

Jaromír Štěrba

List of Publications by Year in descending order

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166
papers

5,578
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81743

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168
all docs

168
docs citations

168
times ranked

2737
citing authors

#	ARTICLE	IF	CITATIONS
1	Teleportation-based noiseless quantum amplification of coherent states of light. Optics Express, 2022, 30, 1466.	1.7	9
2	Optimal linear-optical noiseless quantum amplifiers driven by auxiliary multiphoton Fock states. Physical Review A, 2022, 105, .	1.0	6
3	Direct Experimental Certification of Quantum Non-Gaussian Character and Wigner Function Negativity of Single-Photon Detectors. Physical Review Letters, 2021, 126, 043601.	2.9	10
4	Optimal implementation of two-qubit linear-optical quantum filters. Physical Review A, 2021, 103, .	1.0	3
5	Experimental demonstration of optimal probabilistic enhancement of quantum coherence. Quantum Science and Technology, 2021, 6, 045010.	2.6	3
6	Quantum non-Gaussianity criteria based on vacuum probabilities of original and attenuated state. New Journal of Physics, 2021, 23, 073005.	1.2	4
7	Decoherence-Resilient Linear Optical Two-Qubit Quantum Gate. Physical Review Applied, 2020, 14, .	1.5	1
8	Feedforward-enhanced Fock state conversion with linear optics. Optics Express, 2020, 28, 11634.	1.7	5
9	Experimental entanglement-assisted weak measurement of phase shift. Optics Express, 2020, 28, 34639.	1.7	5
10	Experimental quantum decoherence control by dark states of the environment. New Journal of Physics, 2020, 22, 093058.	1.2	3
11	Nondestructive detector for exchange symmetry of photonic qubits. Npj Quantum Information, 2018, 4, .	2.8	9
12	Experimental realization of SWAP operation on hyper-encoded qubits. Optics Express, 2018, 26, 8443.	1.7	20
13	Interconversion between single-rail and dual-rail photonic qubits. Physical Review A, 2017, 95, .	1.0	5
14	Negative Wigner function at telecommunication wavelength from homodyne detection. Physical Review A, 2017, 95, .	1.0	10
15	Measurement-Induced Strong Kerr Nonlinearity for Weak Quantum States of Light. Physical Review Letters, 2017, 119, 013601.	2.9	30
16	Unconditional entanglement interface for quantum networks. Physical Review A, 2016, 93, .	1.0	8
17	Generalized Hofmann quantum process fidelity bounds for quantum filters. Physical Review A, 2016, 93, .	1.0	3
18	Control and enhancement of interferometric coupling between two photonic qubits. Physical Review A, 2016, 93, .	1.0	4

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19	Experimental replication of single-qubit quantum phase gates. <i>Physical Review A</i> , 2016, 93, .	1.0	2
20	Experimental investigation of a four-qubit linear-optical quantum logic circuit. <i>Scientific Reports</i> , 2016, 6, 33475.	1.6	13
21	Efficient entanglement distillation without quantum memory. <i>Nature Communications</i> , 2016, 7, 11720.	5.8	9
22	Faithful conditional quantum state transfer between weakly coupled qubits. <i>Scientific Reports</i> , 2016, 6, 32125.	1.6	2
23	Experimental test of robust quantum detection and restoration of a qubit. <i>Physical Review A</i> , 2015, 92, .	1.0	0
24	Continuous-variable quantum process tomography with squeezed-state probes. <i>Physical Review A</i> , 2015, 92, .	1.0	3
25	Quantum controlled-Zgate for weakly interacting qubits. <i>Physical Review A</i> , 2015, 92, .	1.0	4
26	Tomographic characterization of a linear optical quantum Toffoli gate. <i>Physical Review A</i> , 2015, 92, .	1.0	13
27	Analysis of counting measurements on narrowband frequency up-converted single photons and the influence of heralding detector dead time. <i>Physical Review A</i> , 2015, 91, .	1.0	4
28	Strongly squeezed states at 532 nm based on frequency up-conversion. <i>Optics Express</i> , 2015, 23, 16035.	1.7	16
29	Weak-signal conversion from 1550 to 532 nm with 84% efficiency. <i>Optics Letters</i> , 2014, 39, 2979.	1.7	14
30	Quantum non-Gaussianity of frequency up-converted single photons. <i>Optics Express</i> , 2014, 22, 22808.	1.7	15
31	Transformations of symmetric multipartite Gaussian states by Gaussian local operations and classical communication. <i>Physical Review A</i> , 2014, 89, .	1.0	2
32	Process-fidelity estimation of a linear optical quantum-controlled-Zgate: A comparative study. <i>Physical Review A</i> , 2014, 89, .	1.0	5
33	Heralded noiseless amplification and attenuation of non-Gaussian states of light. <i>Physical Review A</i> , 2014, 89, .	1.0	34
34	Highly stable polarization independent Mach-Zehnder interferometer. <i>Review of Scientific Instruments</i> , 2014, 85, 083103.	0.6	19
35	Bounds on quantum process fidelity from minimum required number of quantum state fidelity measurements. <i>Physical Review A</i> , 2014, 89, .	1.0	2
36	Quantum Up-Conversion of Squeezed Vacuum States from 1550 to 532 nm. <i>Physical Review Letters</i> , 2014, 112, 073602.	2.9	60

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37	Optimal entanglement-assisted discrimination of quantum measurements. Physical Review A, 2014, 90, .	1.0	8
38	Orthogonalization of partly unknown quantum states. Physical Review A, 2014, 89, .	1.0	8
39	Experimental Entanglement Distribution by Separable States. Physical Review Letters, 2013, 111, 230505.	2.9	56
40	Witnessing negativity of Wigner function by estimating fidelities of catlike states from homodyne measurements. Physical Review A, 2013, 87, .	1.0	5
41	Efficient Experimental Estimation of Fidelity of Linear Optical Quantum Toffoli Gate. Physical Review Letters, 2013, 111, 160407.	2.9	55
42	Optimal unambiguous discrimination of two incompatible quantum measurements. , 2013, , .		0
43	Efficient representation of purity-preserving Gaussian quantum filters. Physical Review A, 2013, 87, .	1.0	2
44	Increasing efficiency of a linear-optical quantum gate using electronic feed-forward. Physical Review A, 2012, 85, .	1.0	21
45	Noiseless Loss Suppression in Quantum Optical Communication. Physical Review Letters, 2012, 109, 180503.	2.9	74
46	Gaussian postselection and virtual noiseless amplification in continuous-variable quantum key distribution. Physical Review A, 2012, 86, .	1.0	90
47	Full symmetrization of two-mode entangled Gaussian states by local operations. Physical Review A, 2012, 86, .	1.0	2
48	Displacement-enhanced continuous-variable entanglement concentration. Physical Review A, 2012, 86, .	1.0	10
49	Experimental Test of the Quantum Non-Gaussian Character of a Heralded Single-Photon State. Physical Review Letters, 2011, 107, 213602.	2.9	73
50	Improving entanglement concentration of Gaussian states by local displacements. Physical Review A, 2011, 84, .	1.0	34
51	A high-fidelity noiseless amplifier for quantum light states. Nature Photonics, 2011, 5, 52-56.	15.6	214
52	Gaussification of quantum states of traveling light beams in atomic memory. Physical Review A, 2010, 82, .	1.0	1
53	Distillation and purification of symmetric entangled Gaussian states. Physical Review A, 2010, 82, .	1.0	34
54	Elementary gates for quantum information with superposed coherent states. Physical Review A, 2010, 82, .	1.0	65

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55	Iterative Entanglement Distillation: Approaching the Elimination of Decoherence. Physical Review Letters, 2010, 105, 230502.	2.9	8
56	Experimental Realization of Programmable Quantum Gate Array for Directly Probing Commutation Relations of Pauli Operators. Physical Review Letters, 2010, 105, 120402.	2.9	11
57	Experimental preparation of two-photon Knill-Laflamme-Milburn states. Physical Review A, 2010, 81, .	1.0	15
58	Experimental demonstration of optimal universal asymmetric quantum cloning of polarization states of single photons by partial symmetrization. Physical Review A, 2009, 80, .	1.0	5
59	Experimental demonstration of a teleportation-based programmable quantum gate. Physical Review A, 2009, 79, .	1.0	10
60	Resources for universal quantum-state manipulation and engineering. Physical Review A, 2009, 79, .	1.0	10
61	Markov chain Monte Carlo estimation of quantum states. Physical Review A, 2009, 79, .	1.0	5
62	Three-qubit quantum gates and filters for linear optical quantum-information processing. Physical Review A, 2009, 79, .	1.0	4
63	No-Go Theorem for Gaussian Quantum Error Correction. Physical Review Letters, 2009, 102, 120501.	2.9	231
64	Experimental implementation of partial symmetrization and anti-symmetrization of two-qubit states. New Journal of Physics, 2009, 11, 023005.	1.2	4
65	Engineering quantum operations on traveling light beams by multiple photon addition and subtraction. Physical Review A, 2009, 80, .	1.0	104
66	Universal linear-optical quantum device: experimental implementation. Journal of Russian Laser Research, 2009, 30, 533-539.	0.3	0
67	Optimal two-copy discrimination of quantum measurements. Physical Review A, 2009, 80, .	1.0	8
68	Conditional preparation of arbitrary superpositions of atomic Dicke states. Physical Review A, 2009, 79, .	1.0	10
69	Preparation of distilled and purified continuous-variable entangled states. Nature Physics, 2008, 4, 915-918.	6.5	88
70	Experimental Realization of Linear-Optical Partial swap Gates. Physical Review Letters, 2008, 100, 180501.	2.9	45
71	Preparation of entangled states of two photons in several spatial modes. Physical Review A, 2008, 77, .	1.0	16
72	Mixed-state localizable entanglement for continuous variables. Physical Review A, 2008, 78, .	1.0	7

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73	Experimental realization of a programmable quantum gate. Physical Review A, 2008, 78, .	1.0	18
74	Quantum cloning of a pair of orthogonally polarized photons with linear optics. Physical Review A, 2008, 77, .	1.0	12
75	Experimental asymmetric phase-covariant quantum cloning of polarization qubits. Physical Review A, 2008, 78, .	1.0	21
76	Linear optical Fredkin gate based on partial-SWAP gate. Physical Review A, 2008, 78, .	1.0	46
77	Optimal estimation of the magnetic field in atomic magnetometry with arbitrary shape of the probe light beam. Physical Review A, 2008, 77, .	1.0	0
78	On the distillation and purification of phase-diffused squeezed states. New Journal of Physics, 2007, 9, 227-227.	1.2	24
79	Nonunity gain minimal-disturbance measurement. Physical Review A, 2007, 76, .	1.0	16
80	Experimental characterization of Gaussian quantum-communication channels. Physical Review A, 2007, 76, .	1.0	39
81	Fiber-Optics Implementation of an Asymmetric Phase-Covariant Quantum Cloner. Physical Review Letters, 2007, 99, 120505.	2.9	40
82	Optimal multicopy asymmetric Gaussian cloning of coherent states. Physical Review A, 2007, 75, .	1.0	10
83	Several experimental realizations of symmetric phase-covariant quantum cloners of single-photon qubits. Physical Review A, 2007, 76, .	1.0	26
84	Experimentally feasible purification of continuous-variable entanglement. Physical Review A, 2007, 75, .	1.0	25
85	Multiple-copy distillation and purification of phase-diffused squeezed states. Physical Review A, 2007, 76, .	1.0	6
86	Gaussian localizable entanglement. Physical Review A, 2007, 75, .	1.0	32
87	Loophole-Free Test of Quantum Nonlocality with Continuous Variables of Light. , 2007, , 121-139.		0
88	Distillation of Continuous-Variable Entanglement. , 2007, , 101-120.		0
89	Encoding Two Qubits into a Single Qutrit: An Experiment. Acta Physica Hungarica A Heavy Ion Physics, 2006, 26, 269-276.	0.4	0
90	Optical quantum cloning. Progress in Optics, 2006, , 455-545.	0.4	35

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91	Optimal probabilistic estimation of quantum states. <i>New Journal of Physics</i> , 2006, 8, 192-192.	1.2	20
92	Experimental Demonstration of Continuous Variable Purification of Squeezed States. <i>Physical Review Letters</i> , 2006, 97, 150505.	2.9	66
93	Linear-optics quantum Toffoli and Fredkin gates. <i>Physical Review A</i> , 2006, 73, .	1.0	93
94	Single-passage readout of atomic quantum memory. <i>Physical Review A</i> , 2006, 73, .	1.0	19
95	Experimental phase-covariant cloning of polarization states of single photons. <i>Physical Review A</i> , 2006, 74, .	1.0	47
96	Optical implementation of the encoding of two qubits to a single qutrit. <i>Physical Review A</i> , 2006, 74, .	1.0	19
97	Optimal partial estimation of quantum states from several copies. <i>Physical Review A</i> , 2006, 74, .	1.0	10
98	Light qubit storage and retrieval using macroscopic atomic ensembles. <i>Physical Review A</i> , 2006, 74, .	1.0	39
99	<title>Entanglement generation in two coupled second-harmonic generators</title>. , 2005, 5945, 35.		0
100	Economical quantum cloning in any dimension. <i>Physical Review A</i> , 2005, 72, .	1.0	47
101	Experimental purification of coherent states. <i>Physical Review A</i> , 2005, 72, .	1.0	26
102	Enhancing the Capacity and Performance of Collective Atomic Quantum Memory. <i>Physical Review Letters</i> , 2005, 95, 053602.	2.9	12
103	Multipartite asymmetric quantum cloning. <i>Physical Review A</i> , 2005, 72, .	1.0	61
104	Optimal partial estimation of multiple phases. <i>Physical Review A</i> , 2005, 72, .	1.0	26
105	HAMILTONIAN LOGIC GATES: COMPUTING INSIDE A MOLECULE. <i>International Journal of Nanoscience</i> , 2005, 04, 107-118.	0.4	4
106	Optical Implementation of Two Programmable Quantum Measurement Devices. <i>European Physical Journal A</i> , 2005, 23, 11-18.	0.2	2
107	Conditional generation of arbitrary single-mode quantum states of light by repeated photon subtractions. <i>Physical Review A</i> , 2005, 72, .	1.0	101
108	Loophole-free test of quantum nonlocality using high-efficiency homodyne detectors. <i>Physical Review A</i> , 2005, 71, .	1.0	44

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109	Quantum Cloning of a Coherent Light State into an Atomic Quantum Memory. Physical Review Letters, 2004, 93, 180501.	2.9	24
110	Cloning the entanglement of a pair of quantum bits. Physical Review A, 2004, 69, .	1.0	27
111	How to Measure Squeezing and Entanglement of Gaussian States without Homodyning. Physical Review Letters, 2004, 93, 063601.	2.9	56
112	Optimal probabilistic cloning and purification of quantum states. Physical Review A, 2004, 70, .	1.0	54
113	Experimental realization of a programmable quantum-state discriminator and a phase-covariant quantum multimeter. Physical Review A, 2004, 69, .	1.0	19
114	Probabilistic quantum multimeters. Physical Review A, 2004, 69, .	1.0	22
115	Reversibility of continuous-variable quantum cloning. Physical Review A, 2004, 69, .	1.0	8
116	Experimental demonstration of quantum memory for light. Nature, 2004, 432, 482-486.	13.7	727
117	Intramolecular Hamiltonian logic gates. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 24, 161-172.	1.3	21
118	Experimental Purification of Single Qubits. Physical Review Letters, 2004, 93, 170501.	2.9	37
119	Pulsed squeezed vacuum measurements without homodyning. Physical Review A, 2004, 70, .	1.0	32
120	Proposal for a Loophole-Free Bell Test Using Homodyne Detection. Physical Review Letters, 2004, 93, 130409.	2.9	250
121	Simple optical measurement of the overlap and fidelity of quantum states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 310, 95-100.	0.9	34
122	Quantum inference of states and processes. Physical Review A, 2003, 68, .	1.0	130
123	Unitary-gate synthesis for continuous-variable systems. Physical Review A, 2003, 68, .	1.0	20
124	Entanglement generation in continuously coupled parametric generators. Journal of Optics B: Quantum and Semiclassical Optics, 2003, 5, 419-426.	1.4	20
125	Optimal discrimination of mixed quantum states involving inconclusive results. Physical Review A, 2003, 67, .	1.0	97
126	Optical implementations of the optimal phase-covariant quantum cloning machine. Physical Review A, 2003, 67, .	1.0	96

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127	Conditional generation of arbitrary multimode entangled states of light with linear optics. Physical Review A, 2003, 68, .	1.0	16
128	Entanglement concentration of continuous-variable quantum states. Physical Review A, 2003, 67, .	1.0	49
129	Encoding the quantum state of cavity mode into an atomic beam. Physical Review A, 2002, 66, .	1.0	1
130	Structural physical approximations of unphysical maps and generalized quantum measurements. Physical Review A, 2002, 66, .	1.0	23
131	Universal Measurement Apparatus Controlled by Quantum Software. Physical Review Letters, 2002, 89, 190401.	2.9	54
132	Gaussian Transformations and Distillation of Entangled Gaussian States. Physical Review Letters, 2002, 89, 137904.	2.9	323
133	Continuously induced coherence without induced emission. Physical Review A, 2002, 65, .	1.0	4
134	Improving the fidelity of continuous-variable teleportation via local operations. Physical Review A, 2002, 66, .	1.0	58
135	Bell-inequality violation with thermal radiation. Physical Review A, 2002, 65, .	1.0	13
136	<title>Continuous-variable quantum teleportation of squeezed coherent states</title>. , 2002, , .		0
137	<title>Optimum teleportation with imperfect Bell-state measurements</title>. , 2002, 4888, 16.		0
138	Conditional generation of N-photon entangled states of light. Physical Review A, 2002, 65, .	1.0	122
139	Continuous-variable Werner state: Separability, nonlocality, squeezing, and teleportation. Physical Review A, 2002, 65, .	1.0	46
140	Slow-light pulses in moving media. Physical Review A, 2001, 65, .	1.0	13
141	Optical Implementation of Continuous-Variable Quantum Cloning Machines. Physical Review Letters, 2001, 86, 4942-4945.	2.9	92
142	<title>Quantum phase properties of Raman scattering</title>. , 2001, 4356, 32.		0
143	Determination of Multimode Moments of Creation and Annihilation Operators via Multimode Balanced Homodyning with a Single Homodyne Detector. Fortschritte Der Physik, 2001, 49, 955.	1.5	1
144	<title>Substituting scheme for nonlinear couplers</title>. , 2001, 4356, 25.		0

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145	Designing optimum completely positive maps for quantum teleportation. Physical Review A, 2001, 64, .	1.0	13
146	Maximum-likelihood estimation of quantum measurement. Physical Review A, 2001, 64, .	1.0	121
147	Conditional generation of sub-Poissonian light from two-mode squeezed vacuum via balanced homodyne detection on idler mode. Physical Review A, 2001, 64, .	1.0	6
148	Maximum-likelihood estimation of quantum processes. Physical Review A, 2001, 63, .	1.0	72
149	Sampling functions for multimode homodyne tomography with a single local oscillator. Physical Review A, 2001, 63, .	1.0	7
150	Extremal equation for optimal completely positive maps. Physical Review A, 2001, 64, .	1.0	34
151	Coherent light scattering and resonant energy transfer in an apertureless scanning near-field optical microscope. Physical Review B, 2001, 63, .	1.1	9
152	Competition between electron and hole stimulated Raman passage. Physical Review A, 2001, 64, .	1.0	9
153	Two-mode squeezing in Raman couplers. Journal of Optics B: Quantum and Semiclassical Optics, 2000, 2, 10-20.	1.4	5
154	Sampling the canonical phase from phase-space functions. Physical Review A, 2000, 62, .	1.0	2
155	Direct sampling of exponential phase moments of smoothed Wigner functions. Physical Review A, 2000, 62, .	1.0	2
156	Substituting scheme for nonlinear couplers: A group approach. Physical Review A, 2000, 62, .	1.0	17
157	Phase properties of two-mode gaussian light fields with application to Raman scattering. Journal of Modern Optics, 2000, 47, 1399-1417.	0.6	3
158	Raman and Brillouin couplers with losses and phase mismatch. Journal of Modern Optics, 1999, 46, 1255-1276.	0.6	5
159	Quantum-phase properties of the Kerr couplers. Optics Communications, 1999, 167, 115-124.	1.0	39
160	<title>Quantum statistics of light in Raman scattering and Brillouin couplers with losses</title>., 1999, , .		0
161	Nonlinear Phenomena in Quantum Optics. , 0, , 491-601.		1
162	3 Maximum-Likelihood Methods in Quantum Mechanics. Lecture Notes in Physics, 0, , 59-112.	0.3	68

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163	Quantum memory for light. , 0, , .		0
164	Experimental purification ofcoherent states. , 0, , .		0
165	Quantum Interface Between Light and Atomic Ensembles. , 0, , 515-535.		0
166	Raman and Brillouin couplers with losses and phase mismatch. , 0, .		2