

Runyao Duan

List of Publications by Year in descending order

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papers

1,883
citations

270111

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66
all docs

66
docs citations

66
times ranked

887
citing authors

#	ARTICLE	IF	CITATIONS
1	Implementing termination analysis on quantum programming. Science China Information Sciences, 2019, 62, 1.	2.7	1
2	Non-Asymptotic Entanglement Distillation. IEEE Transactions on Information Theory, 2019, 65, 6454-6465.	1.5	28
3	Distinguishing unitary gates on the IBM quantum processor. Science China Information Sciences, 2019, 62, 1.	2.7	3
4	Tripartite-to-Bipartite Entanglement Transformation by Stochastic Local Operations and Classical Communication and the Structure of Matrix Spaces. Communications in Mathematical Physics, 2018, 358, 791-814.	1.0	6
5	Separation Between Quantum Lovász Number and Entanglement-Assisted Zero-Error Classical Capacity. IEEE Transactions on Information Theory, 2018, 64, 1454-1460.	1.5	7
6	Semidefinite Programming Strong Converse Bounds for Classical Capacity. IEEE Transactions on Information Theory, 2018, 64, 640-653.	1.5	37
7	Quantum majorization and a complete set of entropic conditions for quantum thermodynamics. Nature Communications, 2018, 9, 5352.	5.8	87
8	Converse Bounds for Classical Communication Over Quantum Broadcast Channels and Quantum Multi-Access Channels. , 2018, , .		1
9	\$\$Q Slangle \$\$Q Slãÿ©: A Quantum Programming Environment. Lecture Notes in Computer Science, 2018, , 133-164.	1.0	13
10	A new property of the Lovász number and duality relations between graph parameters. Discrete Applied Mathematics, 2017, 216, 489-501.	0.5	5
11	Bounds on the Distance Between a Unital Quantum Channel and the Convex Hull of Unitary Channels. IEEE Transactions on Information Theory, 2017, 63, 1299-1310.	1.5	8
12	Indistinguishability of bipartite states by positive-partial-transpose operations in the many-copy scenario. Physical Review A, 2017, 95, .	1.0	12
13	Approximate broadcasting of quantum correlations. Physical Review A, 2017, 96, .	1.0	4
14	Irreversibility of Asymptotic Entanglement Manipulation Under Quantum Operations Completely Preserving Positivity of Partial Transpose. Physical Review Letters, 2017, 119, 180506.	2.9	19
15	Nonadditivity of Rains' bound for distillable entanglement. Physical Review A, 2017, 95, .	1.0	16
16	A semidefinite programming upper bound of quantum capacity. , 2016, , .		19
17	Improved semidefinite programming upper bound on distillable entanglement. Physical Review A, 2016, 94, .	1.0	35
18	Parallel distinguishability of quantum operations. , 2016, , .		10

#	ARTICLE	IF	CITATIONS
19	On Zero-Error Communication via Quantum Channels in the Presence of Noiseless Feedback. IEEE Transactions on Information Theory, 2016, 62, 5260-5277.	1.5	10
20	No-Signalling-Assisted Zero-Error Capacity of Quantum Channels and an Information Theoretic Interpretation of the Lovász Number. IEEE Transactions on Information Theory, 2016, 62, 891-914.	1.5	34
21	Obtaining a W State from a Greenberger-Horne-Zeilinger State via Stochastic Local Operations and Classical Communication with a Rate Approaching Unity. Physical Review Letters, 2014, 112, 160401.	2.9	42
22	Distinguishability of Quantum States by Positive Operator-Valued Measures With Positive Partial Transpose. IEEE Transactions on Information Theory, 2014, 60, 2069-2079.	1.5	43
23	When Do Local Operations and Classical Communication Suffice for Two-Qubit State Discrimination?. IEEE Transactions on Information Theory, 2014, 60, 1549-1561.	1.5	35
24	Verification of quantum programs. Science of Computer Programming, 2013, 78, 1679-1700.	1.5	37
25	Zero-Error Communication via Quantum Channels, Noncommutative Graphs, and a Quantum Lovász Number. IEEE Transactions on Information Theory, 2013, 59, 1164-1174.	1.5	111
26	Bisimulation for Quantum Processes. ACM Transactions on Programming Languages and Systems, 2012, 34, 1-43.	1.7	16
27	Four Locally Indistinguishable Ququad-Ququad Orthogonal Maximally Entangled States. Physical Review Letters, 2012, 109, 020506.	2.9	115
28	Quantum programming: From theories to implementations. Science Bulletin, 2012, 57, 1903-1909.	1.7	8
29	No-go theorem for one-way quantum computing on naturally occurring two-level systems. Physical Review A, 2011, 83, .	1.0	22
30	Bisimulation for quantum processes. , 2011, , .		22
31	Any 2×2 state is locally distinguishable. Physical Review A, 2011, 84, .		48
32	Bisimulation for quantum processes. ACM SIGPLAN Notices, 2011, 46, 523-534.	0.2	6
33	Local unambiguous discrimination with remaining entanglement. Physical Review A, 2010, 82, .	1.0	3
34	Multipartite-to-bipartite entanglement transformations and polynomial identity testing. Physical Review A, 2010, 81, .	1.0	8
35	Optimal simulation of a perfect entangler. Physical Review A, 2010, 81, .	1.0	5
36	Tensor rank of the tripartite state W . Physical Review A, 2010, 81, .		20

#	ARTICLE	IF	CITATIONS
37	Tensor Rank and Stochastic Entanglement Catalysis for Multipartite Pure States. Physical Review Letters, 2010, 105, 200501.	2.9	39
38	Multi-error-correcting amplitude damping codes. , 2010, , .		9
39	Locally indistinguishable subspaces spanned by three-qubit unextendible product bases. Physical Review A, 2010, 81, .	1.0	59
40	Nonlocal Entanglement Transformations Achievable by Separable Operations. Physical Review Letters, 2009, 103, 110502.	2.9	28
41	An algebra of quantum processes. ACM Transactions on Computational Logic, 2009, 10, 1-36.	0.7	44
42	Distinguishability of Quantum States by Separable Operations. IEEE Transactions on Information Theory, 2009, 55, 1320-1330.	1.5	78
43	Perfect Distinguishability of Quantum Operations. Physical Review Letters, 2009, 103, 210501.	2.9	87
44	Entanglement between Two Uses of a Noisy Multipartite Quantum Channel Enables Perfect Transmission of Classical Information. Physical Review Letters, 2008, 101, 020501.	2.9	15
45	Parameter Estimation of Quantum Channels. IEEE Transactions on Information Theory, 2008, 54, 5172-5185.	1.5	94
46	Local distinguishability of orthogonal $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \hat{S} - \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ pure states. Physical Review A, 2008, 77, .	2.9	21
47	Exact quantum search by parallel unitary discrimination schemes. Physical Review A, 2008, 78, .	1.0	13
48	Tripartite Entanglement Transformations and Tensor Rank. Physical Review Letters, 2008, 101, 140502.	2.9	45
49	Local Distinguishability of Multipartite Unitary Operations. Physical Review Letters, 2008, 100, 020503.	2.9	46
50	Conditions for entanglement transformation between a class of multipartite pure states with generalized Schmidt decompositions. Physical Review A, 2007, 76, .	1.0	8
51	Entanglement is Not Necessary for Perfect Discrimination between Unitary Operations. Physical Review Letters, 2007, 98, 100503.	2.9	95
52	Distinguishing Arbitrary Multipartite Basis Unambiguously Using Local Operations and Classical Communication. Physical Review Letters, 2007, 98, 230502.	2.9	77
53	Probabilistic bisimulations for quantum processes. Information and Computation, 2007, 205, 1608-1639.	0.5	31
54	Commutativity of quantum weakest preconditions. Information Processing Letters, 2007, 104, 152-158.	0.4	11

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55	Proof rules for the correctness of quantum programs. Theoretical Computer Science, 2007, 386, 151-166.	0.5	40
56	Partial recovery of quantum entanglement. IEEE Transactions on Information Theory, 2006, 52, 3080-3104.	1.5	5
57	Identification and Distance Measures of Measurement Apparatus. Physical Review Letters, 2006, 96, 200401.	2.9	39
58	Relation between catalyst-assisted transformation and multiple-copy transformation for bipartite pure states. Physical Review A, 2006, 74, .	1.0	6
59	The existence of quantum entanglement catalysts. IEEE Transactions on Information Theory, 2005, 51, 75-80.	1.5	17
60	Catalyst-Assisted Probabilistic Entanglement Transformation. IEEE Transactions on Information Theory, 2005, 51, 1090-1101.	1.5	16
61	Entanglement-assisted transformation is asymptotically equivalent to multiple-copy transformation. Physical Review A, 2005, 72, .	1.0	9
62	Efficiency of deterministic entanglement transformation. Physical Review A, 2005, 71, .	1.0	5
63	Trade-off between multiple-copy transformation and entanglement catalysis. Physical Review A, 2005, 71, .	1.0	10
64	Multiple-copy entanglement transformation and entanglement catalysis. Physical Review A, 2005, 71, .	1.0	25
65	Comparability of multipartite entanglement. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 330, 418-423.	0.9	5
66	Predicate Transformer Semantics of Quantum Programs. , 0, , 311-360.		8