

# Rodney Van Meter

## List of Publications by Year in descending order

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71  
papers

2,901  
citations

304743

22  
h-index

189892

50  
g-index

74  
all docs

74  
docs citations

74  
times ranked

1751  
citing authors

#	ARTICLE	IF	CITATIONS
1	Network attached storage architecture. Communications of the ACM, 2000, 43, 37-45.	4.5	285
2	Surface code quantum computing by lattice surgery. New Journal of Physics, 2012, 14, 123011.	2.9	276
3	Quantum repeater with encoding. Physical Review A, 2009, 79, .	2.5	224
4	Layered Architecture for Quantum Computing. Physical Review X, 2012, 2, .	8.9	182
5	When Entanglement Meets Classical Communications: Quantum Teleportation for the Quantum Internet. IEEE Transactions on Communications, 2020, 68, 3808-3833.	7.8	117
6	Surface Code Quantum Communication. Physical Review Letters, 2010, 104, 180503.	7.8	115
7	System Design for a Long-Line Quantum Repeater. IEEE/ACM Transactions on Networking, 2009, 17, 1002-1013.	3.8	107
8	Path selection for quantum repeater networks. Networking Science, 2013, 3, 82-95.	1.2	107
9	The Path to Scalable Distributed Quantum Computing. Computer, 2016, 49, 31-42.	1.1	104
10	Fast quantum modular exponentiation. Physical Review A, 2005, 71, .	2.5	103
11	Faster quantum chemistry simulation on fault-tolerant quantum computers. New Journal of Physics, 2012, 14, 115023.	2.9	91
12	DISTRIBUTED QUANTUM COMPUTATION ARCHITECTURE USING SEMICONDUCTOR NANOPHOTONICS. International Journal of Quantum Information, 2010, 08, 295-323.	1.1	77
13	A blueprint for building a quantum computer. Communications of the ACM, 2013, 56, 84-93.	4.5	76
14	Architectural implications of quantum computing technologies. ACM Journal on Emerging Technologies in Computing Systems, 2006, 2, 31-63.	2.3	74
15	Designing quantum repeater networks. , 2013, 51, 64-71.		70
16	High-Bandwidth Hybrid Quantum Repeater. Physical Review Letters, 2008, 101, 040502.	7.8	68
17	Extracting Success from IBM's 20-Qubit Machines Using Error-Aware Compilation. ACM Journal on Emerging Technologies in Computing Systems, 2020, 16, 1-25.	2.3	47
18	Communication Links for Distributed Quantum Computation. IEEE Transactions on Computers, 2007, 56, 1643-1653.	3.4	39

#	ARTICLE	IF	CITATIONS
19	Arithmetic on a distributed-memory quantum multicomputer. ACM Journal on Emerging Technologies in Computing Systems, 2008, 3, 1-23.	2.3	39
20	Analysis of quantum network coding for realistic repeater networks. Physical Review A, 2016, 93, .	2.5	36
21	Quantum networking and internetworking. IEEE Network, 2012, 26, 59-64.	6.9	35
22	Recursive quantum repeater networks. Progress in Informatics, 2011, , 65.	0.2	31
23	Modeling of measurement-based quantum network coding on a superconducting quantum processor. Physical Review A, 2020, 101, .	2.5	29
24	Quantum link bootstrapping using a RuleSet-based communication protocol. Physical Review A, 2019, 100, .	2.5	23
25	A $\hat{T}(\hat{a} \hat{s} n)$ -depth quantum adder on the 2D NTC quantum computer architecture. ACM Journal on Emerging Technologies in Computing Systems, 2012, 8, 1-22.	2.3	20
26	Surface code error correction on a defective lattice. New Journal of Physics, 2017, 19, 023050.	2.9	20
27	Analysis of measurement-based quantum network coding over repeater networks under noisy conditions. Physical Review A, 2018, 97, .	2.5	20
28	Optimization of the Solovay-Kitaev algorithm. Physical Review A, 2013, 87, .	2.5	19
29	On the Effect of Quantum Interaction Distance on Quantum Addition Circuits. ACM Journal on Emerging Technologies in Computing Systems, 2011, 7, 1-17.	2.3	18
30	Subdivided Phase Oracle for NISQ Search Algorithms. IEEE Transactions on Quantum Engineering, 2020, 1, 1-15.	4.9	18
31	A brief survey of current work on network attached peripherals (extended abstract). Operating Systems Review (ACM), 1996, 30, 63-70.	1.9	15
32	High-speed quantum networking by ship. Scientific Reports, 2016, 6, 36163.	3.3	14
33	Designing a Million-Qubit Quantum Computer Using a Resource Performance Simulator. ACM Journal on Emerging Technologies in Computing Systems, 2016, 12, 1-25.	2.3	14
34	VISA. ACM SIGPLAN Notices, 1998, 33, 71-80.	0.2	13
35	Protocol design for quantum repeater networks. , 2011, , .		13
36	Fault-Tolerant Operations for Universal Blind Quantum Computation. ACM Journal on Emerging Technologies in Computing Systems, 2015, 12, 1-26.	2.3	13

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37	VISA. , 1998, , .		12
38	CIRCUIT DESIGN FOR A MEASUREMENT-BASED QUANTUM CARRY-LOOKAHEAD ADDER. International Journal of Quantum Information, 2010, 08, 843-867.	1.1	11
39	A Resource-Efficient Design for a Reversible Floating Point Adder in Quantum Computing. ACM Journal on Emerging Technologies in Computing Systems, 2014, 11, 1-18.	2.3	11
40	Simultaneous Execution of Quantum Circuits on Current and Near-Future NISQ Systems. IEEE Transactions on Quantum Engineering, 2022, 3, 1-10.	4.9	11
41	Distributed Arithmetic on a Quantum Multicomputer. Computer Architecture News, 2006, 34, 354-365.	2.5	10
42	A temporal view of the topology of dynamic Bittorrent swarms. , 2011, , .		8
43	Decoding Cryptosystems. Science, 2012, 337, 1040-1040.	12.6	8
44	Finding Small and Large $k$ -Clique Instances on a Quantum Computer. IEEE Transactions on Quantum Engineering, 2020, 1, 1-11.	4.9	8
45	Multiplexing schemes for quantum repeater networks. Proceedings of SPIE, 2011, , .	0.8	7
46	Interoperability in encoded quantum repeater networks. Physical Review A, 2016, 93, .	2.5	7
47	The network impact of hijacking a quantum repeater. Quantum Science and Technology, 2018, 3, 034008.	5.8	7
48	Efficient Construction of a Control Modular Adder on a Carry-Lookahead Adder Using Relative-Phase Toffoli Gates. IEEE Transactions on Quantum Engineering, 2022, 3, 1-18.	4.9	7
49	Resource-aware system architecture model for implementation of quantum aided Byzantine agreement on quantum repeater networks. Quantum Science and Technology, 2018, 3, 014011.	5.8	6
50	Architecture of a Quantum Multicomputer Implementing Shor's Algorithm. Lecture Notes in Computer Science, 2008, , 105-114.	1.3	5
51	Selecting an appropriate routing protocol for in-field MANEMO experiments. , 2009, , .		4
52	A Classical Network Protocol to Support Distributed Quantum State Tomography. , 2016, , .		3
53	VISA. Operating Systems Review (ACM), 1998, 32, 71-80.	1.9	3
54	Classification of Quantum Repeater Attacks. , 2015, , .		3

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55	MANEMO Routing in Practice: Protocol Selection, Expected Performance, and Experimental Evaluation. IEICE Transactions on Communications, 2010, E93-B, 2004-2011.	0.7	3
56	ARCHITECTURE-DEPENDENT EXECUTION TIME OF SHOR'S ALGORITHM. , 2008, , .		3
57	NAT-MANEMO: Route Optimization for Unlimited Network Extensibility in MANEMO. Journal of Information Processing, 2011, 19, 118-128.	0.4	2
58	Quantum Computing's Classical Problem, Classical Computing's Quantum Problem. Foundations of Physics, 2014, 44, 819-828.	1.3	2
59	State injection, lattice surgery, and dense packing of the deformation-based surface code. Physical Review A, 2017, 95, .	2.5	2
60	The Present and Future of Discrete Logarithm Problems on Noisy Quantum Computers. IEEE Transactions on Quantum Engineering, 2022, 3, 1-21.	4.9	2
61	Otedama: A Relocatable RFID Information Repository Architecture. IEICE Transactions on Information and Systems, 2010, E93-D, 2922-2931.	0.7	1
62	Counting Gates, Moving Qubits: Evaluating the Execution Cost of Quantum Circuits. , 2012, , .		1
63	A packet I/O architecture for shell script-based packet processing. China Communications, 2014, 11, 1-11.	3.2	1
64	Distributed quantum computing systems: Technology to quantum circuits. , 2017, , .		1
65	Assessing the Dynamics of Bittorrent Swarms Topologies Using the Peer Exchange Protocol. IEICE Transactions on Communications, 2012, E95.B, 1566-1574.	0.7	1
66	Floating ground architecture. , 2012, , .		0
67	IP-NUMA for low-latency communication. , 2014, , .		0
68	The Quantum Memory Stick. , 2014, , .		0
69	Distributed quantum computing systems: Technology to quantum circuits. , 2017, , .		0
70	TRADING CLASSICAL FOR QUANTUM COMPUTATION USING INDIRECTION. , 2005, , .		0
71	Response to the collapsed LAN. Computer Architecture News, 1997, 25, 1-12.	2.5	0