Mikhail D Lukin

List of Publications by Year
in descending order

305	65,128	394	707
papers	citations	133 h-index	251 g-index

327	327	327	33238
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Long-distance quantum communication with atomic ensembles and linear optics. Nature, 2001, 414, 413-418.	36.2	2,962
2	Nanoscale magnetic sensing with an individual electronic spin in diamond. Nature, 2008, 455, 644-647.	36.2	1,595
3	Probing many-body dynamics on a 51-atom quantum simulator. Nature, 2017, 551, 579-584.	36.2	1,579
4	Nanometre-scale thermometry in a living cell. Nature, 2013, 500, 54-58.	36.2	1,494
5	High-sensitivity diamond magnetometer with nanoscale resolution. Nature Physics, 2008, 4, 810-816.	11.8	1,468
6	Dark-State Polaritons in Electromagnetically Induced Transparency. Physical Review Letters, 2000, 84, 5094-5097.	8.0	1,433
7	Dipole Blockade and Quantum Information Processing in Mesoscopic Atomic Ensembles. Physical Review Letters, 2001, 87, 037901.	8.0	1,329
8	Generation of single optical plasmons in metallic nanowires coupled to quantum dots. Nature, 2007, 450, 402-406.	36.2	1,316
9	Fast Quantum Gates for Neutral Atoms. Physical Review Letters, 2000, 85, 2208-2211.	8.0	1,237
10	Ultraslow Group Velocity and Enhanced Nonlinear Optical Effects in a Coherently Driven Hot Atomic Gas. Physical Review Letters, 1999, 82, 5229-5232.	8.0	1,182
11	Robust optical delay lines with topological protection. Nature Physics, 2011, 7, 907-912.	11.8	1,166
12	A single-photon transistor using nanoscale surface plasmons. Nature Physics, 2007, 3, 807-812.	11.8	1,091
13	Quantum entanglement between an optical photon and a solid-state spin qubit. Nature, 2010, 466, 730-734.	36.2	988
14	Observation of discrete time-crystalline order in a disordered dipolar many-body system. Nature, 2017, 543, 221-225.	36.2	741
15	Quantum Optics with Surface Plasmons. Physical Review Letters, 2006, 97, 053002.	8.0	707
16	Controlling photons using electromagnetically induced transparency. Nature, 2001, 413, 273-276.	36.2	703
17	Quantum nonlinear optics with single photons enabled by strongly interacting atoms. Nature, 2012, 488, 57-60.	36.2	691
18	Quantum convolutional neural networks. Nature Physics, 2019, 15, 1273-1278.	11.8	674

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19	Quantum memory for photons: Dark-state polaritons. Physical Review A, 2002, 65, .	2.5	652
20	An integrated diamond nanophotonics platform for quantum-optical networks. Science, 2016, 354, 847-850.	20.9	609
21	Two-orbital S U(N) magnetism with ultracold alkaline-earth atoms. Nature Physics, 2010, 6, 289-295.	11.8	593
22	Nonlinear Optics and Quantum Entanglement of Ultraslow Single Photons. Physical Review Letters, 2000, 84, 1419-1422.	8.0	573
23	Quantum nonlinear opticsÂâ€”Âphoton by photon. Nature Photonics, 2014, 8, 685-694.	23.1	571
24	Quantum phases of matter on a 256-atom programmable quantum simulator. Nature, 2021, 595, 227-232.	36.2	553
25	Experimental Demonstration of Laser Oscillation without Population Inversion via Quantum Interference in Rb. Physical Review Letters, 1995, 75, 1499-1502.	8.0	517
26	A quantum network of clocks. Nature Physics, 2014, 10, 582-587.	11.8	479
27	Visible-frequency hyperbolic metasurface. Nature, 2015, 522, 192-196.	36.2	474
28	Nanophotonic quantum phase switch with a single atom. Nature, 2014, 508, 241-244.	36.2	458
29	Optical magnetic detection of single-neuron action potentials using quantum defects in diamond. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14133-14138.	7.6	430
30	Experimental demonstration of memory-enhanced quantum communication. Nature, 2020, 580, 60-64.	36.2	379
31	A coherent all-electrical interface between polar molecules and mesoscopic superconducting resonators. Nature Physics, 2006, 2, 636-642.	11.8	374
32	Entanglement of Atomic Ensembles by Trapping Correlated Photon States. Physical Review Letters, 2000, 84, 4232-4235.	8.0	370
33	Parallel Implementation of High-Fidelity Multiqubit Gates with Neutral Atoms. Physical Review Letters, 2019, 123, 170503.	8.0	366
34	Fault-tolerant architecture for quantum computation using electrically controlled semiconductor spins. Nature Physics, 2005, 1, 177-183.	11.8	362
35	Probing topological spin liquids on a programmable quantum simulator. Science, 2021, 374, 1242-1247.	20.9	357
36	A quantum spin transducer based on nanoelectromechanical resonator arrays. Nature Physics, 2010, 6, 602-608.	11.8	356

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37	Hybrid Quantum Processors: Molecular Ensembles as Quantum Memory for Solid State Circuits. Physical Review Letters, 2006, 97, 033003.	8.0	352
38	Quantum Approximate Optimization Algorithm: Performance, Mechanism, and Implementation on Near-Term Devices. Physical Review X, 2020, 10, .	9.1	348
39	Indistinguishable Photons from Separated Silicon-Vacancy Centers in Diamond. Physical Review Letters, 2014, 113, 113602.	8.0	346
40	Nanoscale magnetic imaging of a single electron spin under ambient conditions. Nature Physics, 2013, 9, 215-219.	11.8	340
41	Attractive photons in a quantum nonlinear medium. Nature, 2013, 502, 71-75.	36.2	338
42	Strong magnetic coupling between an electronic spin qubit and a mechanical resonator. Physical Review B, 2009, 79, .	3.3	335
43	Quantum Kibbleâ€“Zurek mechanism and critical dynamics on a programmable Rydberg simulator. Nature, 2019, 568, 207-211.	36.2	330
44	Silicon-Vacancy Spin Qubit in Diamond: A Quantum Memory Exceeding 10Âms with Single-Shot State Readout. Physical Review Letters, 2017, 119, 223602.	8.0	324
45	Deterministic Coupling of a Single Nitrogen Vacancy Center to a Photonic Crystal Cavity. Nano Letters, 2010, 10, 3922-3926.	9.5	312
46	Quantum interference effects induced by interacting dark resonances. Physical Review A, 1999, 60, 3225-3228.	2.5	311
47	Photon-Photon Interactions via Rydberg Blockade. Physical Review Letters, 2011, 107, 133602.	8.0	310
48	Relaxation, dephasing, and quantum control of electron spins in double quantum dots. Physical Review B, 2007, 76, .	3.3	308
49	Fault-Tolerant Quantum Communication Based on Solid-State Photon Emitters. Physical Review Letters, 2006, 96, 070504.	8.0	302
50	High-Fidelity Control and Entanglement of Rydberg-Atom Qubits. Physical Review Letters, 2018, 121, 123603.	8.0	296
51	A quantum processor based on coherent transport of entangled atom arrays. Nature, 2022, 604, 451-456.	36.2	295
52	Near-field electrical detection of optical plasmons and single-plasmon sources. Nature Physics, 2009, 5, 475-479.	11.8	294
53	Optimal architectures for long distance quantum communication. Scientific Reports, 2016, 6, 20463.	3.4	286
54	Quantum Simulators: Architectures and Opportunities. PRX Quantum, 2021, 2, .	9.3	286

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55	Strong coupling of single emitters to surface plasmons. Physical Review B, 2007, 76, .	3.3	284
56	High-resolution magnetic resonance spectroscopy using a solid-state spin sensor. Nature, 2018, 555, 351-354.	36.2	284
57	Probing dark excitons in atomically thin semiconductors via near-field coupling to surface plasmon polaritons. Nature Nanotechnology, 2017, 12, 856-860.	30.5	280
58	Experimental Demonstration of Enhanced Index of Refraction via Quantum Coherence in Rb. Physical Review Letters, 1996, 76, 3935-3938.	8.0	272
59	Dissipative phase transition in a central spin system. Physical Review A, 2012, 86, .	2.5	255
60	Coherence of nitrogen-vacancy electronic spin ensembles in diamond. Physical Review B, 2010, 82, .	3.3	245
61	Fault-tolerant quantum repeaters with minimal physical resources and implementations based on single-photon emitters. Physical Review A, 2005, 72, .	2.5	242
62	Dynamical Crystallization in the Dipole Blockade of Ultracold Atoms. Physical Review Letters, 2010, 104, 043002.	8.0	241
63	Phonon-Induced Spin-Spin Interactions in Diamond Nanostructures: Application to Spin Squeezing. Physical Review Letters, 2013, 110, 156402.	8.0	234
64	Quantum repeater with encoding. Physical Review A, 2009, 79, .	2.5	231
65	Quantum Nonlinear Optics with a Germanium-Vacancy Color Center in a Nanoscale Diamond Waveguide. Physical Review Letters, 2017, 118, 223603.	8.0	230
66	Periodic Orbits, Entanglement, and Quantum Many-Body Scars in Constrained Models: Matrix Product State Approach. Physical Review Letters, 2019, 122, 040603.	8.0	228
67	All-Optical Initialization, Readout, and Coherent Preparation of Single Silicon-Vacancy Spins in Diamond. Physical Review Letters, 2014, 113, 263602.	8.0	225
68	Fractional quantum Hall effect in optical lattices. Physical Review A, 2007, 76, .	2.5	222
69	Nanoscale NMR spectroscopy and imaging of multiple nuclear species. Nature Nanotechnology, 2015, 10, 129-134.	30.5	221
70	Free-Standing Mechanical and Photonic Nanostructures in Single-Crystal Diamond. Nano Letters, 2012, 12, 6084-6089.	9.5	218
71	Emergent SU(2) Dynamics and Perfect Quantum Many-Body Scars. Physical Review Letters, 2019, 122, 220603.	8.0	218
72	Ultrafast and Fault-Tolerant Quantum Communication across Long Distances. Physical Review Letters, 2014, 112, 250501.	8.0	215

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73	Electronâ€“phonon processes of the silicon-vacancy centre in diamond. New Journal of Physics, 2015, 17, 043011.	2.9	214
74	Many-Body Localization in Dipolar Systems. Physical Review Letters, 2014, 113, 243002.	8.0	213
75	Development of Quantum Interconnects (QuICs) for Next-Generation Information Technologies. PRX Quantum, 2021, 2, .	9.3	209
76	Spectroscopy in Dense Coherent Media: Line Narrowing and Interference Effects. Physical Review Letters, 1997, 79, 2959-2962.	8.0	208
77	Distributed quantum computation based on small quantum registers. Physical Review A, 2007, 76, .	2.5	208
78	Cooperative Resonances in Light Scattering from Two-Dimensional Atomic Arrays. Physical Review Letters, 2017, 118, 113601.	8.0	207
79	High quality-factor optical nanocavities in bulk single-crystal diamond. Nature Communications, 2014, 5, 5718.	13.2	205
80	Robust Quantum State Transfer in Random Unpolarized Spin Chains. Physical Review Letters, 2011, 106, 040505.	8.0	202
81	Quantum Error Correction for Metrology. Physical Review Letters, 2014, 112, 150802.	8.0	200
82	Photon storage in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î›</mml:mi></mml:math>-type optically dense atomic media. II. Free-space model. Physical Review A, 2007, 76, .	2.5	198
83	Quantum Noise and Correlations in Resonantly Enhanced Wave Mixing Based on Atomic Coherence. Physical Review Letters, 1999, 82, 1847-1850.	8.0	196
84	Scalable architecture for a room temperature solid-state quantum information processor. Nature Communications, 2012, 3, 800.	13.2	193
85	Integrated Diamond Networks for Quantum Nanophotonics. Nano Letters, 2012, 12, 1578-1582.	9.5	187
86	Suppression of spin-bath dynamics for improved coherence of multi-spin-qubit systems. Nature Communications, 2012, 3, 858.	13.2	186
87	Strain engineering of the silicon-vacancy center in diamond. Physical Review B, 2018, 97, .	3.3	186
88	Photon storage in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î›</mml:mi></mml:math>-type optically dense atomic media. I. Cavity model. Physical Review A, 2007, 76, .	2.5	184
89	Keldysh approach for nonequilibrium phase transitions in quantum optics: Beyond the Dicke model in optical cavities. Physical Review A, 2013, 87, .	2.5	181
90	Coherence and Raman Sideband Cooling of a Single Atom in an Optical Tweezer. Physical Review Letters, 2013, 110, 133001.	8.0	181

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91	Large Excitonic Reflectivity of Monolayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow> in Hexagonal Boron Nitride. Physical Review Letters, 2018, 120, 037402.	8.0	177
92	Coherent Optical Transitions in Implanted Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 1982-1986.	9.5	176
93	Single-Photon Nonlinear Optics with Graphene Plasmons. Physical Review Letters, 2013, 111, 247401.	8.0	174
94	Realizing Fractional Chern Insulators in Dipolar Spin Systems. Physical Review Letters, 2013, 110, 185302.	8.0	174
95	Coupling of NV Centers to Photonic Crystal Nanobeams in Diamond. Nano Letters, 2013, 13, 5791-5796.	9.5	173
96	Electron spin decoherence of single nitrogen-vacancy defects in diamond. Physical Review B, 2008, 78, .	3.3	171
97	Crystallization of strongly interacting photons in a nonlinear optical fibre. Nature Physics, 2008, 4, 884-889.	11.8	171
98	Many-Body Dynamics of Dipolar Molecules in an Optical Lattice. Physical Review Letters, 2014, 113, 195302.	8.0	171
99	Magnetic Resonance Detection of Individual Proton Spins Using Quantum Reporters. Physical Review Letters, 2014, 113, 197601.	8.0	171
100	Sensing Distant Nuclear Spins with a Single Electron Spin. Physical Review Letters, 2012, 109, 137601.	8.0	170
101	Single-cell magnetic imaging using a quantum diamond microscope. Nature Methods, 2015, 12, 736-738.	19.6	169
102	Resonant Enhancement of Parametric Processes via Radiative Interference and Induced Coherence. Physical Review Letters, 1998, 81, 2675-2678.	8.0	168
103	Efficient Readout of a Single Spin State in Diamond via Spin-to-Charge Conversion. Physical Review Letters, 2015, 114, 136402.	8.0	168
104	Quantum Computer Systems for Scientific Discovery. PRX Quantum, 2021, 2, .	9.3	164
105	Quantum optimization of maximum independent set using Rydberg atom arrays. Science, 2022, 376, 1209-1215.	20.9	159
106	Single-photon nonlinearities in two-mode optomechanics. Physical Review A, 2013, 87, .	2.5	154
107	Interferometric Probes of Many-Body Localization. Physical Review Letters, 2014, 113, 147204.	8.0	154
108	Scalable focused ion beam creation of nearly lifetime-limited single quantum emitters in diamond nanostructures. Nature Communications, 2017, 8, 15376.	13.2	154

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109	Quantum Network Nodes Based on Diamond Qubits with an Efficient Nanophotonic Interface. Physical Review Letters, 2019, 123, 183602.	8.0	153
110	Topological Quantum Optics in Two-Dimensional Atomic Arrays. Physical Review Letters, 2017, 119, 023603.	8.0	151
111	Quantum magnetism with polar alkali-metal dimers. Physical Review A, 2011, 84, .	2.5	149
112	Collective atomic scattering and motional effects in a dense coherent medium. Nature Communications, 2016, 7, 11039.	13.2	149
113	Electrical control of charged carriers and excitons in atomically thin materials. Nature Nanotechnology, 2018, 13, 128-132.	30.5	147
114	Continuous mode cooling and phonon routers for phononic quantum networks. New Journal of Physics, 2012, 14, 115004.	2.9	146
115	Far-field optical imaging and manipulation of individual spins with nanoscale resolution. Nature Physics, 2010, 6, 912-918.	11.8	143
116	Dissipative Preparation of Spin Squeezed Atomic Ensembles in a Steady State. Physical Review Letters, 2013, 110, 120402.	8.0	141
117	Nondegenerate Parametric Self-Oscillation via Multiwave Mixing in Coherent Atomic Media. Physical Review Letters, 1999, 83, 4049-4052.	8.0	139
118	Phonon-Induced Population Dynamics and Intersystem Crossing in Nitrogen-Vacancy Centers. Physical Review Letters, 2015, 114, 145502.	8.0	139
119	Narrow-Linewidth Homogeneous Optical Emitters in Diamond Nanostructures via Silicon Ion Implantation. Physical Review Applied, 2016, 5, .	3.8	137
120	Efficient photon detection from color centers in a diamond optical waveguide. Physical Review B, 2012, 85, .	3.3	135
121	Optical and microwave control of germanium-vacancy center spins in diamond. Physical Review B, 2017, 96, .	3.3	133
122	Phonon Networks with Silicon-Vacancy Centers in Diamond Waveguides. Physical Review Letters, 2018, 120, 213603.	8.0	133
123	Diamond optomechanical crystals. Optica, 2016, 3, 1404.	9.3	130
124	Controlling the coherence of a diamond spin qubit through its strain environment. Nature Communications, 2018, 9, 2012.	13.2	130
125	Tailoring Light-Matter Interaction with a Nanoscale Plasmon Resonator. Physical Review Letters, 2012, 108, 226803.	8.0	129
126	Quantum Metrology Enhanced by Repetitive Quantum Error Correction. Physical Review Letters, 2016, 116, 230502.	8.0	129

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127	Excitons in a reconstructed moirÃ© potential in twisted WSe2/WSe2 homobilayers. Nature Materials, 2021, 20, 480-487.	26.6	128
128	Efficient fiber-optical interface for nanophotonic devices. Optica, 2015, 2, 70.	9.3	127
129	An integrated nanophotonic quantum register based on silicon-vacancy spins in diamond. Physical Review B, 2019, 100, .	3.3	126
130	Fiber-Coupled Diamond Quantum Nanophotonic Interface. Physical Review Applied, 2017, 8, .	3.8	125
131	Universal photonic quantum computation via time-delayed feedback. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11362-11367.	7.6	124
132	Quantum control of proximal spins using nanoscale magnetic resonance imaging. Nature Physics, 2011, 7, 687-692.	11.8	123
133	Optomechanical transducers for quantum-information processing. Physical Review A, 2011, 84, .	2.5	122
134	Quasi-Many-Body Localization in Translation-Invariant Systems. Physical Review Letters, 2016, 117, 240601.	8.0	122
135	Origins of Diamond Surface Noise Probed by Correlating Single-Spin Measurements with Surface Spectroscopy. Physical Review X, 2019, 9, .	9.1	122
136	Phonon cooling and lasing with nitrogen-vacancy centers in diamond. Physical Review B, 2013, 88, .	3.3	120
137	Efficient frequency up-conversion in resonant coherent media. Physical Review A, 2002, 65, .	2.5	119
138	Bilayer Wigner crystals in a transition metal dichalcogenide heterostructure. Nature, 2021, 595, 48-52.	36.2	118
139	Phase coherence and control of stored photonic information. Physical Review A, 2002, 65, .	2.5	115
140	Critical Thermalization of a Disordered Dipolar Spin System in Diamond. Physical Review Letters, 2018, 121, 023601.	8.0	115
141	Quantum Entanglement via Optical Control of Atom-Atom Interactions. Physical Review Letters, 2000, 84, 2818-2821.	8.0	114
142	Critical Time Crystals in Dipolar Systems. Physical Review Letters, 2017, 119, 010602.	8.0	114
143	Broken mirror symmetry in excitonic response of reconstructed domains in twisted MoSe2/MoSe2 bilayers. Nature Nanotechnology, 2020, 15, 750-754.	30.5	114
144	All-optical nanoscale thermometry with silicon-vacancy centers in diamond. Applied Physics Letters, 2018, 112, .	3.2	110

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145	Nanoplasmonic Lattices for Ultracold Atoms. Physical Review Letters, 2012, 109, 235309.	8.0	109
146	Electrically Tunable Valley Dynamics in Twisted <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow> Bilayers. Physical Review Letters, 2020, 124, 217403.	8.0	109
147	NMR technique for determining the depth of shallow nitrogen-vacancy centers in diamond. Physical Review B, 2016, 93, .	3.3	108
148	Quantum phases of Rydberg atoms on a kagome lattice. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.6	107
149	Nonlinear optics via double dark resonances. Physical Review A, 2003, 68, .	2.5	106
150	Fast and robust approach to long-distance quantum communication with atomic ensembles. Physical Review A, 2007, 76, .	2.5	106
151	Enhanced solid-state multispin metrology using dynamical decoupling. Physical Review B, 2012, 86, .	3.3	103
152	Quantum metasurfaces with atom arrays. Nature Physics, 2020, 16, 676-681.	11.8	103
153	Prediction of Toric Code Topological Order from Rydberg Blockade. Physical Review X, 2021, 11, .	9.1	101
154	Atom-like crystal defects: From quantum computers to biological sensors. Physics Today, 2014, 67, 38-43.	0.4	100
155	State-selective intersystem crossing in nitrogen-vacancy centers. Physical Review B, 2015, 91, .	3.3	100
156	Trapping and Manipulation of Isolated Atoms Using Nanoscale Plasmonic Structures. Physical Review Letters, 2009, 103, 123004.	8.0	99
157	Topological Flat Bands from Dipolar Spin Systems. Physical Review Letters, 2012, 109, 266804.	8.0	99
158	Anyonic interferometry and protected memories in atomic spin lattices. Nature Physics, 2008, 4, 482-488.	11.8	98
159	Integrating Neural Networks with a Quantum Simulator for State Reconstruction. Physical Review Letters, 2019, 123, 230504.	8.0	98
160	Heisenberg-Limited Atom Clocks Based on Entangled Qubits. Physical Review Letters, 2014, 112, 190403.	8.0	96
161	Depolarization Dynamics in a Strongly Interacting Solid-State Spin Ensemble. Physical Review Letters, 2017, 118, 093601.	8.0	95
162	Optical Interferometry with Quantum Networks. Physical Review Letters, 2019, 123, 070504.	8.0	87

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163	Logical quantum processor based on reconfigurable atom arrays. Nature, 2024, 626, 58-65.	36.2	87
164	Probing and manipulating embryogenesis via nanoscale thermometry and temperature control. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14636-14641.	7.6	83
165	High-fidelity parallel entangling gates on a neutral-atom quantum computer. Nature, 2023, 622, 268-272.	36.2	83
166	Reservoir engineering and dynamical phase transitions in optomechanical arrays. Physical Review A, 2012, 86, .	2.5	82
167	Scattering resonances and bound states for strongly interacting Rydberg polaritons. Physical Review A, 2014, 90, .	2.5	80
168	Environment-Assisted Precision Measurement. Physical Review Letters, 2011, 106, 140502.	8.0	79
169	Quantum Plasmonic Circuits. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1781-1791.	3.2	78
170	Laser-cooled atoms inside a hollow-core photonic-crystal fiber. Physical Review A, 2011, 83, .	2.5	74
171	Strong Coupling of Two Individually Controlled Atoms via a Nanophotonic Cavity. Physical Review Letters, 2020, 124, 063602.	8.0	73
172	Quantum measurement of a mesoscopic spin ensemble. Physical Review A, 2006, 74, .	2.5	72
173	Enhanced metrology using preferential orientation of nitrogen-vacancy centers in diamond. Physical Review B, 2012, 86, .	3.3	70
174	Numerical study of the chiral <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="double-struck">Z</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> quantum phase transition in one spatial dimension. Physical Review A, 2018, 98, .	2.5	70
175	Topologically protected quantum state transfer in a chiral spin liquid. Nature Communications, 2013, 4, 1585.	13.2	69
176	Quantum many-body scars from virtual entangled pairs. Physical Review B, 2020, 101, .	3.3	69
177	Enhancement of magneto-optic effects via large atomic coherence in optically dense media. Physical Review A, 2000, 62, .	2.5	68
178	Photon storage inÎ›-type optically dense atomic media. III. Effects of inhomogeneous broadening. Physical Review A, 2007, 76, .	2.5	68
179	Single-Spin Magnetomechanics with Levitated Micromagnets. Physical Review Letters, 2020, 124, 163604.	8.0	68
180	Emerging Two-Dimensional Gauge Theories in Rydberg Configurable Arrays. Physical Review X, 2020, 10, .	9.1	67

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181	Quantum Metrology with Strongly Interacting Spin Systems. Physical Review X, 2020, 10, .	9.1	67
182	One-Way Quantum Repeater Based on Near-Deterministic Photon-Emitter Interfaces. Physical Review X, 2020, 10, .	9.1	66
183	Symmetry-protected collisions between strongly interacting photons. Nature, 2017, 542, 206-209.	36.2	65
184	Robust Dynamic Hamiltonian Engineering of Many-Body Spin Systems. Physical Review X, 2020, 10, .	9.1	65
185	Photon storage in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Λ̂</mml:mi></mml:math>-type optically dense atomic media. IV. Optimal control using gradient ascent. Physical Review A, 2008, 77, .	2.5	64
186	Controlling dipole-dipole frequency shifts in a lattice-based optical atomic clock. Physical Review A, 2004, 69, .	2.5	62
187	Photonic band structure of two-dimensional atomic lattices. Physical Review A, 2017, 96, .	2.5	61
188	Enhanced Antiferromagnetic Exchange between Magnetic Impurities in a Superconducting Host. Physical Review Letters, 2014, 113, 087202.	8.0	60
189	Coulomb Bound States of Strongly Interacting Photons. Physical Review Letters, 2015, 115, 123601.	8.0	60
190	Controlling Excitons in an Atomically Thin Membrane with a Mirror. Physical Review Letters, 2020, 124, 027401.	8.0	60
191	Quantum correlation in disordered spin systems: Applications to magnetic sensing. Physical Review A, 2009, 80, .	2.5	59
192	Topological bands with a Chern number<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>C</mml:mi><mml:mo>=</mml:mo><mml:mn>2</mml:mn></mml:mr dipolar exchange interactions. Physical Review A, 2015, 91, .	2.5	59
193	Quantum many-body dynamics of coupled double-well superlattices. Physical Review A, 2008, 78, .	2.5	57
194	Topological Quantum Optics Using Atomlike Emitter Arrays Coupled to Photonic Crystals. Physical Review Letters, 2020, 124, 083603.	8.0	57
195	Timekeeping with electron spin states in diamond. Physical Review A, 2013, 87, .	2.5	56
196	Engineering superfluidity in Bose-Fermi mixtures of ultracold atoms. Physical Review A, 2005, 72, .	2.5	55
197	A method for directional detection of dark matter using spectroscopy of crystal defects. Physical Review D, 2017, 96, .	4.8	55
198	Complex Density Wave Orders and Quantum Phase Transitions in a Model of Square-Lattice Rydberg Atom Arrays. Physical Review Letters, 2020, 124, 103601.	8.0	54

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199	Coherence of an Optically Illuminated Single Nuclear Spin Qubit. Physical Review Letters, 2008, 100, 073001.	8.0	51
200	Adiabatic preparation of many-body states in optical lattices. Physical Review A, 2010, 81, .	2.5	51
201	Large-scale uniform optical focus array generation with a phase spatial light modulator. Optics Letters, 2019, 44, 3178.	3.3	49
202	Hardware-Efficient, Fault-Tolerant Quantum Computation with Rydberg Atoms. Physical Review X, 2022, 12, .	9.1	49
203	Quantum-limited measurements of atomic scattering properties. Physical Review A, 2007, 76, .	2.5	48
204	Unforgeable noise-tolerant quantum tokens. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16079-16082.	7.6	45
205	Superresolution optical magnetic imaging and spectroscopy using individual electronic spins in diamond. Optics Express, 2017, 25, 11048.	3.4	44
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