

Enrique Leonidas Solano Villanueva

List of Publications by Year in descending order

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263
papers

14,818
citations

19608

61
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22764

112
g-index

264
all docs

264
docs citations

264
times ranked

6524
citing authors

#	ARTICLE	IF	CITATIONS
1	Circuit quantum electrodynamics in the ultrastrong-coupling regime. <i>Nature Physics</i> , 2010, 6, 772-776.	6.5	1,086
2	Quantum simulation of the Dirac equation. <i>Nature</i> , 2010, 463, 68-71.	13.7	599
3	Observation of the Bloch-Siegert Shift in a Qubit-Oscillator System in the Ultrastrong Coupling Regime. <i>Physical Review Letters</i> , 2010, 105, 237001.	2.9	597
4	Deep Strong Coupling Regime of the Jaynes-Cummings Model. <i>Physical Review Letters</i> , 2010, 105, 263603.	2.9	439
5	Realization of a Quantum Walk with One and Two Trapped Ions. <i>Physical Review Letters</i> , 2010, 104, 100503.	2.9	420
6	Strong-Driving-Assisted Multipartite Entanglement in Cavity QED. <i>Physical Review Letters</i> , 2003, 90, 027903.	2.9	375
7	Digitized adiabatic quantum computing with a superconducting circuit. <i>Nature</i> , 2016, 534, 222-226.	13.7	339
8	Sudden Birth versus Sudden Death of Entanglement in Multipartite Systems. <i>Physical Review Letters</i> , 2008, 101, 080503.	2.9	333
9	Quantum-classical computation of Schwinger model dynamics using quantum computers. <i>Physical Review A</i> , 2018, 98, .	1.0	270
10	Digital quantum simulation of fermionic models with a superconducting circuit. <i>Nature Communications</i> , 2015, 6, 7654.	5.8	258
11	Dirac Equation and Quantum Relativistic Effects in a Single Trapped Ion. <i>Physical Review Letters</i> , 2007, 98, 253005.	2.9	254
12	Sequential Generation of Entangled Multiqubit States. <i>Physical Review Letters</i> , 2005, 95, 110503.	2.9	198
13	Experimental Observation of Four-Photon Entangled Dicke State with High Fidelity. <i>Physical Review Letters</i> , 2007, 98, 063604.	2.9	187
14	Deterministic Bell states and measurement of the motional state of two trapped ions. <i>Physical Review A</i> , 1999, 59, R2539-R2543.	1.0	175
15	Exact mapping of the $2 < mo> + < mo> 1 < mo>$ Dirac oscillator onto the Jaynes-Cummings model: Ion-trap experimental proposal. <i>Physical Review A</i> , 2007, 76, .	1.0	173
16	From transistor to trapped-ion computers for quantum chemistry. <i>Scientific Reports</i> , 2014, 4, 3589.	1.6	172
17	Ultrafast Quantum Gates in Circuit QED. <i>Physical Review Letters</i> , 2012, 108, 120501.	2.9	170
18	Quantum Simulation of the Klein Paradox with Trapped Ions. <i>Physical Review Letters</i> , 2011, 106, 060503.	2.9	169

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19	Two-photon probe of the Jaynes-Cummings model and controlled symmetry breaking in circuit QED. Nature Physics, 2008, 4, 686-691.	6.5	158
20	Digital Quantum Simulation of Spin Models with Circuit Quantum Electrodynamics. Physical Review X, 2015, 5, .	2.8	152
21	Switchable Ultrastrong Coupling in Circuit QED. Physical Review Letters, 2010, 105, 023601.	2.9	149
22	Two-resonator circuit quantum electrodynamics: A superconducting quantum switch. Physical Review B, 2008, 78, .	1.1	148
23	Operational Families of Entanglement Classes for Symmetric N -Qubit States. Physical Review Letters, 2009, 103, 070503.	2.9	144
24	Dynamical Casimir Effect Entangles Artificial Atoms. Physical Review Letters, 2014, 113, 093602.	2.9	141
25	Microwave Photon Detector in Circuit QED. Physical Review Letters, 2009, 102, 173602.	2.9	136
26	Unconditional Two-Mode Squeezing of Separated Atomic Ensembles. Physical Review Letters, 2006, 96, 053602.	2.9	135
27	Path Entanglement of Continuous-Variable Quantum Microwaves. Physical Review Letters, 2012, 109, 250502.	2.9	132
28	Quantum Rabi Model with Trapped Ions. Scientific Reports, 2015, 5, 15472.	1.6	124
29	Inductive entanglement classification of four qubits under stochastic local operations and classical communication. Physical Review A, 2007, 75, .	1.0	110
30	Quantum Simulation of the Ultrastrong-Coupling Dynamics in Circuit Quantum Electrodynamics. Physical Review X, 2012, 2, .	2.8	104
31	Digital Quantum Simulation of Minimal AdS/CFT . Physical Review Letters, 2017, 119, 040501.	2.9	101
32	Quantum Simulation of Interacting Fermion Lattice Models in Trapped Ions. Physical Review Letters, 2012, 108, 190502.	2.9	98
33	Relativistic Quantum Teleportation with Superconducting Circuits. Physical Review Letters, 2013, 110, 113602.	2.9	97
34	Semi-classical and quantum Rabi models: in celebration of 80 years. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 300301.	0.7	97
35	Two-photon quantum Rabi model with superconducting circuits. Physical Review A, 2018, 97, .	1.0	97
36	Spectral collapse via two-phonon interactions in trapped ions. Physical Review A, 2015, 92, .	1.0	92

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37	Digital Quantum Rabi and Dicke Models in Superconducting Circuits. <i>Scientific Reports</i> , 2014, 4, 7482.	1.6	90
38	Squeezing with a flux-driven Josephson parametric amplifier. <i>New Journal of Physics</i> , 2013, 15, 125013.	1.2	89
39	Field Squeeze Operators in Optical Cavities with Atomic Ensembles. <i>Physical Review Letters</i> , 2006, 96, 010502.	2.9	88
40	Non-Abelian SU(2) Lattice Gauge Theories in Superconducting Circuits. <i>Physical Review Letters</i> , 2015, 115, 240502.	2.9	87
41	Sequential generation of matrix-product states in cavity QED. <i>Physical Review A</i> , 2007, 75, .	1.0	86
42	Approaching perfect microwave photodetection in circuit QED. <i>Physical Review A</i> , 2011, 84, .	1.0	85
43	Digital Quantum Simulation of Spin Systems in Superconducting Circuits. <i>Physical Review Letters</i> , 2014, 112, .	2.9	85
44	Quantum Simulation of the Quantum Rabi Model in a Trapped Ion. <i>Physical Review X</i> , 2018, 8, .	2.8	84
45	Quantum Estimation Methods for Quantum Illumination. <i>Physical Review Letters</i> , 2017, 118, 070803.	2.9	83
46	Mesoscopic Superposition States in Relativistic Landau Levels. <i>Physical Review Letters</i> , 2007, 99, 123602.	2.9	81
47	Ultrastrong coupling in two-resonator circuit QED. <i>Physical Review B</i> , 2016, 93, .	1.1	80
48	Generation of Symmetric Dicke States of Remote Qubits with Linear Optics. <i>Physical Review Letters</i> , 2007, 99, 193602.	2.9	79
49	Cavity grid for scalable quantum computation with superconducting circuits. <i>Europhysics Letters</i> , 2009, 85, 50007.	0.7	75
50	Dual-Path State Reconstruction Scheme for Propagating Quantum Microwaves and Detector Noise Tomography. <i>Physical Review Letters</i> , 2010, 105, 100401.	2.9	75
51	Conditional Large Fock State Preparation and Field State Reconstruction in Cavity QED. <i>Physical Review Letters</i> , 2001, 87, 093601.	2.9	74
52	Tavis-Cummings model and collective multiqubit entanglement in trapped ions. <i>Physical Review A</i> , 2007, 75, .	1.0	74
53	Klein tunneling and Dirac potentials in trapped ions. <i>Physical Review A</i> , 2010, 82, .	1.0	74
54	Spectral classification of coupling regimes in the quantum Rabi model. <i>Physical Review A</i> , 2017, 96, .	1.0	74

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55	Quantum Simulation of Quantum Field Theories in Trapped Ions. Physical Review Letters, 2011, 107, 260501.	2.9	72
56	Fermion-Fermion Scattering in Quantum Field Theory with Superconducting Circuits. Physical Review Letters, 2015, 114, 070502.	2.9	71
57	Relativity and Lorentz Invariance of Entanglement Distillability. Physical Review Letters, 2006, 97, 250502.	2.9	68
58	Mesoscopic Superpositions of Vibronic Collective States of N Trapped Ions. Physical Review Letters, 2001, 87, 060402.	2.9	65
59	Relativistic quantum mechanics with trapped ions. New Journal of Physics, 2011, 13, 095003.	1.2	64
60	Beyond mean-field bistability in driven-dissipative lattices: Bunching-antibunching transition and quantum simulation. Physical Review A, 2016, 93, .	1.0	63
61	Scalable quantum memory in the ultrastrong coupling regime. Scientific Reports, 2015, 5, 8621.	1.6	62
62	Planck Spectroscopy and Quantum Noise of Microwave Beam Splitters. Physical Review Letters, 2010, 105, 133601.	2.9	61
63	Digital Quantum Simulation of the Holstein Model in Trapped Ions. Physical Review Letters, 2012, 109, 200501.	2.9	61
64	Quantum Imaging with Incoherent Photons. Physical Review Letters, 2007, 99, 133603.	2.9	60
65	Quantum nondemolition photon detection in circuit QED and the quantum Zeno effect. Physical Review A, 2009, 79, .	1.0	60
66	Entanglement equivalence of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle N \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -qubit symmetric states. Physical Review A, 2010, 81, .	1.0	60
67	Inductive classification of multipartite entanglement under stochastic local operations and classical communication. Physical Review A, 2006, 74, .	1.0	58
68	Superradiant phase transition in the ultrastrong-coupling regime of the two-photon Dicke model. Physical Review A, 2017, 95, .	1.0	58
69	Secure quantum remote state preparation of squeezed microwave states. Nature Communications, 2019, 10, 2604.	5.8	58
70	Operational Determination of Multiqubit Entanglement Classes via Tuning of Local Operations. Physical Review Letters, 2009, 102, 053601.	2.9	55
71	Many-Body Interactions with Tunable-Coupling Transmon Qubits. Physical Review Letters, 2014, 113, 050501.	2.9	55
72	Tunable and switchable coupling between two superconducting resonators. Physical Review B, 2015, 91, .	1.1	55

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73	Reliable teleportation in trapped ions. European Physical Journal D, 2001, 13, 121-128.	0.6	53
74	Quantum memristors. Scientific Reports, 2016, 6, 29507.	1.6	53
75	Shortcuts to Adiabaticity in Digitized Adiabatic Quantum Computing. Physical Review Applied, 2021, 15, .	1.5	53
76	Quantum algorithm for solving linear differential equations: Theory and experiment. Physical Review A, 2020, 101, .	1.0	50
77	Two-resonator circuit quantum electrodynamics: Dissipative theory. Physical Review B, 2010, 81, .	1.1	49
78	Quantum Simulation of the Majorana Equation and Unphysical Operations. Physical Review X, 2011, 1, .	2.8	48
79	Relativistic motion with superconducting qubits. Physical Review B, 2015, 92, .	1.1	48
80	Displacement of Propagating Squeezed Microwave States. Physical Review Letters, 2016, 117, 020502.	2.9	48
81	Quantum Artificial Life in an IBM Quantum Computer. Scientific Reports, 2018, 8, 14793.	1.6	48
82	Reconstruction of a Photonic Qubit State with Reinforcement Learning. Advanced Quantum Technologies, 2019, 2, 1800074.	1.8	48
83	Broken selection rule in the quantum Rabi model. Scientific Reports, 2016, 6, 26720.	1.6	47
84	Tunable coupling of transmission-line microwave resonators mediated by an rf SQUID. EPJ Quantum Technology, 2016, 3, .	2.9	46
85	Quantum Memristors with Superconducting Circuits. Scientific Reports, 2017, 7, 42044.	1.6	46
86	Measurement-based adaptation protocol with quantum reinforcement learning. Physical Review A, 2018, 98, .	1.0	46
87	Measuring irreversible dynamics of a quantum harmonic oscillator. Physical Review A, 2002, 65, .	1.0	45
88	Resonant quantum gates in circuit quantum electrodynamics. Physical Review B, 2010, 82, .	1.1	45
89	Efficient Quantum Algorithm for Computing $\langle n \rangle$ -time Correlation Functions. Physical Review Letters. 2014. 113. 020505.	2.9	45
90	Digital-Analog Quantum Simulation of Spin Models in Trapped Ions. Scientific Reports, 2016, 6, 30534.	1.6	45

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91	Fresnel Representation of the Wigner Function: An Operational Approach. Physical Review Letters, 2003, 91, 010401.	2.9	44
92	Convergence of the multimode quantum Rabi model of circuit quantum electrodynamics. Physical Review B, 2017, 95, .	1.1	44
93	Digital-analog quantum computation. Physical Review A, 2020, 101, .	1.0	44
94	Photon transfer in ultrastrongly coupled three-cavity arrays. Physical Review A, 2014, 89, .	1.0	43
95	Entangling polaritons via dynamical Casimir effect in circuit quantum electrodynamics. Physical Review B, 2016, 93, .	1.1	43
96	Digital-analog quantum simulations with superconducting circuits. Advances in Physics: X, 2018, 3, 1457981.	1.5	43
97	Direct measurement of concurrence for atomic two-qubit pure states. Physical Review A, 2007, 75, .	1.0	42
98	Zeno physics in ultrastrong-coupling circuit QED. Physical Review A, 2010, 81, .	1.0	42
99	Quantum autoencoders via quantum adders with genetic algorithms. Quantum Science and Technology, 2019, 4, 014007.	2.6	42
100	Generation and purification of maximally entangled atomic states in optical cavities. Physical Review A, 2005, 71, .	1.0	41
101	Dynamical correlation functions and the quantum Rabi model. Physical Review A, 2013, 87, .	1.0	41
102	Efficient quantum simulation of fermionic and bosonic models in trapped ions. EPJ Quantum Technology, 2014, 1, .	2.9	41
103	Quantum illumination reveals phase-shift inducing cloaking. Scientific Reports, 2017, 7, 9333.	1.6	41
104	Genetic Algorithms for Digital Quantum Simulations. Physical Review Letters, 2016, 116, 230504.	2.9	40
105	Nonlinear quantum Rabi model in trapped ions. Physical Review A, 2018, 97, .	1.0	39
106	Ensemble Quantum Computation with Atoms in Periodic Potentials. Physical Review Letters, 2004, 93, 220502.	2.9	38
107	Strongly driven one-atom laser and decoherence monitoring. Physical Review A, 2007, 76, .	1.0	38
108	Supervised Quantum Learning without Measurements. Scientific Reports, 2017, 7, 13645.	1.6	38

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109	Few-qubit quantum-classical simulation of strongly correlated lattice fermions. EPJ Quantum Technology, 2016, 3, .	2.9	36
110	Unified superradiant phase transitions. Physical Review A, 2019, 100, .	1.0	36
111	Manipulating motional states by selective vibronic interaction in two trapped ions. Physical Review A, 2000, 62, .	1.0	35
112	Digital quantum simulation of many-body non-Markovian dynamics. Physical Review A, 2016, 94, .	1.0	35
113	Quantum simulations of relativistic quantum physics in circuit QED. New Journal of Physics, 2013, 15, 055008.	1.2	34
114	Photodetection of propagating quantum microwaves in circuit QED. Physica Scripta, 2009, T137, 014004.	1.2	33
115	Parity-dependent State Engineering and Tomography in the ultrastrong coupling regime. Scientific Reports, 2015, 5, 11818.	1.6	33
116	Quantum Simulation of Dissipative Processes without Reservoir Engineering. Scientific Reports, 2015, 5, 9981.	1.6	32
117	Creation of quantum error correcting codes in the ultrastrong coupling regime. Physical Review B, 2015, 91, .	1.1	32
118	Quantum simulation of Anderson and Kondo lattices with superconducting qubits. Physical Review B, 2008, 77, .	1.1	31
119	Quantum networks in divergence-free circuit QED. Quantum Science and Technology, 2018, 3, 024012.	2.6	31
120	Toward pricing financial derivatives with an IBM quantum computer. Physical Review Research, 2021, 3, .	1.3	31
121	Quantum phase gate with a selective interaction. Physical Review A, 2001, 64, .	1.0	30
122	Entanglement of superconducting qubits via acceleration radiation. Scientific Reports, 2017, 7, 657.	1.6	30
123	Quantum simulation of quantum channels in nuclear magnetic resonance. Physical Review A, 2017, 96, .	1.0	30
124	Microwave photonics with Josephson junction arrays: Negative refraction index and entanglement through disorder. Physical Review B, 2012, 86, .	1.1	29
125	Quantum Simulator for Transport Phenomena in Fluid Flows. Scientific Reports, 2015, 5, 13153.	1.6	29
126	Time reversal and charge conjugation in an embedding quantum simulator. Nature Communications, 2015, 6, 7917.	5.8	29

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127	Dirac Equation in ($\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle T_j \text{ ETQq1 } 1 \text{ } 0.784314 \text{ rgBT /Overlock } 10 \text{ Tf } 50 \text{ } 752$) 2018, 120, 160403.	2.9	29
128	Creating lattice gauge potentials in circuit QED: The bosonic Creutz ladder. Physical Review A, 2019, 99, .	1.0	29
129	Digitized-counterdiabatic quantum approximate optimization algorithm. Physical Review Research, 2022, 4, .	1.3	29
130	Probing biological light-harvesting phenomena by optical cavities. Physical Review B, 2012, 85, .	1.1	28
131	The Forbidden Quantum Adder. Scientific Reports, 2015, 5, 11983.	1.6	28
132	Invited Article: Quantum memristors in quantum photonics. APL Photonics, 2018, 3, 080801.	3.0	28
133	Quantum teleportation of propagating quantum microwaves. EPJ Quantum Technology, 2015, 2, .	2.9	26
134	Tachyon physics with trapped ions. Physical Review A, 2015, 92, .	1.0	25
135	Multiqubit and multilevel quantum reinforcement learning with quantum technologies. PLoS ONE, 2018, 13, e0200455.	1.1	25
136	Finite-time quantum entanglement in propagating squeezed microwaves. Scientific Reports, 2018, 8, 6416.	1.6	25
137	Breaking adiabatic quantum control with deep learning. Physical Review A, 2021, 103, .	1.0	25
138	Sequential Implementation of Global Quantum Operations. Physical Review Letters, 2008, 101, 180506.	2.9	24
139	Dual-path methods for propagating quantum microwaves. New Journal of Physics, 2014, 16, 015001.	1.2	23
140	Fermionic models with superconducting circuits. EPJ Quantum Technology, 2015, 2, .	2.9	23
141	Quantum Rabi model in the Brillouin zone with ultracold atoms. Physical Review A, 2017, 95, .	1.0	23
142	Selective interactions in trapped ions: State reconstruction and quantum logic. Physical Review A, 2005, 71, .	1.0	22
143	Monitoring atom-atom entanglement and decoherence in a solvable tripartite open system in cavity QED. Physical Review A, 2008, 77, .	1.0	22
144	Dynamics of entanglement via propagating microwave photons. Physical Review B, 2010, 81, .	1.1	22

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145	Biomimetic Cloning of Quantum Observables. <i>Scientific Reports</i> , 2014, 4, 4910.	1.6	22
146	Artificial Life in Quantum Technologies. <i>Scientific Reports</i> , 2016, 6, 20956.	1.6	22
147	Experimental Implementation of a Quantum Autoencoder via Quantum Adders. <i>Advanced Quantum Technologies</i> , 2019, 2, 1800065.	1.8	22
148	Selective interactions in the quantum Rabi model. <i>Physical Review A</i> , 2020, 101, .	1.0	22
149	Effective quantum dynamics of interacting systems with inhomogeneous coupling. <i>Physical Review A</i> , 2007, 75, .	1.0	21
150	Embedding Quantum Simulators for Quantum Computation of Entanglement. <i>Physical Review Letters</i> , 2013, 111, 240502.	2.9	21
151	Experimental quantum simulation of fermion-antifermion scattering via boson exchange in a trapped ion. <i>Nature Communications</i> , 2018, 9, 195.	5.8	21
152	How to Measure the Phase Diffusion Dynamics in the Micromaser. <i>Physical Review Letters</i> , 2003, 90, 183601.	2.9	20
153	Solvable model of a strongly driven micromaser. <i>Physical Review A</i> , 2004, 69, .	1.0	20
154	Sequential Quantum Cloning. <i>Physical Review Letters</i> , 2007, 98, 150502.	2.9	20
155	Pulsed dynamical decoupling for fast and robust two-qubit gates on trapped ions. <i>Physical Review A</i> , 2018, 97, .	1.0	20
156	Digital-analog quantum algorithm for the quantum Fourier transform. <i>Physical Review Research</i> , 2020, 2, .	1.3	20
157	Instantaneous measurement of field quadrature moments and entanglement. <i>European Physical Journal D</i> , 2006, 38, 423-426.	0.6	19
158	Degree of Quantumness in Quantum Synchronization. <i>Scientific Reports</i> , 2019, 9, 19933.	1.6	18
159	Selective control of the symmetric Dicke subspace in trapped ions. <i>Physical Review A</i> , 2007, 76, .	1.0	17
160	Quantum chemistry and charge transport in biomolecules with superconducting circuits. <i>Scientific Reports</i> , 2016, 6, 27836.	1.6	17
161	Dark-like states for the multi-qubit and multi-photon Rabi models. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 174003.	0.7	17
162	Cooling of many-body systems via selective interactions. <i>Physical Review A</i> , 2018, 98, .	1.0	17

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163	One-Photon Solutions to the Multiqubit Multimode Quantum Rabi Model for Fast $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle W \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -State Generation. Physical Review Letters, 2021, 127, 043604.	2.9	17
164	Dynamics of momentum entanglement in lowest-order QED. Physical Review A, 2006, 73, .	1.0	16
165	Operational multipartite entanglement classes for symmetric photonic qubit states. Physical Review A, 2010, 81, .	1.0	16
166	Quantum Simulation of Noncausal Kinematic Transformations. Physical Review Letters, 2013, 111, 090503.	2.9	16
167	Deterministic generation of arbitrary symmetric states and entanglement classes. Physical Review A, 2013, 87, .	1.0	16
168	A continued fraction based approach for the Two-photon Quantum Rabi Model. Scientific Reports, 2019, 9, 4156.	1.6	16
169	Perceptrons from memristors. Neural Networks, 2020, 122, 273-278.	3.3	16
170	Quantum computing cryptography: Finding cryptographic Boolean functions with quantum annealing by a 2000 qubit D-wave quantum computer. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126214.	0.9	16
171	Implementation of a Hybrid Classical-Quantum Annealing Algorithm for Logistic Network Design. SN Computer Science, 2021, 2, 1.	2.3	16
172	Entangled coherent states and squeezing in N trapped ions. Journal of Optics B: Quantum and Semiclassical Optics, 2002, 4, S324-S327.	1.4	15
173	Generation of total angular momentum eigenstates in remote qubits. Physical Review A, 2009, 79, .	1.0	15
174	Entanglement classification with matrix product states. Scientific Reports, 2016, 6, 30188.	1.6	15
175	One-way quantum computing in superconducting circuits. Physical Review A, 2018, 97, .	1.0	15
176	Challenges in Open-air Microwave Quantum Communication and Sensing. , 2018, , .		15
177	Analog simulator of integro-differential equations with classical memristors. Scientific Reports, 2019, 9, 12928.	1.6	15
178	Canonical circuit quantization with linear nonreciprocal devices. Physical Review B, 2019, 99, .	1.1	15
179	Measure of phonon-number moments and motional quadratures through infinitesimal-time probing of trapped ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 685-693.	0.6	14
180	Measuring Entanglement in a Photonic Embedding Quantum Simulator. Physical Review Letters, 2016, 116, 070503.	2.9	14

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181	A Study on Fast Gates for Large-Scale Quantum Simulation with Trapped Ions. Scientific Reports, 2017, 7, 46197.	1.6	14
182	Quantum simulation of multiphoton and nonlinear dissipative spin-boson models. Physical Review A, 2019, 99, .	1.0	14
183	Reinforcement learning for semi-autonomous approximate quantum eigensolver. Machine Learning: Science and Technology, 2020, 1, 015002.	2.4	14
184	Retrieving Quantum Information with Active Learning. Physical Review Letters, 2020, 124, 140504.	2.9	14
185	Speeding up quantum perceptron via shortcuts to adiabaticity. Scientific Reports, 2021, 11, 5783.	1.6	14
186	Digitized adiabatic quantum factorization. Physical Review A, 2021, 104, .	1.0	14
187	Micromaser without the rotating-wave approximation: The Bloch-Siegert shift and related effects. Optics Communications, 1997, 142, 106-118.	1.0	13
188	Phase-space theory for dispersive detectors of superconducting qubits. Physical Review B, 2007, 76, .	1.1	13
189	Circuit quantum electrodynamics with a superconducting quantum point contact. Physical Review B, 2012, 85, .	1.1	13
190	A Single-Ion Reservoir as a High-Sensitive Sensor of Electric Signals. Scientific Reports, 2017, 7, 8336.	1.6	13
191	Entanglement through qubit motion and the dynamical Casimir effect. Physical Review A, 2019, 99, .	1.0	13
192	Unitary expansion of the time evolution operator. Physical Review A, 2010, 82, .	1.0	12
193	Dynamics of an unbalanced two-ion crystal in a Penning trap for application in optical mass spectrometry. Physical Review A, 2019, 100, .	1.0	12
194	Ultracold atoms interacting with a sinusoidal mode of a high Q cavity. Optics Communications, 1998, 154, 28-34.	1.0	11
195	Noise-Free Measurement of Harmonic Oscillators with Instantaneous Interactions. Physical Review Letters, 2007, 98, 020401.	2.9	11
196	Constrained optimization of sequentially generated entangled multiqubit states. Physical Review A, 2009, 80, .	1.0	11
197	Entanglement classification with algebraic geometry. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 195303.	0.7	11
198	Simulating superluminal physics with superconducting circuit technology. Physical Review A, 2017, 96, .	1.0	11

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199	Entanglement measures in embedding quantum simulators with nuclear spins. Physical Review A, 2018, 97, .	1.0	11
200	Modulated Continuous Wave Control for Energy-Efficient Electron-Nuclear Spin Coupling. Physical Review Letters, 2019, 122, 010407.	2.9	11
201	Topological qubits with Majorana fermions in trapped ions. New Journal of Physics, 2013, 15, 033005.	1.2	10
202	Advanced-Retarded Differential Equations in Quantum Photonic Systems. Scientific Reports, 2017, 7, 42933.	1.6	10
203	Spin-Boson Model as A Simulator of Non-Markovian Multiphoton Jaynes-Cummings Models. Symmetry, 2019, 11, 695.	1.1	10
204	Enhanced Quantum Synchronization via Quantum Machine Learning. Advanced Quantum Technologies, 2019, 2, 1800076.	1.8	10
205	Enhanced connectivity of quantum hardware with digital-analog control. Physical Review Research, 2020, 2, .	1.3	10
206	Numerical computation of one-photon mazer resonances for arbitrary field modes. Computer Physics Communications, 2000, 124, 197-203.	3.0	9
207	Crossover from weak- to strong-coupling regime in dispersive circuit QED. Europhysics Letters, 2007, 80, 40011.	0.7	9
208	Mesoscopic shelving readout of superconducting qubits in circuit quantum electrodynamics. Physical Review B, 2010, 81, .	1.1	9
209	Entanglement measures in ion-trap quantum simulators without full tomography. Physical Review A, 2014, 90, .	1.0	9
210	Operational entanglement families of symmetric mixedN-qubit states. Physical Review A, 2015, 91, .	1.0	9
211	Spin-1 models in the ultrastrong-coupling regime of circuit QED. Physical Review A, 2018, 97, .	1.0	9
212	Quantum Rabi model in a superfluid Bose-Einstein condensate. Physical Review A, 2017, 96, .	1.0	8
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