Francesco Buscemi

List of Publications by Year
in descending order

66	1,850	304743	289244
papers	citations	22 h-index	40 g-index

67	67	67	1005
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	All Entangled Quantum States Are Nonlocal. Physical Review Letters, 2012, 108, 200401.	7.8	155
2	The Quantum Capacity of Channels With Arbitrarily Correlated Noise. IEEE Transactions on Information Theory, 2010, 56, 1447-1460.	2.4	124
3	Noise and Disturbance in Quantum Measurements: An Information-Theoretic Approach. Physical Review Letters, 2014, 112, 050401.	7.8	111
4	Quantum majorization and a complete set of entropic conditions for quantum thermodynamics. Nature Communications, 2018, 9, 5352.	12.8	87
5	Economical phase-covariant cloning of qudits. Physical Review A, 2005, 71, .	2.5	84
6	Complete Positivity, Markovianity, and the Quantum Data-Processing Inequality, in the Presence of Initial System-Environment Correlations. Physical Review Letters, 2014, 113, 140502.	7.8	80
7	Global Information Balance in Quantum Measurements. Physical Review Letters, 2008, 100, 210504.	7.8	76
8	Resource Theory of Quantum Memories and Their Faithful Verification with Minimal Assumptions. Physical Review X, 2018, 8, .	8.9	67
9	Clean positive operator valued measures. Journal of Mathematical Physics, 2005, 46, 082109.	1.1	64
10	Equivalence between divisibility and monotonic decrease of information in classical and quantum stochastic processes. Physical Review A, 2016, 93, .	2.5	64
11	Inverting Quantum Decoherence by Classical Feedback from the Environment. Physical Review Letters, 2005, 95, 090501.	7.8	60
12	Polygamy of distributed entanglement. Physical Review A, 2009, 80, .	2.5	53
13	Comparison of Quantum Statistical Models: Equivalent Conditions for Sufficiency. Communications in Mathematical Physics, 2012, 310, 625-647.	2.2	48
14	The information-theoretic costs of simulating quantum measurements. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 453001.	2.1	44
15	Approximate reversibility in the context of entropy gain, information gain, and complete positivity. Physical Review A, 2016, 93, .	2.5	41
16	Quantum relative Lorenz curves. Physical Review A, 2017, 95, .	2.5	41
17	Distilling entanglement from arbitrary resources. Journal of Mathematical Physics, 2010, 51, .	1.1	40
18	Experimental Test of Entropic Noise-Disturbance Uncertainty Relations for Spin-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:math>Measure Physical Review Letters, 2015, 115, 030401.	7.8	38

#	Article	IF	Citations
19	Entanglement Cost in Practical Scenarios. Physical Review Letters, 2011, 106, 130503.	7.8	35
20	The type-independent resource theory of local operations and shared randomness. Quantum - the Open Journal for Quantum Science, 0, 4, 262.	0.0	35
21	Complete Resource Theory of Quantum Incompatibility as Quantum Programmability. Physical Review Letters, 2020, 124, 120401.	7.8	33
22	Degradable channels, less noisy channels, and quantum statistical morphisms: An equivalence relation. Problems of Information Transmission, 2016, 52, 201-213.	0.5	28
23	Information-disturbance trade-off in quantum-state discrimination. Physical Review A, 2006, 74, .	2.5	26
24	Towards a Unified Approach to Information-Disturbance Tradeoffs in Quantum Measurements. Open Systems and Information Dynamics, 2009, 16, 29-48.	1.2	23
25	Optimal realization of the transposition maps. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 314, 374-379.	2.1	22
26	No-Hypersignaling Principle. Physical Review Letters, 2017, 119, 020401.	7.8	22
27	An information-theoretic treatment of quantum dichotomies. Quantum - the Open Journal for Quantum Science, 0, 3, 209.	0.0	22
28	On the minimum number of unitaries needed to describe a random-unitary channel. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 360, 256-258.	2.1	21
29	Device-independent tests of quantum channels. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160721.	2.1	20
30	Fluctuation theorems from Bayesian retrodiction. Physical Review E, 2021, 103, 052111.	2.1	20
31	Channel Correction via Quantum Erasure. Physical Review Letters, 2007, 99, 180501.	7.8	19
32	Device-Independent Tests of Quantum Measurements. Physical Review Letters, 2017, 118, 250501.	7.8	19
33	Physical realizations of quantum operations. Physical Review A, 2003, 68, .	2.5	18
34	Game-theoretic characterization of antidegradable channels. Journal of Mathematical Physics, 2014, 55, .	1.1	17
35	General Theory of Environment-Assisted Entanglement Distillation. IEEE Transactions on Information Theory, 2013, 59, 1940-1954.	2.4	16
36	Type-Independent Characterization of Spacelike Separated Resources. Physical Review Letters, 2020, 125, 210402.	7.8	16

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37	Coherence manipulation with dephasing-covariant operations. Physical Review Research, 2020, 2, .	3.6	15
38	Fluctuation theorems with retrodiction rather than reverse processes. AVS Quantum Science, 2021, 3, .	4.9	15
39	Tight bounds on accessible information and informational power. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 235302.	2.1	14
40	Universal and phase-covariant superbroadcasting for mixed qubit states. Physical Review A, 2006, 74, .	2.5	11
41	General state transitions with exact resource morphisms: a unified resource-theoretic approach. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 445303.	2.1	10
42	Entanglement measures and approximate quantum error correction. Physical Review A, 2008, 77, .	2.5	9
43	Private quantum decoupling and secure disposal of information. New Journal of Physics, 2009, 11, 123002.	2.9	8
44	Universal optimal quantum correlator. International Journal of Quantum Information, 2014, 12, 1560002.	1.1	8
45	There Exist Nonorthogonal Quantum Measurements that are Perfectly Repeatable. Physical Review Letters, 2004, 92, 070403.	7.8	7
46	Extension of the Alberti-Ulhmann criterion beyond qubit dichotomies. Quantum - the Open Journal for Quantum Science, 0, 4, 233.	0.0	7
47	Quantum Erasure of Decoherence. Open Systems and Information Dynamics, 2007, 14, 53-61.	1.2	6
48	Experimental semi-device-independent tests of quantum channels. Quantum Science and Technology, 2019, 4, 035004.	5.8	6
49	Thermodynamic reverse bounds for general open quantum processes. Physical Review A, 2020, 102, .	2.5	6
50	Optimal time reversal of multiphase equatorial states. Physical Review A, 2005, 72, .	2.5	5
51	Comparison of noisy channels and reverse data-processing theorems. , 2017, , .		4
52	Data-driven inference of physical devices: theory and implementation. New Journal of Physics, 2019, 21, 113029.	2.9	4
53	Reverse Data-Processing Theorems and Computational Second Laws. Springer Proceedings in Mathematics and Statistics, 2018, , 135-159.	0.2	4
54	Thermodynamic Constraints on Quantum Information Gain and Error Correction: A Triple Trade-Off. PRX Quantum, 2022, 3, .	9.2	4

#	Article	IF	Citations
55	Economical realization of phase-covariant devices in arbitrary dimensions (Invited). Journal of the Optical Society of America B: Optical Physics, 2007, 24, 363.	2.1	3
56	Unitary realizations of the ideal phase measurement. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 312, 315-318.	2.1	2
57	Superbroadcasting and classical information. Physical Review A, 2007, 75, .	2.5	2
58	Unified approach to witness non-entanglement-breaking quantum channels. Physical Review A, 2020, 101, .	2.5	2
59	Data-driven inference, reconstruction, and observational completeness of quantum devices. Physical Review A, 2020, 102, .	2.5	2
60	Guesswork of a Quantum Ensemble. IEEE Transactions on Information Theory, 2022, 68, 3139-3143.	2.4	2
61	A Minimum-Disturbing Quantum State Discriminator. Open Systems and Information Dynamics, 2007, 14, 17-24.	1.2	1
62	Proposal of an eavesdropping experiment for BB84 QKD protocol with 1â†'3 phase-covariant quantum doner. , 2009, , .		1
63	Tradeoff Relations Between Accessible Information, Informational Power, and Purity. IEEE Transactions on Information Theory, 2019, 65, 2614-2622.	2.4	1
64	Explicit Construction of Optimal Witnesses for Input-Output Correlations Attainable by Quantum Channels. Open Systems and Information Dynamics, 2020, 27, 2050017.	1.2	1
65	INFORMATION EXTRACTION VERSUS IRREVERSIBILITY IN QUANTUM MEASUREMENT PROCESSES. International Journal of Quantum Information, 2008, 06, 613-619.	1.1	0
66	Irreversibility of Entanglement Loss. Lecture Notes in Computer Science, 2008, , 16-28.	1.3	0