

Chiara Macchiavello

List of Publications by Year in descending order

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102
papers

5,277
citations

126708

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85405

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104
all docs

104
docs citations

104
times ranked

2417
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum neural network autoencoder and classifier applied to an industrial case study. Quantum Machine Intelligence, 2022, 4, .	2.7	4
2	Variational Learning for Quantum Artificial Neural Networks. IEEE Transactions on Quantum Engineering, 2021, 2, 1-10.	2.9	19
3	Experimental lower bounds to the classical capacity of quantum channels. Physical Review A, 2021, 103, .	1.0	2
4	Optimal entanglement witnesses from limited local measurements. Physical Review A, 2020, 101, .	1.0	6
5	Bounding the Classical Capacity of Multilevel Damping Quantum Channels. Advanced Quantum Technologies, 2020, 3, 2000013.	1.8	2
6	Ancilla-assisted schemes are beneficial for Gaussian state phase estimation. Physical Review A, 2020, 101, .	1.0	3
7	Quantum implementation of an artificial feed-forward neural network. Quantum Science and Technology, 2020, 5, 044010.	2.6	46
8	Quantum computing model of an artificial neuron with continuously valued input data. Machine Learning: Science and Technology, 2020, 1, 045008.	2.4	21
9	Variational learning for quantum artificial neural networks. , 2020, , .		12
10	Efficient Accessible Bounds to the Classical Capacity of Quantum Channels. Physical Review Letters, 2019, 123, 090503.	2.9	7
11	An artificial neuron implemented on an actual quantum processor. Npj Quantum Information, 2019, 5, .	2.8	160
12	Cryptographic quantum metrology. Physical Review A, 2019, 99, .	1.0	17
13	Experimental ancilla-assisted phase estimation in a noisy channel. Physical Review A, 2018, 97, .	1.0	9
14	Mixed-state certification of quantum capacities for noisy communication channels. Physical Review A, 2018, 97, .	1.0	3
15	Noise-dependent optimal strategies for quantum metrology. Physical Review A, 2018, 97, .	1.0	15
16	Multipartite steering inequalities based on entropic uncertainty relations. Physical Review A, 2018, 97, .	1.0	28
17	Tight entropic uncertainty relations for systems with dimension three to five. Physical Review A, 2017, 95, .	1.0	30
18	Detecting Non-Markovianity of Quantum Evolution via Spectra of Dynamical Maps. Physical Review Letters, 2017, 118, 080404.	2.9	49

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19	Multipartite correlations in mutually unbiased bases. <i>Physical Review A</i> , 2017, 95, .	1.0	13
20	Experimental Detection of Quantum Channel Capacities. <i>Physical Review Letters</i> , 2017, 119, 100502.	2.9	29
21	Digital Quantum Estimation. <i>Physical Review Letters</i> , 2017, 119, 200502.	2.9	11
22	Detection of Properties and Capacities of Quantum Channels. <i>Open Systems and Information Dynamics</i> , 2017, 24, 1740013.	0.5	2
23	Multi-partite entanglement can speed up quantum key distribution in networks. <i>New Journal of Physics</i> , 2017, 19, 093012.	1.2	110
24	Witnessing quantum capacities of correlated channels. <i>Physical Review A</i> , 2016, 94, .	1.0	15
25	Efficient superdense coding in the presence of non-Markovian noise. <i>Europhysics Letters</i> , 2016, 114, 10005.	0.7	46
26	Dynamical memory effects in correlated quantum channels. <i>Physical Review A</i> , 2016, 94, .	1.0	33
27	Usefulness of entanglement-assisted quantum metrology. <i>Physical Review A</i> , 2016, 94, .	1.0	51
28	Detecting Lower Bounds to Quantum Channel Capacities. <i>Physical Review Letters</i> , 2016, 116, 140501.	2.9	20
29	High-dimensional entanglement certification. <i>Scientific Reports</i> , 2016, 6, 27637.	1.6	10
30	Information transmission over an amplitude damping channel with an arbitrary degree of memory. <i>Physical Review A</i> , 2015, 92, .	1.0	14
31	Experimental Generation of Robust Entanglement from Classical Correlations via Local Dissipation. <i>Physical Review Letters</i> , 2015, 115, 160503.	2.9	16
32	Complementarity and Correlations. <i>Physical Review Letters</i> , 2015, 114, 130401.	2.9	32
33	Entanglement and nonclassical properties of hypergraph states. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 335303.	0.7	45
34	Witnessing entanglement in hybrid systems. <i>Physical Review A</i> , 2014, 90, .	1.0	3
35	Randomized graph states and their entanglement properties. <i>Physical Review A</i> , 2014, 89, .	1.0	13
36	Entanglement detection by Bragg scattering. <i>Physical Review A</i> , 2013, 87, .	1.0	5

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37	Quantum hypergraph states. <i>New Journal of Physics</i> , 2013, 15, 113022.	1.2	118
38	Experimental achievement of the entanglement-assisted capacity for the depolarizing channel. <i>Physical Review A</i> , 2013, 87, .	1.0	12
39	Experimental Detection of Quantum Channels. <i>Physical Review Letters</i> , 2013, 111, 220501.	2.9	22
40	Quantum error correction with degenerate codes for correlated noise. <i>Physical Review A</i> , 2011, 83, .	1.0	14
41	Experimental Realization of Optimal Noise Estimation for a General Pauli Channel. <i>Physical Review Letters</i> , 2011, 107, 253602.	2.9	51
42	Recovering quantum information through partial access to the environment. <i>New Journal of Physics</i> , 2011, 13, 103031.	1.2	15
43	Quantum computing and entanglement. , 2011, , 178-217.		0
44	Hyperentangled Mixed Phased Dicke States: Optical Design and Detection. <i>Physical Review Letters</i> , 2010, 105, 250501.	2.9	29
45	Multipartite Entanglement Detection via Structure Factors. <i>Physical Review Letters</i> , 2009, 103, 100502.	2.9	65
46	Estimation Strategies for Finite Dimensional Systems. <i>International Journal of Theoretical Physics</i> , 2008, 47, 2133-2140.	0.5	0
47	Qubit channels with small correlations. <i>Physical Review A</i> , 2008, 77, .	1.0	12
48	Publisher's Note: Qubit channels with small correlations [Phys. Rev. A77, 052323 (2008)]. <i>Physical Review A</i> , 2008, 77, .	1.0	0
49	Optimal phase estimation in quantum networks. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 7971-7984.	0.7	8
50	Superbroadcasting and classical information. <i>Physical Review A</i> , 2007, 75, .	1.0	2
51	Optimal Quantum Circuits for General Phase Estimation. <i>Physical Review Letters</i> , 2007, 98, 090501.	2.9	68
52	Economical realization of phase-covariant devices in arbitrary dimensions (Invited). <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 363.	0.9	3
53	DENSE CODING WITH MULTIPARTITE QUANTUM STATES. <i>International Journal of Quantum Information</i> , 2006, 04, 415-428.	0.6	48
54	EFFECTS OF NOISE ON SPIN NETWORK CLONING. <i>International Journal of Quantum Information</i> , 2006, 04, 487-493.	0.6	0

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55	Universal and phase-covariant superbroadcasting for mixed qubit states. <i>Physical Review A</i> , 2006, 74, .	1.0	11
56	INFORMATION TRANSMISSION VIA ENTANGLED QUANTUM STATES IN GAUSSIAN CHANNELS WITH MEMORY. <i>International Journal of Quantum Information</i> , 2006, 04, 439-452.	0.6	4
57	How the First Partial Transpose was Written. <i>Foundations of Physics</i> , 2005, 35, 1921-1926.	0.6	5
58	QUANTUM ERROR CORRECTION DRIVEN ENTANGLEMENT DYNAMICS IN THE PRESENCE OF CORRELATED NOISE. <i>International Journal of Quantum Information</i> , 2005, 03, 207-211.	0.6	1
59	Economical phase-covariant cloning of qudits. <i>Physical Review A</i> , 2005, 71, .	1.0	84
60	Optimal time reversal of multiphase equatorial states. <i>Physical Review A</i> , 2005, 72, .	1.0	5
61	Optimal phase estimation for qubits in mixed states. <i>Physical Review A</i> , 2005, 72, .	1.0	12
62	Cloning transformations in spin networks without external control. <i>Physical Review A</i> , 2005, 72, .	1.0	25
63	Quantum entanglement enhances the capacity of bosonic channels with memory. <i>Physical Review A</i> , 2005, 72, .	1.0	59
64	Superbroadcasting of Mixed States. <i>Physical Review Letters</i> , 2005, 95, 060503.	2.9	46
65	IMPOSSIBILITY OF PERFECT QUANTUM SEALING OF CLASSICAL INFORMATION. <i>International Journal of Quantum Information</i> , 2005, 03, 435-440.	0.6	10
66	Multipartite entanglement in quantum spin chains. <i>Physical Review A</i> , 2005, 72, .	1.0	63
67	Quantum cloning in spin networks. <i>Physical Review A</i> , 2004, 70, .	1.0	60
68	Transition behavior in the channel capacity of two-qubit channels with memory. <i>Physical Review A</i> , 2004, 69, .	1.0	86
69	On the role of entanglement in quantum information. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 338, 68-75.	1.2	8
70	Distributed Quantum Dense Coding. <i>Physical Review Letters</i> , 2004, 93, 210501.	2.9	130
71	Experimental Purification of Single Qubits. <i>Physical Review Letters</i> , 2004, 93, 170501.	2.9	37
72	Entanglement production by quantum error correction in the presence of correlated environment. <i>Europhysics Letters</i> , 2004, 67, 714-720.	0.7	4

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73	On the Entanglement Structure in Quantum Cloning. Foundations of Physics, 2003, 33, 1617-1628.	0.6	23
74	Security aspects of quantum cryptography with D-dimensional systems. Journal of Modern Optics, 2003, 50, 1025-1033.	0.6	1
75	Optimal phase-covariant cloning for qubits and qutrits. Physical Review A, 2003, 67, .	1.0	94
76	Optimal estimation of multiple phases. Physical Review A, 2003, 67, .	1.0	41
77	Tomographic Quantum Cryptography: Equivalence of Quantum and Classical Key Distillation. Physical Review Letters, 2003, 91, 097901.	2.9	29
78	Experimental detection of entanglement via witness operators and local measurements. Journal of Modern Optics, 2003, 50, 1079-1102.	0.6	8
79	Entanglement-enhanced information transmission over a quantum channel with correlated noise. Physical Review A, 2002, 65, .	1.0	217
80	Quantum statistics of photon cloning machines. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 283, 15-19.	0.9	1
81	Joint measurements via quantum cloning. Journal of Optics B: Quantum and Semiclassical Optics, 2001, 3, 44-50.	1.4	22
82	Optimal cloning for two pairs of orthogonal states. Journal of Physics A, 2001, 34, 6815-6819.	1.6	27
83	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
84	Bounds on the efficiency of cloning for two-state quantum systems. Journal of Optics B: Quantum and Semiclassical Optics, 2000, 2, 144-148.	1.4	8
85	Phase-covariant quantum cloning. Physical Review A, 2000, 62, .	1.0	266
86	Quantum entanglement and classical communication through a depolarizing channel. Journal of Modern Optics, 2000, 47, 325-331.	0.6	42
87	Quantum tomography of mesoscopic superpositions of radiation states. Physical Review A, 1999, 59, 1816-1819.	1.0	3
88	Optimal state estimation for d-dimensional quantum systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 253, 249-251.	0.9	105
89	On the analytical convergence of the QPA procedure. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 246, 385-388.	0.9	30
90	Optimal universal and state-dependent quantum cloning. Physical Review A, 1998, 57, 2368-2378.	1.0	468

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91	Optimal Universal Quantum Cloning and State Estimation. Physical Review Letters, 1998, 81, 2598-2601.	2.9	246
92	Noise, Errors and Information in Quantum Amplification. International Journal of Modern Physics B, 1997, 11, 3385-3408.	1.0	2
93	Stabilization of Quantum Computations by Symmetrization. SIAM Journal on Computing, 1997, 26, 1541-1557.	0.8	136
94	Quantum Error Correction for Communication. Physical Review Letters, 1996, 77, 2585-2588.	2.9	228
95	Quantum Privacy Amplification and the Security of Quantum Cryptography over Noisy Channels. Physical Review Letters, 1996, 77, 2818-2821.	2.9	992
96	Feasible phase detection with ideal sensitivity. Journal of Physics A, 1996, 29, 5605-5610.	1.6	2
97	Optimized phase detection. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 198, 286-294.	0.9	17
98	Detection of the density matrix through optical homodyne tomography without filtered back projection. Physical Review A, 1994, 50, 4298-4302.	1.0	193
99	Amplification under the Standard Quantum Noise Limit. Physical Review Letters, 1994, 73, 3187-3190.	2.9	5
100	Precision of quantum tomographic detection of radiation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 195, 31-37.	0.9	36
101	Frequency conversion and amplification of photon-number detection. Physical Review A, 1993, 48, 3947-3954.	1.0	10
102	Approximate Quantum Cloning. , 0, , 53-71.		1