

Mikhail D Lukin

List of Publications by Year in descending order

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313
papers

61,730
citations

506

128
h-index

849

244
g-index

315
all docs

315
docs citations

315
times ranked

24670
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-distance quantum communication with atomic ensembles and linear optics. <i>Nature</i> , 2001, 414, 413-418.	13.7	2,891
2	Nanoscale magnetic sensing with an individual electronic spin in diamond. <i>Nature</i> , 2008, 455, 644-647.	13.7	1,554
3	Probing many-body dynamics on a 51-atom quantum simulator. <i>Nature</i> , 2017, 551, 579-584.	13.7	1,463
4	Nanometre-scale thermometry in a living cell. <i>Nature</i> , 2013, 500, 54-58.	13.7	1,440
5	Dark-State Polaritons in Electromagnetically Induced Transparency. <i>Physical Review Letters</i> , 2000, 84, 5094-5097.	2.9	1,418
6	High-sensitivity diamond magnetometer with nanoscale resolution. <i>Nature Physics</i> , 2008, 4, 810-816.	6.5	1,409
7	Generation of single optical plasmons in metallic nanowires coupled to quantum dots. <i>Nature</i> , 2007, 450, 402-406.	13.7	1,307
8	Dipole Blockade and Quantum Information Processing in Mesoscopic Atomic Ensembles. <i>Physical Review Letters</i> , 2001, 87, 037901.	2.9	1,290
9	Fast Quantum Gates for Neutral Atoms. <i>Physical Review Letters</i> , 2000, 85, 2208-2211.	2.9	1,197
10	Ultraslow Group Velocity and Enhanced Nonlinear Optical Effects in a Coherently Driven Hot Atomic Gas. <i>Physical Review Letters</i> , 1999, 82, 5229-5232.	2.9	1,172
11	Robust optical delay lines with topological protection. <i>Nature Physics</i> , 2011, 7, 907-912.	6.5	1,110
12	A single-photon transistor using nanoscale surface plasmons. <i>Nature Physics</i> , 2007, 3, 807-812.	6.5	1,074
13	Quantum Register Based on Individual Electronic and Nuclear Spin Qubits in Diamond. <i>Science</i> , 2007, 316, 1312-1316.	6.0	1,040
14	Coherent Dynamics of Coupled Electron and Nuclear Spin Qubits in Diamond. <i>Science</i> , 2006, 314, 281-285.	6.0	1,030
15	Quantum entanglement between an optical photon and a solid-state spin qubit. <i>Nature</i> , 2010, 466, 730-734.	13.7	968
16	Room-Temperature Quantum Bit Memory Exceeding One Second. <i>Science</i> , 2012, 336, 1283-1286.	6.0	707
17	Quantum Optics with Surface Plasmons. <i>Physical Review Letters</i> , 2006, 97, 053002.	2.9	701
18	Controlling photons using electromagnetically induced transparency. <i>Nature</i> , 2001, 413, 273-276.	13.7	691

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19	Observation of discrete time-crystalline order in a disordered dipolar many-body system. Nature, 2017, 543, 221-225.	13.7	689
20	Quantum nonlinear optics with single photons enabled by strongly interacting atoms. Nature, 2012, 488, 57-60.	13.7	679
21	Quantum memory for photons: Dark-state polaritons. Physical Review A, 2002, 65, .	1.0	643
22	Two-orbital SU(N) magnetism with ultracold alkaline-earth atoms. Nature Physics, 2010, 6, 289-295.	6.5	572
23	An integrated diamond nanophotonics platform for quantum-optical networks. Science, 2016, 354, 847-850.	6.0	570
24	Nonlinear Optics and Quantum Entanglement of Ultraslow Single Photons. Physical Review Letters, 2000, 84, 1419-1422.	2.9	566
25	Quantum convolutional neural networks. Nature Physics, 2019, 15, 1273-1278.	6.5	554
26	Quantum nonlinear optics—photon by photon. Nature Photonics, 2014, 8, 685-694.	15.6	539
27	Atom-by-atom assembly of defect-free one-dimensional cold atom arrays. Science, 2016, 354, 1024-1027.	6.0	534
28	Experimental Demonstration of Laser Oscillation without Population Inversion via Quantum Interference in Rb. Physical Review Letters, 1995, 75, 1499-1502.	2.9	510
29	Quantum phases of matter on a 256-atom programmable quantum simulator. Nature, 2021, 595, 227-232.	13.7	458
30	Visible-frequency hyperbolic metasurface. Nature, 2015, 522, 192-196.	13.7	453
31	Nanophotonic quantum phase switch with a single atom. Nature, 2014, 508, 241-244.	13.7	448
32	A quantum network of clocks. Nature Physics, 2014, 10, 582-587.	6.5	435
33	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.	3.3	397
34	Coupling a Single Trapped Atom to a Nanoscale Optical Cavity. Science, 2013, 340, 1202-1205.	6.0	393
35	Nuclear magnetic resonance detection and spectroscopy of single proteins using quantum logic. Science, 2016, 351, 836-841.	6.0	387
36	Generation and manipulation of Schrödinger cat states in Rydberg atom arrays. Science, 2019, 365, 570-574.	6.0	375

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37	A coherent all-electrical interface between polar molecules and mesoscopic superconducting resonators. <i>Nature Physics</i> , 2006, 2, 636-642.	6.5	372
38	Entanglement of Atomic Ensembles by Trapping Correlated Photon States. <i>Physical Review Letters</i> , 2000, 84, 4232-4235.	2.9	367
39	Fault-tolerant architecture for quantum computation using electrically controlled semiconductor spins. <i>Nature Physics</i> , 2005, 1, 177-183.	6.5	357
40	Hybrid Quantum Processors: Molecular Ensembles as Quantum Memory for Solid State Circuits. <i>Physical Review Letters</i> , 2006, 97, 033003.	2.9	348
41	A quantum spin transducer based on nanoelectromechanical resonator arrays. <i>Nature Physics</i> , 2010, 6, 602-608.	6.5	346
42	Indistinguishable Photons from Separated Silicon-Vacancy Centers in Diamond. <i>Physical Review Letters</i> , 2014, 113, 113602.	2.9	333
43	Attractive photons in a quantum nonlinear medium. <i>Nature</i> , 2013, 502, 71-75.	13.7	331
44	Nanoscale magnetic imaging of a single electron spin under ambient conditions. <i>Nature Physics</i> , 2013, 9, 215-219.	6.5	330
45	Strong magnetic coupling between an electronic spin qubit and a mechanical resonator. <i>Physical Review B</i> , 2009, 79, .	1.1	329
46	Parallel Implementation of High-Fidelity Multiqubit Gates with Neutral Atoms. <i>Physical Review Letters</i> , 2019, 123, 170503.	2.9	329
47	Coherent Sensing of a Mechanical Resonator with a Single-Spin Qubit. <i>Science</i> , 2012, 335, 1603-1606.	6.0	326
48	Experimental demonstration of memory-enhanced quantum communication. <i>Nature</i> , 2020, 580, 60-64.	13.7	325
49	Deterministic Coupling of a Single Nitrogen Vacancy Center to a Photonic Crystal Cavity. <i>Nano Letters</i> , 2010, 10, 3922-3926.	4.5	309
50	Quantum interference effects induced by interacting dark resonances. <i>Physical Review A</i> , 1999, 60, 3225-3228.	1.0	307
51	Photon-Photon Interactions via Rydberg Blockade. <i>Physical Review Letters</i> , 2011, 107, 133602.	2.9	305
52	Relaxation, dephasing, and quantum control of electron spins in double quantum dots. <i>Physical Review B</i> , 2007, 76, .	1.1	302
53	Silicon-Vacancy Spin Qubit in Diamond: A Quantum Memory Exceeding 10 μ s with Single-Shot State Readout. <i>Physical Review Letters</i> , 2017, 119, 223602.	2.9	300
54	Quantum Kibble-Zurek mechanism and critical dynamics on a programmable Rydberg simulator. <i>Nature</i> , 2019, 568, 207-211.	13.7	298

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55	Fault-Tolerant Quantum Communication Based on Solid-State Photon Emitters. <i>Physical Review Letters</i> , 2006, 96, 070504.	2.9	297
56	Quantum Approximate Optimization Algorithm: Performance, Mechanism, and Implementation on Near-Term Devices. <i>Physical Review X</i> , 2020, 10, .	2.8	293
57	Probing topological spin liquids on a programmable quantum simulator. <i>Science</i> , 2021, 374, 1242-1247.	6.0	293
58	Near-field electrical detection of optical plasmons and single-plasmon sources. <i>Nature Physics</i> , 2009, 5, 475-479.	6.5	290
59	Strong coupling of single emitters to surface plasmons. <i>Physical Review B</i> , 2007, 76, .	1.1	283
60	Repetitive Readout of a Single Electronic Spin via Quantum Logic with Nuclear Spin Ancillae. <i>Science</i> , 2009, 326, 267-272.	6.0	277
61	High-Fidelity Control and Entanglement of Rydberg-Atom Qubits. <i>Physical Review Letters</i> , 2018, 121, 123603.	2.9	274
62	Experimental Demonstration of Enhanced Index of Refraction via Quantum Coherence in Rb. <i>Physical Review Letters</i> , 1996, 76, 3935-3938.	2.9	271
63	Probing dark excitons in atomically thin semiconductors via near-field coupling to surface plasmon polaritons. <i>Nature Nanotechnology</i> , 2017, 12, 856-860.	15.6	270
64	High-resolution magnetic resonance spectroscopy using a solid-state spin sensor. <i>Nature</i> , 2018, 555, 351-354.	18.7	270
65	Optimal architectures for long distance quantum communication. <i>Scientific Reports</i> , 2016, 6, 20463.	1.6	262
66	Electrical control of interlayer exciton dynamics in atomically thin heterostructures. <i>Science</i> , 2019, 366, 870-875.	6.0	255
67	Fault-tolerant quantum repeaters with minimal physical resources and implementations based on single-photon emitters. <i>Physical Review A</i> , 2005, 72, .	1.0	239
68	Coherence of nitrogen-vacancy electronic spin ensembles in diamond. <i>Physical Review B</i> , 2010, 82, .	1.1	238
69	Dynamical Crystallization in the Dipole Blockade of Ultracold Atoms. <i>Physical Review Letters</i> , 2010, 104, 043002.	2.9	236
70	Dissipative phase transition in a central spin system. <i>Physical Review A</i> , 2012, 86, .	1.0	234
71	Quantum Simulators: Architectures and Opportunities. <i>PRX Quantum</i> , 2021, 2, .	3.5	229
72	Phonon-Induced Spin-Spin Interactions in Diamond Nanostructures: Application to Spin Squeezing. <i>Physical Review Letters</i> , 2013, 110, 156402.	2.9	226

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73	Quantum repeater with encoding. <i>Physical Review A</i> , 2009, 79, .	1.0	224
74	Quantum Nonlinear Optics with a Germanium-Vacancy Color Center in a Nanoscale Diamond Waveguide. <i>Physical Review Letters</i> , 2017, 118, 223603.	2.9	218
75	All-Optical Initialization, Readout, and Coherent Preparation of Single Silicon-Vacancy Spins in Diamond. <i>Physical Review Letters</i> , 2014, 113, 263602.	2.9	216
76	Nanoscale NMR spectroscopy and imaging of multiple nuclear species. <i>Nature Nanotechnology</i> , 2015, 10, 129-134.	15.6	215
77	A quantum processor based on coherent transport of entangled atom arrays. <i>Nature</i> , 2022, 604, 451-456.	13.7	213
78	Fractional quantum Hall effect in optical lattices. <i>Physical Review A</i> , 2007, 76, .	1.0	212
79	Free-Standing Mechanical and Photonic Nanostructures in Single-Crystal Diamond. <i>Nano Letters</i> , 2012, 12, 6084-6089.	4.5	210
80	Periodic Orbits, Entanglement, and Quantum Many-Body Scars in Constrained Models: Matrix Product State Approach. <i>Physical Review Letters</i> , 2019, 122, 040603.	2.9	208
81	Spectroscopy in Dense Coherent Media: Line Narrowing and Interference Effects. <i>Physical Review Letters</i> , 1997, 79, 2959-2962.	2.9	206
82	Many-Body Localization in Dipolar Systems. <i>Physical Review Letters</i> , 2014, 113, 243002.	2.9	204
83	Ultrafast and Fault-Tolerant Quantum Communication across Long Distances. <i>Physical Review Letters</i> , 2014, 112, 250501.	2.9	204
84	Electron-phonon processes of the silicon-vacancy centre in diamond. <i>New Journal of Physics</i> , 2015, 17, 043011.	1.2	203
85	Emergent SU(2) Dynamics and Perfect Quantum Many-Body Scars. <i>Physical Review Letters</i> , 2019, 122, 220603.	2.9	201
86	Quantum Noise and Correlations in Resonantly Enhanced Wave Mixing Based on Atomic Coherence. <i>Physical Review Letters</i> , 1999, 82, 1847-1850.	2.9	196
87	High quality-factor optical nanocavities in bulk single-crystal diamond. <i>Nature Communications</i> , 2014, 5, 5718.	5.8	196
88	Cooperative Resonances in Light Scattering from Two-Dimensional Atomic Arrays. <i>Physical Review Letters</i> , 2017, 118, 113601.	2.9	196
89	Robust Quantum State Transfer in Random Unpolarized Spin Chains. <i>Physical Review Letters</i> , 2011, 106, 040505.	2.9	194
90	Photon storage in $\hat{\rho}$ -type optically dense atomic media. II. Free-space model. <i>Physical Review A</i> , 2007, 76, .	1.0	193

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91	Quantum Error Correction for Metrology. Physical Review Letters, 2014, 112, 150802.	2.9	192
92	Scalable architecture for a room temperature solid-state quantum information processor. Nature Communications, 2012, 3, 800.	5.8	190
93	Photon-mediated interactions between quantum emitters in a diamond nanocavity. Science, 2018, 362, 662-665.	6.0	189
94	Distributed quantum computation based on small quantum registers. Physical Review A, 2007, 76, .	1.0	188
95	Controlling quantum many-body dynamics in driven Rydberg atom arrays. Science, 2021, 371, 1355-1359.	6.0	186
96	Integrated Diamond Networks for Quantum Nanophotonics. Nano Letters, 2012, 12, 1578-1582.	4.5	183
97	Photon storage in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle \hat{\rho} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -type optically dense atomic media. I. Cavity model. Physical Review A, 2007, 76, .	1.0	180
98	Suppression of spin-bath dynamics for improved coherence of multi-spin-qubit systems. Nature Communications, 2012, 3, 858.	5.8	177
99	Keldysh approach for nonequilibrium phase transitions in quantum optics: Beyond the Dicke model in optical cavities. Physical Review A, 2013, 87, .	1.0	176
100	Single-Photon Nonlinear Optics with Graphene Plasmons. Physical Review Letters, 2013, 111, 247401.	2.9	172
101	Development of Quantum Interconnects (QICs) for Next-Generation Information Technologies. PRX Quantum, 2021, 2, .	3.5	172
102	Strain engineering of the silicon-vacancy center in diamond. Physical Review B, 2018, 97, .	1.1	171
103	Crystallization of strongly interacting photons in a nonlinear optical fibre. Nature Physics, 2008, 4, 884-889.	6.5	170
104	Coupling of NV Centers to Photonic Crystal Nanobeams in Diamond. Nano Letters, 2013, 13, 5791-5796.	4.5	170
105	Coherent Optical Transitions in Implanted Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 1982-1986.	4.5	169
106	Electron spin decoherence of single nitrogen-vacancy defects in diamond. Physical Review B, 2008, 78, .	1.1	168
107	Resonant Enhancement of Parametric Processes via Radiative Interference and Induced Coherence. Physical Review Letters, 1998, 81, 2675-2678.	2.9	167
108	Realizing Fractional Chern Insulators in Dipolar Spin Systems. Physical Review Letters, 2013, 110, 185302.	2.9	167

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109	Magnetic Resonance Detection of Individual Proton Spins Using Quantum Reporters. Physical Review Letters, 2014, 113, 197601.	2.9	167
110	Coherence and Raman Sideband Cooling of a Single Atom in an Optical Tweezer. Physical Review Letters, 2013, 110, 133001.	2.9	166
111	Large Excitonic Reflectivity of Monolayer MoSe_2 in Hexagonal Boron Nitride. Physical Review Letters, 2018, 120, 037402.	2.9	165
112	Sensing Distant Nuclear Spins with a Single Electron Spin. Physical Review Letters, 2012, 109, 137601.	2.9	162
113	Many-Body Dynamics of Dipolar Molecules in an Optical Lattice. Physical Review Letters, 2014, 113, 195302.	2.9	162
114	Efficient Readout of a Single Spin State in Diamond via Spin-to-Charge Conversion. Physical Review Letters, 2015, 114, 136402.	2.9	162
115	Single-cell magnetic imaging using a quantum diamond microscope. Nature Methods, 2015, 12, 736-738.	9.0	161
116	Interferometric Probes of Many-Body Localization. Physical Review Letters, 2014, 113, 147204.	2.9	153
117	Single-photon nonlinearities in two-mode optomechanics. Physical Review A, 2013, 87, .	1.0	146
118	Collective atomic scattering and motional effects in a dense coherent medium. Nature Communications, 2016, 7, 11039.	5.8	145
119	Topological Quantum Optics in Two-Dimensional Atomic Arrays. Physical Review Letters, 2017, 119, 023603.	2.9	145
120	Continuous mode cooling and phonon routers for phononic quantum networks. New Journal of Physics, 2012, 14, 115004.	1.2	143
121	Far-field optical imaging and manipulation of individual spins with nanoscale resolution. Nature Physics, 2010, 6, 912-918.	6.5	142
122	Quantum magnetism with polar alkali-metal dimers. Physical Review A, 2011, 84, .	1.0	142
123	Electrical control of charged carriers and excitons in atomically thin materials. Nature Nanotechnology, 2018, 13, 128-132.	15.6	142
124	Quantum Computer Systems for Scientific Discovery. PRX Quantum, 2021, 2, .	3.5	142
125	Scalable focused ion beam creation of nearly lifetime-limited single quantum emitters in diamond nanostructures. Nature Communications, 2017, 8, 15376.	5.8	141
126	Nondegenerate Parametric Self-Oscillation via Multiwave Mixing in Coherent Atomic Media. Physical Review Letters, 1999, 83, 4049-4052.	2.9	139

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127	Dissipative Preparation of Spin Squeezed Atomic Ensembles in a Steady State. <i>Physical Review Letters</i> , 2013, 110, 120402.	2.9	139
128	Quantum Network Nodes Based on Diamond Qubits with an Efficient Nanophotonic Interface. <i>Physical Review Letters</i> , 2019, 123, 183602.	2.9	133
129	Narrow-Linewidth Homogeneous Optical Emitters in Diamond Nanostructures via Silicon Ion Implantation. <i>Physical Review Applied</i> , 2016, 5, .	1.5	131
130	Efficient photon detection from color centers in a diamond optical waveguide. <i>Physical Review B</i> , 2012, 85, .	1.1	130
131	Probing Johnson noise and ballistic transport in normal metals with a single-spin qubit. <i>Science</i> , 2015, 347, 1129-1132.	6.0	130
132	Tailoring Light-Matter Interaction with a Nanoscale Plasmon Resonator. <i>Physical Review Letters</i> , 2012, 108, 226803.	2.9	127
133	Phonon-Induced Population Dynamics and Intersystem Crossing in Nitrogen-Vacancy Centers. <i>Physical Review Letters</i> , 2015, 114, 145502.	2.9	127
134	Diamond optomechanical crystals. <i>Optica</i> , 2016, 3, 1404.	4.8	125
135	Quantum Metrology Enhanced by Repetitive Quantum Error Correction. <i>Physical Review Letters</i> , 2016, 116, 230502.	2.9	125
136	Optical and microwave control of germanium-vacancy center spins in diamond. <i>Physical Review B</i> , 2017, 96, .	1.1	125
137	Phonon Networks with Silicon-Vacancy Centers in Diamond Waveguides. <i>Physical Review Letters</i> , 2018, 120, 213603.	2.9	125
138	Quantum optimization of maximum independent set using Rydberg atom arrays. <i>Science</i> , 2022, 376, 1209-1215.	6.0	124
139	Quantum control of proximal spins using nanoscale magnetic resonance imaging. <i>Nature Physics</i> , 2011, 7, 687-692.	6.5	120
140	Controlling the coherence of a diamond spin qubit through its strain environment. <i>Nature Communications</i> , 2018, 9, 2012.	5.8	120
141	Optomechanical transducers for quantum-information processing. <i>Physical Review A</i> , 2011, 84, .	1.0	119
142	Efficient fiber-optical interface for nanophotonic devices. <i>Optica</i> , 2015, 2, 70.	4.8	119
143	Universal photonic quantum computation via time-delayed feedback. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11362-11367.	3.3	117
144	Efficient frequency up-conversion in resonant coherent media. <i>Physical Review A</i> , 2002, 65, .	1.0	116

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145	Quasi-Many-Body Localization in Translation-Invariant Systems. <i>Physical Review Letters</i> , 2016, 117, 240601.	2.9	116
146	Phase coherence and control of stored photonic information. <i>Physical Review A</i> , 2002, 65, .	1.0	115
147	Phonon cooling and lasing with nitrogen-vacancy centers in diamond. <i>Physical Review B</i> , 2013, 88, .	1.1	115
148	Fiber-Coupled Diamond Quantum Nanophotonic Interface. <i>Physical Review Applied</i> , 2017, 8, .	1.5	115
149	Quantum Entanglement via Optical Control of Atom-Atom Interactions. <i>Physical Review Letters</i> , 2000, 84, 2818-2821.	2.9	114
150	An integrated nanophotonic quantum register based on silicon-vacancy spins in diamond. <i>Physical Review B</i> , 2019, 100, .	1.1	111
151	Magnetic resonance spectroscopy of an atomically thin material using a single-spin qubit. <i>Science</i> , 2017, 355, 503-507.	6.0	110
152	Excitons in a reconstructed moiré potential in twisted WSe ₂ /WSe ₂ homobilayers. <i>Nature Materials</i> , 2021, 20, 480-487.	13.3	109
153	Nanoplasmonic Lattices for Ultracold Atoms. <i>Physical Review Letters</i> , 2012, 109, 235309.	2.9	108
154	NMR technique for determining the depth of shallow nitrogen-vacancy centers in diamond. <i>Physical Review B</i> , 2016, 93, .	1.1	107
155	Critical Time Crystals in Dipolar Systems. <i>Physical Review Letters</i> , 2017, 119, 010602.	2.9	107
156	Critical Thermalization of a Disordered Dipolar Spin System in Diamond. <i>Physical Review Letters</i> , 2018, 121, 023601.	2.9	107
157	Origins of Diamond Surface Noise Probed by Correlating Single-Spin Measurements with Surface Spectroscopy. <i>Physical Review X</i> , 2019, 9, .	2.8	107
158	Broken mirror symmetry in excitonic response of reconstructed domains in twisted MoSe ₂ /MoSe ₂ bilayers. <i>Nature Nanotechnology</i> , 2020, 15, 750-754.	15.6	106
159	Nonlinear optics via double dark resonances. <i>Physical Review A</i> , 2003, 68, .	1.0	105
160	Fast and robust approach to long-distance quantum communication with atomic ensembles. <i>Physical Review A</i> , 2007, 76, .	1.0	104
161	All-optical nanoscale thermometry with silicon-vacancy centers in diamond. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	100
162	Observation of three-photon bound states in a quantum nonlinear medium. <i>Science</i> , 2018, 359, 783-786.	6.0	99

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163	Enhanced solid-state multispin metrology using dynamical decoupling. Physical Review B, 2012, 86, .	1.1	98
164	Quantum metasurfaces with atom arrays. Nature Physics, 2020, 16, 676-681.	6.5	98
165	Bilayer Wigner crystals in a transition metal dichalcogenide heterostructure. Nature, 2021, 595, 48-52.	13.7	98
166	Anyonic interferometry and protected memories in atomic spin lattices. Nature Physics, 2008, 4, 482-488.	6.5	97
167	Atom-like crystal defects: From quantum computers to biological sensors. Physics Today, 2014, 67, 38-43.	0.3	97
168	Trapping and Manipulation of Isolated Atoms Using Nanoscale Plasmonic Structures. Physical Review Letters, 2009, 103, 123004.	2.9	96
169	Topological Flat Bands from Dipolar Spin Systems. Physical Review Letters, 2012, 109, 266804.	2.9	96
170	Heisenberg-Limited Atom Clocks Based on Entangled Qubits. Physical Review Letters, 2014, 112, 190403.	2.9	92
171	State-selective intersystem crossing in nitrogen-vacancy centers. Physical Review B, 2015, 91, .	1.1	91
172	Integrating Neural Networks with a Quantum Simulator for State Reconstruction. Physical Review Letters, 2019, 123, 230504.	2.9	90
173	Electrically Tunable Valley Dynamics in Twisted WS_2 Bilayers. Physical Review Letters, 2020, 124, 217403.	2.9	89
174	Depolarization Dynamics in a Strongly Interacting Solid-State Spin Ensemble. Physical Review Letters, 2017, 118, 093601.	2.9	86
175	Quantum phases of Rydberg atoms on a kagome lattice. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	86
176	Reservoir engineering and dynamical phase transitions in optomechanical arrays. Physical Review A, 2012, 86, .	1.0	81
177	Quantum Plasmonic Circuits. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1781-1791.	1.9	78
178	Scattering resonances and bound states for strongly interacting Rydberg polaritons. Physical Review A, 2014, 90, .	1.0	78
179	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.	3.3	77
180	Prediction of Toric Code Topological Order from Rydberg Blockade. Physical Review X, 2021, 11, .	2.8	77

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181	Environment-Assisted Precision Measurement. Physical Review Letters, 2011, 106, 140502.	2.9	75
182	Optical Interferometry with Quantum Networks. Physical Review Letters, 2019, 123, 070504.	2.9	74
183	Quantum measurement of a mesoscopic spin ensemble. Physical Review A, 2006, 74, .	1.0	71
184	Laser-cooled atoms inside a hollow-core photonic-crystal fiber. Physical Review A, 2011, 83, .	1.0	70
185	Enhanced metrology using preferential orientation of nitrogen-vacancy centers in diamond. Physical Review B, 2012, 86, .	1.1	68
186	Photon storage in \hat{V} -type optically dense atomic media. III. Effects of inhomogeneous broadening. Physical Review A, 2007, 76, .	1.0	67
187	Topologically protected quantum state transfer in a chiral spin liquid. Nature Communications, 2013, 4, 1585.	5.8	67
188	Enhancement of magneto-optic effects via large atomic coherence in optically dense media. Physical Review A, 2000, 62, .	1.0	66
189	Strong Coupling of Two Individually Controlled Atoms via a Nanophotonic Cavity. Physical Review Letters, 2020, 124, 063602.	2.9	66
190	Symmetry-protected collisions between strongly interacting photons. Nature, 2017, 542, 206-209.	13.7	65
191	Numerical study of the chiral $\langle \mathbb{Z}^3 \rangle$ quantum phase transition in one spatial dimension. Physical Review A, 2018, 98, .	1.0	64
192	Quantum many-body scars from virtual entangled pairs. Physical Review B, 2020, 101, .	1.1	63
193	Emerging Two-Dimensional Gauge Theories in Rydberg Configurable Arrays. Physical Review X, 2020, 10, .	2.8	63
194	Photon storage in \hat{V} -type optically dense atomic media. IV. Optimal control using gradient ascent. Physical Review A, 2008, 77, .	1.0	62
195	One-Way Quantum Repeater Based on Near-Deterministic Photon-Emitter Interfaces. Physical Review X, 2020, 10, .	2.8	61
196	Single-Spin Magnetomechanics with Levitated Micromagnets. Physical Review Letters, 2020, 124, 163604.	2.9	60
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