Mario A Berta

List of Publications by Year
in descending order

62 papers	2,707 citations	236925 25 h-index	189892 50 g-index
63 all docs	63 docs citations	63 times ranked	1380 citing authors

#	Article	IF	Citations
1	The uncertainty principle in the presence of quantum memory. Nature Physics, 2010, 6, 659-662.	16.7	611
2	Entropic uncertainty relations and their applications. Reviews of Modern Physics, 2017, 89, .	45.6	378
3	Continuous Variable Quantum Key Distribution: Finite-Key Analysis of Composable Security against Coherent Attacks. Physical Review Letters, 2012, 109, 100502.	7.8	237
4	The Quantum Reverse Shannon Theorem Based on One-Shot Information Theory. Communications in Mathematical Physics, 2011, 306, 579-615.	2.2	131
5	Converse Bounds for Private Communication Over Quantum Channels. IEEE Transactions on Information Theory, 2017, 63, 1792-1817.	2.4	98
6	One-Shot Decoupling. Communications in Mathematical Physics, 2014, 328, 251-284.	2.2	76
7	Multivariate Trace Inequalities. Communications in Mathematical Physics, 2017, 352, 37-58.	2.2	65
8	Entropic uncertainty and measurement reversibility. New Journal of Physics, 2016, 18, 073004.	2.9	60
9	Relating different quantum generalizations of the conditional Rényi entropy. Journal of Mathematical Physics, 2014, 55, .	1.1	58
10	Gaussian Hypothesis Testing and Quantum Illumination. Physical Review Letters, 2017, 119, 120501.	7.8	57
11	Entanglement Cost of Quantum Channels. IEEE Transactions on Information Theory, 2013, 59, 6779-6795.	2.4	51
12	Rényi generalizations of the conditional quantum mutual information. Journal of Mathematical Physics, 2015, 56, .	1.1	51
13	Quantum coding with finite resources. Nature Communications, 2016, 7, 11419.	12.8	50
14	Entanglement-assisted guessing of complementary measurement outcomes. Physical Review A, 2014, 90, .	2.5	48
15	Position-momentum uncertainty relations in the presence of quantum memory. Journal of Mathematical Physics, 2014, 55, .	1.1	46
16	Min-entropy uncertainty relation for finite-size cryptography. Physical Review A, 2012, 86, .	2.5	45
17	Amortized channel divergence for asymptotic quantum channel discrimination. Letters in Mathematical Physics, 2020, 110, 2277-2336.	1.1	45
18	Identifying the Information Gain of a Quantum Measurement. IEEE Transactions on Information Theory, 2014, 60, 7987-8006.	2.4	40

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19	On variational expressions for quantum relative entropies. Letters in Mathematical Physics, 2017, 107, 2239-2265.	1.1	39
20	The Fidelity of Recovery Is Multiplicative. IEEE Transactions on Information Theory, 2016, 62, 1758-1763.	2.4	30
21	Rényi squashed entanglement, discord, and relative entropy differences. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 395303.	2.1	29
22	Catalytic Decoupling of Quantum Information. Physical Review Letters, 2017, 118, 080503.	7.8	28
23	Smooth Entropy Bounds on One-Shot Quantum State Redistribution. IEEE Transactions on Information Theory, 2016, 62, 1425-1439.	2.4	27
24	Amortization does not enhance the max-Rains information of a quantum channel. New Journal of Physics, 2018, 20, 053044.	2.9	27
25	Thermodynamic Capacity of Quantum Processes. Physical Review Letters, 2019, 122, 200601.	7.8	27
26	Rényi Divergences as Weighted Non-commutative Vector-Valued $$L_p$$ L p -Spaces. Annales Henri Poincare, 2018, 19, 1843-1867.	1.7	26
27	Quantum Channel Simulation and the Channel's Smooth Max-Information. IEEE Transactions on Information Theory, 2020, 66, 2129-2140.	2.4	26
28	Rényi generalizations of quantum information measures. Physical Review A, 2015, 91, .	2.5	22
29	The smooth entropy formalism for von Neumann algebras. Journal of Mathematical Physics, 2016, 57, .	1.1	22
30	Quantum to Classical Randomness Extractors. IEEE Transactions on Information Theory, 2014, 60, 1168-1192.	2.4	20
31	Randomized Quantum Algorithm for Statistical Phase Estimation. Physical Review Letters, 2022, 129, .	7.8	19
32	Disentanglement Cost of Quantum States. Physical Review Letters, 2018, 121, 190503.	7.8	18
33	Partially Smoothed Information Measures. IEEE Transactions on Information Theory, 2020, 66, 5022-5036.	2.4	17
34	Monotonicity of quantum relative entropy and recoverability. Quantum Information and Computation, 2015, 15, 1333-1354.	0.3	17
35	Quantum Bilinear Optimization. SIAM Journal on Optimization, 2016, 26, 1529-1564.	2.0	15
36	Deconstruction and conditional erasure of quantum correlations. Physical Review A, 2018, 98, .	2.5	15

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37	Conditional Decoupling of Quantum Information. Physical Review Letters, 2018, 121, 040504.	7.8	15
38	Computing Quantum Channel Capacities. IEEE Transactions on Information Theory, 2021, 67, 946-960.	2.4	13
39	Quantum to Classical Randomness Extractors. Lecture Notes in Computer Science, 2012, , 776-793.	1.3	10
40	Thermal states as convex combinations of matrix product states. Physical Review B, 2018, 98, .	3.2	10
41	Entanglement-assisted capacities of compound quantum channels. IEEE Transactions on Information Theory, 2017, , 1-1.	2.4	9
42	A minimax approach to one-shot entropy inequalities. Journal of Mathematical Physics, 2019, 60, 122201.	1.1	9
43	Variations on classical and quantum extractors. , 2014, , .		8
44	Semidefinite programming hierarchies for constrained bilinear optimization. Mathematical Programming, 2022, 194, 781-829.	2.4	8
45	On Composite Quantum Hypothesis Testing. Communications in Mathematical Physics, 2021, 385, 55-77.	2.2	8
46	Entanglement cost of quantum channels. , 2012, , .		5
47	Quantum-Proof Randomness Extractors via Operator Space Theory. IEEE Transactions on Information Theory, 2017, 63, 2480-2503.	2.4	5
48	Exploiting variational formulas for quantum relative entropy. , 2016, , .		3
49	Quantum Markov chains and logarithmic trace inequalities. , 2017, , .		3
50	Quantum Channel Simulation and the Channel's Smooth Max-Information. , 2018, , .		3
51	Quantum Blahut-Arimoto Algorithms. , 2020, , .		3
52	Thermodynamic Implementations of Quantum Processes. Communications in Mathematical Physics, 2021, 384, 1709-1750.	2.2	3
53	A duality relation connecting different quantum generalizations of the conditional Rényi entropy. , 2014, , .		2
54	A meta-converse for private communication over quantum channels. , 2017, , .		2

#	Article	IF	Citations
55	Non-Additivity in Classical-Quantum Wiretap Channels. IEEE Journal on Selected Areas in Information Theory, 2020, 1, 526-535.	2.5	2
56	Resource distillation in convex Gaussian resource theories. Physical Review A, 2021, 103, .	2.5	2
57	Identifying the information gain of a quantum measurement. , 2014, , .		1
58	A Conceptually Simple Proof of the Quantum Reverse Shannon Theorem. Lecture Notes in Computer Science, 2011, , 131-140.	1.3	1
59	Strong Converse Bound on the Two-Way Assisted Quantum Capacity. , 2018, , .		0
60	Second-Order Characterizations via Partial Smoothing. , 2019, , .		0
61	Quantum Coding via Semidefinite Programming. , 2019, , .		0
62	Moderate Deviation Analysis for Quantum State Transfer. , 2021, , .		0