Martin B Plenio

List of Publications by Year in descending order

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444 papers 41,276 citations

93 h-index 2828 191 g-index

450 all docs

450 docs citations

450 times ranked 13533 citing authors

#	Article	IF	Citations
1	Capacity of non-Markovianity to boost the efficiency of molecular switches. Physical Review A, 2022, 105, .	2.5	9
2	Hyperpolarized Solution-State NMR Spectroscopy with Optically Polarized Crystals. Journal of the American Chemical Society, 2022, 144, 2511-2519.	13.7	25
3	Interface-Induced Conservation of Momentum Leads to Chiral-Induced Spin Selectivity. Journal of Physical Chemistry Letters, 2022, 13, 1791-1796.	4.6	18
4	Criticality-Enhanced Quantum Sensing via Continuous Measurement. PRX Quantum, 2022, 3, .	9.2	39
5	Entanglement spectrum in general free fermionic systems. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 135001.	2.1	1
6	Enhancing Gravitational Interaction between Quantum Systems by a Massive Mediator. Physical Review Letters, 2022, 128, 110401.	7.8	30
7	Exact simulation of pigment-protein complexes unveils vibronic renormalization of electronic parameters in ultrafast spectroscopy. Nature Communications, 2022, 13, .	12.8	14
8	Detection of Few Hydrogen Peroxide Molecules Using Self-Reporting Fluorescent Nanodiamond Quantum Sensors. Journal of the American Chemical Society, 2022, 144, 12642-12651.	13.7	14
9	Robust macroscopic matter-wave interferometry with solids. Physical Review A, 2022, 105, .	2.5	1
10	Progress in miniaturization and low-field nuclear magnetic resonance. Journal of Magnetic Resonance, 2021, 322, 106860.	2.1	23
11	Precise Spectroscopy of High-Frequency Oscillating Fields with a Single-Qubit Sensor. Physical Review Applied, 2021, 15, .	3.8	10
12	Multi-photon Fock-state generation via climbing the Fock ladder. , 2021, , .		0
13	Parallel selective nuclear-spin addressing for fast high-fidelity quantum gates. Physical Review A, 2021, 103, .	2.5	5
14	Coherence of operations and interferometry. Physical Review A, 2021, 103, .	2.5	10
15	Ground-State Cooling of Levitated Magnets in Low-Frequency Traps. Physical Review Letters, 2021, 126, 193602.	7.8	11
16	Enhanced force sensitivity and entanglement in periodically driven optomechanics. Physical Review A, 2021, 103, .	2.5	17
17	Efficient construction of matrix-product representations of many-body Gaussian states. Physical Review A, 2021, 104, .	2.5	1
18	One-Shot Manipulation of Entanglement for Quantum Channels. IEEE Transactions on Information Theory, 2021, 67, 5339-5351.	2.4	7

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19	Design Principles for Long-Range Energy Transfer at Room Temperature. Physical Review X, 2021, 11, .	8.9	14
20	Experimental measurement of the quantum geometric tensor using coupled qubits in diamond. National Science Review, 2020, 7, 254-260.	9.5	59
21	Giant shift upon strain on the fluorescence spectrum of VNNB color centers in h-BN. Npj Quantum Information, 2020, 6, .	6.7	25
22	Interplay between geometric and dynamic phases in a single-spin system. Physical Review B, 2020, 102, .	3.2	5
23	Experimental Quantification of Coherence of a Tunable Quantum Detector. Physical Review Letters, 2020, 125, 060404.	7.8	20
24	Nanoscale Dynamic Readout of a Chemical Redox Process Using Radicals Coupled with Nitrogen-Vacancy Centers in Nanodiamonds. ACS Nano, 2020, 14, 12938-12950.	14.6	66
25	On quantum gravity tests with composite particles. Nature Communications, 2020, 11, 3900.	12.8	29
26	Quantifying Dynamical Coherence with Dynamical Entanglement. Physical Review Letters, 2020, 125, 130401.	7.8	22
27	Decoherence-Free Rotational Degrees of Freedom for Quantum Applications. Physical Review Letters, 2020, 125, 090501.	7.8	6
28	Robustness of the NV-NMR Spectrometer Setup to Magnetic Field Inhomogeneities. Physical Review Letters, 2020, 125, 110502.	7.8	3
29	Bosonic Quantum Communication Across Arbitrarily High Loss Channels. Physical Review Letters, 2020, 125, 110504.	7.8	10
30	Quantum photonics with active feedback loops. Physical Review A, 2020, 102, .	2.5	6
31	When Is a Non-Markovian Quantum Process Classical?. Physical Review X, 2020, 10, .	8.9	36
32	Optimized auxiliary oscillators for the simulation of general open quantum systems. Physical Review A, 2020, 101, .	2.5	47
33	Universal Anti-Kibble-Zurek Scaling in Fully Connected Systems. Physical Review Letters, 2020, 124, 230602.	7.8	27
34	A Complex Comprising a Cyanine Dye Rotaxane and a Porphyrin Nanoring as a Model Lightâ€Harvesting System. Angewandte Chemie, 2020, 132, 16597-16600.	2.0	8
35	A Complex Comprising a Cyanine Dye Rotaxane and a Porphyrin Nanoring as a Model Lightâ€Harvesting System. Angewandte Chemie - International Edition, 2020, 59, 16455-16458.	13.8	36
36	Temporal correlations of sunlight may assist photoprotection in bacterial photosynthesis. New Journal of Physics, 2020, 22, 073042.	2.9	2

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37	Enhancing the Robustness of Dynamical Decoupling Sequences with Correlated Random Phases. Symmetry, 2020, 12, 730.	2.2	7
38	Motional Dynamical Decoupling for Interferometry with Macroscopic Particles. Physical Review Letters, 2020, 125, 023602.	7.8	51
39	Quantum coherence and state conversion: theory and experiment. Npj Quantum Information, 2020, 6, .	6.7	35
40	Efficient simulation of open quantum systems coupled to a fermionic bath. Physical Review B, 2020, 101,	3.2	28
41	Limited-control metrology approaching the Heisenberg limit without entanglement preparation. Physical Review A, 2020, 101, .	2.5	3
42	Experimental control of the degree of non-classicality via quantum coherence. Quantum Science and Technology, 2020, 5, 04LT01.	5.8	9
43	Nanoscale Magnetic Resonance Spectroscopy Using a Carbon Nanotube Double Quantum Dot. Physical Review Applied, 2019, 12, .	3.8	5
44	Exciton transport enhancement across quantum Su-Schrieffer-Heeger lattices with quartic nonlinearity. Physical Review B, 2019, 100, .	3.2	3
45	Efficient Simulation of Finite-Temperature Open Quantum Systems. Physical Review Letters, 2019, 123, 090402.	7.8	83
46	Dissipation-Assisted Matrix Product Factorization. Physical Review Letters, 2019, 123, 100502.	7.8	35
47	Quantum Kibble-Zurek physics in long-range transverse-field Ising models. Physical Review A, 2019, 100,	2.5	26
48	Randomization of Pulse Phases for Unambiguous and Robust Quantum Sensing. Physical Review Letters, 2019, 122, 200403.	7.8	18
49	Breaking the quantum adiabatic speed limit by jumping along geodesics. Science Advances, 2019, 5, eaax3800.	10.3	14
50	Blueprint for nanoscale NMR. Scientific Reports, 2019, 9, 6938.	3.3	31
51	Quantifying Operations with an Application to Coherence. Physical Review Letters, 2019, 122, 190405.	7.8	89
52	Initialization and Readout of Nuclear Spins via a Negatively Charged Silicon-Vacancy Center in Diamond. Physical Review Letters, 2019, 122, 190503.	7.8	53
53	Multicolor Quantum Control for Suppressing Ground State Coherences in Two-Dimensional Electronic Spectroscopy. Physical Review Letters, 2019, 123, 233201.	7.8	9
54	Noise-resilient architecture of a hybrid electron-nuclear quantum register in diamond. Quantum Science and Technology, 2019, 4, 015007.	5.8	7

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55	Improving the precision of frequency estimation via long-time coherences. Quantum Science and Technology, 2019, 4, 025004.	5.8	9
56	Modulated Continuous Wave Control for Energy-Efficient Electron-Nuclear Spin Coupling. Physical Review Letters, 2019, 122, 010407.	7.8	11
57	Quantum Effects in a Mechanically Modulated Single-Photon Emitter. Physical Review Letters, 2019, 122, 023602.	7.8	23
58	Coherence and non-classicality of quantum Markov processes. Quantum Science and Technology, 2019, 4, 01LT01.	5.8	39
59	Coherence as a Resource – An Overview. , 2019, , .		0
60	Toward Hyperpolarization of Oil Molecules via Single Nitrogen Vacancy Centers in Diamond. Nano Letters, 2018, 18, 1882-1887.	9.1	51
61	Color Centers in Hexagonal Boron Nitride Monolayers: A Group Theory and Ab Initio Analysis. ACS Photonics, 2018, 5, 1967-1976.	6.6	157
62	Non-additive dissipation in open quantum networks out of equilibrium. New Journal of Physics, 2018, 20, 033005.	2.9	83
63	Observation of Entangled States of a Fully Controlled 20-Qubit System. Physical Review X, 2018, 8, .	8.9	183
64	Magnetic field fluctuations analysis for the ion trap implementation of the quantum Rabi model in the deep strong coupling regime. Journal of Modern Optics, 2018, 65, 745-753.	1.3	3
65	Dissipative phase transition in the open quantum Rabi model. Physical Review A, 2018, 97, .	2.5	79
66	Nonperturbative Treatment of non-Markovian Dynamics of Open Quantum Systems. Physical Review Letters, 2018, 120, 030402.	7.8	101
67	Probabilistic low-rank factorization accelerates tensor network simulations of critical quantum many-body ground states. Physical Review E, 2018, 97, 013301.	2.1	12
68	Petz recovery versus matrix reconstruction. Journal of Mathematical Physics, 2018, 59, 042201.	1.1	2
69	Proposal for Quantum Simulation via All-Optically-Generated Tensor Network States. Physical Review Letters, 2018, 120, 130501.	7.8	27
70	Observation of Floquet Raman Transition in a Driven Solid-State Spin System. Physical Review Letters, 2018, 121, 210501.	7.8	28
71	Connecting nth order generalised quantum Rabi models: Emergence of nonlinear spin-boson coupling via spin rotations. Npj Quantum Information, 2018, 4, .	6.7	36
72	Analog quantum simulation of extremely sub-Ohmic spin-boson models. Physical Review A, 2018, 98, .	2.5	9

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73	Shaped Pulses for Energy-Efficient High-Field NMR at the Nanoscale. Physical Review Applied, 2018, 10, .	3.8	12
74	Sensing phases of water via nitrogen-vacancy centres in diamond. Scientific Reports, 2018, 8, 13453.	3.3	2
75	Coherent control of solid state nuclear spin nano-ensembles. Npj Quantum Information, 2018, 4, .	6.7	22
76	Robust optical polarization of nuclear spin baths using Hamiltonian engineering of nitrogen-vacancy center quantum dynamics. Science Advances, 2018, 4, eaat8978.	10.3	84
77	Quantum-optical tests of Planck-scale physics. Physical Review A, 2018, 97, .	2.5	23
78	Double-path dark-state laser cooling in a three-level system. Physical Review A, 2018, 98, .	2.5	10
79	Soft Quantum Control for Highly Selective Interactions among Joint Quantum Systems. Physical Review Letters, 2018, 121, 050402.	7.8	22
80	Of Local Operations and Physical Wires. Physical Review X, 2018, 8, .	8.9	18
81	Pulsed dynamical decoupling for fast and robust two-qubit gates on trapped ions. Physical Review A, 2018, 97, .	2.5	20
82	Controllable Non-Markovianity for a Spin Qubit in Diamond. Physical Review Letters, 2018, 121, 060401.	7.8	38
83	Theory of Excitonic Delocalization for Robust Vibronic Dynamics in LH2. Journal of Physical Chemistry Letters, 2018, 9, 3446-3453.	4.6	20
84	A trapped-ion simulator for spin-boson models with structured environments. New Journal of Physics, 2018, 20, 073002.	2.9	42
85	Regulating the Energy Flow in a Cyanobacterial Light-Harvesting Antenna Complex. Journal of Physical Chemistry B, 2017, 121, 1240-1247.	2.6	23
86	Probing the Dynamics of a Superradiant Quantum Phase Transition with a Single Trapped Ion. Physical Review Letters, 2017, 118, 073001.	7.8	75
87	Open Systems with Error Bounds: Spin-Boson Model with Spectral Density Variations. Physical Review Letters, 2017, 118, 100401.	7.8	23
88	Universal continuous-variable quantum computation without cooling. Physical Review A, 2017, 95, .	2.5	9
89	Delayed entanglement echo for individual control of a large number of nuclear spins. Nature Communications, 2017, 8, 14660.	12.8	32
90	Signatures of spatially correlated noise and non-secular effects in two-dimensional electronic spectroscopy. Journal of Chemical Physics, 2017, 146, 024109.	3.0	10

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91	Submillihertz magnetic spectroscopy performed with a nanoscale quantum sensor. Science, 2017, 356, 832-837.	12.6	231
92	<i>Colloquium</i> : Quantum coherence as a resource. Reviews of Modern Physics, 2017, 89, .	45.6	1,108
93	Metastability in the driven-dissipative Rabi model. Physical Review A, 2017, 95, .	2.5	19
94	Protected ultrastrong coupling regime of the two-photon quantum Rabi model with trapped ions. Physical Review A, 2017, 95, .	2.5	53
95	Arbitrary nuclear-spin gates in diamond mediated by a nitrogen-vacancy-center electron spin. Physical Review A, 2017, 96, .	2.5	21
96	Journeys from quantum optics to quantum technology. Progress in Quantum Electronics, 2017, 54, 19-45.	7.0	41
97	Quantum Redirection of Antenna Absorption to Photosynthetic Reaction Centers. Journal of Physical Chemistry Letters, 2017, 8, 6015-6021.	4.6	13
98	Resource Theory of Superposition. Physical Review Letters, 2017, 119, 230401.	7.8	99
99	Unambiguous nuclear spin detection using an engineered quantum sensing sequence. Physical Review A, 2017, 96, .	2.5	7
100	Steady-state preparation of long-lived nuclear spin singlet pairs at room temperature. Physical Review B, 2017, 95, .	3.2	9
101	Scheme for Detection of Single-Molecule Radical Pair Reaction Using Spin in Diamond. Physical Review Letters, 2017, 118, 200402.	7.8	19
102	Dissipatively Stabilized Quantum Sensor Based on Indirect Nuclear-Nuclear Interactions. Physical Review Letters, 2017, 119, 010801.	7.8	5
103	Quantum – coherent dynamics in photosynthetic charge separation revealed by wavelet analysis. Scientific Reports, 2017, 7, 2890.	3.3	19
104	Fokker-Planck formalism approach to Kibble-Zurek scaling laws and nonequilibrium dynamics. Physical Review B, 2017, 95, .	3.2	8
105	Robust techniques for polarization and detection of nuclear spin ensembles. Physical Review B, 2017, 96, .	3.2	35
106	Relations between dissipated work in non-equilibrium process and the family of Rényi divergences. New Journal of Physics, 2017, 19, 023002.	2.9	17
107	Efficient tomography of a quantum many-bodyÂsystem. Nature Physics, 2017, 13, 1158-1162.	16.7	153
108	Spin-Mechanical Scheme with Color Centers in Hexagonal Boron Nitride Membranes. Physical Review Letters, 2017, 119, 233602.	7.8	53

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109	Coherent Quantum Fourier Transform Using 3-Qubit Conditional Gates and Ultrasensitive Magnetometry with RF-Driven Trapped Ions , 2017, , .		O
110	Coherent Quantum Fourier Transform Using 3-Qubit Conditional Gates and Ultrasensitive Magnetometry with RF-Driven Trapped Ions. , 2017, , .		0
111	Efficient simulation of non-Markovian system-environment interaction. New Journal of Physics, 2016, 18, 023035.	2.9	60
112	Realising a quantum absorption refrigerator with an atom-cavity system. Quantum Science and Technology, 2016, 1, 015001.	5.8	63
113	Tracking the coherent generation of polaron pairs in conjugated polymers. Nature Communications, 2016, 7, 13742.	12.8	149
114	Dynamical error bounds for continuum discretisation via Gauss quadrature rulesâ€"A Lieb-Robinson bound approach. Journal of Mathematical Physics, 2016, 57, .	1.1	23
115	Optically induced dynamic nuclear spin polarisation in diamond. New Journal of Physics, 2016, 18, 013040.	2.9	65
116	Quantum technology: from research to application. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	42
117	Coherent control of quantum systems as a resource theory. Quantum Science and Technology, 2016, 1, 01LT01.	5.8	94
118	Fate of photon blockade in the deep strong-coupling regime. Physical Review A, 2016, 94, .	2.5	52
119	Pulse-phase control for spectral disambiguation in quantum sensing protocols. Physical Review A, 2016, 94, .	2.5	11
120	Excited-state quantum phase transition in the Rabi model. Physical Review A, 2016, 94, .	2.5	56
121	Universal Quantum Computing with Arbitrary Continuous-Variable Encoding. Physical Review Letters, 2016, 117, 100501.	7.8	45
122	Laser cooling of a high-temperature oscillator by a three-level system. Physical Review B, 2016, 94, .	3.2	7
123	Quantum Phase Transition in the Finite Jaynes-Cummings Lattice Systems. Physical Review Letters, 2016, 117, 123602.	7.8	86
124	Noise-Resilient Quantum Computing with a Nitrogen-Vacancy Center and Nuclear Spins. Physical Review Letters, 2016, 117, 130502.	7.8	36
125	Energy-based scheme for reconstruction of piecewise constant signals observed in the movement of molecular machines. Physical Review E, 2016, 94, 022421.	2.1	4
126	Phase-dependent exciton transport and energy harvesting from thermal environments. Physical Review A, 2016, 93, .	2.5	28

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127	Sensing in the presence of an observed environment. Physical Review A, 2016, 93, .	2.5	26
128	Necessary and sufficient condition for quantum adiabatic evolution by unitary control fields. Physical Review A, 2016, 93, .	2.5	17
129	Resonance-inclined optical nuclear spin polarization of liquids in diamond structures. Physical Review B, 2016, 93, .	3.2	19
130	Sensing of single nuclear spins in random thermal motion with proximate nitrogen-vacancy centers. Physical Review B, 2016, 93, .	3.2	2
131	Positioning nuclear spins in interacting clusters for quantum technologies and bioimaging. Physical Review B, 2016, 93, .	3.2	31
132	Universality in the Dynamics of Second-Order Phase Transitions. Physical Review Letters, 2016, 116, 080601.	7.8	21
133	Practical Entanglement Estimation for Spin-System Quantum Simulators. Physical Review Letters, 2016, 116, 105301.	7.8	10
134	Quantum Metrology Enhanced by Repetitive Quantum Error Correction. Physical Review Letters, 2016, 116, 230502.	7.8	125
135	Converting Nonclassicality into Entanglement. Physical Review Letters, 2016, 116, 080402.	7.8	145
136	Ultrasensitive Magnetometer using a Single Atom. Physical Review Letters, 2016, 116, 240801.	7.8	63
137	Decoherence-enhanced performance of quantum walks applied to graph isomorphism testing. Physical Review A, 2016, 94, .	2.5	9
138	A robust scheme for the implementation of the quantum Rabi model in trapped ions. New Journal of Physics, 2016, 18, 113039.	2.9	31
139	Diamantâ€Quantensensoren in der Biologie. Angewandte Chemie, 2016, 128, 6696-6709.	2.0	3
140	Diamond Quantum Devices in Biology. Angewandte Chemie - International Edition, 2016, 55, 6586-6598.	13.8	202
141	Dynamical nuclear polarization using multi-colour control of color centers in diamond. EPJ Quantum Technology, 2016, 3, .	6.3	6
142	Formation of helical ion chains. Physical Review B, 2016, 93, .	3.2	31
143	A note on coherence power of n-dimensional unitary operators. Quantum Information and Computation, 2016, 16, 1282-1294.	0.3	16
144	Coherent vibronic coupling in a conjugated polymer at room temperature. , 2016, , .		1

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145	Filter design for hybrid spin gates. Physical Review A, 2015, 92, .	2.5	10
146	Robust dynamical decoupling sequences for individual-nuclear-spin addressing. Physical Review A, 2015, 92, .	2.5	64
147	Optical hyperpolarization of mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> <mml:mrow><mml:mmultiscripts><mml:mi mathvariant="normal">C</mml:mi><mml:mprescripts></mml:mprescripts><mml:none></mml:none><mml:mn>\data /mml:mn></mml:mn></mml:mmultiscripts></mml:mrow> nuclear spins in nanodiamond	3.2	50
148	Improved scaling of time-evolving block-decimation algorithm through reduced-rank randomized singular value decomposition. Physical Review E, 2015, 91, 063306.	2.1	20
149	Simulating Bosonic Baths with Error Bars. Physical Review Letters, 2015, 115, 130401.	7.8	41
150	Proposal for High-Fidelity Quantum Simulation Using a Hybrid Dressed State. Physical Review Letters, 2015, 115, 160504.	7.8	4
151	Quantum Phase Transition and Universal Dynamics in the Rabi Model. Physical Review Letters, 2015, 115, 180404.	7.8	279
152	Enhancing light-harvesting power with coherent vibrational interactions: A quantum heat engine picture. Journal of Chemical Physics, 2015, 143, 155102.	3.0	75
153	Accelerated 2D magnetic resonance spectroscopy of single spins using matrix completion. Scientific Reports, 2015, 5, 17728.	3.3	7
154	Resolving single molecule structures with Nitrogen-vacancy centers in diamond. Scientific Reports, 2015, 5, 11007.	3.3	30
155	Universal set of gates for microwave dressed-state quantum computing. New Journal of Physics, 2015, 17, 053032.	2.9	16
156	Two-Dimensional Spectroscopy for the Study of Ion Coulomb Crystals. Physical Review Letters, 2015, 114, 073001.	7.8	12
157	Vibronic origin of long-lived coherence in an artificial molecular light harvester. Nature Communications, 2015, 6, 7755.	12.8	129
158	Scalable reconstruction of unitary processes and Hamiltonians. Physical Review A, 2015, 91, .	2.5	21
159	Nondestructive selective probing of phononic excitations in a cold Bose gas using impurities. Physical Review A, 2015, 91, .	2.5	31
160	Structural phase transitions and topological defects in ion Coulomb crystals. Physica B: Condensed Matter, 2015, 460, 114-118.	2.7	19
161	Optical Signatures of Quantum Delocalization over Extended Domains in Photosynthetic Membranes. Journal of Physical Chemistry A, 2015, 119, 9043-9050.	2.5	3
162	Bloch-Redfield equations for modeling light-harvesting complexes. Journal of Chemical Physics, 2015, 142, 064104.	3.0	68

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163	Environment-assisted quantum transport. , 2014, , 159-176.		2
164	Self-assembling hybrid diamond–biological quantum devices. New Journal of Physics, 2014, 16, 093002.	2.9	38
165	Realistic and verifiable coherent control of excitonic states in a light-harvesting complex. New Journal of Physics, 2014, 16, 045007.	2.9	35
166	All-optical magnetic resonance of high spectral resolution using a nitrogen-vacancy spin in diamond. New Journal of Physics, 2014, 16, 083033.	2.9	12
167	Dephasing-assisted transport in linear triple quantum dots. New Journal of Physics, 2014, 16, 113061.	2.9	32
168	Transport enhancement from incoherent coupling between one-dimensional quantum conductors. New Journal of Physics, 2014, 16, 053016.	2.9	11
169	Inverse counting statistics for stochastic and open quantum systems: the characteristic polynomial approach. New Journal of Physics, 2014, 16, 033030.	2.9	34
170	Tuning heat transport in trapped-ion chains across a structural phase transition. Physical Review B, 2014, 89, .	3.2	27
171	Quantifying entanglement with scattering experiments. Physical Review B, 2014, 89, .	3.2	15
172	Testing quantum gravity by nanodiamond interferometry with nitrogen-vacancy centers. Physical Review A, 2014, 90, .	2.5	49
173	Extracting Entanglement from Identical Particles. Physical Review Letters, 2014, 112, 150501.	7.8	124
174	Mappings of open quantum systems onto chain representations and Markovian embeddings. Journal of Mathematical Physics, 2014, 55, .	1.1	89
175	Quantum non-Markovianity: characterization, quantification and detection. Reports on Progress in Physics, 2014, 77, 094001.	20.1	702
176	Quantifying Coherence. Physical Review Letters, 2014, 113, 140401.	7.8	1,865
177	A vibrant environment. Nature Physics, 2014, 10, 621-622.	16.7	21
178	Nuclear magnetic resonance spectroscopy with single spin sensitivity. Nature Communications, 2014, 5, 4703.	12.8	211
179	Hybrid sensors based on colour centres in diamond and piezoactive layers. Nature Communications, 2014, 5, 4065.	12.8	67
180	An Introduction to Entanglement Theory. , 2014, , 173-209.		64

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181	Scalable Reconstruction of Density Matrices. Physical Review Letters, 2013, 111, 020401.	7.8	73
182	Topological defect formation and spontaneous symmetry breaking in ion Coulomb crystals. Nature Communications, 2013, 4, 2291.	12.8	220
183	Observation of the Kibble–Zurek scaling law for defect formation in ion crystals. Nature Communications, 2013, 4, 2290.	12.8	221
184	Spatial entanglement of bosons in optical lattices. Nature Communications, 2013, 4, 2161.	12.8	64
185	Vibrations, quanta and biology. Contemporary Physics, 2013, 54, 181-207.	1.8	426
186	Chemical Compass Model for Avian Magnetoreception as a Quantum Coherent Device. Physical Review Letters, 2013, 111, 230503.	7.8	74
187	Wavelet analysis of molecular dynamics: Efficient extraction of time-frequency information in ultrafast optical processes. Journal of Chemical Physics, 2013, 139, 224103.	3.0	22
188	Detecting and Polarizing Nuclear Spins with Double Resonance on a Single Electron Spin. Physical Review Letters, 2013, 111, 067601.	7.8	170
189	Entanglement amplification in the nonperturbative dynamics of modular quantum systems. Physical Review A, 2013, 88, .	2.5	2
190	Diamond-based single-molecule magnetic resonance spectroscopy. New Journal of Physics, 2013, 15, 013020.	2.9	71
191	Quantum dynamics in photonic crystals. Physical Review A, 2013, 87, .	2.5	33
192	The role of non-equilibrium vibrational structures in electronic coherence and recoherence in pigment–protein complexes. Nature Physics, 2013, 9, 113-118.	16.7	481
193	Quantum Speed Limits in Open System Dynamics. Physical Review Letters, 2013, 110, 050403.	7.8	356
194	Exploiting Structured Environments for Efficient Energy Transfer: The Phonon Antenna Mechanism. Journal of Physical Chemistry Letters, 2013, 4, 903-907.	4.6	86
195	Dissipation-Assisted Quantum Information Processing with Trapped Ions. Physical Review Letters, 2013, 110, 110502.	7.8	50
196	A large-scale quantum simulator on a diamond surface at room temperature. Nature Physics, 2013, 9, 168-173.	16.7	208
197	Detection of a Few Metallo-Protein Molecules Using Color Centers in Nanodiamonds. Nano Letters, 2013, 13, 3305-3309.	9.1	184
198	Controlling and Measuring Quantum Transport of Heat in Trapped-Ion Crystals. Physical Review Letters, 2013, 111, 040601.	7.8	90

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199	Matrix product state representation without explicit local Hilbert space truncation with applications to the sub-ohmic spin-boson model. New Journal of Physics, 2013, 15, 073046.	2.9	13
200	Origin of long-lived oscillations in 2D-spectra of a quantum vibronic model: Electronic versus vibrational coherence. Journal of Chemical Physics, 2013, 139, 235102.	3.0	119
201	A scalable maximum likelihood method for quantum state tomography. New Journal of Physics, 2013, 15, 125004.	2.9	30
202	A paradox in bosonic energy computations via semidefinite programming relaxations. New Journal of Physics, 2013, 15, 023026.	2.9	7
203	Dynamics of topological defects in ion Coulomb crystals. New Journal of Physics, 2013, 15, 103013.	2.9	29
204	Quantum diffusion with disorder, noise and interaction. New Journal of Physics, 2013, 15, 045007.	2.9	35
205	Coupling of nitrogen vacancy centres in nanodiamonds by means of phonons. New Journal of Physics, 2013, 15, 083014.	2.9	52
206	Driven geometric phase gates with trapped ions. New Journal of Physics, 2013, 15, 083001.	2.9	25
207	Probing quantum coherence in qubit arrays. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 104002.	1.5	9
208	Ion Traps as a testbed of classical and quantum statistical mechanics. Annalen Der Physik, 2013, 525, A159.	2.4	2
209	Dissipative ground-state preparation of a spin chain by a structured environment. New Journal of Physics, 2013, 15, 073027.	2.9	34
210	Controlled Resonances for Sensing and Biology. , 2013, , .		0
211	Controlled Resonances for Sensing and Biology. , 2013, , .		0
212	Lower bounds for ground states of condensed matter systems. New Journal of Physics, 2012, 14, 023027.	2.9	23
213	Recursive quantum detector tomography. New Journal of Physics, 2012, 14, 115005.	2.9	38
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