Andris Ambainis

List of Publications by Year
in descending order

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47 papers	2,397 citations	516710 16 h-index	434195 31 g-index
48 all docs	48 docs citations	48 times ranked	983 citing authors

#	Article	IF	Citations
1	Quantum Walk Algorithm for Element Distinctness. SIAM Journal on Computing, 2007, 37, 210-239.	1.0	455
2	QUANTUM WALKS AND THEIR ALGORITHMIC APPLICATIONS. International Journal of Quantum Information, 2003, 01, 507-518.	1.1	450
3	Quantum Lower Bounds by Quantum Arguments. Journal of Computer and System Sciences, 2002, 64, 750-767.	1.2	194
4	Dense quantum coding and quantum finite automata. Journal of the ACM, 2002, 49, 496-511.	2.2	180
5	Quantum to Classical Transition for Random Walks. Physical Review Letters, 2003, 91, 130602.	7.8	152
6	Quantum walks driven by many coins. Physical Review A, 2003, 67, .	2.5	129
7	Quantum Attacks on Classical Proof Systems: The Hardness of Quantum Rewinding. , 2014, , .		87
8	Title is missing!. Theory of Computing, 2005, 1, 47-79.	0.5	83
9	Polynomial degree vs. quantum query complexity. Journal of Computer and System Sciences, 2006, 72, 220-238.	1.2	67
10	Title is missing!. Theory of Computing, 2005, 1, 37-46.	0.5	66
11	Any AND-OR Formula of Size N can be Evaluated in time N^{1/2 + o(1)} on a Quantum Computer. , 2007, , .		60
12	Quantum Security Proofs Using Semi-classical Oracles. Lecture Notes in Computer Science, 2019, , 269-295.	1.3	54
13	Algebraic Results on Quantum Automata. Theory of Computing Systems, 2006, 39, 165-188.	1.1	51
14	The Quantum Communication Complexity of Sampling. SIAM Journal on Computing, 2003, 32, 1570-1585.	1.0	30
15	Forrelation: A Problem That Optimally Separates Quantum from Classical Computing. SIAM Journal on Computing, 2018, 47, 982-1038.	1.0	30
16	Forrelation. , 2015, , .		26
17	Quantum Identification of Boolean Oracles. Lecture Notes in Computer Science, 2004, , 105-116.	1.3	22
18	Quantum Search with Variable Times. Theory of Computing Systems, 2010, 47, 786-807.	1.1	21

#	Article	IF	Citations
19	Nonmalleable encryption of quantum information. Journal of Mathematical Physics, 2009, 50, .	1.1	19
20	Search by Quantum Walks on Two-Dimensional Grid without Amplitude Amplification. Lecture Notes in Computer Science, 2013, , 87-97.	1.3	19
21	Quantum query algorithms and lower bounds. , 2004, , 15-32.		17
22	Inductive Inference with Procrastination: Back to Definitions. Fundamenta Informaticae, 1999, 40, 1-16.	0.4	16
23	Exact results for accepting probabilities of quantum automata. Theoretical Computer Science, 2003, 295, 3-25.	0.9	16
24	A New Quantum Lower Bound Method, with Applications to Direct Product Theorems and Time-Space Tradeoffs. Algorithmica, 2009, 55, 422-461.	1.3	15
25	Symmetry-Assisted Adversaries for Quantum State Generation. , 2011, , .		15
26	Efficient Quantum Algorithms for (Gapped) Group Testing and Junta Testing. , 2016, , .		15
27	A note on quantum black-box complexity of almost all Boolean functions. Information Processing Letters, 1999, 71, 5-7.	0.6	14
28	Parsimony hierarchies for inductive inference. Journal of Symbolic Logic, 2004, 69, 287-327.	0.5	13
29	Quantum Random Walks â€“ New Method for Designing Quantum Algorithms. , 2008, , 1-4.		13
30	Superlinear advantage for exact quantum algorithms. , 2013, , .		12
31	Superlinear Advantage for Exact Quantum Algorithms. SIAM Journal on Computing, 2016, 45, 617-631.	1.0	11
32	Quantum Walks with Multiple or Moving Marked Locations. , 2008, , 485-496.		11
33	Title is missing!. Theory of Computing, 2010, 6, 1-25.	0.5	8
34	Quantum Property Testing for Bounded-Degree Graphs. Lecture Notes in Computer Science, 2011, , 365-376.	1.3	7
35	New Developments in Quantum Algorithms. Lecture Notes in Computer Science, 2010, , 1-11.	1.3	6
36	Quantum Query Complexity of Boolean Functions with Small On-Sets. Lecture Notes in Computer Science, 2008, , 907-918.	1.3	3

#	Article	IF	Citations
37	A Tight Lower Bound on Certificate Complexity in Terms of Block Sensitivity and Sensitivity. Lecture Notes in Computer Science, 2014, , 33-44.	1.3	3
38	How Low can Approximate Degree and Quantum Query Complexity be for Total Boolean Functions?. Computational Complexity, 2014, 23, 305-322.	0.3	2
39	Any AND-OR Formula of Size N can be Evaluated in time N^{1/2 + o(1)} on a Quantum Computer. , 2007, , .		2
40	How Low Can Approximate Degree and Quantum Query Complexity Be for Total Boolean Functions?. , 2013, , .		1
41	Quantum Query Complexity of Almost All Functions with Fixed On-set Size. Computational Complexity, 2016, 25, 723-735.	0.3	1
42	Recent Developments in Quantum Algorithms and Complexity. Lecture Notes in Computer Science, 2014, , 1-4.	1.3	1
43	All Classical Adversary Methods Are Equivalent for Total Functions. ACM Transactions on Computation Theory, 2021, 13, 1-20.	0.7	0
44	Quantum Algorithm for Element Distinctness. , 2008, , 686-689.		0
45	Quantum Algorithm for Element Distinctness. , 2016, , 1646-1651.		0
46	Quantum Identification of Boolean Oracles. , 2006, , 3-18.		0
47	Quantum Identification of Boolean Oracles. , 2006, , 3-18.		0