

Paolo Zanardi

List of Publications by Year in descending order

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110
papers

9,787
citations

41258

49
h-index

34900

98
g-index

110
all docs

110
docs citations

110
times ranked

4217
citing authors

#	ARTICLE	IF	CITATIONS
1	Localizable quantum coherence. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 397, 127264.	0.9	2
2	Quantum coherence as a signature of chaos. <i>Physical Review Research</i> , 2021, 3, .	1.3	20
3	Information Scrambling over Bipartitions: Equilibration, Entropy Production, and Typicality. <i>Physical Review Letters</i> , 2021, 126, 030601.	2.9	35
4	Quantifying the Incompatibility of Quantum Measurements Relative to a Basis. <i>Physical Review Letters</i> , 2019, 123, 070401.	2.9	10
5	Mixing of quantum states under Markovian dissipation and coherent control. <i>Physical Review A</i> , 2019, 99, .	1.0	0
6	Quantum coherence and the localization transition. <i>Physical Review B</i> , 2019, 100, .	1.1	13
7	Coherence-generating power of quantum dephasing processes. <i>Physical Review A</i> , 2018, 97, .	1.0	21
8	Quantum coherence generating power, maximally abelian subalgebras, and Grassmannian geometry. <i>Journal of Mathematical Physics</i> , 2018, 59, 012203.	0.5	10
9	Accuracy of the adiabatic-impulse approximation for closed and open quantum systems. <i>Physical Review A</i> , 2018, 97, .	1.0	8
10	Relaxation versus adiabatic quantum steady-state preparation. <i>Physical Review A</i> , 2017, 95, .	1.0	21
11	Coherence-generating power of quantum unitary maps and beyond. <i>Physical Review A</i> , 2017, 95, .	1.0	43
12	Noise suppression via generalized-Markovian processes. <i>Physical Review A</i> , 2017, 96, .	1.0	18
13	Modular quantum-information processing by dissipation. <i>Physical Review A</i> , 2016, 94, .	1.0	11
14	Dissipative universal Lindbladian simulation. <i>Physical Review A</i> , 2016, 93, .	1.0	33
15	Dynamical response theory for driven-dissipative quantum systems. <i>Physical Review A</i> , 2016, 93, .	1.0	22
16	Adiabaticity in open quantum systems. <i>Physical Review A</i> , 2016, 93, .	1.0	68
17	Quantum speed limits, coherence, and asymmetry. <i>Physical Review A</i> , 2016, 93, .	1.0	197
18	Quantum algorithms for topological and geometric analysis of data. <i>Nature Communications</i> , 2016, 7, 10138.	5.8	128

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19	Geometry, robustness, and emerging unitarity in dissipation-projected dynamics. <i>Physical Review A</i> , 2015, 91, .	1.0	30
20	Theory of temporal fluctuations in isolated quantum systems. <i>International Journal of Modern Physics B</i> , 2015, 29, 1530008.	1.0	7
21	Local random quantum circuits: Ensemble completely positive maps and swap algebras. <i>Journal of Mathematical Physics</i> , 2014, 55, 082204.	0.5	6
22	Coherent Quantum Dynamics in Steady-State Manifolds of Strongly Dissipative Systems. <i>Physical Review Letters</i> , 2014, 113, 240406.	2.9	77
23	Quantum information-geometry of dissipative quantum phase transitions. <i>Physical Review E</i> , 2014, 89, 022102.	0.8	63
24	Universal time fluctuations in near-critical out-of-equilibrium quantum dynamics. <i>Physical Review E</i> , 2014, 89, 022101.	0.8	9
25	Local convertibility of the ground state of the perturbed toric code. <i>Physical Review B</i> , 2014, 90, .	1.1	9
26	Gaussian equilibration. <i>Physical Review E</i> , 2013, 87, 012106.	0.8	26
27	Local Response of Topological Order to an External Perturbation. <i>Physical Review Letters</i> , 2013, 110, 210602.	2.9	19
28	Entanglement susceptibility: area laws and beyond. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013, 2013, P04023.	0.9	4
29	Fluctuation theorems for quantum processes. <i>Physical Review E</i> , 2013, 88, 032146.	0.8	95
30	Quantum adiabatic Markovian master equations. <i>New Journal of Physics</i> , 2012, 14, 123016.	1.2	202
31	Ensembles of physical states and random quantum circuits on graphs. <i>Physical Review A</i> , 2012, 86, .	1.0	21
32	Quantum Entanglement in Random Physical States. <i>Physical Review Letters</i> , 2012, 109, 040502.	2.9	57
33	Bipartite quantum states and random complex networks. <i>New Journal of Physics</i> , 2012, 14, 013011.	1.2	21
34	Unitary equilibration after a quantum quench of a thermal state. <i>Physical Review A</i> , 2011, 84, .	1.0	20
35	Exact Infinite-Time Statistics of the Loschmidt Echo for a Quantum Quench. <i>Physical Review Letters</i> , 2011, 107, 010403.	2.9	70
36	Local quenches in frustrated quantum spin chains: Global versus subsystem equilibration. <i>Physical Review A</i> , 2010, 82, .	1.0	11

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37	Universality in the equilibration of quantum systems after a small quench. Physical Review A, 2010, 81, .	1.0	29
38	Unitary equilibrations: Probability distribution of the Loschmidt echo. Physical Review A, 2010, 81, .	1.0	94
39	Quantum chaos and operator fidelity metric. Physical Review E, 2010, 81, 017203.	0.8	17
40	Transition to chaos of coupled oscillators: An operator fidelity susceptibility study. Physical Review E, 2010, 82, 056204.	0.8	3
41	Fidelity in topological quantum phases of matter. Physical Review A, 2009, 79, .	1.0	35
42	Scaling of the fidelity susceptibility in a disordered quantum spin chain. Physical Review B, 2009, 79, .	1.1	24
43	Fidelity Approach to the Disordered Quantum $X < Y >$ Model. Physical Review Letters, 2009, 102, 057205.	2.9	56
44	Universal subleading terms in ground-state fidelity from boundary conformal field theory. Physical Review B, 2009, 79, .	1.1	19
45	Thermal states of the Kitaev honeycomb model: Bures metric analysis. Physical Review A, 2009, 79, .	1.0	15
46	Quantum Chernoff bound metric for the $X < Y >$ model at finite temperature. Physical Review A, 2008, 77, .	1.0	12
47	Distance bounds on quantum dynamics. Physical Review A, 2008, 78, .	1.0	47
48	Quantum criticality as a resource for quantum estimation. Physical Review A, 2008, 78, .	1.0	191
49	Operator fidelity susceptibility, decoherence, and quantum criticality. Physical Review A, 2008, 78, .	1.0	36
50	Fidelity analysis of topological quantum phase transitions. Physical Review A, 2008, 78, .	1.0	80
51	Bures metric over thermal state manifolds and quantum criticality. Physical Review A, 2007, 76, .	1.0	90
52	Ground state fidelity and quantum phase transitions in free Fermi systems. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, L02002-L02002.	0.9	67
53	Information-Theoretic Differential Geometry of Quantum Phase Transitions. Physical Review Letters, 2007, 99, 100603.	2.9	358
54	Quantum Critical Scaling of the Geometric Tensors. Physical Review Letters, 2007, 99, 095701.	2.9	362

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55	Quantum phase transitions and quantum fidelity in free fermion graphs. <i>Physical Review B</i> , 2007, 75, .	1.1	132
56	Mixed-state fidelity and quantum criticality at finite temperature. <i>Physical Review A</i> , 2007, 75, .	1.0	183
57	Fidelity optimization for holonomic quantum gates in dissipative environments. <i>Physical Review A</i> , 2006, 73, .	1.0	32
58	Mode transformations and entanglement relativity in bipartite Gaussian states. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 354, 274-280.	0.9	10
59	Coupling bosonic modes with a qubit: entanglement dynamics at zero and finite temperatures. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 360, 49-56.	0.9	10
60	Ground state overlap and quantum phase transitions. <i>Physical Review E</i> , 2006, 74, 031123.	0.8	643
61	Internal consistency of fault-tolerant quantum error correction in light of rigorous derivations of the quantum Markovian limit. <i>Physical Review A</i> , 2006, 73, .	1.0	113
62	Sublattice entanglement and quantum phase transitions in antiferromagnetic spin chains. <i>New Journal of Physics</i> , 2006, 8, 97-97.	1.2	99
63	Ground state entanglement and geometric entropy in the Kitaev model. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 337, 22-28.	0.9	187
64	Decoherence suppression for oscillator-assisted geometric quantum gates via symmetrization. <i>Physical Review A</i> , 2005, 71, .	1.0	3
65	Universal leakage elimination. <i>Physical Review A</i> , 2005, 71, .	1.0	51
66	Quantum entanglement in states generated by bilocal group algebras. <i>Physical Review A</i> , 2005, 72, .	1.0	21
67	Geometric quantum gates that are robust against stochastic control errors. <i>Physical Review A</i> , 2005, 72, .	1.0	146
68	Bipartite entanglement and entropic boundary law in lattice spin systems. <i>Physical Review A</i> , 2005, 71, .	1.0	220
69	Geometric Quantum Computation and Multiqubit Entanglement with Superconducting Qubits inside a Cavity. <i>Physical Review Letters</i> , 2005, 94, 100502.	2.9	138
70	Refocusing schemes for holonomic quantum computation in the presence of dissipation. <i>Physical Review A</i> , 2004, 70, .	1.0	17
71	Universal control of quantum subspaces and subsystems. <i>Physical Review A</i> , 2004, 69, .	1.0	16
72	Quantum entangling power of adiabatically connected Hamiltonians. <i>Physical Review A</i> , 2004, 69, .	1.0	9

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73	Robustness of non-Abelian holonomic quantum gates against parametric noise. <i>Physical Review A</i> , 2004, 70, .	1.0	109
74	Quantum Tensor Product Structures are Observable Induced. <i>Physical Review Letters</i> , 2004, 92, 060402.	2.9	196
75	Holonomic quantum gates: A semiconductor-based implementation. <i>Physical Review A</i> , 2003, 67, .	1.0	43
76	Mode entanglement and entangling power in bosonic graphs. <i>Physical Review A</i> , 2003, 68, .	1.0	14
77	Semiconductor-based geometrical quantum gates. <i>Physical Review B</i> , 2003, 67, .	1.1	114
78	Spin-based quantum-information processing with semiconductor quantum dots and cavity QED. <i>Physical Review A</i> , 2003, 67, .	1.0	47
79	Nonadiabatic geometrical quantum gates in semiconductor quantum dots. <i>Physical Review A</i> , 2003, 67, .	1.0	47
80	Topological Protection and Quantum Noiseless Subsystems. <i>Physical Review Letters</i> , 2003, 90, 067902.	2.9	53
81	Simulation of many-body interactions by conditional geometric phases. <i>Physical Review A</i> , 2002, 65, .	1.0	51
82	Quantum-information processing in bosonic lattices. <i>Physical Review A</i> , 2002, 66, .	1.0	35
83	Electro-optical properties of semiconductor quantum dots: Application to quantum information processing. <i>Physical Review B</i> , 2002, 65, .	1.1	111
84	Fermionic entanglement in itinerant systems. <i>Journal of Physics A</i> , 2002, 35, 7947-7959.	1.6	110
85	Quantum entanglement in fermionic lattices. <i>Physical Review A</i> , 2002, 65, .	1.0	352
86	Ultrafast quantum information processing in nanostructured semiconductors. <i>Superlattices and Microstructures</i> , 2002, 31, 107-116.	1.4	0
87	Quantum measurement of excitonic states using stimulated Raman adiabatic passage. <i>Physica B: Condensed Matter</i> , 2002, 314, 20-24.	1.3	1
88	Simulation of entangled electronic states in semiconductor quantum wires. <i>Physica B: Condensed Matter</i> , 2002, 314, 10-14.	1.3	14
89	Quantum entanglement and Bell inequalities in Heisenberg spin chains. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 301, 1-6.	0.9	205
90	Virtual Quantum Subsystems. <i>Physical Review Letters</i> , 2001, 87, 077901.	2.9	175

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91	Testing Bell's inequality with ballistic electrons in semiconductors. Physical Review A, 2001, 63, .	1.0	42
92	Optical quantum gates with semiconductor nanostructures. International Journal of Circuit Theory and Applications, 2001, 29, 137-150.	1.3	1
93	QUANTUM HOLONOMIES FOR QUANTUM COMPUTING. International Journal of Modern Physics B, 2001, 15, 1257-1285.	1.0	100
94	Entanglement of quantum evolutions. Physical Review A, 2001, 63, .	1.0	189
95	Storage qubits and their potential implementation through a semiconductor double quantum dot. Physical Review B, 2001, 64, .	1.1	54
96	Entangling power of quantum evolutions. Physical Review A, 2000, 62, .	1.0	284
97	Stabilizing quantum information. Physical Review A, 2000, 63, .	1.0	161
98	Quantum Information Processing with Semiconductor Macroatoms. Physical Review Letters, 2000, 85, 5647-5650.	2.9	454
99	Subdecoherent information encoding in a quantum-dot array. Physical Review B, 1999, 59, 8170-8181.	1.1	43
100	Computation on an error-avoiding quantum code and symmetrization. Physical Review A, 1999, 60, R729-R732.	1.0	40
101	Symmetrizing evolutions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 258, 77-82.	0.9	256
102	Holonomic quantum computation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 264, 94-99.	0.9	794
103	Non-Abelian Berry connections for quantum computation. Physical Review A, 1999, 61, .	1.0	252
104	Quantum Information in Semiconductors: Noiseless Encoding in a Quantum-Dot Array. Physical Review Letters, 1998, 81, 4752-4755.	2.9	168
105	Dissipation and decoherence in a quantum register. Physical Review A, 1998, 57, 3276-3284.	1.0	111
106	Dissipative dynamics in a quantum register. Physical Review A, 1997, 56, 4445-4451.	1.0	49
107	Error Avoiding Quantum Codes. Modern Physics Letters B, 1997, 11, 1085-1093.	1.0	134
108	Quantum scrambling of observable algebras. Quantum - the Open Journal for Quantum Science, 0, 6, 666.	0.0	3

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109	BROTCs and Quantum Information Scrambling at Finite Temperature. Quantum - the Open Journal for Quantum Science, 0, 6, 744.	0.0	0
110	BROTCs and Quantum Information Scrambling at Finite Temperature. Quantum - the Open Journal for Quantum Science, 0, 6, 746.	0.0	3