Paolo Perinotti

List of Publications by Year in descending order

107 papers	3,843 citations	218592 26 h-index	149623 56 g-index
110 all docs	110 docs citations	110 times ranked	1375 citing authors

#	Article	IF	Citations
1	Informational derivation of quantum theory. Physical Review A, 2011, 84, .	1.0	382
2	Quantum computations without definite causal structure. Physical Review A, 2013, 88, .	1.0	321
3	Theoretical framework for quantum networks. Physical Review A, 2009, 80, .	1.0	313
4	Probabilistic theories with purification. Physical Review A, 2010, 81, .	1.0	308
5	Quantum Circuit Architecture. Physical Review Letters, 2008, 101, 060401.	2.9	240
6	Transforming quantum operations: Quantum supermaps. Europhysics Letters, 2008, 83, 30004.	0.7	201
7	Classical randomness in quantum measurements. Journal of Physics A, 2005, 38, 5979-5991.	1.6	127
8	Memory Effects in Quantum Channel Discrimination. Physical Review Letters, 2008, 101, 180501.	2.9	113
9	Efficient Use of Quantum Resources for the Transmission of a Reference Frame. Physical Review Letters, 2004, 93, 180503.	2.9	105
10	Optimal quantum learning of a unitary transformation. Physical Review A, 2010, 81, .	1.0	89
11	Informationally complete measurements and group representation. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S487-S491.	1.4	83
12	Quantum computation with programmable connections between gates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2940-2943.	0.9	81
13	Derivation of the Dirac equation from principles of information processing. Physical Review A, 2014, 90, .	1.0	70
14	Clean positive operator valued measures. Journal of Mathematical Physics, 2005, 46, 082109.	0.5	64
15	Optimal Cloning of Unitary Transformation. Physical Review Letters, 2008, 101, 180504.	2.9	53
16	Ergodic and mixing quantum channels in finite dimensions. New Journal of Physics, 2013, 15, 073045.	1.2	53
17	Covariant quantum measurements that maximize the likelihood. Physical Review A, 2004, 70, .	1.0	46
18	Superbroadcasting of Mixed States. Physical Review Letters, 2005, 95, 060503.	2.9	46

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19	Theoretical framework for higher-order quantum theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180706.	1.0	39
20	Efficient Universal Programmable Quantum Measurements. Physical Review Letters, 2005, 94, 090401.	2.9	37
21	Optimal Quantum Tomography of States, Measurements, and Transformations. Physical Review Letters, 2009, 102, 010404.	2.9	37
22	Quantum Theory, Namely the Pure and Reversible Theory of Information. Entropy, 2012, 14, 1877-1893.	1.1	36
23	Fermionic computation is non-local tomographic and violates monogamy of entanglement. Europhysics Letters, 2014, 107, 20009.	0.7	35
24	The Feynman problem and fermionic entanglement: Fermionic theory versus qubit theory. International Journal of Modern Physics A, 2014, 29, 1430025.	0.5	33
25	Quantum cellular automaton theory of light. Annals of Physics, 2016, 368, 177-190.	1.0	29
26	Realization schemes for quantum instruments in finite dimensions. Journal of Mathematical Physics, 2009, 50, .	0.5	27
27	Discord and Nonclassicality in Probabilistic Theories. Physical Review Letters, 2012, 108, 120502.	2.9	26
28	Thirring quantum cellular automaton. Physical Review A, 2018, 97, .	1.0	25
29	Quantum networks: General theory and applications. Acta Physica Slovaca, 2011, 61, .	1.4	24
30	Quantum from Principles. Fundamental Theories of Physics, 2016, , 171-221.	0.1	24
31	Optimal Quantum Tomography. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1646-1660.	1.9	23
32	Optimal realization of the transposition maps. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 314, 374-379.	0.9	22
33	Quantum Walks, Weyl Equation and the Lorentz Group. Foundations of Physics, 2017, 47, 1065-1076.	0.6	22
34	Optimal Data Processing for Quantum Measurements. Physical Review Letters, 2007, 98, 020403.	2.9	21
35	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
36	Doubly special relativity from quantum cellular automata. Europhysics Letters, 2015, 109, 50003.	0.7	20

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37	Quantum learning algorithms for quantum measurements. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3425-3434.	0.9	19
38	Special relativity in a discrete quantum universe. Physical Review A, 2016, 94, .	1.0	19
39	Quantum cellular automata and free quantum field theory. Frontiers of Physics, 2017, 12, 1.	2.4	19
40	Quantum universal detectors. Europhysics Letters, 2004, 65, 165-171.	0.7	18
41	Extremal quantum cloning machines. Physical Review A, 2005, 72, .	1.0	18
42	MAXIMUM LIKELIHOOD ESTIMATION FOR A GROUP OF PHYSICAL TRANSFORMATIONS. International Journal of Quantum Information, 2006, 04, 453-472.	0.6	17
43	Information-disturbance tradeoff in estimating a unitary transformation. Physical Review A, 2010, 82, .	1.0	17
44	Quantum walks with a one-dimensional coin. Physical Review A, 2016, 93, .	1.0	17
45	Causal Structures and the Classification of Higher Order Quantum Computations. Tutorials, Schools, and Workshops in the Mathematical Sciences, 2017, , 103-127.	0.3	17
46	Secret Quantum Communication of a Reference Frame. Physical Review Letters, 2007, 98, 120501.	2.9	16
47	Solutions of a Two-Particle Interacting Quantum Walk. Entropy, 2018, 20, 435.	1.1	16
48	Extremal quantum protocols. Journal of Mathematical Physics, 2011, 52, .	0.5	15
49	Determinism without causality. Physica Scripta, 2014, T163, 014013.	1.2	15
50	Improving quantum interferometry by using entanglement. Physical Review A, 2002, 65, .	1.0	14
51	Quantum error correction with degenerate codes for correlated noise. Physical Review A, 2011, 83, .	1.0	14
52	Weyl, Dirac and Maxwell Quantum Cellular Automata. Foundations of Physics, 2015, 45, 1203-1221.	0.6	14
53	Minimal computational-space implementation of multiround quantum protocols. Physical Review A, 2011, 83, .	1.0	13
54	Informational axioms for quantum theory. AIP Conference Proceedings, 2012, , .	0.3	13

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55	Classical theories with entanglement. Physical Review A, 2020, 101, .	1.0	13
56	Optimal quantum estimation of the coupling between two bosonic modes. Journal of Optics B: Quantum and Semiclassical Optics, 2001, 3, 337-340.	1.4	12
57	Optimal phase estimation for qubits in mixed states. Physical Review A, 2005, 72, .	1.0	12
58	No Signaling, Entanglement Breaking, and Localizability in Bipartite Channels. Physical Review Letters, 2011, 106, 010501.	2.9	12
59	Teleportation transfers only speakable quantum information. Physical Review A, 2012, 86, .	1.0	12
60	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
61	Optimal processing of reversible quantum channels. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 1797-1808.	0.9	12
62	Free Quantum Field Theory from Quantum Cellular Automata. Foundations of Physics, 2015, 45, 1137-1152.	0.6	12
63	Superbroadcasting of continuous variable mixed states. New Journal of Physics, 2006, 8, 99-99.	1.2	11
64	Universal and phase-covariant superbroadcasting for mixed qubit states. Physical Review A, 2006, 74, .	1.0	11
65	Discrete Feynman propagator for the Weyl quantum walk in 2 + 1 dimensions. Europhysics Letters, 2015, 109, 40012.	0.7	11
66	Applications of the group SU(1, 1) for quantum computation and tomography. Laser Physics, 2006, 16, 1572-1581.	0.6	10
67	Isotropic quantum walks on lattices and the Weyl equation. Physical Review A, 2017, 96, .	1.0	10
68	Informationally complete measurements on bipartite quantum systems: Comparing local with global measurements. Physical Review A, 2005, 72, .	1.0	9
69	Erasable and Unerasable Correlations. Physical Review Letters, 2007, 99, 070501.	2.9	9
70	Quantum walks, deformed relativity and Hopf algebra symmetries. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150232.	1.6	9
71	Classicality without local discriminability: Decoupling entanglement and complementarity. Physical Review A, 2020, 102, .	1.0	8
72	Cellular automata in operational probabilistic theories. Quantum - the Open Journal for Quantum Science, 0, 4, 294.	0.0	8

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73	Information and disturbance in operational probabilistic theories. Quantum - the Open Journal for Quantum Science, 0, 4, 363.	0.0	8
74	Fermionic State Discrimination by Local Operations and Classical Communication. Physical Review Letters, 2020, 125, 110403.	2.9	7
75	Superbroadcasting of conjugate quantum variables. Europhysics Letters, 2006, 75, 195-201.	0.7	6
76	Quantum-state decorrelation. Physical Review A, 2008, 77, .	1.0	6
77	Quantum conditional operations. Physical Review A, 2016, 94, .	1.0	6
78	Quantum Theory is an Information Theory. Foundations of Physics, 2016, 46, 269-281.	0.6	6
79	Isotropic phase squeezing and the arrow of time. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 268, 241-246.	0.9	5
80	Quantum no-stretching: A geometrical interpretation of the no-cloning theorem. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 2416-2419.	0.9	5
81	Cloning of a quantum measurement. Physical Review A, 2011, 84, .	1.0	5
82	Memory cost of quantum protocols. Physical Review A, 2012, 85, .	1.0	5
83	Discrete Time Dirac Quantum Walk in 3+1 Dimensions. Entropy, 2016, 18, 228.	1.1	5
84	Virtually Abelian quantum walks. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 035301.	0.7	5
85	Optimal covariant quantum networks. , 2009, , .		4
86	Scalar fermionic cellular automata on finite Cayley graphs. Physical Review A, 2018, 98, .	1.0	4
87	Optimal estimation of quantum observables. Journal of Mathematical Physics, 2006, 47, 022102.	0.5	3
88	Adaptive Bayesian and frequentist data processing for quantum tomography. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 1111-1115.	0.9	3
89	Path-sum solution of the Weyl quantum walk in 3 + 1 dimensions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160394.	1.6	3
90	Chirality from quantum walks without a quantum coin. Physical Review A, 2019, 100, .	1.0	3

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91	Symmetries of the Dirac quantum walk and emergence of the de Sitter group. Journal of Mathematical Physics, 2020, 61, 082202.	0.5	3
92	Unambiguous discrimination of fermionic states through local operations and classical communication. Physical Review A, 2021, 103, .	1.0	3
93	Superbroadcasting and classical information. Physical Review A, 2007, 75, .	1.0	2
94	Probability-fidelity tradeoffs for targeted quantum operations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 3011-3015.	0.9	2
95	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
96	The Dirac quantum automaton: a short review. Physica Scripta, 2014, T163, 014014.	1.2	2
97	Scattering and Perturbation Theory for Discrete-Time Dynamics. Physical Review Letters, 2021, 126, 250503.	2.9	2
98	On the realization of Bell observables. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 329, 188-192.	0.9	1
99	ON THE MOST EFFICIENT UNITARY TRANSFORMATION FOR PROGRAMMING QUANTUM CHANNELS. , 2007, , .		1
100	Quantum indirect estimation theory and joint estimate of all moments of two incompatible observables. Physical Review A, 2008, 77, .	1.0	1
101	Universality of computation in real quantum theory. Europhysics Letters, 2013, 104, 20006.	0.7	1
102	Quantum Information and Foundations. Entropy, 2020, 22, 22.	1.1	1
103	Shannon theory beyond quantum: Information content of a source. Physical Review A, 2022, 105, .	1.0	1
104	To take a (binary) decision you$rquot$d better use entanglement. Journal of Optics B: Quantum and Semiclassical Optics, 2002, 4, S277-S280.	1.4	0
105	Superbroadcasting of harmonic oscillators mixed states. Optics and Spectroscopy (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	0.2	0
106	Preface for the special issue, â€˜Second quantum revolution: foundational questionsâ€™. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160397.	1.6	0
107	Causal influence in operational probabilistic theories. Quantum - the Open Journal for Quantum Science, 0, 5, 515.	0.0	0