

Michał, Horodecki

List of Publications by Year in descending order

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121
papers

19,684
citations

61687

45
h-index

30277

107
g-index

121
all docs

121
docs citations

121
times ranked

7244
citing authors

#	ARTICLE	IF	CITATIONS
1	Epsilon-Nets, Unitary Designs, and Random Quantum Circuits. IEEE Transactions on Information Theory, 2022, 68, 989-1015.	1.5	10
2	Fluctuation-dissipation relations for thermodynamic distillation processes. Physical Review E, 2022, 105, .	0.8	1
3	Efficient Multi Port-Based Teleportation Schemes. IEEE Transactions on Information Theory, 2022, 68, 7892-7912.	1.5	10
4	Operational foundations for complementarity and uncertainty relations. Physical Review A, 2020, 101, .	1.0	8
5	Generalized XOR non-locality games with graph description on a square lattice. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 265302.	0.7	0
6	Quantum error-correction codes and absolutely maximally entangled states. Physical Review A, 2020, 101, .	1.0	11
7	Information-thermodynamics link revisited. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 204001.	0.7	13
8	A simplified formalism of the algebra of partially transposed permutation operators with applications. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 125202.	0.7	13
9	Optimal port-based teleportation. New Journal of Physics, 2018, 20, 053006.	1.2	24
10	Conditional uncertainty principle. Physical Review A, 2018, 97, .	1.0	12
11	Decomposability and convex structure of thermal processes. New Journal of Physics, 2018, 20, 053040.	1.2	15
12	Do black holes create polyamory?. Journal of High Energy Physics, 2018, 2018, 1.	1.6	5
13	A Sufficient Set of Experimentally Implementable Thermal Operations for Small Systems. Physical Review X, 2018, 8, .	2.8	23
14	Extremal distributions under approximate majorization. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 305301.	0.7	13
15	Port-based teleportation in arbitrary dimension. Scientific Reports, 2017, 7, 10871.	1.6	27
16	Measurement uncertainty from no-signaling and nonlocality. Physical Review A, 2017, 96, .	1.0	5
17	Amplifying the Randomness of Weak Sources Correlated With Devices. IEEE Transactions on Information Theory, 2017, 63, 7592-7611.	1.5	7
18	Randomness Amplification under Minimal Fundamental Assumptions on the Devices. Physical Review Letters, 2016, 117, 230501.	2.9	26

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19	Local Random Quantum Circuits are Approximate Polynomial-Designs. Communications in Mathematical Physics, 2016, 346, 397-434.	1.0	174
20	Realistic noise-tolerant randomness amplification using finite number of devices. Nature Communications, 2016, 7, 11345.	5.8	45
21	No Quantum Realization of Extremal No-Signaling Boxes. Physical Review Letters, 2016, 117, 050401.	2.9	11
22	Creating a Superposition of Unknown Quantum States. Physical Review Letters, 2016, 116, 110403.	2.9	43
23	Efficient Quantum Pseudorandomness. Physical Review Letters, 2016, 116, 170502.	2.9	35
24	Sharp transitions in low-number quantum dots Bayesian magnetometry. Scientific Reports, 2016, 6, 34327.	1.6	0
25	Quantum communication complexity advantage implies violation of a Bell inequality. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3191-3196.	3.3	34
26	Nonsignaling quantum random access-code boxes. Physical Review A, 2015, 92, .	1.0	8
27	Limitations on the Evolution of Quantum Coherences: Towards Fully Quantum Second Laws of Thermodynamics. Physical Review Letters, 2015, 115, 210403.	2.9	225
28	Simple scheme for encoding and decoding a qubit in unknown state for various topological codes. Scientific Reports, 2015, 5, 8975.	1.6	17
29	Operator space approach to steering inequality. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 135303.	0.7	7
30	The second laws of quantum thermodynamics. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3275-3279.	3.3	471
31	Construction and properties of a class of private states in arbitrary dimensions. Physical Review A, 2015, 91, .	1.0	0
32	Exponential Decay of Correlations Implies Area Law. Communications in Mathematical Physics, 2015, 333, 761-798.	1.0	71
33	Structure and properties of the algebra of partially transposed permutation operators. Journal of Mathematical Physics, 2014, 55, 032202.	0.5	12
34	Explicit constructions of unitary transformations between equivalent irreducible representations. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 505203.	0.7	5
35	Group-representation approach to quantum cloning machines. Physical Review A, 2014, 89, .	1.0	12
36	Free randomness amplification using bipartite chain correlations. Physical Review A, 2014, 90, .	1.0	20

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37	When Are Popescu-Rohrlich Boxes and Random Access Codes Equivalent?. Physical Review Letters, 2014, 113, 100401.	2.9	14
38	Long-distance quantum communication over noisy networks without long-time quantum memory. Physical Review A, 2014, 90, .	1.0	16
39	Bound entangled states with extremal properties. Physical Review A, 2014, 90, .	1.0	3
40	An area law for entanglement from exponential decay of correlations. Nature Physics, 2013, 9, 721-726.	6.5	90
41	Generalized Teleportation and Entanglement Recycling. Physical Review Letters, 2013, 110, 010505.	2.9	14
42	(QUANTUMNESS IN THE CONTEXT OF) RESOURCE THEORIES. International Journal of Modern Physics B, 2013, 27, 1345019.	1.0	211
43	Fundamental limitations for quantum and nanoscale thermodynamics. Nature Communications, 2013, 4, 2059.	5.8	550
44	Local random quantum circuits are approximate polynomial-designs: numerical results. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 305301.	0.7	13
45	Resource Theory of Quantum States Out of Thermal Equilibrium. Physical Review Letters, 2013, 111, 250404.	2.9	437
46	Conjectured strong complementary-correlations tradeoff. Physical Review A, 2013, 88, .	1.0	15
47	Commutant structure of $U^{\otimes n} - (U^{\otimes n-1})^{\otimes 2}$ transformations. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 395303.	0.7	10
48	Exponential quantum speed-ups are generic. Quantum Information and Computation, 2013, 13, 901-924.	0.1	17
49	Convergence to equilibrium under a random Hamiltonian. Physical Review E, 2012, 86, 031101.	0.8	53
50	Distillation of entanglement by projection on permutationally invariant subspaces. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 125303.	0.7	4
51	Region of fidelities for a universal qubit quantum cloner. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2178-2187.	0.9	13
52	Postulates for measures of genuine multipartite correlations. Physical Review A, 2011, 83, .	1.0	67
53	Low-dimensional quite noisy bound entanglement with a cryptographic key. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 035301.	0.7	3
54	A Few Steps More Towards NPT Bound Entanglement. IEEE Transactions on Information Theory, 2010, 56, 4085-4100.	1.5	33

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55	On Hastings' Counterexamples to the Minimum Output Entropy Additivity Conjecture. <i>Open Systems and Information Dynamics</i> , 2010, 17, 31-52.	0.5	43
56	Constructive counterexamples to the additivity of the minimum output Rényi entropy of quantum channels for all $p > 1$. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2010, 43, 425304.	0.7	18
57	Towards a Unified Approach to Information-Disturbance Tradeoffs in Quantum Measurements. <i>Open Systems and Information Dynamics</i> , 2009, 16, 29-48.	0.5	23
58	General Paradigm for Distilling Classical Key From Quantum States. <i>IEEE Transactions on Information Theory</i> , 2009, 55, 1898-1929.	1.5	99
59	Squashed Entanglement for Multipartite States and Entanglement Measures Based on the Mixed Convex Roof. <i>IEEE Transactions on Information Theory</i> , 2009, 55, 3375-3387.	1.5	69
60	Quantum entanglement. <i>Reviews of Modern Physics</i> , 2009, 81, 865-942.	16.4	6,975
61	Reversible path to thermodynamics. <i>Nature Physics</i> , 2008, 4, 833-834.	6.5	16
62	Low-Dimensional Bound Entanglement With One-Way Distillable Cryptographic Key. <i>IEEE Transactions on Information Theory</i> , 2008, 54, 2621-2625.	1.5	56
63	Quantum Key Distribution Based on Private States: Unconditional Security Over Untrusted Channels With Zero Quantum Capacity. <i>IEEE Transactions on Information Theory</i> , 2008, 54, 2604-2620.	1.5	53
64	Quantum Coding Theorem from Privacy and Distinguishability. <i>Open Systems and Information Dynamics</i> , 2008, 15, 47-69.	0.5	11
65	A Decoupling Approach to the Quantum Capacity. <i>Open Systems and Information Dynamics</i> , 2008, 15, 7-19.	0.5	107
66	Entanglement-redistribution boxes. <i>Physical Review A</i> , 2008, 78, .	1.0	0
67	An Additive and Operational Entanglement Measure: Conditional Entanglement of Mutual Information. <i>Physical Review Letters</i> , 2008, 101, 140501.	2.9	58
68	Entanglement-swapping boxes and their communication properties. <i>Physical Review A</i> , 2008, 77, .	1.0	3
69	Global Information Balance in Quantum Measurements. <i>Physical Review Letters</i> , 2008, 100, 210504.	2.9	76
70	Unifying Classical and Quantum Key Distillation. , 2007, , 456-478.		34
71	QUANTUMNESS OF ENSEMBLE FROM NO-BROADCASTING PRINCIPLE. <i>International Journal of Quantum Information</i> , 2006, 04, 105-118.	0.6	16
72	On asymptotic continuity of functions of quantum states. <i>Journal of Physics A</i> , 2006, 39, L423-L437.	1.6	46

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73	Separability of Mixed Quantum States: Linear Contractions and Permutation Criteria. Open Systems and Information Dynamics, 2006, 13, 103-111.	0.5	78
74	Quantum State Merging and Negative Information. Communications in Mathematical Physics, 2006, 269, 107-136.	1.0	199
75	Partial quantum information. Nature, 2005, 436, 673-676.	13.7	345
76	Information Theories with Adversaries, Intrinsic Information, and Entanglement. Foundations of Physics, 2005, 35, 2027-2040.	0.6	13
77	Common Origin of No-Cloning and No-Deleting Principles Conservation of Information. Foundations of Physics, 2005, 35, 2041-2049.	0.6	19
78	Simplifying Monotonicity Conditions for Entanglement Measures. Open Systems and Information Dynamics, 2005, 12, 231-237.	0.5	35
79	Characterization of Combinatorially Independent Permutation Separability Criteria. Open Systems and Information Dynamics, 2005, 12, 331-345.	0.5	37
80	The Universal Composable Security of Quantum Key Distribution. Lecture Notes in Computer Science, 2005, , 386-406.	1.0	109
81	How to reuse a one-time pad and other notes on authentication, encryption, and protection of quantum information. Physical Review A, 2005, 72, .	1.0	24
82	Locking Entanglement with a Single Qubit. Physical Review Letters, 2005, 94, 200501.	2.9	45
83	Secure Key from Bound Entanglement. Physical Review Letters, 2005, 94, 160502.	2.9	256
84	Bounds on localizable information via semidefinite programming. Journal of Mathematical Physics, 2005, 46, 082107.	0.5	6
85	Irreversibility for All Bound Entangled States. Physical Review Letters, 2005, 95, 190501.	2.9	66
86	A UNIVERSAL QUANTUM ESTIMATOR. International Journal of Quantum Information, 2005, 03, 123-132.	0.6	0
87	Local versus nonlocal information in quantum-information theory: Formalism and phenomena. Physical Review A, 2005, 71, .	1.0	389
88	A UNIVERSAL QUANTUM ESTIMATOR. , 2005, , .		0
89	Optimal strategy for a single-qubit gate and the trade-off between opposite types of decoherence. Physical Review A, 2004, 70, .	1.0	51
90	Distillation Protocols: Output Entanglement and Local Mutual Information. Physical Review Letters, 2004, 93, 170503.	2.9	26

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91	Thermodynamics of Quantum Information Systems – Hamiltonian Description. Open Systems and Information Dynamics, 2004, 11, 205-217.	0.5	96
92	Locking Classical Correlations in Quantum States. Physical Review Letters, 2004, 92, 067902.	2.9	189
93	Reversible transformations from pure to mixed states and the unique measure of information. Physical Review A, 2003, 67, .	1.0	172
94	Local Indistinguishability: More Nonlocality with Less Entanglement. Physical Review Letters, 2003, 90, 047902.	2.9	181
95	Mutually exclusive aspects of information carried by physical systems: Complementarity between local and nonlocal information. Physical Review A, 2003, 68, .	1.0	38
96	Local Information as a Resource in Distributed Quantum Systems. Physical Review Letters, 2003, 90, 100402.	2.9	135
97	DIRECT DETECTION OF QUANTUM ENTANGLEMENT. , 2003, , .		1
98	Are the Laws of Entanglement Theory Thermodynamical?. Physical Review Letters, 2002, 89, 240403.	2.9	83
99	Dynamical description of quantum computing: Generic nonlocality of quantum noise. Physical Review A, 2002, 65, .	1.0	82
100	Thermodynamical Approach to Quantifying Quantum Correlations. Physical Review Letters, 2002, 89, 180402.	2.9	442
101	Concurrence in arbitrary dimensions. Journal of Modern Optics, 2002, 49, 1289-1297.	0.6	46
102	The uniqueness theorem for entanglement measures. Journal of Mathematical Physics, 2002, 43, 4252-4272.	0.5	154
103	Balance of information in bipartite quantum-communication systems: Entanglement-energy analogy. Physical Review A, 2001, 63, .	1.0	18
104	The asymptotic entanglement cost of preparing a quantum state. Journal of Physics A, 2001, 34, 6891-6898.	1.6	220
105	Compression of Quantum Information. Fortschritte Der Physik, 2001, 49, 667-722.	1.5	2
106	Entanglement measures. Quantum Information and Computation, 2001, 1, 3-26.	0.1	83
107	Asymptotic Manipulations of Entanglement Can Exhibit Genuine Irreversibility. Physical Review Letters, 2000, 84, 4260-4263.	2.9	33
108	Local environment can enhance fidelity of quantum teleportation. Physical Review A, 2000, 62, .	1.0	140

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109	Unified Approach to Quantum Capacities: Towards Quantum Noisy Coding Theorem. Physical Review Letters, 2000, 85, 433-436.	2.9	52
110	Limits for Entanglement Measures. Physical Review Letters, 2000, 84, 2014-2017.	2.9	283
111	Binding entanglement channels. Journal of Modern Optics, 2000, 47, 347-354.	0.6	58
112	Einstein-Podolsky-Rosen paradox without entanglement. Physical Review A, 1999, 60, 4144-4145.	1.0	13
113	General teleportation channel, singlet fraction, and quasidistillation. Physical Review A, 1999, 60, 1888-1898.	1.0	713
114	Mixed-State Entanglement and Distillation: Is there a "Bound" Entanglement in Nature?. Physical Review Letters, 1998, 80, 5239-5242.	2.9	942
115	Limits for compression of quantum information carried by ensembles of mixed states. Physical Review A, 1998, 57, 3364-3369.	1.0	47
116	Separability of mixed states: necessary and sufficient conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 223, 1-8.	0.9	3,050
117	Second law of thermodynamics for batteries with vacuum state. Quantum - the Open Journal for Quantum Science, 0, 5, 408.	0.0	5
118	Zero-knowledge convincing protocol on quantum bit is impossible. Quantum - the Open Journal for Quantum Science, 0, 1, 41.	0.0	2
119	Gadget structures in proofs of the Kochen-Specker theorem. Quantum - the Open Journal for Quantum Science, 0, 4, 308.	0.0	8
120	Thermodynamics of Minimal Coupling Quantum Heat Engines. Quantum - the Open Journal for Quantum Science, 0, 4, 375.	0.0	11
121	Multipoint based teleportation " transmission of a large amount of quantum information. Quantum - the Open Journal for Quantum Science, 0, 5, 576.	0.0	8