Runyao Duan

List of Publications by Citations

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

65 papers	1,430 citations	24 h-index	35 g-index
66 ext. papers	1,686 ext. citations	3.5 avg, IF	4.84 L-index

#	Paper	IF	Citations
65	Four locally indistinguishable ququad-ququad orthogonal maximally entangled states. *Physical Review Letters*, **2012**, 109, 020506	7.4	79
64	Zero-Error Communication via Quantum Channels, Noncommutative Graphs, and a Quantum Lov�z Number. *IEEE Transactions on Information Theory*, **2013**, 59, 1164-1174	2.8	78
63	. *IEEE Transactions on Information Theory*, **2008**, 54, 5172-5185	2.8	77
62	Entanglement is not necessary for perfect discrimination between unitary operations. *Physical Review Letters*, **2007**, 98, 100503	7.4	72
61	Perfect distinguishability of quantum operations. *Physical Review Letters*, **2009**, 103, 210501	7.4	65
60	Distinguishability of Quantum States by Separable Operations. *IEEE Transactions on Information Theory*, **2009**, 55, 1320-1330	2.8	62
59	Distinguishing arbitrary multipartite basis unambiguously using local operations and classical communication. *Physical Review Letters*, **2007**, 98, 230502	7.4	52
58	Locally indistinguishable subspaces spanned by three-qubit unextendible product bases. *Physical Review A*, **2010**, 81,	2.6	50
57	Quantum majorization and a complete set of entropic conditions for quantum thermodynamics. *Nature Communications*, **2018**, 9, 5352	17.4	47
56	Any 2?n subspace is locally distinguishable. *Physical Review A*, **2011**, 84,	2.6	40
55	Local distinguishability of multipartite unitary operations. *Physical Review Letters*, **2008**, 100, 020503	7.4	40
54	Tripartite entanglement transformations and tensor rank. *Physical Review Letters*, **2008**, 101, 140502	7.4	37
53	Identification and distance measures of measurement apparatus. *Physical Review Letters*, **2006**, 96, 200401	7.4	36
52	An algebra of quantum processes. *ACM Transactions on Computational Logic*, **2009**, 10, 1-36	0.9	35
51	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	7.4	33
50	Tensor rank and stochastic entanglement catalysis for multipartite pure states. *Physical Review Letters*, **2010**, 105, 200501	7.4	32
49	. *IEEE Transactions on Information Theory*, **2014**, 60, 2069-2079	2.8	31

48	Proof rules for the correctness of quantum programs. *Theoretical Computer Science*, **2007**, 386, 151-166	1.1	29
47	Improved semidefinite programming upper bound on distillable entanglement. *Physical Review A*, **2016**, 94,	2.6	28
46	. *IEEE Transactions on Information Theory*, **2014**, 60, 1549-1561	2.8	26
45	Nonlocal entanglement transformations achievable by separable operations. *Physical Review Letters*, **2009**, 103, 110502	7.4	26
44	Semidefinite Programming Strong Converse Bounds for Classical Capacity. *IEEE Transactions on Information Theory*, **2018**, 64, 640-653	2.8	25
43	Verification of quantum programs. *Science of Computer Programming*, **2013**, 78, 1679-1700	1.1	25
42	. *IEEE Transactions on Information Theory*, **2016**, 62, 891-914	2.8	24
41	Probabilistic bisimulations for quantum processes. *Information and Computation*, **2007**, 205, 1608-1639	0.8	24
40	Non-Asymptotic Entanglement Distillation. *IEEE Transactions on Information Theory*, **2019**, 65, 6454-6465	2.8	20
39	No-go theorem for one-way quantum computing on naturally occurring two-level systems. *Physical Review A*, **2011**, 83,	2.6	19
38	Bisimulation for quantum processes **2011**,		19
37	Multiple-copy entanglement transformation and entanglement catalysis. *Physical Review A*, **2005**, 71,	2.6	19
36	Tensor rank of the tripartite state |W>?n. *Physical Review A*, **2010**, 81,	2.6	17
35	Local distinguishability of orthogonal 2?3 pure states. *Physical Review A*, **2008**, 77,	2.6	15
34	The existence of quantum entanglement catalysts. *IEEE Transactions on Information Theory*, **2005**, 51, 75-80	2.8	15
33	Entanglement between two uses of a noisy multipartite quantum channel enables perfect transmission of classical information. *Physical Review Letters*, **2008**, 101, 020501	7.4	14
32	Catalyst-assisted probabilistic entanglement transformation. *IEEE Transactions on Information Theory*, **2005**, 51, 1090-1101	2.8	14
31	Nonadditivity of RainsŁbound for distillable entanglement. *Physical Review A*, **2017**, 95,	2.6	13

30	A semidefinite programming upper bound of quantum capacity **2016**,		13
29	Indistinguishability of bipartite states by positive-partial-transpose operations in the many-copy scenario. *Physical Review A*, **2017**, 95,	2.6	11
28	Irreversibility of Asymptotic Entanglement Manipulation Under Quantum Operations Completely Preserving Positivity of Partial Transpose. *Physical Review Letters*, **2017**, 119, 180506	7.4	11
27	Bisimulation for Quantum Processes. *ACM Transactions on Programming Languages and Systems*, **2012**, 34, 1-43	1.6	11
26	Exact quantum search by parallel unitary discrimination schemes. *Physical Review A*, **2008**, 78,	2.6	10
25	Trade-off between multiple-copy transformation and entanglement catalysis. *Physical Review A*, **2005**, 71,	2.6	9
24	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	2.8	8
23	Multi-error-correcting amplitude damping codes **2010**,		8
22	Commutativity of quantum weakest preconditions. *Information Processing Letters*, **2007**, 104, 152-158	0.8	8
21	Entanglement-assisted transformation is asymptotically equivalent to multiple-copy transformation. *Physical Review A*, **2005**, 72,	2.6	8
20	(Q|SIrangle) : A Quantum Programming Environment. *Lecture Notes in Computer Science*, **2018**, 133-164	0.9	8
19	Parallel distinguishability of quantum operations **2016**,		7
18	. *IEEE Transactions on Information Theory*, **2016**, 62, 5260-5277	2.8	7
17	Conditions for entanglement transformation between a class of multipartite pure states with generalized Schmidt decompositions. *Physical Review A*, **2007**, 76,	2.6	7
16	Quantum programming: From theories to implementations. *Science Bulletin*, **2012**, 57, 1903-1909		6
15	Multipartite-to-bipartite entanglement transformations and polynomial identity testing. *Physical Review A*, **2010**, 81,	2.6	6
14	Bisimulation for quantum processes. *ACM SIGPLAN Notices*, **2011**, 46, 523-534	0.2	6
13	Predicate Transformer Semantics of Quantum Programs311-360		6

12	Optimal simulation of a perfect entangler. *Physical Review A*, **2010**, 81,	2.6	5
11	Partial recovery of quantum entanglement. *IEEE Transactions on Information Theory*, **2006**, 52, 3080-3104	2.8	5
10	Relation between catalyst-assisted transformation and multiple-copy transformation for bipartite pure states. *Physical Review A*, **2006**, 74,	2.6	5
9	Comparability of multipartite entanglement. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2004**, 330, 418-423	2.3	5
8	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	2	4
7	Efficiency of deterministic entanglement transformation. *Physical Review A*, **2005**, 71,	2.6	4
6	A new property of the Lov�z number and duality relations between graph parameters. *Discrete Applied Mathematics*, **2017**, 216, 489-501	1	3
5	Distinguishing unitary gates on the IBM quantum processor. *Science China Information Sciences*, **2019**, 62, 1	3.4	3
4	Separation Between Quantum Lov�z Number and Entanglement-Assisted Zero-Error Classical Capacity. *IEEE Transactions on Information Theory*, **2018**, 64, 1454-1460	2.8	3
3	Approximate broadcasting of quantum correlations. *Physical Review A*, **2017**, 96,	2.6	2
2	Local unambiguous discrimination with remaining entanglement. *Physical Review A*, **2010**, 82,	2.6	2
1	Implementing termination analysis on quantum programming. *Science China Information Sciences*, **2019**, 62, 1	3.4	1