Paolo Zanardi

List of Publications by Year in Descending Order

107 papers	8,238 citations	46 h-index	90 g-index
110 ext. papers	9,105 ext. citations	3.4 avg, IF	6.45 L-index

#	Paper	IF	Citations
107	Localizable quantum coherence. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2021**, 397, 127264	2.3	2
106	Quantum coherence as a signature of chaos. *Physical Review Research*, **2021**, 3,	3.9	3
105	Information Scrambling over Bipartitions: Equilibration, Entropy Production, and Typicality. *Physical Review Letters*, **2021**, 126, 030601	7.4	8
104	Quantifying the Incompatibility of Quantum Measurements Relative to a Basis. *Physical Review Letters*, **2019**, 123, 070401	7.4	4
103	Quantum coherence and the localization transition. *Physical Review B*, **2019**, 100,	3.3	6
102	Coherence-generating power of quantum dephasing processes. *Physical Review A*, **2018**, 97,	2.6	13
101	Quantum coherence generating power, maximally abelian subalgebras, and Grassmannian geometry. *Journal of Mathematical Physics*, **2018**, 59, 012203	1.2	8
100	Accuracy of the adiabatic-impulse approximation for closed and open quantum systems. *Physical Review A*, **2018**, 97,	2.6	4
99	Relaxation versus adiabatic quantum steady-state preparation. *Physical Review A*, **2017**, 95,	2.6	17
98	Coherence-generating power of quantum unitary maps and beyond. *Physical Review A*, **2017**, 95,	2.6	31
97	Noise suppression via generalized-Markovian processes. *Physical Review A*, **2017**, 96,	2.6	8
96	Dissipative universal Lindbladian simulation. *Physical Review A*, **2016**, 93,	2.6	28
95	Dynamical response theory for driven-dissipative quantum systems. *Physical Review A*, **2016**, 93,	2.6	18
94	Adiabaticity in open quantum systems. *Physical Review A*, **2016**, 93,	2.6	44
93	Quantum speed limits, coherence, and asymmetry. *Physical Review A*, **2016**, 93,	2.6	155
92	Quantum algorithms for topological and geometric analysis of data. *Nature Communications*, **2016**, 7, 10138	17.4	67
91	Modular quantum-information processing by dissipation. *Physical Review A*, **2016**, 94,	2.6	6

90	Theory of temporal fluctuations in isolated quantum systems. *International Journal of Modern Physics B*, **2015**, 29, 1530008	1.1	5
89	Geometry, robustness, and emerging unitarity in dissipation-projected dynamics. *Physical Review A*, **2015**, 91,	2.6	27
88	Quantum information-geometry of dissipative quantum phase transitions. *Physical Review E*, **2014**, 89, 022102	2.4	50
87	Universal time fluctuations in near-critical out-of-equilibrium quantum dynamics. *Physical Review E*, **2014**, 89, 022101	2.4	8
86	Local convertibility of the ground state of the perturbed toric code. *Physical Review B*, **2014**, 90,	3.3	8
85	Local random quantum circuits: Ensemble completely positive maps and swap algebras. *Journal of Mathematical Physics*, **2014**, 55, 082204	1.2	6
84	Coherent quantum dynamics in steady-state manifolds of strongly dissipative systems. *Physical Review Letters*, **2014**, 113, 240406	7.4	60
83	Gaussian equilibration. *Physical Review E*, **2013**, 87, 012106	2.4	20
82	Local response of topological order to an external perturbation. *Physical Review Letters*, **2013**, 110, 210602	7.4	17
81	Entanglement susceptibility: area laws and beyond. *Journal of Statistical Mechanics: Theory and Experiment*, **2013**, 2013, P04023	1.9	3
80	Fluctuation theorems for quantum processes. *Physical Review E*, **2013**, 88, 032146	2.4	81
79	Ensembles of physical states and random quantum circuits on graphs. *Physical Review A*, **2012**, 86,	2.6	17
78	Quantum entanglement in random physical states. *Physical Review Letters*, **2012**, 109, 040502	7.4	47
77	Bipartite quantum states and random complex networks. *New Journal of Physics*, **2012**, 14, 013011	2.9	18
76	Quantum adiabatic Markovian master equations. *New Journal of Physics*, **2012**, 14, 123016	2.9	155
75	Unitary equilibration after a quantum quench of a thermal state. *Physical Review A*, **2011**, 84,	2.6	15
74	Exact infinite-time statistics of the Loschmidt echo for a quantum quench. *Physical Review Letters*, **2011**, 107, 010403	7.4	61
73	Local quenches in frustrated quantum spin chains: Global versus subsystem equilibration. *Physical Review A*, **2010**, 82,	2.6	10

72	Universality in the equilibration of quantum systems after a small quench. *Physical Review A*, **2010**, 81,	2.6	24
71	Unitary equilibrations: Probability distribution of the Loschmidt echo. *Physical Review A*, **2010**, 81,	2.6	83
70	Quantum chaos and operator fidelity metric. *Physical Review E*, **2010**, 81, 017203	2.4	16
69	Transition to chaos of coupled oscillators: an operator fidelity susceptibility study. *Physical Review E*, **2010**, 82, 056204	2.4	3
68	Fidelity in topological quantum phases of matter. *Physical Review A*, **2009**, 79,	2.6	31
67	Scaling of the fidelity susceptibility in a disordered quantum spin chain. *Physical Review B*, **2009**, 79,	3.3	21
66	Fidelity approach to the disordered quantum XY model. *Physical Review Letters*, **2009**, 102, 057205	7.4	52
65	Universal subleading terms in ground-state fidelity from boundary conformal field theory. *Physical Review B*, **2009**, 79,	3.3	17
64	Thermal states of the Kitaev honeycomb model: Bures metric analysis. *Physical Review A*, **2009**, 79,	2.6	14
63	Quantum Chernoff bound metric for the XY model at finite temperature. *Physical Review A*, **2008**, 77,	2.6	12
62	Distance bounds on quantum dynamics. *Physical Review A*, **2008**, 78,	2.6	38
61	Quantum criticality as a resource for quantum estimation. *Physical Review A*, **2008**, 78,	2.6	131
60	Operator fidelity susceptibility, decoherence, and quantum criticality. *Physical Review A*, **2008**, 78,	2.6	35
59	Fidelity analysis of topological quantum phase transitions. *Physical Review A*, **2008**, 78,	2.6	69
58	Quantum critical scaling of the geometric tensors. *Physical Review Letters*, **2007**, 99, 095701	7.4	307
57	Quantum phase transitions and quantum fidelity in free fermion graphs. *Physical Review B*, **2007**, 75,	3.3	120
56	Mixed-state fidelity and quantum criticality at finite temperature. *Physical Review A*, **2007**, 75,	2.6	155
55	Bures metric over thermal state manifolds and quantum criticality. *Physical Review A*, **2007**, 76,	2.6	76

54	Ground state fidelity and quantum phase transitions in free Fermi systems. *Journal of Statistical Mechanics: Theory and Experiment*, **2007**, 2007, L02002-L02002	1.9	58
53	Information-theoretic differential geometry of quantum phase transitions. *Physical Review Letters*, **2007**, 99, 100603	7.4	300
52	Ground state overlap and quantum phase transitions. *Physical Review E*, **2006**, 74, 031123	2.4	535
51	Internal consistency of fault-tolerant quantum error correction in light of rigorous derivations of the quantum Markovian limit. *Physical Review A*, **2006**, 73,	2.6	100
50	Sublattice entanglement and quantum phase transitions in antiferromagnetic spin chains. *New Journal of Physics*, **2006**, 8, 97-97	2.9	93
49	Fidelity optimization for holonomic quantum gates in dissipative environments. *Physical Review A*, **2006**, 73,	2.6	28
48	Mode transformations and entanglement relativity in bipartite Gaussian states. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2006**, 354, 274-280	2.3	8
47	Coupling bosonic modes with a qubit: entanglement dynamics at zero and finite temperatures. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2006**, 360, 49-56	2.3	10
46	Bipartite entanglement and entropic boundary law in lattice spin systems. *Physical Review A*, **2005**, 71,	2.6	175
45	Geometric quantum computation and multiqubit entanglement with superconducting qubits inside a cavity. *Physical Review Letters*, **2005**, 94, 100502	7.4	123
44	Ground state entanglement and geometric entropy in the Kitaev model. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2005**, 337, 22-28	2.3	160
43	Decoherence suppression for oscillator-assisted geometric quantum gates via symmetrization. *Physical Review A*, **2005**, 71,	2.6	3
42	Universal leakage elimination. *Physical Review A*, **2005**, 71,	2.6	42
41	Quantum entanglement in states generated by bilocal group algebras. *Physical Review A*, **2005**, 72,	2.6	20
40	Geometric quantum gates that are robust against stochastic control errors. *Physical Review A*, **2005**, 72,	2.6	119
39	Refocusing schemes for holonomic quantum computation in the presence of dissipation. *Physical Review A*, **2004**, 70,	2.6	14
38	Universal control of quantum subspaces and subsystems. *Physical Review A*, **2004**, 69,	2.6	12
37	Quantum entangling power of adiabatically connected Hamiltonians. *Physical Review A*, **2004**, 69,	2.6	9

36	Robustness of non-Abelian holonomic quantum gates against parametric noise. *Physical Review A*, **2004**, 70,	2.6	86
35	Quantum tensor product structures are observable induced. *Physical Review Letters*, **2004**, 92, 060402	7.4	154
34	Holonomic quantum gates: A semiconductor-based implementation. *Physical Review A*, **2003**, 67,	2.6	40
33	Mode entanglement and entangling power in bosonic graphs. *Physical Review A*, **2003**, 68,	2.6	14
32	Semiconductor-based geometrical quantum gates. *Physical Review B*, **2003**, 67,	3.3	100
31	Spin-based quantum-information processing with semiconductor quantum dots and cavity QED. *Physical Review A*, **2003**, 67,	2.6	46
30	Nonadiabatic geometrical quantum gates in semiconductor quantum dots. *Physical Review A*, **2003**, 67,	2.6	38
29	Topological protection and quantum noiseless subsystems. *Physical Review Letters*, **2003**, 90, 067902	7.4	45
28	Ultrafast quantum information processing in nanostructured semiconductors. *Superlattices and Microstructures*, **2002**, 31, 107-116	2.8	
27	Quantum measurement of excitonic states using stimulated Raman adiabatic passage. *Physica B: Condensed Matter*, **2002**, 314, 20-24	2.8	1
26	Simulation of entangled electronic states in semiconductor quantum wires. *Physica B: Condensed Matter*, **2002**, 314, 10-14	2.8	10
25	Quantum entanglement and Bell inequalities in Heisenberg spin chains. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2002**, 301, 1-6	2.3	198
24	Simulation of many-body interactions by conditional geometric phases. *Physical Review A*, **2002**, 65,	2.6	47
23	Quantum-information processing in bosonic lattices. *Physical Review A*, **2002**, 66,	2.6	32
22	Electro-optical properties of semiconductor quantum dots: Application to quantum information processing. *Physical Review B*, **2002**, 65,	3.3	98
21	Fermionic entanglement in itinerant systems. *Journal of Physics A*, **2002**, 35, 7947-7959		105
20	Quantum entanglement in fermionic lattices. *Physical Review A*, **2002**, 65,	2.6	321
19	Optical quantum gates with semiconductor nanostructures. *International Journal of Circuit Theory and Applications*, **2001**, 29, 137-150	2	1

18	QUANTUM HOLONOMIES FOR QUANTUM COMPUTING. *International Journal of Modern Physics B*, **2001**, 15, 1257-1285	1.1	83
17	Entanglement of quantum evolutions. *Physical Review A*, **2001**, 63,	2.6	140
16	Storage qubits and their potential implementation through a semiconductor double quantum dot. *Physical Review B*, **2001**, 64,	3.3	51
15	Virtual quantum subsystems. *Physical Review Letters*, **2001**, 87, 077901	7.4	141
14	Testing Bell inequality with ballistic electrons in semiconductors. *Physical Review A*, **2001**, 63,	2.6	38
13	Entangling power of quantum evolutions. *Physical Review A*, **2000**, 62,	2.6	243
12	Stabilizing quantum information. *Physical Review A*, **2000**, 63,	2.6	135
11	Quantum information processing with semiconductor macroatoms. *Physical Review Letters*, **2000**, 85, 5647-50	7.4	412
10	Subdecoherent information encoding in a quantum-dot array. *Physical Review B*, **1999**, 59, 8170-8181	3.3	42
9	Computation on an error-avoiding quantum code and symmetrization. *Physical Review A*, **1999**, 60, R729-R732	2.6	36
8	Symmetrizing evolutions. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1999**, 258, 77-82	2.3	222
7	Holonomic quantum computation. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1999**, 264, 94-99	2.3	685
6	Non-Abelian Berry connections for quantum computation. *Physical Review A*, **1999**, 61,	2.6	212
5	Quantum Information in Semiconductors: Noiseless Encoding in a Quantum-Dot Array. *Physical Review Letters*, **1998**, 81, 4752-4755	7.4	155
4	Dissipation and decoherence in a quantum register. *Physical Review A*, **1998**, 57, 3276-3284	2.6	101
3	Dissipative dynamics in a quantum register. *Physical Review A*, **1997**, 56, 4445-4451	2.6	44
2	Error Avoiding Quantum Codes. *Modern Physics Letters B*, **1997**, 11, 1085-1093	1.6	119
1	Quantum scrambling of observable algebras. *Quantum - the Open Journal for Quantum Science*, 6, 666		0