum superpositions of crystalline structures. Physical Review A, 2011, 84, .	1.0	27
74	Quantum light by atomic arrays in optical resonators. Physical Review A, 2011, 84, .	1.0	15
75	Trapping ions with lasers. New Journal of Physics, 2011, 13, 043019.	1.2	27
76	Cavity sideband cooling of trapped molecules. Physical Review A, 2011, 84, .	1.0	10
77	Quantum-noise quenching in atomic tweezers. Physical Review A, 2011, 83, .	1.0	4
78	Quantum structural phase transition in chains of interacting atoms. Physical Review A, 2011, 83, .	1.0	33
79	Quantum Zigzag Transition in Ion Chains. Physical Review Letters, 2011, 106, 010401.	2.9	87
80	Ground-state-cooling vibrations of suspended carbon nanotubes with constant electron current. Physical Review B, 2010, 81, .	1.1	23
81	Engineering atomic quantum reservoirs for photons. Physical Review A, 2010, 81, .	1.0	66
82	Light scattering by ultracold atoms in an optical lattice. Physical Review A, 2010, 81, .	1.0	26
83	Two-photon lasing by a single quantum dot in a high- Q microcavity. Physical Review B, 2010, 81, .	1.1	71
84	Structural Defects in Ion Chains by Quenching the External Potential: The Inhomogeneous Kibble-Zurek Mechanism. Physical Review Letters, 2010, 105, 075701.	2.9	120
85	Continuous-variable entanglement purification with atomic systems. Journal of the Optical Society of America B: Optical Physics, 2010, 27, A198.	0.9	5
86	Quantum Optical Information Technologies. Journal of the Optical Society of America B: Optical Physics, 2010, 27, A233.	0.9	0
87	Quantum Optical Information Technologies. Journal of the Optical Society of America B: Optical Physics, 2010, 27, QOIT1.	0.9	0
88	Quantum ground state of self-organized atomic crystals in optical resonators. Physical Review A, 2010, 81, .	1.0	71
89	Spontaneous nucleation of structural defects in inhomogeneous ion chains. New Journal of Physics, 2010, 12, 115003.	1.2	72
90	Frequency Down-Conversion of Single Photons into the Telecom Band. , 2010, , .		0

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91	Cooling Carbon Nanotubes to the Phononic Ground State with a Constant Electron Current. Physical Review Letters, 2009, 102, 096804.	2.9	77
92	Cavity-enhanced sideband cooling of molecules to the ground state of a harmonic trap. , 2009, , .		0
93	Photonic spectrum of bichromatic optical lattices. Physical Review A, 2009, 79, .	1.0	11
94	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
95	Crystallization of strongly interacting photons in a nonlinear optical fibre. Nature Physics, 2008, 4, 884-889.	6.5	170
96	Ground state of low-dimensional dipolar gases: Linear and zigzag chains. Physical Review A, 2008, 78, .	1.0	34
97	Structural phase transitions in low-dimensional ion crystals. Physical Review B, 2008, 77, .	1.1	130
98	Long-range interactions in cold atomic systems: A foreword. AIP Conference Proceedings, 2008, , .	0.3	2
99	Strongly Correlated Ion Coulomb Systems. AIP Conference Proceedings, 2008, , .	0.3	1
100	Dipolar interaction in ultra-cold atomic gases. AIP Conference Proceedings, 2008, , .	0.3	29
101	Quantum stability of Mott-insulator states of ultracold atoms in optical resonators. New Journal of Physics, 2008, 10, 045002.	1.2	57
102	Time-separated entangled light pulses from a single-atom emitter. New Journal of Physics, 2008, 10, 033025.	1.2	15
103	Entanglement of distant atoms by projective measurement: the role of detection efficiency. New Journal of Physics, 2008, 10, 103003.	1.2	16
104	Ramsey interferometry with a spin embedded in a Coulomb chain. Physical Review A, 2008, 78, .	1.0	26
105	Cold Fermi atomic gases in a pumped optical resonator. Physical Review A, 2008, 78, .	1.0	35
106	Photon-mediated interaction between two distant atoms. Physical Review A, 2008, 78, .	1.0	33
107	Mott-Insulator States of Ultracold Atoms in Optical Resonators. Physical Review Letters, 2008, 100, 050401.	2.9	136
108	Dynamics of cavity cooling of trapped atoms. , 2007, , .		0

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109	Two-photon and electromagnetically-induced-transparency-assisted Doppler cooling in a three-level cascade system. <i>Physical Review A</i> , 2007, 75, .	1.0	17
110	Nonlinear optics with two trapped atoms. <i>Physical Review A</i> , 2007, 76, .	1.0	23
111	Cavity cooling of internal and external degrees of freedom of molecules. , 2007, , .		0
112	Cavity Cooling of Internal Molecular Motion. <i>Physical Review Letters</i> , 2007, 99, 073001.	2.9	67
113	Generation of Einstein-Podolsky-Rosen-Entangled Radiation through an Atomic Reservoir. <i>Physical Review Letters</i> , 2007, 98, 240401.	2.9	130
114	Ab initio based calculations of cavity cooling including the ro-vibrational modes of the OH radical. , 2007, , .		0
115	Resonance fluorescence of a cold atom in a high-finesse resonator. <i>Physical Review A</i> , 2007, 76, .	1.0	14
116	Phase-dependent light propagation in atomic vapors. <i>Physical Review A</i> , 2007, 75, .	1.0	28
117	Ground state cooling in a bad cavity. <i>Journal of Modern Optics</i> , 2007, 54, 1595-1606.	0.6	7
118	One-dimensional Coulomb crystals at low temperatures. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, S221-S230.	0.6	5
119	Coherent generation of EPR-entangled light pulses mediated by a single trapped atom. <i>Physical Review A</i> , 2006, 73, .	1.0	29
120	Inelastic scattering of light by a cold trapped atom: Effects of the quantum center-of-mass motion. <i>Physical Review A</i> , 2006, 73, .	1.0	5
121	Entangled Light Pulses from Single Cold Atoms. <i>Physical Review Letters</i> , 2006, 96, 023601.	2.9	49
122	Single cold atom as efficient stationary source of EPR-entangled light. <i>Physical Review A</i> , 2006, 74, .	1.0	31
123	Quantum coherence and population trapping in three-photon processes. <i>Physical Review A</i> , 2006, 74, .	1.0	28
124	Cooling Trapped Atoms in Optical Resonators. <i>Physical Review Letters</i> , 2005, 95, 143001.	2.9	61
125	Extracting atoms on demand with lasers. <i>Physical Review A</i> , 2005, 71, .	1.0	24
126	Mechanical effects of optical resonators on driven trapped atoms: Ground-state cooling in a high-finesse cavity. <i>Physical Review A</i> , 2005, 72, .	1.0	37

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127	Simultaneous cooling of axial vibrational modes in a linear ion trap. <i>Physical Review A</i> , 2005, 72, .	1.0	13
128	Suppression of Bragg Scattering by Collective Interference of Spatially Ordered Atoms with a High-Q Cavity Mode. <i>Physical Review Letters</i> , 2004, 93, 123002.	2.9	23
129	Eigenmodes and Thermodynamics of a Coulomb Chain in a Harmonic Potential. <i>Physical Review Letters</i> , 2004, 93, 170602.	2.9	54
130	Dynamics of an ion chain in a harmonic potential. <i>Physical Review E</i> , 2004, 70, 066141.	0.8	46
131	Resonance fluorescence of a trapped three-level atom. <i>Physical Review A</i> , 2004, 69, .	1.0	15
132	Cooling atomic motion with quantum interference. <i>Physical Review A</i> , 2003, 67, .	1.0	62
133	Laser Cooling of Matter. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 883.	0.9	2
134	Laser cooling of trapped ions. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 1003.	0.9	161
135	Is an ion string laser-cooled like a single ion?. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2003, 36, 1041-1048.	0.6	8
136	Measuring irreversible dynamics of a quantum harmonic oscillator. <i>Physical Review A</i> , 2002, 65, .	1.0	45
137	Reversing the Jaynes-Cummings dynamics to measure decoherence. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2002, 4, S310-S312.	1.4	4
138	Phase-dependent interaction in a four-level atomic configuration. <i>Physical Review A</i> , 2002, 66, .	1.0	80
139	Laser Cooling of Trapped Ions. , 2002, , 243-260.		0
140	Doppler cooling of a Coulomb crystal. <i>Physical Review A</i> , 2001, 64, .	1.0	20
141	Ground State Laser Cooling Using Electromagnetically Induced Transparency. <i>Physical Review Letters</i> , 2000, 85, 4458-4461.	2.9	214
142	Self-organized topological insulator due to cavity-mediated correlated tunneling. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 5, 501.	0.0	15