

Nicolas J Cerf

List of Publications by Year in descending order

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61
papers

10,489
citations

168829

31
h-index

150775

59
g-index

61
all docs

61
docs citations

61
times ranked

5325
citing authors

#	ARTICLE	IF	CITATIONS
1	The security of practical quantum key distribution. <i>Reviews of Modern Physics</i> , 2009, 81, 1301-1350.	16.4	2,489
2	Gaussian quantum information. <i>Reviews of Modern Physics</i> , 2012, 84, 621-669.	16.4	2,430
3	Quantum key distribution using gaussian-modulated coherent states. <i>Nature</i> , 2003, 421, 238-241.	13.7	1,120
4	Security of Quantum Key Distribution Using d-Level Systems. <i>Physical Review Letters</i> , 2002, 88, 127902.	2.9	1,008
5	Unconditional Optimality of Gaussian Attacks against Continuous-Variable Quantum Key Distribution. <i>Physical Review Letters</i> , 2006, 97, 190503.	2.9	426
6	Quantum key distribution over 25 km with an all-fiber continuous-variable system. <i>Physical Review A</i> , 2007, 76, .	1.0	403
7	No-Go Theorem for Gaussian Quantum Error Correction. <i>Physical Review Letters</i> , 2009, 102, 120501.	2.9	231
8	Pauli Cloning of a Quantum Bit. <i>Physical Review Letters</i> , 2000, 84, 4497-4500.	2.9	200
9	Security of Continuous-Variable Quantum Key Distribution Against General Attacks. <i>Physical Review Letters</i> , 2013, 110, 030502.	2.9	183
10	Continuous-Variable Quantum Cryptography is Secure against Non-Gaussian Attacks. <i>Physical Review Letters</i> , 2004, 92, 047905.	2.9	153
11	Asymmetric quantum cloning in any dimension. <i>Journal of Modern Optics</i> , 2000, 47, 187-209.	0.6	152
12	Enhancing quantum entanglement by photon addition and subtraction. <i>Physical Review A</i> , 2012, 86, .	1.0	139
13	Security of quantum key distribution with entangled qutrits. <i>Physical Review A</i> , 2003, 67, .	1.0	138
14	Optimal Cloning of Coherent States with a Linear Amplifier and Beam Splitters. <i>Physical Review Letters</i> , 2001, 86, 4938-4941.	2.9	131
15	Continuous-Variable Quantum Key Distribution Protocols Over Noisy Channels. <i>Physical Review Letters</i> , 2009, 102, 130501.	2.9	128
16	Information theory of quantum entanglement and measurement. <i>Physica D: Nonlinear Phenomena</i> , 1998, 120, 62-81.	1.3	99
17	Gaussian postselection and virtual noiseless amplification in continuous-variable quantum key distribution. <i>Physical Review A</i> , 2012, 86, .	1.0	90
18	Universal Optical Amplification without Nonlinearity. <i>Physical Review Letters</i> , 2006, 96, 163602.	2.9	67

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19	Optimality of Gaussian Discord. <i>Physical Review Letters</i> , 2014, 113, 140405.	2.9	67
20	Cloning a real-dimensional quantum state on the edge of the no-signaling condition. <i>Physical Review A</i> , 2003, 68, .	1.0	60
21	Quantum entanglement enhances the capacity of bosonic channels with memory. <i>Physical Review A</i> , 2005, 72, .	1.0	59
22	Majorization Theory Approach to the Gaussian Channel Minimum Entropy Conjecture. <i>Physical Review Letters</i> , 2012, 108, 110505.	2.9	57
23	Quantum optical coherence can survive photon losses using a continuous-variable quantum erasure-correcting code. <i>Nature Photonics</i> , 2010, 4, 700-705.	15.6	50
24	Continuous-variable entropic uncertainty relations. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 173001.	0.7	48
25	Economical quantum cloning in any dimension. <i>Physical Review A</i> , 2005, 72, .	1.0	47
26	Loophole-free test of quantum nonlocality using high-efficiency homodyne detectors. <i>Physical Review A</i> , 2005, 71, .	1.0	44
27	Experimental Implementation of Non-Gaussian Attacks on a Continuous-Variable Quantum-Key-Distribution System. <i>Physical Review Letters</i> , 2007, 98, 030503.	2.9	40
28	Operational formulation of time reversal in quantum theory. <i>Nature Physics</i> , 2015, 11, 853-858.	6.5	39
29	Optical quantum cloning. <i>Progress in Optics</i> , 2006, , 455-545.	0.4	35
30	Operational quantum theory without predefined time. <i>New Journal of Physics</i> , 2016, 18, 073037.	1.2	34
31	Pulsed squeezed vacuum measurements without homodyning. <i>Physical Review A</i> , 2004, 70, .	1.0	32
32	From quantum cloning to quantum key distribution with continuous variables: a review (Invited). <i>Journal of the Optical Society of America B: Optical Physics</i> , 2007, 24, 324.	0.9	32
33	Strong no-go theorem for Gaussian quantum bit commitment. <i>Physical Review A</i> , 2010, 81, .	1.0	30
34	Quantum Cloning of a Coherent Light State into an Atomic Quantum Memory. <i>Physical Review Letters</i> , 2004, 93, 180501.	2.9	24
35	Equivalence Relations for the Classical Capacity of Single-Mode Gaussian Quantum Channels. <i>Physical Review Letters</i> , 2013, 111, 030503.	2.9	22
36	Information-theoretic interpretation of quantum error-correcting codes. <i>Physical Review A</i> , 1997, 56, 1721-1732.	1.0	21

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37	Entropic bounds on coding for noisy quantum channels. <i>Physical Review A</i> , 1998, 57, 3330-3347.	1.0	15
38	Capacity of a bosonic memory channel with Gauss-Markov noise. <i>Physical Review A</i> , 2009, 80, .	1.0	14
39	Detection of non-Gaussian entangled states with an improved continuous-variable separability criterion. <i>Physical Review A</i> , 2016, 93, .	1.0	14
40	Entropy-power uncertainty relations: towards a tight inequality for all Gaussian pure states. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 385301.	0.7	12
41	Quantum thermodynamics in a multipartite setting: A resource theory of local Gaussian work extraction for multimode bosonic systems. <i>Physical Review A</i> , 2019, 100, .	1.0	12
42	Optimal multicopy asymmetric Gaussian cloning of coherent states. <i>Physical Review A</i> , 2007, 75, .	1.0	10
43	Efficient entanglement distillation without quantum memory. <i>Nature Communications</i> , 2016, 7, 11720.	5.8	9
44	Quantum Wigner entropy. <i>Physical Review A</i> , 2021, 104, .	1.0	9
45	Quantum de Finetti theorem in phase-space representation. <i>Physical Review A</i> , 2009, 80, .	1.0	7
46	Gaussian capacity of the quantum bosonic memory channel with additive correlated Gaussian noise. <i>Physical Review A</i> , 2011, 84, .	1.0	7
47	Entropy generation in Gaussian quantum transformations: applying the replica method to continuous-variable quantum information theory. <i>Npj Quantum Information</i> , 2016, 2, .	2.8	7
48	Monte Carlo Computation of Pair Correlations in Excited Nuclei. <i>Physical Review Letters</i> , 1996, 76, 2420-2423.	2.9	6
49	Interconversion of pure Gaussian states requiring non-Gaussian operations. <i>Physical Review A</i> , 2015, 91, .	1.0	6
50	Majorization preservation of Gaussian bosonic channels. <i>New Journal of Physics</i> , 2016, 18, 073047.	1.2	6
51	Two-boson quantum interference in time. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 33107-33116.	3.3	5
52	Multicopy uncertainty observable inducing a symplectic-invariant uncertainty relation in position and momentum phase space. <i>Physical Review A</i> , 2019, 100, .	1.0	4
53	Partial order on passive states and Hoffman majorization in quantum thermodynamics. <i>Physical Review Research</i> , 2021, 3, .	1.3	4
54	Multidimensional entropic uncertainty relation based on a commutator matrix in position and momentum spaces. <i>Physical Review A</i> , 2018, 97, .	1.0	3

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55	Fock majorization in bosonic quantum channels with a passive environment. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 105302.	0.7	3
56	Information-Theoretic Aspects of Quantum Copying. Lecture Notes in Computer Science, 1999, , 218-234.	1.0	3
57	Multiparticle quantum interference in Bogoliubov bosonic transformations. Physical Review Research, 2021, 3, .	1.3	2
58	Cerf Replies:. Physical Review Letters, 1998, 80, 886-886.	2.9	1
59	Experimental implementation of non-gaussian attacks on a continuous-variable quantum key distribution system. , 2007, , .		1
60	Realignment separability criterion assisted with filtration for detecting continuous-variable entanglement. Physical Review A, 2021, 104, .	1.0	1
61	Quantum Cloning with Continuous Variables. , 2003, , 277-293.		0