

Samuel L Braunstein

List of Publications by Year in descending order

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125
papers

18,865
citations

23544

58
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24961

109
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127
all docs

127
docs citations

127
times ranked

6510
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantum information with continuous variables. <i>Reviews of Modern Physics</i> , 2005, 77, 513-577.	16.4	2,800
2	Statistical distance and the geometry of quantum states. <i>Physical Review Letters</i> , 1994, 72, 3439-3443.	2.9	2,154
3	Teleportation of Continuous Quantum Variables. <i>Physical Review Letters</i> , 1998, 80, 869-872.	2.9	1,459
4	Quantum Interferometric Optical Lithography: Exploiting Entanglement to Beat the Diffraction Limit. <i>Physical Review Letters</i> , 2000, 85, 2733-2736.	2.9	1,308
5	Quantum Computation over Continuous Variables. <i>Physical Review Letters</i> , 1999, 82, 1784-1787.	2.9	775
6	Generalized Uncertainty Relations: Theory, Examples, and Lorentz Invariance. <i>Annals of Physics</i> , 1996, 247, 135-173.	1.0	566
7	Side-Channel-Free Quantum Key Distribution. <i>Physical Review Letters</i> , 2012, 108, 130502.	2.9	508
8	Multipartite Entanglement for Continuous Variables: A Quantum Teleportation Network. <i>Physical Review Letters</i> , 2000, 84, 3482-3485.	2.9	482
9	Dense coding for continuous variables. <i>Physical Review A</i> , 2000, 61, .	1.0	377
10	Maximal violation of Bell inequalities for mixed states. <i>Physical Review Letters</i> , 1992, 68, 3259-3261.	2.9	366
11	Better Late than Never: Information Retrieval from Black Holes. <i>Physical Review Letters</i> , 2013, 110, 101301.	2.9	350
12	High-rate measurement-device-independent quantum cryptography. <i>Nature Photonics</i> , 2015, 9, 397-402.	15.6	334
13	Squeezing as an irreducible resource. <i>Physical Review A</i> , 2005, 71, .	1.0	323
14	Efficient Classical Simulation of Continuous Variable Quantum Information Processes. <i>Physical Review Letters</i> , 2002, 88, 097904.	2.9	286
15	Quantum-state transfer from light to macroscopic oscillators. <i>Physical Review A</i> , 2003, 68, .	1.0	263
16	Measurement of the Bell operator and quantum teleportation. <i>Physical Review A</i> , 1995, 51, R1727-R1730.	1.0	248
17	Continuous-variable Gaussian analog of cluster states. <i>Physical Review A</i> , 2006, 73, .	1.0	204
18	Continuous-variable quantum cryptography using two-way quantum communication. <i>Nature Physics</i> , 2008, 4, 726-730.	6.5	198

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19	Quantum teleportation with squeezed vacuum states. <i>Physical Review A</i> , 1999, 60, 937-942.	1.0	191
20	Quantum computation by communication. <i>New Journal of Physics</i> , 2006, 8, 30-30.	1.2	188
21	Wringing out better Bell inequalities. <i>Annals of Physics</i> , 1990, 202, 22-56.	1.0	185
22	Direct and Reverse Secret-Key Capacities of a Quantum Channel. <i>Physical Review Letters</i> , 2009, 102, 050503.	2.9	182
23	Quantum error correction for communication with linear optics. <i>Nature</i> , 1998, 394, 47-49.	13.7	175
24	Criteria for continuous-variable quantum teleportation. <i>Journal of Modern Optics</i> , 2000, 47, 267-278.	0.6	169
25	Physics: Unite to build a quantum Internet. <i>Nature</i> , 2016, 532, 169-171.	13.7	168
26	Characterization of Collective Gaussian Attacks and Security of Coherent-State Quantum Cryptography. <i>Physical Review Letters</i> , 2008, 101, 200504.	2.9	167
27	Error Correction for Continuous Quantum Variables. <i>Physical Review Letters</i> , 1998, 80, 4084-4087.	2.9	163
28	Quantum Fidelity for Arbitrary Gaussian States. <i>Physical Review Letters</i> , 2015, 115, 260501.	2.9	152
29	Postselected versus nonpostselected quantum teleportation using parametric down-conversion. <i>Physical Review A</i> , 2000, 61, .	1.0	140
30	Schrödinger cats and their power for quantum information processing. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2004, 6, S828-S833.	1.4	139
31	Information-Theoretic Bell Inequalities. <i>Physical Review Letters</i> , 1988, 61, 662-665.	2.9	138
32	Optimal Cloning of Coherent States with a Linear Amplifier and Beam Splitters. <i>Physical Review Letters</i> , 2001, 86, 4938-4941.	2.9	131
33	Teleportation as a quantum computation. <i>Physica D: Nonlinear Phenomena</i> , 1998, 120, 43-47.	1.3	129
34	Quantum Information Cannot Be Completely Hidden in Correlations: Implications for the Black-Hole Information Paradox. <i>Physical Review Letters</i> , 2007, 98, 080502.	2.9	128
35	Universal Teleportation with a Twist. <i>Physical Review Letters</i> , 2000, 84, 3486-3489.	2.9	126
36	Telecloning of Continuous Quantum Variables. <i>Physical Review Letters</i> , 2001, 87, 247901.	2.9	123

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37	Impossibility of deleting an unknown quantum state. Nature, 2000, 404, 164-165.	13.7	122
38	Exponentially Enhanced Quantum Metrology. Physical Review Letters, 2008, 100, 220501.	2.9	120
39	Unconditional teleportation of continuous-variable entanglement. Physical Review A, 1999, 61, .	1.0	117
40	Quantum error correction beyond qubits. Nature Physics, 2009, 5, 541-546.	6.5	113
41	Theory of channel simulation and bounds for private communication. Quantum Science and Technology, 2018, 3, 035009.	2.6	111
42	Quantum versus classical domains for teleportation with continuous variables. Physical Review A, 2001, 64, .	1.0	109
43	Impossibility of deleting an unknown quantum state. Nature, 2000, 404, 164-165.	13.7	108
44	Quantum limits on precision measurements of phase. Physical Review Letters, 1992, 69, 3598-3601.	2.9	105
45	Quantum-interferometric optical lithography: Towards arbitrary two-dimensional patterns. Physical Review A, 2001, 63, .	1.0	104
46	Generalized squeezing. Physical Review A, 1987, 35, 1659-1667.	1.0	103
47	Quantum-information distributors: Quantum network for symmetric and asymmetric cloning in arbitrary dimension and continuous limit. Physical Review A, 2001, 63, .	1.0	99
48	A posteriori teleportation. Nature, 1998, 394, 840-841.	13.7	86
49	Detection devices in entanglement-based optical state preparation. Physical Review A, 2001, 63, .	1.0	80
50	Demonstration of Quantum Telecloning of Optical Coherent States. Physical Review Letters, 2006, 96, 060504.	2.9	80
51	Maximum-likelihood statistics of multiple quantum phase measurements. Physical Review A, 1993, 47, 1667-1696.	1.0	75
52	Interpretation for a positive representation. Physical Review A, 1991, 43, 1153-1159.	1.0	73
53	Homodyne statistics. Physical Review A, 1990, 42, 474-481.	1.0	71
54	Quantum lithography, entanglement and Heisenberg-limited parameter estimation. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S811-S815.	1.4	68

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55	Experimental Demonstration of Quantum Teleportation of Broadband Squeezing. Physical Review Letters, 2007, 99, 110503.	2.9	68
56	Optimality of Gaussian Discord. Physical Review Letters, 2014, 113, 140405.	2.9	67
57	Hybrid quantum computation in quantum optics. Physical Review A, 2008, 78, .	1.0	66
58	Maximum-likelihood analysis of multiple quantum phase measurements. Physical Review Letters, 1992, 69, 2153-2156.	2.9	63
59	Quantum reading capacity. New Journal of Physics, 2011, 13, 113012.	1.2	60
60	Greenberger-Horne-Zeilinger nonlocality in phase space. Physical Review A, 2001, 63, .	1.0	58
61	Continuous-variable quantum cryptography with an untrusted relay: Detailed security analysis of the symmetric configuration. Physical Review A, 2015, 91, .	1.0	53
62	Broadband teleportation. Physical Review A, 2000, 62, .	1.0	48
63	Geometry of quantum inference. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 219, 169-174.	0.9	39
64	Reply to 'Discrete and continuous variables for measurement-device-independent quantum cryptography'. Nature Photonics, 2015, 9, 773-775.	15.6	37
65	Phase and homodyne statistics of generalized squeezed states. Physical Review A, 1990, 42, 4115-4119.	1.0	36
66	Towards photostatistics from photon-number discriminating detectors. Journal of Modern Optics, 2004, 51, 1517-1528.	0.6	36
67	Limitations to squeezing in a parametric amplifier due to pump quantum fluctuations. Physical Review A, 1988, 38, 4696-4711.	1.0	35
68	Limitations on the creation of maximal entanglement. Physical Review A, 2000, 62, .	1.0	34
69	Channel Simulation in Quantum Metrology. Quantum Measurements and Quantum Metrology, 2018, 5, 1-12.	3.3	30
70	Dynamics of statistical distance: Quantum limits for two-level clocks. Physical Review A, 1995, 51, 1820-1826.	1.0	28
71	Quantum teleportation without irreversible detection. Physical Review A, 1996, 53, 1900-1902.	1.0	28
72	Quantum deleting and signalling. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 315, 208-212.	0.9	27

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73	Sure Success Partial Search. Quantum Information Processing, 2007, 6, 1-8.	1.0	27
74	Criteria for continuous-variable quantum teleportation. Journal of Modern Optics, 2000, 47, 267-278.	0.6	27
75	Quantum reading under a local energy constraint. Physical Review A, 2012, 86, .	1.0	24
76	Asymmetric quantum hypothesis testing with Gaussian states. Physical Review A, 2014, 90, .	1.0	24
77	Quantum Computation Over Continuous Variables. , 1999, , 9-17.		24
78	Perfect quantum-error-correction coding in 24 laser pulses. Physical Review A, 1997, 55, 945-950.	1.0	23
79	Destruction of photocount oscillations by thermal noise. Physical Review A, 1995, 51, 4967-4973.	1.0	22
80	Confidential Direct Communications: A Quantum Approach Using Continuous Variables. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1570-1580.	1.9	20
81	Noise in Mermin'sn-particle Bell inequality. Physical Review A, 1993, 47, R2427-R2430.	1.0	18
82	Multi-dimensional Hermite polynomials in quantum optics. Journal of Physics A, 2001, 34, 6185-6195.	1.6	18
83	Wringing out better Bell inequalities. Nuclear Physics, Section B, Proceedings Supplements, 1989, 6, 211-221.	0.5	17
84	Black Hole Evaporation Rates without Spacetime. Physical Review Letters, 2011, 107, 071302.	2.9	17
85	Quantum rules: an Effect can have more than one Operation. Foundations of Physics Letters, 1988, 1, 3-12.	0.6	15
86	Damping of quantum superpositions. Physical Review A, 1992, 45, 6803-6810.	1.0	14
87	Some limits to precision phase measurement. Physical Review A, 1994, 49, 69-75.	1.0	13
88	Exact quantum algorithm to distinguish Boolean functions of different weights. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 8441-8454.	0.7	13
89	Quantum Fourier transform, Heisenberg groups and quasi-probability distributions. New Journal of Physics, 2011, 13, 063013.	1.2	13
90	Finite-resource teleportation stretching for continuous-variable systems. Scientific Reports, 2018, 8, 15267.	1.6	13

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91	Teleportation simulation of bosonic Gaussian channels: strong and uniform convergence. European Physical Journal D, 2018, 72, 1.	0.6	12
92	Dense Coding for Continuous Variables. , 2000, , 95-103.		12
93	Deutsch-Jozsa Algorithm for Continuous Variables. , 2003, , 31-36.		11
94	Degenerate parametric amplifiers with a squeezed pump. Physical Review A, 1995, 52, 815-829.	1.0	10
95	Secret key capacity of the thermal-loss channel: improving the lower bound. , 2016, , .		9
96	Tight bounds for private communication over bosonic Gaussian channels based on teleportation simulation with optimal finite resources. Physical Review A, 2019, 100, .	1.0	9
97	Thermal quantum metrology in memoryless and correlated environments. Quantum Science and Technology, 2019, 4, 015008.	2.6	9
98	Detecting and tracking bacteria with quantum light. Physical Review Research, 2020, 2, .	1.3	8
99	Quantum coherence: myth or fact?. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 333, 378-381.	0.9	7
100	Size isn't everything. Nature, 2006, 440, 617-618.	13.7	7
101	Geometry of Quantum States. Annals of the New York Academy of Sciences, 1995, 755, 786-797.	1.8	6
102	Classical Broadcasting is Possible with Arbitrarily High Fidelity and Resolution. Physical Review Letters, 2007, 98, 080501.	2.9	6
103	Five-wave-packet linear optics quantum-error-correcting code. Physical Review A, 2010, 81, .	1.0	6
104	Fundamental limits to observations of squeezing via balanced homodyne detection. Physical Review A, 1991, 43, 330-337.	1.0	5
105	Quantum algorithm for the asymmetric weight decision problem and its generalization to multiple weights. Quantum Information Processing, 2011, 10, 177-188.	1.0	5
106	The Structure of Partial Isometries. , 0, , 361-388.		4
107	Entanglement Swapping as Event-Ready Entanglement Preparation. Fortschritte Der Physik, 2000, 48, 553-557.	1.5	4
108	Estimation of pure qubits on circles. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 1809-1834.	0.7	4

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109	Quantum cryptography with an ideal local relay. , 2015, , .		4
110	Environment-assisted bosonic quantum communications. Npj Quantum Information, 2021, 7, .	2.8	4
111	Geometry of Quantum States. , 1995, , 21-30.		4
112	Error Correction for Continuous Quantum Variables. , 1998, , 19-29.		4
113	On the Security and Degradability of Gaussian Channels. Lecture Notes in Computer Science, 2009, , 47-55.	1.0	3
114	Teleportation of Continuous Quantum Variables. , 1998, , 67-75.		3
115	Symmetric and asymmetric discrimination of bosonic loss: Toy applications to biological samples and photodegradable materials. Physical Review A, 2018, 98, .	1.0	2
116	Multipartite Entanglement for Continuous Variables. , 2003, , 111-143.		2
117	Efficient Classical Simulation of Continuous Variable Quantum Information Processes. , 2002, , 47-55.		1
118	Error Correcting Bell Inequalities. Physical Review Letters, 2008, 101, 080501.	2.9	1
119	Eavesdropping of Two-Way Coherent-State Quantum Cryptography via Gaussian Quantum Cloning Machines. , 2009, , .		1
120	Quantum information versus black hole physics: deep firewalls from narrow assumptions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170324.	1.6	1
121	Quantum Lithography. , 2002, , 391-397.		0
122	Qubus computation. , 2006, 6305, 78.		0
123	Introduction to Entanglement-Based Protocols. , 2003, , 59-66.		0
124	Discrimination of discord in separable Gaussian states. , 2018, , .		0
125	CV-MDI-QKD with coherent state: beyond one-mode Gaussian attacks. IOP SciNotes, 2020, 1, 025202.	0.4	0