Zbigniew PuchaÅ‚a

List of Publications by Year
in descending order

57 papers	941 citations	471509 17 h-index	501196 28 g-index
57 all docs	57 docs citations	57 times ranked	631 citing authors

#	Article	IF	Citations
1	Majorization entropic uncertainty relations. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 272002.	2.1	122
2	Strong majorization entropic uncertainty relations. Physical Review A, 2014, 89, .	2.5	119
3	Symbolic integration with respect to the Haar measure on the unitary groups. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2017, 65, 21-27.	0.8	51
4	Quantum state discrimination: A geometric approach. Physical Review A, 2008, 77, .	2.5	40
5	Coherifying quantum channels. New Journal of Physics, 2018, 20, 043028.	2.9	39
6	Distinguishability of generic quantum states. Physical Review A, 2016, 93, .	2.5	35
7	Restricted numerical range: A versatile tool in the theory of quantum information. Journal of Mathematical Physics, 2010, 51, .	1.1	29
8	Simulating all quantum measurements using only projective measurements and postselection. Physical Review A, 2019, 100, .	2.5	27
9	Diagonal unitary entangling gates and contradiagonal quantum states. Physical Review A, 2014, 90, .	2.5	23
10	Generating random quantum channels. Journal of Mathematical Physics, 2021, 62, .	1.1	23
11	Numerical shadow and geometry of quantum states. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 335301.	2.1	22
12	Experimentally feasible measures of distance between quantum operations. Quantum Information Processing, 2011, 10, 1-12.	2.2	22
13	Strategies for optimal single-shot discrimination of quantum measurements. Physical Review A, 2018, 98, .	2.5	22
14	Bound on trace distance based on superfidelity. Physical Review A, 2009, 79, .	2.5	21
15	Product numerical range in a space with tensor product structure. Linear Algebra and Its Applications, 2011, 434, 327-342.	0.9	21
16	Increasing the security of the pingâ€“pong protocol by using many mutually unbiased bases. Quantum Information Processing, 2013, 12, 569-576.	2.2	21
17	Entropic trade-off relations for quantum operations. Physical Review A, 2013, 87, .	2.5	20
18	Almost all quantum channels are equidistant. Journal of Mathematical Physics, 2018, 59, .	1.1	20

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19	Certainty relations, mutual entanglement, and nondisplaceable manifolds. Physical Review A, 2015, 92, .	2.5	19
20	Qubit flip game on a Heisenberg spin chain. Quantum Information Processing, 2012, 11, 1571-1583.	2.2	15
21	Gauge invariant information concerning quantum channels. Quantum - the Open Journal for Quantum Science, 0, 2, 60.	0.0	15
22	Majorization uncertainty relations for mixed quantum states. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 175306.	2.1	14
23	Collectibility for mixed quantum states. Physical Review A, 2012, 86, .	2.5	13
24	Restricted numerical shadow and the geometry of quantum entanglement. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 415309.	2.1	13
25	Minimal RÃ©nyiâ€“Ingardenâ€“Urbanik Entropy of Multipartite Quantum States. Entropy, 2015, 17, 5063-5084.	2.2	13
26	Vertices cannot be hidden from quantum spatial search for almost all random graphs. Quantum Information Processing, 2018, 17, 1.	2.2	13
27	Pauli semigroups and unistochastic quantum channels. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2376-2381.	2.1	13
28	Asymptotic entropic uncertainty relations. Journal of Mathematical Physics, 2016, 57, .	1.1	12
29	Numerical shadows: Measures and densities on the numerical range. Linear Algebra and Its Applications, 2011, 434, 2042-2080.	0.9	9
30	Enhancing Pseudo-Telepathy in the Magic Square Game. PLoS ONE, 2013, 8, e64694.	2.5	9
31	The exact asymptotic of the collision time tail distribution for independent Brownian particles with different drifts. Probability Theory and Related Fields, 2008, 142, 595-617.	1.8	8
32	Quantum control with spectral constraints. Quantum Information Processing, 2014, 13, 227-237.	2.2	8
33	Constructive entanglement test from triangle inequality. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 424035.	2.1	8
34	Discrimination of POVMs with rank-one effects. Quantum Information Processing, 2020, 19, 1.	2.2	8
35	Encoding Classical Information Into Quantum Resources. IEEE Transactions on Information Theory, 2022, 68, 4518-4530.	2.4	8
36	Quantum control robust with respect to coupling with an external environment. Quantum Information Processing, 2015, 14, 437-446.	2.2	7

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37	Multiple-shot and unambiguous discrimination of von Neumann measurements. Quantum - the Open Journal for Quantum Science, 0, 5, 425.	0.0	7
38	ANALYSIS OF PATENT ACTIVITY IN THE FIELD OF QUANTUM INFORMATION PROCESSING. International Journal of Quantum Information, 2013, 11, 1350007.	1.1	6
39	Conditional entropic uncertainty relations for Tsallis entropies. Quantum Information Processing, 2018, 17, 1.	2.2	6
40	Distinguishing classically indistinguishable states and channels. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 475303.	2.1	5
41	Probability measure generated by the superfidelity. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 405301.	2.1	4
42	Local controllability of quantum systems. Quantum Information Processing, 2013, 12, 459-466.	2.2	4
43	Exploring boundaries of quantum convex structures: Special role of unitary processes. Physical Review A, 2015, 92, .	2.5	4
44	Real numerical shadow and generalized B-splines. Linear Algebra and Its Applications, 2015, 479, 12-51.	0.9	3
45	Eigengestures for Natural Human Computer Interface. Advances in Intelligent and Soft Computing, 2011, , 49-56.	0.2	3
46	Stationary states of two-level open quantum systems. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 215306.	2.1	2
47	A MODEL FOR QUANTUM QUEUE. International Journal of Quantum Information, 2013, 11, 1350023.	1.1	2
48	Quantifying channels output similarity with applications to quantum control. Quantum Information Processing, 2016, 15, 1455-1468.	2.2	2
49	Quantum noise generated by local random Hamiltonians. Physical Review A, 2017, 95, .	2.5	2
50	On the optimal certification of von Neumann measurements. Scientific Reports, 2021, 11, 3623.	3.3	2
51	Log-convex set of Lindblad semigroups acting on N-level system. Journal of Mathematical Physics, 2021, 62, 072105.	1.1	2
52	Notes on the Riccati operator equation in open quantum systems. Journal of Mathematical Physics, 2012, 53, 012106.	1.1	1
53	Unified approach to geometric and positive-map-based nonlinear entanglement identifiers. Physical Review A, 2018, 97, .	2.5	1
54	Unconditional security of a K-state quantum key distribution protocol. Quantum Information Processing, 2018, 17, 1.	2.2	1

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55	Excluding false negative error in certification of quantum channels. Scientific Reports, 2021, 11, 21716.	3.3	1
56	Algebraic and geometric structures inside the Birkhoff polytope. Journal of Mathematical Physics, 2022, 63, .	1.1	1
57	Relating Entropies of Quantum Channels. Entropy, 2021, 23, 1028.	2.2	0