Mikhail D Lukin

List of Publications by Year in Descending Order

297 papers	45,520 citations	113 h-index	210 g-index
315 ext. papers	54,653 ext. citations	11.5 avg, IF	7.62 L-index

#	Paper	IF	Citations
297	Characterizing two-dimensional superconductivity via nanoscale noise magnetometry with single-spin qubits. *Physical Review B*, **2022**, 105,	3.3	4
296	Single-spin qubit magnetic spectroscopy of two-dimensional superconductivity. *Physical Review Research*, **2022**, 4,	3.9	2
295	Dispersive optical systems for scalable Raman driving of hyperfine qubits. *Physical Review A*, **2022**, 105,	2.6	1
294	Resonantly enhanced polariton wave mixing and parametric instability in a Floquet medium.. *Journal of Chemical Physics*, **2022**, 156, 174110	3.9	1
293	A quantum processor based on coherent transport of entangled atom arrays.. *Nature*, **2022**, 604, 451-456	50.4	12
292	Quantum optimization of maximum independent set using Rydberg atom arrays.. *Science*, **2022**, 376, eabo6587	33.3	4
291	Bulk and boundary quantum phase transitions in a square Rydberg atom array. *Physical Review B*, **2022**, 105,	3.3	2
290	Probing topological spin liquids on a programmable quantum simulator. *Science*, **2021**, 374, 1242-1247	33.3	28
289	Controlling quantum many-body dynamics in driven Rydberg atom arrays. *Science*, **2021**, 371, 1355-1359	33.3	31
288	Electrically controlled emission from singlet and triplet exciton species in atomically thin light-emitting diodes. *Physical Review B*, **2021**, 103,	3.3	10
287	Controlling Interactions between Quantum Emitters Using Atom Arrays. *Physical Review Letters*, **2021**, 126, 223602	7.4	7
286	Efficient Entanglement of Spin Qubits Mediated by a Hot Mechanical Oscillator. *Physical Review Letters*, **2021**, 126, 250505	7.4	1
285	Bilayer Wigner crystals in a transition metal dichalcogenide heterostructure. *Nature*, **2021**, 595, 48-52	50.4	16
284	Prediction of Toric Code Topological Order from Rydberg Blockade. *Physical Review X*, **2021**, 11,	9.1	9
283	Fast Preparation and Detection of a Rydberg Qubit Using Atomic Ensembles. *Physical Review Letters*, **2021**, 127, 050501	7.4	3
282	Quantum phases of matter on a 256-atom programmable quantum simulator. *Nature*, **2021**, 595, 227-232	50.4	85
281	Quantum phases of Rydberg atoms on a kagome lattice. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	18

280	Excitons in a reconstructed moir potential in twisted WSe/WSe homobilayers. *Nature Materials*, **2021**, 20, 480-487	27	44
279	Micron-Scale NV-NMR Spectroscopy with Signal Amplification by Reversible Exchange. *PRX Quantum*, **2021**, 2,	6.1	9
278	Quantum Computer Systems for Scientific Discovery. *PRX Quantum*, **2021**, 2,	6.1	36
277	Development of Quantum Interconnects (QuICs) for Next-Generation Information Technologies. *PRX Quantum*, **2021**, 2,	6.1	46
276	Quantum Simulators: Architectures and Opportunities. *PRX Quantum*, **2021**, 2,	6.1	47
275	Higgs-Mediated Optical Amplification in a Nonequilibrium Superconductor. *Physical Review X*, **2021**, 11,	9.1	4
274	Discrete Time-Crystalline Order Enabled by Quantum Many-Body Scars: Entanglement Steering via Periodic Driving. *Physical Review Letters*, **2021**, 127, 090602	7.4	3
273	Quantum sampling algorithms, phase transitions, and computational complexity. *Physical Review A*, **2021**, 104,	2.6	1
272	Quantum Sampling Algorithms for Near-Term Devices. *Physical Review Letters*, **2021**, 127, 100504	7.4	5
271	Entanglement transport and a nanophotonic interface for atoms in optical tweezers. *Science*, **2021**, 373, 1511-1514	33.3	6
270	Quantum many-body scars from virtual entangled pairs. *Physical Review B*, **2020**, 101,	3.3	29
269	Repulsive photons in a quantum nonlinear medium. *Nature Physics*, **2020**, 16, 921-925	16.2	12
268	Rotons in optical excitation spectra of monolayer semiconductors. *Physical Review B*, **2020**, 101,	3.3	4
267	Electrically Tunable Valley Dynamics in Twisted WSe_{2}/WSe_{2} Bilayers. *Physical Review Letters*, **2020**, 124, 217403	7.4	50
266	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	11.5	31
265	Hyperpolarization-Enhanced NMR Spectroscopy with Femtomole Sensitivity Using Quantum Defects in Diamond. *Physical Review X*, **2020**, 10,	9.1	10
264	Emerging Two-Dimensional Gauge Theories in Rydberg Configurable Arrays. *Physical Review X*, **2020**, 10,	9.1	29
263	Theory of dipole radiation near a Dirac photonic crystal. *Physical Review A*, **2020**, 101,	2.6	10

262	Complex Density Wave Orders and Quantum Phase Transitions in a Model of Square-Lattice Rydberg Atom Arrays. *Physical Review Letters*, **2020**, 124, 103601	7.4	21
261	Wigner crystals in two-dimensional transition-metal dichalcogenides: Spin physics and readout. *Physical Review B*, **2020**, 101,	3.3	5
260	Experimental demonstration of memory-enhanced quantum communication. *Nature*, **2020**, 580, 60-64	50.4	132
259	Quantum metasurfaces with atom arrays. *Nature Physics*, **2020**, 16, 676-681	16.2	46
258	One-Way Quantum Repeater Based on Near-Deterministic Photon-Emitter Interfaces. *Physical Review X*, **2020**, 10,	9.1	17
257	Quantum optomechanics of a two-dimensional atomic array. *Physical Review A*, **2020**, 101,	2.6	9
256	Quantum Approximate Optimization Algorithm: Performance, Mechanism, and Implementation on Near-Term Devices. *Physical Review X*, **2020**, 10,	9.1	91
255	Controlling Excitons in an Atomically Thin Membrane with a Mirror. *Physical Review Letters*, **2020**, 124, 027401	7.4	36
254	Topological Quantum Optics Using Atomlike Emitter Arrays Coupled to Photonic Crystals. *Physical Review Letters*, **2020**, 124, 083603	7.4	27
253	Strong Coupling of Two Individually Controlled Atoms via a Nanophotonic Cavity. *Physical Review Letters*, **2020**, 124, 063602	7.4	30
252	Fermionic formalism for driven-dissipative multilevel systems. *Physical Review A*, **2020**, 101,	2.6	6
251	Single-Spin Magnetomechanics with Levitated Micromagnets. *Physical Review Letters*, **2020**, 124, 163604	7.4	28
250	Optical Control of a Single Nuclear Spin in the Solid State. *Physical Review Letters*, **2020**, 124, 153203	7.4	4
249	Robust Dynamic Hamiltonian Engineering of Many-Body Spin Systems. *Physical Review X*, **2020**, 10,	9.1	16
248	Quantum Metrology with Strongly Interacting Spin Systems. *Physical Review X*, **2020**, 10,	9.1	14
247	Asymmetric photoelectric effect: Auger-assisted hot hole photocurrents in transition metal dichalcogenides. *Nanophotonics*, **2020**, 10, 105-113	6.3	1
246	Broken mirror symmetry in excitonic response of reconstructed domains in twisted MoSe/MoSe bilayers. *Nature Nanotechnology*, **2020**, 15, 750-754	28.7	46
245	Hybrid architecture for engineering magnonic quantum networks. *Physical Review A*, **2019**, 100,	2.6	8

244	Quantum convolutional neural networks. *Nature Physics*, **2019**, 15, 1273-1278	16.2	189
243	Origins of Diamond Surface Noise Probed by Correlating Single-Spin Measurements with Surface Spectroscopy. *Physical Review X*, **2019**, 9,	9.1	45
242	Periodic Orbits, Entanglement, and Quantum Many-Body Scars in Constrained Models: Matrix Product State Approach. *Physical Review Letters*, **2019**, 122, 040603	7.4	116
241	Probing Quantum Thermalization of a Disordered Dipolar Spin Ensemble with Discrete Time-Crystalline Order. *Physical Review Letters*, **2019**, 122, 043603	7.4	18
240	Electrically Tunable Exciton-Plasmon Coupling in a WSe Monolayer Embedded in a Plasmonic Crystal Cavity. *Nano Letters*, **2019**, 19, 3543-3547	11.5	15
239	Emergent SU(2) Dynamics and Perfect Quantum Many-Body Scars. *Physical Review Letters*, **2019**, 122, 220603	7.4	107
238	Quantum acousto-optic control of light-matter interactions in nanophotonic networks. *Physical Review A*, **2019**, 99,	2.6	12
237	Quantum Kibble-Zurek mechanism and critical dynamics on a programmable Rydberg simulator. *Nature*, **2019**, 568, 207-211	50.4	144
236	Generation and manipulation of Schrödinger cat states in Rydberg atom arrays. *Science*, **2019**, 365, 570-574	33.3	192
235	Optical Interferometry with Quantum Networks. *Physical Review Letters*, **2019**, 123, 070504	7.4	31
234	Quantum-assisted telescope arrays. *Physical Review A*, **2019**, 100,	2.6	11
233	Quantum simulation and optimization in hot quantum networks. *Physical Review B*, **2019**, 99,	3.3	2
232	Quantum Network Nodes Based on Diamond Qubits with an Efficient Nanophotonic Interface. *Physical Review Letters*, **2019**, 123, 183602	7.4	59
231	Electrical control of interlayer exciton dynamics in atomically thin heterostructures. *Science*, **2019**, 366, 870-875	33.3	135
230	An integrated nanophotonic quantum register based on silicon-vacancy spins in diamond. *Physical Review B*, **2019**, 100,	3.3	47
229	Parallel Implementation of High-Fidelity Multiqubit Gates with Neutral Atoms. *Physical Review Letters*, **2019**, 123, 170503	7.4	144
228	Electron-phonon instability in graphene revealed by global and local noise probes. *Science*, **2019**, 364, 154-157	33.3	29
227	Large-scale uniform optical focus array generation with a phase spatial light modulator. *Optics Letters*, **2019**, 44, 3178-3181	3	15

226	Integrating Neural Networks with a Quantum Simulator for State Reconstruction. *Physical Review Letters*, **2019**, 123, 230504	7.4	46
225	Observation of three-photon bound states in a quantum nonlinear medium. *Science*, **2018**, 359, 783-786	33.3	56
224	Large Excitonic Reflectivity of Monolayer MoSe_{2} Encapsulated in Hexagonal Boron Nitride. *Physical Review Letters*, **2018**, 120, 037402	7.4	117
223	Electrical control of charged carriers and excitons in atomically thin materials. *Nature Nanotechnology*, **2018**, 13, 128-132	28.7	113
222	High-resolution magnetic resonance spectroscopy using a solid-state spin sensor. *Nature*, **2018**, 555, 351-354	50.4	167
221	Dynamically induced many-body localization. *Physical Review B*, **2018**, 97,	3.3	5
220	Critical Thermalization of a Disordered Dipolar Spin System in Diamond. *Physical Review Letters*, **2018**, 121, 023601	7.4	66
219	Numerical study of the chiral Z3 quantum phase transition in one spatial dimension. *Physical Review A*, **2018**, 98,	2.6	32
218	Sensing Coherent Dynamics of Electronic Spin Clusters in Solids. *Physical Review Letters*, **2018**, 120, 243604	7.4	11
217	Probing one-dimensional systems via noise magnetometry with single spin qubits. *Physical Review B* , **2018**, 98,	3.3	10
216	Quantum Nonlinear Optics in Atomically Thin Materials. *Physical Review Letters*, **2018**, 121, 123606	7.4	26
215	Quantum optics in Maxwell's fish eye lens with single atoms and photons. *Physical Review A*, **2018**, 98,	2.6	5
214	High-Fidelity Control and Entanglement of Rydberg-Atom Qubits. *Physical Review Letters*, **2018**, 121, 123603	7.4	152
213	Photon-mediated interactions between quantum emitters in a diamond nanocavity. *Science*, **2018**, 362, 662-665	33.3	112
212	Strain engineering of the silicon-vacancy center in diamond. *Physical Review B*, **2018**, 97,	3.3	91
211	All-optical nanoscale thermometry with silicon-vacancy centers in diamond. *Applied Physics Letters*, **2018**, 112, 203102	3.4	52
210	Controlling the coherence of a diamond spin qubit through its strain environment. *Nature Communications*, **2018**, 9, 2012	17.4	82
209	Phonon Networks with Silicon-Vacancy Centers in Diamond Waveguides. *Physical Review Letters*, **2018**, 120, 213603	7.4	89

208	Solid-state magnetic traps and lattices. *Physical Review B*, **2018**, 97,	3.3	1
207	Magnetic resonance spectroscopy of an atomically thin material using a single-spin qubit. *Science*, **2017**, 355, 503-507	33.3	74
206	Symmetry-protected collisions between strongly interacting photons. *Nature*, **2017**, 542, 206-209	50.4	49
205	Observation of discrete time-crystalline order in a disordered dipolar many-body system. *Nature*, **2017**, 543, 221-225	50.4	468
204	Depolarization Dynamics in a Strongly Interacting Solid-State Spin Ensemble. *Physical Review Letters*, **2017**, 118, 093601	7.4	59
203	Scalable focused ion beam creation of nearly lifetime-limited single quantum emitters in diamond nanostructures. *Nature Communications*, **2017**, 8, 15376	17.4	102
202	Cooperative Resonances in Light Scattering from Two-Dimensional Atomic Arrays. *Physical Review Letters*, **2017**, 118, 113601	7.4	120
201	Efficient quantum computation in a network with probabilistic gates and logical encoding. *Physical Review A*, **2017**, 95,	2.6	5
200	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	11.5	64
199	Optical and microwave control of germanium-vacancy center spins in diamond. *Physical Review B*, **2017**, 96,	3.3	95
198	A method for directional detection of dark matter using spectroscopy of crystal defects. *Physical Review D*, **2017**, 96,	4.9	30
197	Fiber-Coupled Diamond Quantum Nanophotonic Interface. *Physical Review Applied*, **2017**, 8,	4.3	66
196	Photonic band structure of two-dimensional atomic lattices. *Physical Review A*, **2017**, 96,	2.6	35
195	Probing many-body dynamics on a 51-atom quantum simulator. *Nature*, **2017**, 551, 579-584	50.4	849
194	Silicon-Vacancy Spin Qubit in Diamond: A Quantum Memory Exceeding 10´ms with Single-Shot State Readout. *Physical Review Letters*, **2017**, 119, 223602	7.4	171
193	Dynamical Engineering of Interactions in Qudit Ensembles. *Physical Review Letters*, **2017**, 119, 183603	7.4	21
192	Probing dark excitons in atomically thin semiconductors via near-field coupling to surface plasmon polaritons. *Nature Nanotechnology*, **2017**, 12, 856-860	28.7	191
191	Magnetic noise spectroscopy as a probe of local electronic correlations in two-dimensional systems. *Physical Review B*, **2017**, 95,	3.3	23

190	Topological Quantum Optics in Two-Dimensional Atomic Arrays. *Physical Review Letters*, **2017**, 119, 023603	7.4	96
189	Quantum Nonlinear Optics with a Germanium-Vacancy Color Center in a Nanoscale Diamond Waveguide. *Physical Review Letters*, **2017**, 118, 223603	7.4	155
188	Critical Time Crystals in Dipolar Systems. *Physical Review Letters*, **2017**, 119, 010602	7.4	78
187	Dynamics of quantum information in many-body localized systems. *Physical Review B*, **2017**, 96,	3.3	12
186	Superresolution optical magnetic imaging and spectroscopy using individual electronic spins in diamond. *Optics Express*, **2017**, 25, 11048-11064	3.3	27
185	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	11.5	245
184	Noise-resistant optimal spin squeezing via quantum control. *Physical Review A*, **2016**, 93,	2.6	19
183	Narrow-Linewidth Homogeneous Optical Emitters in Diamond Nanostructures via Silicon Ion Implantation. *Physical Review Applied*, **2016**, 5,	4.3	90
182	NMR technique for determining the depth of shallow nitrogen-vacancy centers in diamond. *Physical Review B*, **2016**, 93,	3.3	76
181	Quantum Metrology Enhanced by Repetitive Quantum Error Correction. *Physical Review Letters*, **2016**, 116, 230502	7.4	96
180	Optimal architectures for long distance quantum communication. *Scientific Reports*, **2016**, 6, 20463	4.9	144
179	Collective atomic scattering and motional effects in a dense coherent medium. *Nature Communications*, **2016**, 7, 11039	17.4	113
178	Atom-by-atom assembly of defect-free one-dimensional cold atom arrays. *Science*, **2016**, 354, 1024-1027	33.3	325
177	Nuclear magnetic resonance detection and spectroscopy of single proteins using quantum logic. *Science*, **2016**, 351, 836-41	33.3	269
176	Diamond optomechanical crystals. *Optica*, **2016**, 3, 1404	8.6	87
175	Dicke phase transition without total spin conservation. *Physical Review A*, **2016**, 94,	2.6	29
174	Quasi-Many-Body Localization in Translation-Invariant Systems. *Physical Review Letters*, **2016**, 117, 240601	7.4	84
173	Effective Field Theory for Rydberg Polaritons. *Physical Review Letters*, **2016**, 117, 113601	7.4	27

172	An integrated diamond nanophotonics platform for quantum-optical networks. *Science*, **2016**, 354, 847-850	33.3	403
171	Adiabatic Quantum Search in Open Systems. *Physical Review Letters*, **2016**, 117, 150501	7.4	17
170	Quantum Network of Atom Clocks: A Possible Implementation with Neutral Atoms. *Physical Review Letters*, **2016**, 117, 060506	7.4	19
169	Quantum electronics. Probing Johnson noise and ballistic transport in normal metals with a single-spin qubit. *Science*, **2015**, 347, 1129-32	33.3	90
168	Phonon-induced population dynamics and intersystem crossing in nitrogen-vacancy centers. *Physical Review Letters*, **2015**, 114, 145502	7.4	88
167	Single-cell magnetic imaging using a quantum diamond microscope. *Nature Methods*, **2015**, 12, 736-738	21.6	120
166	Efficient readout of a single spin state in diamond via spin-to-charge conversion. *Physical Review Letters*, **2015**, 114, 136402	7.4	114
165	Electron□Phonon processes of the silicon-vacancy centre in diamond. *New Journal of Physics*, **2015**, 17, 043011	2.9	144
164	Efficient fiber-optical interface for nanophotonic devices. *Optica*, **2015**, 2, 70	8.6	82
163	Topological bands with a Chern number C=2 by dipolar exchange interactions. *Physical Review A*, **2015**, 91,	2.6	38
162	Effects of molecular resonances on Rydberg blockade. *Physical Review A*, **2015**, 92,	2.6	23
161	State-selective intersystem crossing in nitrogen-vacancy centers. *Physical Review B*, **2015**, 91,	3.3	62
160	Long-distance entanglement distribution using individual atoms in optical cavities. *Physical Review A*, **2015**, 92,	2.6	23
159	Coulomb Bound States of Strongly Interacting Photons. *Physical Review Letters*, **2015**, 115, 123601	7.4	40
158	Heralded quantum gates with integrated error detection in optical cavities. *Physical Review Letters*, **2015**, 114, 110502	7.4	35
157	Visible-frequency hyperbolic metasurface. *Nature*, **2015**, 522, 192-6	50.4	327
156	All-optical control of a single electron spin in diamond. *Physical Review A*, **2015**, 91,	2.6	17
155	Nanoscale NMR spectroscopy and imaging of multiple nuclear species. *Nature Nanotechnology*, **2015**, 10, 129-34	28.7	184

154	Magnetic resonance detection of individual proton spins using quantum reporters. *Physical Review Letters*, **2014**, 113, 197601	7.4	123
153	Enhanced antiferromagnetic exchange between magnetic impurities in a superconducting host. *Physical Review Letters*, **2014**, 113, 087202	7.4	40
152	Indistinguishable photons from separated silicon-vacancy centers in diamond. *Physical Review Letters*, **2014**, 113, 113602	7.4	236
151	Physics. Quantum systems under control. *Science*, **2014**, 345, 272-3	33.3	6
150	Coherent optical transitions in implanted nitrogen vacancy centers. *Nano Letters*, **2014**, 14, 1982-6	11.5	130
149	Quantum nonlinear optics photon by photon. *Nature Photonics*, **2014**, 8, 685-694	33.9	369
148	Quantum interference between independent reservoirs in open quantum systems. *Physical Review A*, **2014**, 89,	2.6	31
147	Ultrafast and fault-tolerant quantum communication across long distances. *Physical Review Letters*, **2014**, 112, 250501	7.4	154
146	Cross modulation of two laser beams at the individual-photon level. *Physical Review Letters*, **2014**, 113, 113603	7.4	5
145	Heisenberg-limited atom clocks based on entangled qubits. *Physical Review Letters*, **2014**, 112, 190403	7.4	66
144	A quantum network of clocks. *Nature Physics*, **2014**, 10, 582-587	16.2	260
143	Nanophotonic quantum phase switch with a single atom. *Nature*, **2014**, 508, 241-4	50.4	362
142	Quantum error correction for metrology. *Physical Review Letters*, **2014**, 112, 150802	7.4	157
141	Phase diagram and excitations of a Shiba molecule. *Physical Review B*, **2014**, 90,	3.3	19
140	All-optical initialization, readout, and coherent preparation of single silicon-vacancy spins in diamond. *Physical Review Letters*, **2014**, 113, 263602	7.4	161
139	Atom-like crystal defects: From quantum computers to biological sensors. *Physics Today*, **2014**, 67, 38-43	0.9	80
138	High quality-factor optical nanocavities in bulk single-crystal diamond. *Nature Communications*, **2014**, 5, 5718	17.4	155
137	Scattering resonances and bound states for strongly interacting Rydberg polaritons. *Physical Review A*, **2014**, 90,	2.6	61

136	Many-body dynamics of dipolar molecules in an optical lattice. *Physical Review Letters*, **2014**, 113, 195302	7.4	119
135	Many-body localization in dipolar systems. *Physical Review Letters*, **2014**, 113, 243002	7.4	166
134	Interferometric probes of many-body localization. *Physical Review Letters*, **2014**, 113, 147204	7.4	132
133	Nanometre-scale thermometry in a living cell. *Nature*, **2013**, 500, 54-8	50.4	1075
132	Coupling of NV centers to photonic crystal nanobeams in diamond. *Nano Letters*, **2013**, 13, 5791-6	11.5	143
131	Phonon cooling and lasing with nitrogen-vacancy centers in diamond. *Physical Review B*, **2013**, 88,	3.3	86
130	Single-photon nonlinear optics with graphene plasmons. *Physical Review Letters*, **2013**, 111, 247401	7.4	140
129	Attractive photons in a quantum nonlinear medium. *Nature*, **2013**, 502, 71-5	50.4	261
128	Dissipative preparation of spin squeezed atomic ensembles in a steady state. *Physical Review Letters*, **2013**, 110, 120402	7.4	117
127	Nanoscale magnetic imaging of a single electron spin under ambient conditions. *Nature Physics*, **2013**, 9, 215-219	16.2	264
126	Single-photon nonlinearities in two-mode optomechanics. *Physical Review A*, **2013**, 87,	2.6	120
125	Topologically protected quantum state transfer in a chiral spin liquid. *Nature Communications*, **2013**, 4, 1585	17.4	38
124	Timekeeping with electron spin states in diamond. *Physical Review A*, **2013**, 87,	2.6	43
123	Phonon-induced spin-spin interactions in diamond nanostructures: application to spin squeezing. *Physical Review Letters*, **2013**, 110, 156402	7.4	176
122	Polaronic model of two-level systems in amorphous solids. *Physical Review B*, **2013**, 87,	3.3	28
121	Coupling a single trapped atom to a nanoscale optical cavity. *Science*, **2013**, 340, 1202-5	33.3	306
120	Realizing fractional Chern insulators in dipolar spin systems. *Physical Review Letters*, **2013**, 110, 185302	7.4	138
119	Collectively enhanced interactions in solid-state spin qubits. *Physical Review Letters*, **2013**, 110, 067601	7.4	22

118	Keldysh approach for nonequilibrium phase transitions in quantum optics: Beyond the Dicke model in optical cavities. *Physical Review A*, **2013**, 87,	2.6	141
117	Quantum logic between remote quantum registers. *Physical Review A*, **2013**, 87,	2.6	31
116	Preparation of nonequilibrium nuclear spin states in double quantum dots. *Physical Review B*, **2013**, 88,	3.3	9
115	Coherence and Raman sideband cooling of a single atom in an optical tweezer. *Physical Review Letters*, **2013**, 110, 133001	7.4	133
114	Robustness of quantum memories based on Majorana zero modes. *Physical Review B*, **2013**, 88,	3.3	35
113	Free-standing mechanical and photonic nanostructures in single-crystal diamond. *Nano Letters*, **2012**, 12, 6084-9	11.5	167
112	Dissipative phase transition in a central spin system. *Physical Review A*, **2012**, 86,	2.6	159
111	Topological flat bands from dipolar spin systems. *Physical Review Letters*, **2012**, 109, 266804	7.4	84
110	Nanoplasmonic lattices for ultracold atoms. *Physical Review Letters*, **2012**, 109, 235309	7.4	96
109	Measuring mechanical motion with a single spin. *New Journal of Physics*, **2012**, 14, 125004	2.9	26
108	Integrated diamond networks for quantum nanophotonics. *Nano Letters*, **2012**, 12, 1578-82	11.5	158
107	Reservoir engineering and dynamical phase transitions in optomechanical arrays. *Physical Review A*, **2012**, 86,	2.6	68
106	Enhanced metrology using preferential orientation of nitrogen-vacancy centers in diamond. *Physical Review B*, **2012**, 86,	3.3	50
105	Sensing distant nuclear spins with a single electron spin. *Physical Review Letters*, **2012**, 109, 137601	7.4	138
104	Switching and Counting With Atomic Vapors in Photonic-Crystal Fibers. *IEEE Journal of Selected Topics in Quantum Electronics*, **2012**, 18, 1747-1753	3.8	7
103	Quantum Plasmonic Circuits. *IEEE Journal of Selected Topics in Quantum Electronics*, **2012**, 18, 1781-1791	3.8	74
102	Diamond nanophotonics and applications in quantum science and technology. *Physica Status Solidi (A) Applications and Materials Science*, **2012**, 209, 1619-1630	1.6	23
101	Suppression of spin-bath dynamics for improved coherence of multi-spin-qubit systems. *Nature Communications*, **2012**, 3, 858	17.4	143

100	Scalable architecture for a room temperature solid-state quantum information processor. *Nature Communications*, **2012**, 3, 800	17.4	157
99	Enhanced solid-state multispin metrology using dynamical decoupling. *Physical Review B*, **2012**, 86,	3.3	75
98	Quantum nonlinear optics with single photons enabled by strongly interacting atoms. *Nature*, **2012**, 488, 57-60	50.4	559
97	Coherent sensing of a mechanical resonator with a single-spin qubit. *Science*, **2012**, 335, 1603-6	33.3	276
96	Room-temperature quantum bit memory exceeding one second. *Science*, **2012**, 336, 1283-6	33.3	580
95	Quantum transport of strongly interacting photons in a one-dimensional nonlinear waveguide. *Physical Review A*, **2012**, 85,	2.6	38
94	Tailoring light-matter interaction with a nanoscale plasmon resonator. *Physical Review Letters*, **2012** , 108, 226803	7.4	110
93	Continuous mode cooling and phonon routers for phononic quantum networks. *New Journal of Physics*, **2012**, 14, 115004	2.9	115
92	Environment-assisted metrology with spin qubits. *Physical Review A*, **2012**, 85,	2.6	17
91	Efficient photon detection from color centers in a diamond optical waveguide. *Physical Review B*, **2012**, 85,	3.3	92
90	Unforgeable noise-tolerant quantum tokens. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 16079-16082	11.5	28
89	Robust quantum state transfer in random unpolarized spin chains. *Physical Review Letters*, **2011**, 106, 040505	7.4	156
88	Robust optical delay lines with topological protection. *Nature Physics*, **2011**, 7, 907-912	16.2	830
87	Photon-photon interactions via Rydberg blockade. *Physical Review Letters*, **2011**, 107, 133602	7.4	260
86	Quantum control of proximal spins using nanoscale magnetic resonance imaging. *Nature Physics*, **2011**, 7, 687-692	16.2	100
85	Laser-cooled atoms inside a hollow-core photonic-crystal fiber. *Physical Review A*, **2011**, 83,	2.6	60
84	Optomechanical transducers for quantum-information processing. *Physical Review A*, **2011**, 84,	2.6	86
83	Quantum magnetism with polar alkali-metal dimers. *Physical Review A*, **2011**, 84,	2.6	111

82	Environment-assisted precision measurement. *Physical Review Letters*, **2011**, 106, 140502	7.4	60
81	Group theoretical analysis of nitrogen-vacancy center energy levels and selection rules. *Materials Research Society Symposia Proceedings*, **2011**, 1282, 95		
80	Quantum entanglement between an optical photon and a solid-state spin qubit. *Nature*, **2010**, 466, 730-4	30.4	784
79	Two-orbital S U(N) magnetism with ultracold alkaline-earth atoms. *Nature Physics*, **2010**, 6, 289-295	16.2	457
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