

# Paolo Perinotti

## List of Publications by Year in descending order

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107  
papers

3,843  
citations

218381

26  
h-index

149479

56  
g-index

110  
all docs

110  
docs citations

110  
times ranked

1375  
citing authors

#	ARTICLE	IF	CITATIONS
1	Shannon theory beyond quantum: Information content of a source. <i>Physical Review A</i> , 2022, 105, .	1.0	1
2	Unambiguous discrimination of fermionic states through local operations and classical communication. <i>Physical Review A</i> , 2021, 103, .	1.0	3
3	Scattering and Perturbation Theory for Discrete-Time Dynamics. <i>Physical Review Letters</i> , 2021, 126, 250503.	2.9	2
4	Symmetries of the Dirac quantum walk and emergence of the de Sitter group. <i>Journal of Mathematical Physics</i> , 2020, 61, 082202.	0.5	3
5	Fermionic State Discrimination by Local Operations and Classical Communication. <i>Physical Review Letters</i> , 2020, 125, 110403.	2.9	7
6	Classicality without local discriminability: Decoupling entanglement and complementarity. <i>Physical Review A</i> , 2020, 102, .	1.0	8
7	Classical theories with entanglement. <i>Physical Review A</i> , 2020, 101, .	1.0	13
8	Quantum Information and Foundations. <i>Entropy</i> , 2020, 22, 22.	1.1	1
9	Chirality from quantum walks without a quantum coin. <i>Physical Review A</i> , 2019, 100, .	1.0	3
10	Theoretical framework for higher-order quantum theory. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20180706.	1.0	39
11	Thirring quantum cellular automaton. <i>Physical Review A</i> , 2018, 97, .	1.0	25
12	Scalar fermionic cellular automata on finite Cayley graphs. <i>Physical Review A</i> , 2018, 98, .	1.0	4
13	Solutions of a Two-Particle Interacting Quantum Walk. <i>Entropy</i> , 2018, 20, 435.	1.1	16
14	Quantum Walks, Weyl Equation and the Lorentz Group. <i>Foundations of Physics</i> , 2017, 47, 1065-1076.	0.6	22
15	Quantum cellular automata and free quantum field theory. <i>Frontiers of Physics</i> , 2017, 12, 1.	2.4	19
16	Virtually Abelian quantum walks. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 035301.	0.7	5
17	Path-sum solution of the Weyl quantum walk in $3 + 1$ dimensions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160394.	1.6	3
18	Preface for the special issue, "Second quantum revolution: foundational questions". <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160397.	1.6	0

#	ARTICLE	IF	CITATIONS
19	Isotropic quantum walks on lattices and the Weyl equation. <i>Physical Review A</i> , 2017, 96, .	1.0	10
20	Causal Structures and the Classification of Higher Order Quantum Computations. <i>Tutorials, Schools, and Workshops in the Mathematical Sciences</i> , 2017, , 103-127.	0.3	17
21	Discrete Time Dirac Quantum Walk in 3+1 Dimensions. <i>Entropy</i> , 2016, 18, 228.	1.1	5
22	Quantum cellular automaton theory of light. <i>Annals of Physics</i> , 2016, 368, 177-190.	1.0	29
23	Quantum walks, deformed relativity and Hopf algebra symmetries. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150232.	1.6	9
24	Quantum conditional operations. <i>Physical Review A</i> , 2016, 94, .	1.0	6
25	Quantum walks with a one-dimensional coin. <i>Physical Review A</i> , 2016, 93, .	1.0	17
26	Special relativity in a discrete quantum universe. <i>Physical Review A</i> , 2016, 94, .	1.0	19
27	Quantum Theory is an Information Theory. <i>Foundations of Physics</i> , 2016, 46, 269-281.	0.6	6
28	Quantum from Principles. <i>Fundamental Theories of Physics</i> , 2016, , 171-221.	0.1	24
29	Weyl, Dirac and Maxwell Quantum Cellular Automata. <i>Foundations of Physics</i> , 2015, 45, 1203-1221.	0.6	14
30	Doubly special relativity from quantum cellular automata. <i>Europhysics Letters</i> , 2015, 109, 50003.	0.7	20
31	Free Quantum Field Theory from Quantum Cellular Automata. <i>Foundations of Physics</i> , 2015, 45, 1137-1152.	0.6	12
32	Discrete Feynman propagator for the Weyl quantum walk in 2 + 1 dimensions. <i>Europhysics Letters</i> , 2015, 109, 40012.	0.7	11
33	Determinism without causality. <i>Physica Scripta</i> , 2014, T163, 014013.	1.2	15
34	The Dirac quantum automaton: a short review. <i>Physica Scripta</i> , 2014, T163, 014014.	1.2	2
35	Derivation of the Dirac equation from principles of information processing. <i>Physical Review A</i> , 2014, 90, .	1.0	70
36	Fermionic computation is non-local tomographic and violates monogamy of entanglement. <i>Europhysics Letters</i> , 2014, 107, 20009.	0.7	35

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37	Path-integral solution of the one-dimensional Dirac quantum cellular automaton. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 3165-3168.	0.9	12
38	Optimal processing of reversible quantum channels. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 1797-1808.	0.9	12
39	The Feynman problem and fermionic entanglement: Fermionic theory versus qubit theory. International Journal of Modern Physics A, 2014, 29, 1430025.	0.5	33
40	Quantum computations without definite causal structure. Physical Review A, 2013, 88, .	1.0	321
41	Universality of computation in real quantum theory. Europhysics Letters, 2013, 104, 20006.	0.7	1
42	A short impossibility proof of quantum bit commitment. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1076-1087.	0.9	21
43	Ergodic and mixing quantum channels in finite dimensions. New Journal of Physics, 2013, 15, 073045.	1.2	53
44	Quantum Theory, Namely the Pure and Reversible Theory of Information. Entropy, 2012, 14, 1877-1893.	1.1	36
45	Informational axioms for quantum theory. AIP Conference Proceedings, 2012, , .	0.3	13
46	Discord and Nonclassicality in Probabilistic Theories. Physical Review Letters, 2012, 108, 120502.	2.9	26
47	Memory cost of quantum protocols. Physical Review A, 2012, 85, .	1.0	5
48	Teleportation transfers only speakable quantum information. Physical Review A, 2012, 86, .	1.0	12
49	Spooky action-at-a-distance in general probabilistic theories. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2926-2930.	0.9	2
50	Quantum computation with programmable connections between gates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2940-2943.	0.9	81
51	Informational derivation of quantum theory. Physical Review A, 2011, 84, .	1.0	382
52	Quantum networks: General theory and applications. Acta Physica Slovaca, 2011, 61, .	1.4	24
53	Quantum learning algorithms for quantum measurements. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3425-3434.	0.9	19
54	No Signaling, Entanglement Breaking, and Localizability in Bipartite Channels. Physical Review Letters, 2011, 106, 010501.	2.9	12

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55	Cloning of a quantum measurement. <i>Physical Review A</i> , 2011, 84, .	1.0	5
56	Quantum error correction with degenerate codes for correlated noise. <i>Physical Review A</i> , 2011, 83, .	1.0	14
57	Minimal computational-space implementation of multi-round quantum protocols. <i>Physical Review A</i> , 2011, 83, .	1.0	13
58	Extremal quantum protocols. <i>Journal of Mathematical Physics</i> , 2011, 52, .	0.5	15
59	Probabilistic theories with purification. <i>Physical Review A</i> , 2010, 81, .	1.0	308
60	Information-disturbance tradeoff in estimating a unitary transformation. <i>Physical Review A</i> , 2010, 82, .	1.0	17
61	Optimal quantum learning of a unitary transformation. <i>Physical Review A</i> , 2010, 81, .	1.0	89
62	Optimal Quantum Tomography of States, Measurements, and Transformations. <i>Physical Review Letters</i> , 2009, 102, 010404.	2.9	37
63	Optimal covariant quantum networks. , 2009, , .		4
64	Optimal Quantum Tomography. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2009, 15, 1646-1660.	1.9	23
65	Probability-fidelity tradeoffs for targeted quantum operations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2009, 373, 3011-3015.	0.9	2
66	Adaptive Bayesian and frequentist data processing for quantum tomography. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2009, 373, 1111-1115.	0.9	3
67	Quantum no-stretching: A geometrical interpretation of the no-cloning theorem. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2009, 373, 2416-2419.	0.9	5
68	Theoretical framework for quantum networks. <i>Physical Review A</i> , 2009, 80, .	1.0	313
69	Realization schemes for quantum instruments in finite dimensions. <i>Journal of Mathematical Physics</i> , 2009, 50, .	0.5	27
70	Transforming quantum operations: Quantum supermaps. <i>Europhysics Letters</i> , 2008, 83, 30004.	0.7	201
71	Quantum-state decorrelation. <i>Physical Review A</i> , 2008, 77, .	1.0	6
72	Quantum indirect estimation theory and joint estimate of all moments of two incompatible observables. <i>Physical Review A</i> , 2008, 77, .	1.0	1

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73	Quantum Circuit Architecture. Physical Review Letters, 2008, 101, 060401.	2.9	240
74	Optimal Cloning of Unitary Transformation. Physical Review Letters, 2008, 101, 180504.	2.9	53
75	Memory Effects in Quantum Channel Discrimination. Physical Review Letters, 2008, 101, 180501.	2.9	113
76	Superbroadcasting and classical information. Physical Review A, 2007, 75, .	1.0	2
77	Secret Quantum Communication of a Reference Frame. Physical Review Letters, 2007, 98, 120501.	2.9	16
78	Erasable and Unerasable Correlations. Physical Review Letters, 2007, 99, 070501.	2.9	9
79	Optimal Data Processing for Quantum Measurements. Physical Review Letters, 2007, 98, 020403.	2.9	21
80	ON THE MOST EFFICIENT UNITARY TRANSFORMATION FOR PROGRAMMING QUANTUM CHANNELS. , 2007, , .		1
81	Superbroadcasting of harmonic oscillators mixed states. Optics and Spectroscopy (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	0.2	0
82	Superbroadcasting of conjugate quantum variables. Europhysics Letters, 2006, 75, 195-201.	0.7	6
83	Applications of the group $SU(1, 1)$ for quantum computation and tomography. Laser Physics, 2006, 16, 1572-1581.	0.6	10
84	Superbroadcasting of continuous variable mixed states. New Journal of Physics, 2006, 8, 99-99.	1.2	11
85	MAXIMUM LIKELIHOOD ESTIMATION FOR A GROUP OF PHYSICAL TRANSFORMATIONS. International Journal of Quantum Information, 2006, 04, 453-472.	0.6	17
86	Universal and phase-covariant superbroadcasting for mixed qubit states. Physical Review A, 2006, 74, .	1.0	11
87	Optimal estimation of quantum observables. Journal of Mathematical Physics, 2006, 47, 022102.	0.5	3
88	Extremal quantum cloning machines. Physical Review A, 2005, 72, .	1.0	18
89	Optimal phase estimation for qubits in mixed states. Physical Review A, 2005, 72, .	1.0	12
90	Efficient Universal Programmable Quantum Measurements. Physical Review Letters, 2005, 94, 090401.	2.9	37

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91	Superbroadcasting of Mixed States. <i>Physical Review Letters</i> , 2005, 95, 060503.	2.9	46
92	Classical randomness in quantum measurements. <i>Journal of Physics A</i> , 2005, 38, 5979-5991.	1.6	127
93	Clean positive operator valued measures. <i>Journal of Mathematical Physics</i> , 2005, 46, 082109.	0.5	64
94	Informationally complete measurements on bipartite quantum systems: Comparing local with global measurements. <i>Physical Review A</i> , 2005, 72, .	1.0	9
95	Covariant quantum measurements that maximize the likelihood. <i>Physical Review A</i> , 2004, 70, .	1.0	46
96	Efficient Use of Quantum Resources for the Transmission of a Reference Frame. <i>Physical Review Letters</i> , 2004, 93, 180503.	2.9	105
97	Informationally complete measurements and group representation. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2004, 6, S487-S491.	1.4	83
98	On the realization of Bell observables. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004, 329, 188-192.	0.9	1
99	Quantum universal detectors. <i>Europhysics Letters</i> , 2004, 65, 165-171.	0.7	18
100	Optimal realization of the transposition maps. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2003, 314, 374-379.	0.9	22
101	Improving quantum interferometry by using entanglement. <i>Physical Review A</i> , 2002, 65, .	1.0	14
102	To take a (binary) decision you're better use entanglement. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2002, 4, S277-S280.	1.4	0
103	Optimal quantum estimation of the coupling between two bosonic modes. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2001, 3, 337-340.	1.4	12
104	Isotropic phase squeezing and the arrow of time. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 268, 241-246.	0.9	5
105	Causal influence in operational probabilistic theories. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 5, 515.	0.0	0
106	Cellular automata in operational probabilistic theories. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 4, 294.	0.0	8
107	Information and disturbance in operational probabilistic theories. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 4, 363.	0.0	8