

Hyunchul Nha

List of Publications by Year in descending order

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106
papers

2,502
citations

186265

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45
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107
all docs

107
docs citations

107
times ranked

1389
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal teleportation via noisy quantum channels without additional qubit resources. Npj Quantum Information, 2021, 7, .	6.7	19
2	Quantum teleportation is a reversal of quantum measurement. Physical Review Research, 2021, 3, .	3.6	4
3	Quantifying non-Gaussianity of a quantum state by the negative entropy of quadrature distributions. Physical Review A, 2021, 104, .	2.5	9
4	Verifying single-mode nonclassicality beyond negativity in phase space. Physical Review Research, 2021, 3, .	3.6	7
5	Information fluctuation theorem for an open quantum bipartite system. Physical Review E, 2020, 101, 052128.	2.1	9
6	Quantum Photovoltaic Cells Driven by Photon Pulses. Entropy, 2020, 22, 693.	2.2	1
7	Quantifying coherence of quantum measurements. New Journal of Physics, 2020, 22, 093019.	2.9	15
8	Entropy, Free Energy, and Work of Restricted Boltzmann Machines. Entropy, 2020, 22, 538.	2.2	2
9	Faithful measure of quantum non-Gaussianity via quantum relative entropy. Physical Review A, 2019, 100, .	2.5	10
10	Quantum non-Gaussianity and secure quantum communication. Npj Quantum Information, 2019, 5, .	6.7	20
11	Optimal Gaussian measurements for phase estimation in single-mode Gaussian metrology. Npj Quantum Information, 2019, 5, .	6.7	50
12	Entropic Uncertainty Relations via Direct-Sum Majorization Relation for Generalized Measurements. Entropy, 2019, 21, 270.	2.2	5
13	Entropic nonclassicality and quantum non-Gaussianity tests via beam splitting. Scientific Reports, 2019, 9, 17835.	3.3	7
14	Output field squeezing in a weakly-driven dissipative quantum Rabi model. Optics Communications, 2019, 435, 350-354.	2.1	4
15	Sufficient condition for a quantum state to be genuinely quantum non-Gaussian. New Journal of Physics, 2018, 20, 023046.	2.9	25
16	Non-Gaussianity and entropy-bounded uncertainty relations: Application to detection of non-Gaussian entangled states. Physical Review A, 2018, 98, .	2.5	11
17	Nonclassicality and entanglement for continuous-variable quantum information. , 2018, , .		0
18	Revealing nonclassicality beyond Gaussian states via a single marginal distribution. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 891-896.	7.1	32

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19	Optimal continuous-variable teleportation under energy constraint. <i>Physical Review A</i> , 2017, 95, .	2.5	4
20	Practical resources and measurements for lossy optical quantum metrology. <i>Physical Review A</i> , 2017, 96, .	2.5	22
21	Quantifying non-Gaussianity of quantum-state correlation. <i>Physical Review A</i> , 2017, 96, .	2.5	19
22	Quantum phase estimation using path-symmetric entangled states. <i>Scientific Reports</i> , 2016, 6, 30306.	3.3	19
23	Monogamy relation in multipartite continuous-variable quantum teleportation. <i>Physical Review A</i> , 2016, 94, .	2.5	5
24	Phonon arithmetic in a trapped ion system. <i>Nature Communications</i> , 2016, 7, 11410.	12.8	50
25	Photon transport in a one-dimensional nanophotonic waveguide QED system. <i>Physica Scripta</i> , 2016, 91, 063004.	2.5	68
26	Fate of photon blockade in the deep strong-coupling regime. <i>Physical Review A</i> , 2016, 94, .	2.5	52
27	Dynamical theory of single-photon transport in a one-dimensional waveguide coupled to identical and nonidentical emitters. <i>Physical Review A</i> , 2016, 94, .	2.5	48
28	Single-photon frequency-comb generation in a one-dimensional waveguide coupled to two atomic arrays. <i>Physical Review A</i> , 2016, 93, .	2.5	29
29	Gaussian benchmark for optical communication aiming towards ultimate capacity. <i>Physical Review A</i> , 2016, 93, .	2.5	13
30	Quantum steering of Gaussian states via non-Gaussian measurements. <i>Scientific Reports</i> , 2016, 6, 29729.	3.3	24
31	Demonstrating nonclassicality and non-Gaussianity of single-mode fields: Bell-type tests using generalized phase-space distributions. <i>Physical Review A</i> , 2015, 92, .	2.5	16
32	Trade-off between information gain and fidelity under weak measurements. <i>Physical Review A</i> , 2015, 92, .	2.5	8
33	Quantum walk as a simulator of nonlinear dynamics: Nonlinear Dirac equation and solitons. <i>Physical Review A</i> , 2015, 92, .	2.5	25
34	Steering criteria via covariance matrices of local observables in arbitrary-dimensional quantum systems. <i>Physical Review A</i> , 2015, 92, .	2.5	20
35	Coherent-state optical qudit cluster state generation and teleportation via homodyne detection. <i>Optics Communications</i> , 2015, 337, 79-82.	2.1	21
36	Classical capacity of Gaussian communication under a single noisy channel. <i>Physical Review A</i> , 2015, 91, .	2.5	7

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37	Quantum steering of multimode Gaussian states by Gaussian measurements: monogamy relations and the Peres conjecture. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 135301.	2.1	39
38	Testing Nonclassicality and Non-Gaussianity in Phase Space. <i>Physical Review Letters</i> , 2015, 114, 190402.	7.8	30
39	Quantum phase estimation using a multi-headed cat state. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, 1186.	2.1	27
40	Inseparability criterion using higher-order Schrödinger–Robertson uncertainty relation. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 656.	2.1	4
41	Gaussian states under coarse-grained continuous variable measurements. <i>Physical Review A</i> , 2014, 89, .	2.5	12
42	Continuous-variable dense coding via a general Gaussian state: Monogamy relation. <i>Physical Review A</i> , 2014, 90, .	2.5	6
43	Quantum and classical nonlinear dynamics in a microwave cavity. <i>EPJ Quantum Technology</i> , 2014, 1, .	6.3	17
44	Entanglement distillation for continuous variables in a thermal environment: Effectiveness of a non-Gaussian operation. <i>Physical Review A</i> , 2013, 87, .	2.5	23
45	Entanglement of movable mirrors in a correlated-emission laser. <i>Physical Review A</i> , 2013, 88, .	2.5	41
46	Entanglement of movable mirrors in a correlated emission laser via cascade-driven coherence. <i>Physical Review A</i> , 2013, 88, .	2.5	21
47	Enhanced multipartite quantum correlation by non-Gaussian operations. <i>Physical Review A</i> , 2013, 88, .	2.5	18
48	Optimal estimation of joint parameters in phase space. <i>Physical Review A</i> , 2013, 87, .	2.5	98
49	Quantum steering for continuous-variable states. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 2483.	2.1	11
50	Generating arbitrary photon-number entangled states for continuous-variable quantum informatics. <i>Optics Express</i> , 2012, 20, 14221.	3.4	19
51	Enhanced Bell violation by a coherent superposition of photon subtraction and addition. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 906.	2.1	27
52	Efficient Entanglement Criteria beyond Gaussian Limits Using Gaussian Measurements. <i>Physical Review Letters</i> , 2012, 108, 030503.	7.8	32
53	Second-order superposition operations via Hong-Ou-Mandel interference. <i>Physical Review A</i> , 2012, 85, .	2.5	37
54	Qudit communication network. , 2012, , .		1

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55	Generating a Schrödinger-cat-like state via a coherent superposition of photonic operations. <i>Physical Review A</i> , 2012, 85, .	2.5	30
56	Quantum linear amplifier enhanced by photon subtraction and addition. <i>Physical Review A</i> , 2012, 85, .	2.5	34
57	Linear optical scheme for producing polarization-entangled NOON states. <i>Optics Communications</i> , 2012, 285, 307-310.	2.1	5
58	Enhancing quantum entanglement for continuous variables by a coherent superposition of photon subtraction and addition. <i>Physical Review A</i> , 2011, 84, .	2.5	136
59	<i>Ji<i>etÂal.</i>Reply:.</i> <i>Physical Review Letters</i> , 2011, 106, .	7.8	0
60	Comment on "Role of Initial Entanglement and Non-Gaussianity in the Decoherence of Photon-Number Entangled States Evolving in a Noisy Channel": <i>Physical Review Letters</i> , 2011, 107, 238901; discussion 238902.	7.8	14
61	Quantum state engineering by a coherent superposition of photon subtraction and addition. , 2011, , .		0
62	Gaussian-state entanglement in a quantum beat laser. <i>Physical Review A</i> , 2011, 83, .	2.5	18
63	Quantum state engineering by a coherent superposition of photon subtraction and addition. <i>Physical Review A</i> , 2010, 82, .	2.5	146
64	Detection of bound entanglement in continuous-variable systems. <i>Physical Review A</i> , 2010, 82, .	2.5	8
65	Loophole-Free Bell Test for Continuous Variables via Wave and Particle Correlations. <i>Physical Review Letters</i> , 2010, 105, 170404.	7.8	17
66	Linear amplification and quantum cloning for non-Gaussian continuous variables. <i>New Journal of Physics</i> , 2010, 12, 103010.	2.9	22
67	Entanglement detection via tighter local uncertainty relations. <i>Physical Review A</i> , 2010, 81, .	2.5	21
68	Rigorous criterion for characterizing correlated multiphoton emissions. <i>Optics Express</i> , 2010, 18, 7092.	3.4	3
69	Entanglement criteria and nonlocality for multimode continuous-variable systems. <i>Physical Review A</i> , 2009, 80, .	2.5	25
70	Quantum Teleportation of the Temporal Fluctuations of Light. <i>Physical Review Letters</i> , 2009, 102, 230501.	7.8	12
71	Entanglement of Gaussian states using a beam splitter. <i>Physical Review A</i> , 2009, 79, .	2.5	53
72	Demonstrating higher-order nonclassical effects by photon-added classical states: realistic schemes. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009, 26, 1363.	2.1	53

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73	Uncertainty Inequalities as Entanglement Criteria for Negative Partial-Transpose States. Physical Review Letters, 2008, 101, 130402.	7.8	54
74	Decoherence of highly mixed macroscopic quantum superpositions. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1025.	2.1	13
75	Complete conditions for legitimate Wigner distributions. Physical Review A, 2008, 78, .	2.5	6
76	Linear optical scheme to demonstrate genuine multipartite entanglement for single-particle W states. Physical Review A, 2008, 77, .	2.5	11
77	Demonstrating multipartite entanglement of single-particle W states: Linear optical schemes. Physical Review A, 2007, 75, .	2.5	22
78	Entanglement condition via $su(2)$ and $su(1,1)$ algebra using Schrödinger-Robertson uncertainty relation. Physical Review A, 2007, 76, .	2.5	31
79	Publisher's Note: Demonstrating multipartite entanglement of single-particle W states: Linear optical schemes [Phys. Rev. A 75, 012326 (2007)]. Physical Review A, 2007, 75, .	2.5	0
80	Unitary equivalence between ordinary intelligent states and generalized intelligent states. Physical Review A, 2007, 76, .	2.5	7
81	Entanglement criteria via the uncertainty relations in $su(2)$ and $su(1,1)$ algebras: Detection of non-Gaussian entangled states. Physical Review A, 2006, 74, .	2.5	63
82	Distinguishing two single-mode Gaussian states by homodyne detection: An information-theoretic approach. Physical Review A, 2005, 71, .	2.5	29
83	Decoherence of a two-state atom driven by coherent light. Physical Review A, 2005, 71, .	2.5	16
84	Vacuum fluctuations and the conditional homodyne detection of squeezed light. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S645-S651.	1.4	3
85	Entanglement within the Quantum Trajectory Description of Open Quantum Systems. Physical Review Letters, 2004, 93, 120408.	7.8	52
86	Proposed Test of Quantum Nonlocality for Continuous Variables. Physical Review Letters, 2004, 93, 020401.	7.8	196
87	CONTINUOUS VARIABLE TELEPORTATION WITHIN STOCHASTIC ELECTRODYNAMICS. , 2004, , .		0
88	Squeezing effect in a driven coupled-oscillator system: A dual role of damping. Physical Review A, 2003, 67, .	2.5	9
89	Atomic-position localization via dual measurement. Physical Review A, 2002, 65, .	2.5	40
90	Stochastic initiation of superradiance in a cavity: Decoherence through pseudospin exchange. Physical Review A, 2002, 66, .	2.5	2

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91	Squeezing Enhancement by Damping in a Driven Atom-Cavity System. Journal of the Physical Society of Japan, 2002, 71, 1615-1617.	1.6	3
92	Dynamics of an atomic wave packet in a standing-wave cavity field: A cavity-assisted single-atom detection. Physical Review A, 2002, 65, .	2.5	5
93	Dynamically induced atomic resonance fluorescence and cavity transmission spectra in a driven Jaynes-Cummings system. Physical Review A, 2001, 63, .	2.5	8
94	Cavity-damping-induced transitions in a driven atom-cavity system. Optics Letters, 2001, 26, 923.	3.3	8
95	Multiphoton Spectroscopy of a Driven Jaynes-Cummings System. Journal of the Physical Society of Japan, 2000, 69, 4060-4065.	1.6	1
96	Resonance fluorescence of a two-level atom in a colored vacuum. Physical Review A, 2000, 62, .	2.5	7
97	Single-atom laser based on multiphoton resonances at far-off resonance in the Jaynes-Cummings ladder. Physical Review A, 2000, 63, .	2.5	10
98	Single-photon state in a driven Jaynes-Cummings system. Physical Review A, 2000, 63, .	2.5	16
99	New Features of the Fluorescence Spectra in the Driven Jaynes-Cummings System. Journal of the Korean Physical Society, 2000, 37, 693-696.	0.7	2
100	Sisyphus cooling on the surface of a hollow-mirror atom trap. Physical Review A, 1997, 56, 729-736.	2.5	18
101	Cold Atoms in a Hollow Mirror Trap. International Journal of Modern Physics B, 1997, 11, 3311-3317.	2.0	0
102	Cavity quantum electrodynamics for a cylinder: Inside a hollow dielectric and near a solid dielectric cylinder. Physical Review A, 1997, 56, 2213-2220.	2.5	64
103	Cavity quantum electrodynamics between parallel dielectric surfaces. Physical Review A, 1996, 54, 3505-3513.	2.5	56
104	Atomic wave packet dynamics in a standing wave quantum field. , 0, , .		0
105	Squeezing by damping in a driven coupled-oscillator system. , 0, , .		0
106	Complete Information Balance in Quantum Measurement. Quantum - the Open Journal for Quantum Science, 0, 5, 414.	0.0	8