

Nicolas J Cerf

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

10,489
citations

147801

31
h-index

133252

59
g-index

61
all docs

61
docs citations

61
times ranked

4671
citing authors

#	ARTICLE	IF	CITATIONS
1	The security of practical quantum key distribution. Reviews of Modern Physics, 2009, 81, 1301-1350.	45.6	2,489
2	Gaussian quantum information. Reviews of Modern Physics, 2012, 84, 621-669.	45.6	2,430
3	Quantum key distribution using gaussian-modulated coherent states. Nature, 2003, 421, 238-241.	27.8	1,120
4	Security of Quantum Key Distribution Using d-Level Systems. Physical Review Letters, 2002, 88, 127902.	7.8	1,008
5	Unconditional Optimality of Gaussian Attacks against Continuous-Variable Quantum Key Distribution. Physical Review Letters, 2006, 97, 190503.	7.8	426
6	Quantum key distribution over $\sqrt{25}$ km with an all-fiber continuous-variable system. Physical Review A, 2007, 76, .	2.5	403
7	No-Go Theorem for Gaussian Quantum Error Correction. Physical Review Letters, 2009, 102, 120501.	7.8	231
8	Pauli Cloning of a Quantum Bit. Physical Review Letters, 2000, 84, 4497-4500.	7.8	200
9	Security of Continuous-Variable Quantum Key Distribution Against General Attacks. Physical Review Letters, 2013, 110, 030502.	7.8	183
10	Continuous-Variable Quantum Cryptography is Secure against Non-Gaussian Attacks. Physical Review Letters, 2004, 92, 047905.	7.8	153
11	Asymmetric quantum cloning in any dimension. Journal of Modern Optics, 2000, 47, 187-209.	1.3	152
12	Enhancing quantum entanglement by photon addition and subtraction. Physical Review A, 2012, 86, .	2.5	139
13	Security of quantum key distribution with entangled qutrits. Physical Review A, 2003, 67, .	2.5	138
14	Optimal Cloning of Coherent States with a Linear Amplifier and Beam Splitters. Physical Review Letters, 2001, 86, 4938-4941.	7.8	131
15	Continuous-Variable Quantum Key Distribution Protocols Over Noisy Channels. Physical Review Letters, 2009, 102, 130501.	7.8	128
16	Information theory of quantum entanglement and measurement. Physica D: Nonlinear Phenomena, 1998, 120, 62-81.	2.8	99
17	Gaussian postselection and virtual noiseless amplification in continuous-variable quantum key distribution. Physical Review A, 2012, 86, .	2.5	90
18	Universal Optical Amplification without Nonlinearity. Physical Review Letters, 2006, 96, 163602.	7.8	67

#	ARTICLE	IF	CITATIONS
19	Optimality of Gaussian Discord. Physical Review Letters, 2014, 113, 140405.	7.8	67
20	Cloning a reald-dimensional quantum state on the edge of the no-signaling condition. Physical Review A, 2003, 68, .	2.5	60
21	Quantum entanglement enhances the capacity of bosonic channels with memory. Physical Review A, 2005, 72, .	2.5	59
22	Majorization Theory Approach to the Gaussian Channel Minimum Entropy Conjecture. Physical Review Letters, 2012, 108, 110505.	7.8	57
23	Quantum optical coherence can survive photon losses using a continuous-variable quantum erasure-correcting code. Nature Photonics, 2010, 4, 700-705.	31.4	50
24	Continuous-variable entropic uncertainty relations. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 173001.	2.1	48
25	Economical quantum cloning in any dimension. Physical Review A, 2005, 72, .	2.5	47
26	Loophole-free test of quantum nonlocality using high-efficiency homodyne detectors. Physical Review A, 2005, 71, .	2.5	44
27	Experimental Implementation of Non-Gaussian Attacks on a Continuous-Variable Quantum-Key-Distribution System. Physical Review Letters, 2007, 98, 030503.	7.8	40
28	Operational formulation of time reversal in quantum theory. Nature Physics, 2015, 11, 853-858.	16.7	39
29	Optical quantum cloning. Progress in Optics, 2006, , 455-545.	0.6	35
30	Operational quantum theory without predefined time. New Journal of Physics, 2016, 18, 073037.	2.9	34
31	Pulsed squeezed vacuum measurements without homodyning. Physical Review A, 2004, 70, .	2.5	32
32	From quantum cloning to quantum key distribution with continuous variables: a review (Invited). Journal of the Optical Society of America B: Optical Physics, 2007, 24, 324.	2.1	32
33	Strong no-go theorem for Gaussian quantum bit commitment. Physical Review A, 2010, 81, .	2.5	30
34	Quantum Cloning of a Coherent Light State into an Atomic Quantum Memory. Physical Review Letters, 2004, 93, 180501.	7.8	24
35	Equivalence Relations for the Classical Capacity of Single-Mode Gaussian Quantum Channels. Physical Review Letters, 2013, 111, 030503.	7.8	22
36	Information-theoretic interpretation of quantum error-correcting codes. Physical Review A, 1997, 56, 1721-1732.	2.5	21

#	ARTICLE	IF	CITATIONS
37	Entropic bounds on coding for noisy quantum channels. Physical Review A, 1998, 57, 3330-3347.	2.5	15
38	Capacity of a bosonic memory channel with Gauss-Markov noise. Physical Review A, 2009, 80, .	2.5	14
39	Detection of non-Gaussian entangled states with an improved continuous-variable separability criterion. Physical Review A, 2016, 93, .	2.5	14
40	Entropy-power uncertainty relations: towards a tight inequality for all Gaussian pure states. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 385301.	2.1	12
41	Quantum thermodynamics in a multipartite setting: A resource theory of local Gaussian work extraction for multimode bosonic systems. Physical Review A, 2019, 100, .	2.5	12
42	Optimal multicopy asymmetric Gaussian cloning of coherent states. Physical Review A, 2007, 75, .	2.5	10
43	Efficient entanglement distillation without quantum memory. Nature Communications, 2016, 7, 11720.	12.8	9
44	Quantum Wigner entropy. Physical Review A, 2021, 104, .	2.5	9
45	Quantum de Finetti theorem in phase-space representation. Physical Review A, 2009, 80, .	2.5	7
46	Gaussian capacity of the quantum bosonic memory channel with additive correlated Gaussian noise. Physical Review A, 2011, 84, .	2.5	7
47	Entropy generation in Gaussian quantum transformations: applying the replica method to continuous-variable quantum information theory. Npj Quantum Information, 2016, 2, .	6.7	7
48	Monte Carlo Computation of Pair Correlations in Excited Nuclei. Physical Review Letters, 1996, 76, 2420-2423.	7.8	6
49	Interconversion of pure Gaussian states requiring non-Gaussian operations. Physical Review A, 2015, 91, .	2.5	6
50	Majorization preservation of Gaussian bosonic channels. New Journal of Physics, 2016, 18, 073047.	2.9	6
51	Two-boson quantum interference in time. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33107-33116.	7.1	5
52	Multicopy uncertainty observable inducing a symplectic-invariant uncertainty relation in position and momentum phase space. Physical Review A, 2019, 100, .	2.5	4
53	Partial order on passive states and Hoffman majorization in quantum thermodynamics. Physical Review Research, 2021, 3, .	3.6	4
54	Multidimensional entropic uncertainty relation based on a commutator matrix in position and momentum spaces. Physical Review A, 2018, 97, .	2.5	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.	2.1	3
56	Information-Theoretic Aspects of Quantum Copying. Lecture Notes in Computer Science, 1999, , 218-234.	1.3	3
57	Multiparticle quantum interference in Bogoliubov bosonic transformations. Physical Review Research, 2021, 3, .	3.6	2
58	Cerf Replies:. Physical Review Letters, 1998, 80, 886-886.	7.8	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, .	2.5	1
61	Quantum Cloning with Continuous Variables. , 2003, , 277-293.		0