

Ujjwal Sen

List of Publications by Year in descending order

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163
papers

5,029
citations

201385

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67
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166
all docs

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docs citations

166
times ranked

2797
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultracold atomic gases in optical lattices: mimicking condensed matter physics and beyond. <i>Advances in Physics</i> , 2007, 56, 243-379.	35.9	1,712
2	Local versus nonlocal information in quantum-information theory: Formalism and phenomena. <i>Physical Review A</i> , 2005, 71, .	1.0	389
3	Distinguishability of Bell States. <i>Physical Review Letters</i> , 2001, 87, 277902.	2.9	203
4	Local Indistinguishability: More Nonlocality with Less Entanglement. <i>Physical Review Letters</i> , 2003, 90, 047902.	2.9	181
5	Quantum discord and its allies: a review of recent progress. <i>Reports on Progress in Physics</i> , 2018, 81, 024001.	8.1	150
6	Local Information as a Resource in Distributed Quantum Systems. <i>Physical Review Letters</i> , 2003, 90, 100402.	2.9	135
7	MultiqubitWstates lead to stronger nonclassicality than Greenberger-Horne-Zeilinger states. <i>Physical Review A</i> , 2003, 68, .	1.0	102
8	Conditions for monogamy of quantum correlations: Greenberger-Horne-Zeilinger versus W states. <i>Physical Review A</i> , 2012, 85, .	1.0	96
9	Channel capacities versus entanglement measures in multipartite quantum states. <i>Physical Review A</i> , 2010, 81, .	1.0	86
10	Quantum Correlation without Classical Correlations. <i>Physical Review Letters</i> , 2008, 101, 070502.	2.9	84
11	Unified criterion for security of secret sharing in terms of violation of Bell inequalities. <i>Physical Review A</i> , 2003, 68, .	1.0	61
12	Entanglement swapping of noisy states: A kind of superadditivity in nonclassicality. <i>Physical Review A</i> , 2005, 72, .	1.0	55
13	Masking Quantum Information is Impossible. <i>Physical Review Letters</i> , 2018, 120, 230501.	2.9	52
14	DENSE CODING WITH MULTIPARTITE QUANTUM STATES. <i>International Journal of Quantum Information</i> , 2006, 04, 415-428.	0.6	48
15	Witnessing bipartite entanglement sequentially by multiple observers. <i>Physical Review A</i> , 2018, 98, .	1.0	48
16	Trapped Ion Chain as a Neural Network: Error Resistant Quantum Computation. <i>Physical Review Letters</i> , 2007, 98, 023003.	2.9	42
17	Mixedness in the Bell violation versus entanglement of formation. <i>Physical Review A</i> , 2001, 64, .	1.0	40
18	Locally Accessible Information: How Much Can the Parties Gain by Cooperating?. <i>Physical Review Letters</i> , 2003, 91, 117901.	2.9	40

#	ARTICLE	IF	CITATIONS
19	Dynamical phase transitions and temperature-induced quantum correlations in an infinite spin chain. Physical Review A, 2005, 72, .	1.0	39
20	Genuine-multipartite-entanglement trends in gapless-to-gapped transitions of quantum spin systems. Physical Review A, 2014, 90, .	1.0	39
21	Monotonically increasing functions of any quantum correlation can make all multiparty states monogamous. Annals of Physics, 2014, 348, 297-305.	1.0	39
22	Regional Versus Global Entanglement in Resonating-Valence-Bond States. Physical Review Letters, 2007, 99, 170502.	2.9	36
23	Multipartite quantum correlations reveal frustration in a quantum Ising spin system. Physical Review A, 2013, 88, .	1.0	35
24	Freezing of quantum correlations under local decoherence. Physical Review A, 2015, 91, .	1.0	35
25	Local indistinguishability of orthogonal pure states by using a bound on distillable entanglement. Physical Review A, 2002, 65, .	1.0	33
26	Nonergodicity of entanglement and its complementary behavior to magnetization in an infinite spin chain. Physical Review A, 2004, 70, .	1.0	32
27	Characterization of tripartite quantum states with vanishing monogamy score. Physical Review A, 2012, 86, .	1.0	31
28	Functional Bell inequalities can serve as a stronger entanglement witness than conventional Bell inequalities. Physical Review A, 2002, 66, .	1.0	26
29	Distillation Protocols: Output Entanglement and Local Mutual Information. Physical Review Letters, 2004, 93, 170503.	2.9	26
30	Entanglement enhances security in quantum communication. Physical Review A, 2009, 80, .	1.0	26
31	Disorder overtakes order in information concentration over quantum networks. Physical Review A, 2011, 84, .	1.0	26
32	Relating monogamy of quantum correlations and multisite entanglement. Physical Review A, 2012, 86, .	1.0	24
33	Multipartite entanglement accumulation in quantum states: Localizable generalized geometric measure. Physical Review A, 2017, 95, .	1.0	23
34	Classification of nonasymptotic bipartite pure-state entanglement transformations. Physical Review A, 2002, 65, .	1.0	22
35	Entanglement teleportation through GHZ-class states. New Journal of Physics, 2002, 4, 48-48.	1.2	22
36	Rates of asymptotic entanglement transformations for bipartite mixed states: Maximally entangled states are not special. Physical Review A, 2003, 67, .	1.0	22

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37	Maximally-dense-coding-capable quantum states. <i>Physical Review A</i> , 2013, 87, .	1.0	22
38	Recycling the resource: Sequential usage of shared state in quantum teleportation with weak measurements. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, 392, 127143.	0.9	22
39	Quantum discord length is enhanced while entanglement length is not by introducing disorder in a spin chain. <i>Physical Review E</i> , 2016, 93, 012131.	0.8	21
40	Exclusion principle for quantum dense coding. <i>Physical Review A</i> , 2013, 87, .	1.0	20
41	Effect of a large number of parties on the monogamy of quantum correlations. <i>Physical Review A</i> , 2015, 91, .	1.0	20
42	Common Origin of No-Cloning and No-Deleting Principles Conservation of Information. <i>Foundations of Physics</i> , 2005, 35, 2041-2049.	0.6	19
43	Partial coherence and quantum correlation with fidelity and affinity distances. <i>Physical Review A</i> , 2019, 99, .	1.0	19
44	Dual entanglement measures based on no local cloning and no local deleting. <i>Physical Review A</i> , 2004, 70, .	1.0	18
45	Quantum discord surge heralds entanglement revival in an infinite spin chain. <i>Europhysics Letters</i> , 2012, 98, 30013.	0.7	18
46	Multipartite dense coding versus quantum correlation: Noise inverts relative capability of information transfer. <i>Physical Review A</i> , 2014, 90, .	1.0	18
47	Distributed quantum dense coding with two receivers in noisy environments. <i>Physical Review A</i> , 2015, 92, .	1.0	18
48	Generalized geometric measure of entanglement for multiparty mixed states. <i>Physical Review A</i> , 2016, 94, .	1.0	18
49	Unitarity as Preservation of Entropy and Entanglement in Quantum Systems. <i>Foundations of Physics</i> , 2006, 36, 477-499.	0.6	17
50	Characterizing Genuine Multisite Entanglement in Isotropic Spin Lattices. <i>Physical Review Letters</i> , 2013, 111, 070501.	2.9	17
51	Static and dynamical quantum correlations in phases of an alternating-field XY model. <i>Physical Review A</i> , 2016, 94, .	1.0	16
52	Benford's law detects quantum phase transitions similarly as earthquakes. <i>Europhysics Letters</i> , 2011, 95, 50008.	0.7	15
53	Quantum correlation with sandwiched relative entropies: Advantageous as order parameter in quantum phase transitions. <i>Physical Review E</i> , 2015, 91, 052125.	0.8	15
54	The density matrix recursion method: genuine multisite entanglement distinguishes odd from even quantum spin ladder states. <i>New Journal of Physics</i> , 2013, 15, 013043.	1.2	14

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55	Multipartite entanglement at dynamical quantum phase transitions with nonuniformly spaced criticalities. <i>Physical Review B</i> , 2020, 101, .	1.1	14
56	Sequential measurement-device-independent entanglement detection by multiple observers. <i>Physical Review A</i> , 2021, 103, .	1.0	14
57	Monogamy of Quantum Correlations - A Review. <i>Quantum Science and Technology</i> , 2017, , 23-64.	1.5	14
58	Quantification of quantum correlation of ensembles of states. <i>Physical Review A</i> , 2007, 75, .	1.0	13
59	Beating no-go theorems by engineering defects in quantum spin models. <i>New Journal of Physics</i> , 2015, 17, 043013.	1.2	13
60	Superiority of photon subtraction to addition for entanglement in a multimode squeezed vacuum. <i>Physical Review A</i> , 2016, 93, .	1.0	13
61	Necessarily transient quantum refrigerator. <i>Europhysics Letters</i> , 2019, 125, 20007.	0.7	13
62	Dual quantum-correlation paradigms exhibit opposite statistical-mechanical properties. <i>Physical Review A</i> , 2012, 86, .	1.0	12
63	Canonical Leggett-Garg inequality: Nonclassicality of temporal quantum correlations under energy constraint. <i>Physical Review A</i> , 2018, 98, .	1.0	12
64	Quantum thermal transistors: Operation characteristics in steady state versus transient regimes. <i>Physical Review A</i> , 2021, 103, .	1.0	12
65	Error-resistant distributed quantum computation in a trapped ion chain. <i>Physical Review A</i> , 2007, 76, .	1.0	11
66	Reducing computational complexity of quantum correlations. <i>Physical Review A</i> , 2015, 92, .	1.0	11
67	Phase boundaries in an alternating-field quantum XY model with Dzyaloshinskii-Moriya interaction: Sustainable entanglement in dynamics. <i>Physical Review B</i> , 2019, 99, .	1.1	11
68	Antiparallel spin does not always contain more information. <i>Physical Review A</i> , 2000, 63, .	1.0	10
69	Capacities of Quantum Channels for Massive Bosons and Fermions. <i>Physical Review Letters</i> , 2005, 95, 260503.	2.9	10
70	Frustration, Area Law, and Interference in Quantum Spin Models. <i>Physical Review Letters</i> , 2008, 101, 187202.	2.9	10
71	Fermion and spin counting in strongly correlated systems. <i>Physical Review A</i> , 2008, 78, .	1.0	10
72	Conclusive identification of quantum channels via monogamy of quantum correlations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 3588-3594.	0.9	10

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73	Detecting phase boundaries of quantum spin-1/2 XXZ ladder via bipartite and multipartite entanglement transitions. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 444, 227-235.	1.0	10
74	Effects of cavity-cavity interaction on the entanglement dynamics of a generalized double Jaynes-Cummings model. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 045501.	0.6	10
75	Deterministic quantum dense coding networks. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2018, 382, 1709-1715.	0.9	10
76	Scale-invariant freezing of entanglement. <i>Physical Review A</i> , 2018, 97, .	1.0	10
77	Wave-particle duality employing quantum coherence in superposition with non-orthogonal pointers. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2020, 53, 115301.	0.7	10
78	Output state in multiple entanglement swapping. <i>Physical Review A</i> , 2003, 68, .	1.0	9
79	Quantum-information processing in disordered and complex quantum systems. <i>Physical Review A</i> , 2006, 74, .	1.0	9
80	Usefulness of classical communication for local cloning of entangled states. <i>Physical Review A</i> , 2006, 73, .	1.0	9
81	Counting of fermions and spins in strongly correlated systems in and out of thermal equilibrium. <i>Physical Review A</i> , 2011, 83, .	1.0	9
82	Locally accessible information of multisite quantum ensembles violates entanglement monogamy. <i>Physical Review A</i> , 2012, 85, .	1.0	9
83	Tuning interaction strength leads to an ergodic-nonergodic transition of quantum correlations in the anisotropic Heisenberg spin model. <i>Physical Review A</i> , 2013, 87, .	1.0	9
84	Diverging scaling with converging multisite entanglement in odd and even quantum Heisenberg ladders. <i>New Journal of Physics</i> , 2016, 18, 023025.	1.2	9
85	Universality in distribution of monogamy scores for random multiqubit pure states. <i>Physical Review A</i> , 2019, 99, .	1.0	9
86	Dynamical phase transitions in the fully connected quantum Ising model: Time period and critical time. <i>Physical Review B</i> , 2021, 104, .	1.1	9
87	Local passivity and entanglement in shared quantum batteries. <i>Physical Review A</i> , 2021, 104, .	1.0	9
88	Distillation protocols that involve local distinguishing: Composing upper and lower bounds on locally accessible information. <i>Physical Review A</i> , 2006, 74, .	1.0	8
89	Cumulative quantum work-deficit versus entanglement in the dynamics of an infinite spin chain. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 1258-1263.	0.9	8
90	Constructive interference between disordered couplings enhances multiparty entanglement in quantum Heisenberg spin glass models. <i>New Journal of Physics</i> , 2016, 18, 083044.	1.2	8

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91	Forbidden regimes in the distribution of bipartite quantum correlations due to multiparty entanglement. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2017, 381, 1701-1709.	0.9	8
92	Closing the detection loophole in nonlinear entanglement witnesses. <i>Physical Review A</i> , 2019, 100, .	1.0	8
93	Population inversion and entanglement in single and double glassy Jaynes-Cummings models. <i>Physical Review A</i> , 2020, 101, .	1.0	8
94	Patterns of genuine multipartite entanglement in frustrated quantum spin systems. <i>Physical Review A</i> , 2014, 89, .	1.0	7
95	Shared purity of multipartite quantum states. <i>Physical Review A</i> , 2014, 89, .	1.0	7
96	Quantum correlations in quenched disordered spin models: Enhanced order from disorder by thermal fluctuations. <i>Physical Review E</i> , 2016, 93, 032115.	0.8	7
97	Emergence of entanglement with temperature and time in factorization-surface states. <i>Physical Review A</i> , 2018, 97, .	1.0	7
98	Inhibition of spreading in quantum random walks due to quenched Poisson-distributed disorder. <i>Physical Review A</i> , 2019, 99, .	1.0	7
99	Entanglement witnessing by arbitrarily many independent observers recycling a local quantum shared state. <i>Physical Review A</i> , 2022, 105, .	1.0	7
100	Entanglement teleportation via Bell mixtures. <i>Physical Review A</i> , 2002, 66, .	1.0	6
101	Benford's law gives better scaling exponents in phase transitions of quantum XY models. <i>Physical Review E</i> , 2014, 90, 022144.	0.8	6
102	Classical spin models with broken symmetry: Random-field-induced order and persistence of spontaneous magnetization in the presence of a random field. <i>Physical Review B</i> , 2014, 90, .	1.1	6
103	Information complementarity in multipartite quantum states and security in cryptography. <i>Physical Review A</i> , 2016, 93, .	1.0	6
104	Distribution of Bell-inequality violation versus multiparty-quantum-correlation measures. <i>Physical Review A</i> , 2016, 93, .	1.0	6
105	Disorder-induced enhancement and critical scaling of spontaneous magnetization in random-field quantum spin systems. <i>Physical Review B</i> , 2016, 94, .	1.1	6
106	Analytical recursive method to ascertain multisite entanglement in doped quantum spin ladders. <i>Physical Review B</i> , 2017, 96, .	1.1	6
107	Spontaneous magnetization of quantum XY spin model in joint presence of quenched and annealed disorder. <i>Physical Review B</i> , 2017, 95, .	1.1	6
108	Universal quantum uncertainty relations between nonergodicity and loss of information. <i>Physical Review A</i> , 2018, 97, .	1.0	6

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109	Resource theory of quantum coherence with probabilistically nondistinguishable pointers and corresponding wave-particle duality. <i>Physical Review A</i> , 2021, 103, .	1.0	6
110	Entanglement versus noncommutativity in teleportation. <i>Physical Review A</i> , 2002, 65, .	1.0	5
111	Entanglement mean-field theory and the Curie-Weiss law. <i>Europhysics Letters</i> , 2012, 99, 20011.	0.7	5
112	Nonergodic classical correlations lead to ergodic quantum correlations in low-dimensional spin models. <i>Europhysics Letters</i> , 2013, 102, 30001.	0.7	5
113	Canonical distillation of entanglement. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2017, 381, 3529-3535.	0.9	5
114	Response to defects in multipartite and bipartite entanglement of isotropic quantum spin networks. <i>Physical Review A</i> , 2018, 97, .	1.0	5
115	Activation of nonmonogamous multipartite quantum states. <i>Physical Review A</i> , 2018, 98, .	1.0	5
116	One-shot conclusive multiport quantum dense coding capacities. <i>Physical Review A</i> , 2019, 100, .	1.0	5
117	Tensor-network approach to compute genuine multisite entanglement in infinite quantum spin chains. <i>Physical Review A</i> , 2019, 99, .	1.0	5
118	How efficient is transport of quantum cargo through multiple highways?. <i>Annals of Physics</i> , 2020, 422, 168281.	1.0	5
119	Detection loophole in measurement-device-independent entanglement witnesses. <i>Physical Review A</i> , 2021, 103, .	1.0	5
120	Capacities of noiseless quantum channels for massive indistinguishable particles: Bosons versus fermions. <i>Physical Review A</i> , 2007, 75, .	1.0	4
121	Genuine multipartite quantum entanglement suppresses multiport classical information transmission. <i>Physical Review A</i> , 2013, 88, .	1.0	4
122	Delayed choice of paths in the quantum paradox of separating different properties of a photon. <i>Physical Review A</i> , 2021, 103, .	1.0	4
123	Can there be quantum correlations in a mixture of two separable states?. <i>Journal of Modern Optics</i> , 2003, 50, 981-985.	0.6	4
124	Three qubits in less than three baths: Beyond two-body system-bath interactions in quantum refrigerators. <i>Physical Review A</i> , 2021, 104, .	1.0	4
125	Testing quantum dynamics using signaling. <i>Physical Review A</i> , 2005, 72, .	1.0	3
126	Kaszlikowski <i>et al.</i> Reply. <i>Physical Review Letters</i> , 2010, 104, .	2.9	3

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127	Entanglement mean field theory: Lipkin-Meshkov-Glick Model. Quantum Information Processing, 2012, 11, 675-683.	1.0	3
128	Quantum superposition in composite systems of microscopic and macroscopic parts resistant to particle loss and local decoherence. Physical Review A, 2013, 87, .	1.0	3
129	Adiabatic freezing of long-range quantum correlations in spin chains. Europhysics Letters, 2016, 114, 60007.	0.7	3
130	Adiabatic freezing of entanglement with insertion of defects in a one-dimensional Hubbard model. Physical Review B, 2018, 98, .	1.1	3
131	Quantum reciprocity relations for fluctuations of position and momentum. Physical Review A, 2019, 100, .	1.0	3
132	Local indistinguishability and incompleteness of entangled orthogonal bases: Method to generate two-element locally indistinguishable ensembles. Annals of Physics, 2021, 431, 168550.	1.0	3
133	Inhibition of spread of typical bipartite and genuine multipartite entanglement in response to disorder. New Journal of Physics, 2021, 23, 113042.	1.2	3
134	Unextendible entangled bases and more nonlocality with less entanglement. Physical Review A, 2022, 105, .	1.0	3
135	Realization of optimal disentanglement by teleportation via separable channels. Physical Review A, 2001, 64, .	1.0	2
136	Can there be quantum correlations in a mixture of two separable states?. Journal of Modern Optics, 2003, 50, 981-985.	0.6	2
137	Kaszlikowski et al. Reply. Physical Review Letters, 2008, 101, .	2.9	2
138	Simulating Quantum Dynamics with Entanglement Mean Field Theory. Journal of Physics: Conference Series, 2011, 297, 012018.	0.3	2
139	Publisher's Note: Distributed quantum dense coding with two receivers in noisy environments [Phys. Rev. A 92, 052330 (2015)]. Physical Review A, 2015, 92, .	1.0	2
140	Local decoherence-resistant quantum states of large systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 261-271.	0.9	2
141	Statistics of leading digits leads to unification of quantum correlations. Europhysics Letters, 2016, 114, 30004.	0.7	2
142	Benford analysis of quantum critical phenomena: First digit provides high finite-size scaling exponent while first two and further are not much better. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1639-1644.	0.9	2
143	Response in the violation of the Bell inequality to imperfect photon addition and subtraction in noisy squeezed states of light. Physical Review A, 2018, 98, .	1.0	2
144	Quantum no-go theorems in causality respecting systems in the presence of closed timelike curves: Tweaking the Deutsch condition. Europhysics Letters, 2018, 122, 10007.	0.7	2

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145	Witnessing nonseparability of bipartite quantum operations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 404, 127411.	0.9	2
146	All entangled states are quantum coherent with locally distinguishable bases. Physical Review A, 2021, 104, .	1.0	2
147	Heat current and entropy production rate in local non-Markovian quantum dynamics of global Markovian evolution. Physical Review A, 2022, 105, .	1.0	2
148	Is it possible to clone using an arbitrary blank state?. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 286, 1-3.	0.9	1
149	Atom counting in expanding ultracold clouds. Physical Review A, 2011, 84, .	1.0	1
150	Virtual-site correlation mean field approach to criticality in spin systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1832-1836.	0.9	1
151	Response of entanglement to annealed vis-À-vis quenched disorder in quantum spin models. Europhysics Letters, 2019, 127, 30003.	0.7	1
152	Signaling versus distinguishing different preparations of same pure quantum state. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 275302.	0.7	1
153	Quantum process randomness. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 387, 127024.	0.9	1
154	Nearly Markovian maps and entanglement-based bound on corresponding non-Markovianity. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 395301.	0.7	1
155	Convolution algebra of superoperators and nonseparability witnesses for quantum operations. Journal of Physics A: Mathematical and Theoretical, 0, , .	0.7	1
156	Estimating quantum coherence by noncommutativity of any observable and its incoherent part. Physical Review A, 2022, 105, .	1.0	1
157	The Separability versus Entanglement Problem. , 0, , 123-146.		0
158	Role of an information-theoretic measure of quantum correlation in a dynamical phase transition of entanglement. , 2010, , .		0
159	Fibonacci sequence and its generalizations in doped quantum spin ladders. Journal of Magnetism and Magnetic Materials, 2019, 478, 100-108.	1.0	0
160	Universal quantum uncertainty relations: Minimum-uncertainty wave packet depends on measure of spread. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1850-1855.	0.9	0
161	Mimicking disorder on a clean graph: Interference-induced inhibition of spread in a cyclic quantum random walk. Europhysics Letters, 2019, 128, 20007.	0.7	0
162	Trapped Ion Chain as a Neural Network: Error Resistant Quantum Computation. , 2007, , .		0

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163	Local preservation of no-signaling in multiparty PT-symmetric evolutions. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 185302.	0.7	0