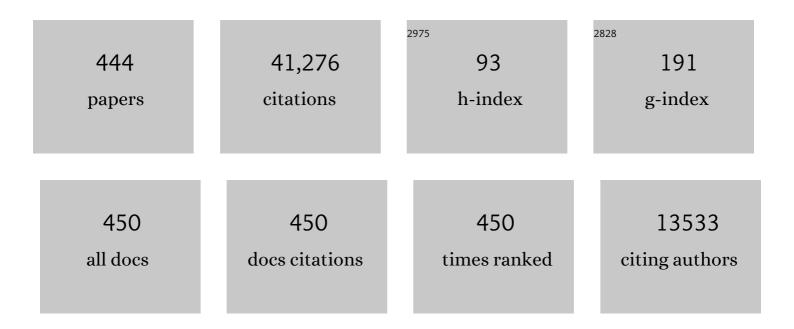
Martin B Plenio

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/9210858/publications.pdf Version: 2024-02-01



MADTIN R DIENIO

| # | 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 |

| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 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 |

| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 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 |

| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 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, , . | | Ο |
| 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 |

| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 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 |

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 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 |

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 109 | Coherent Quantum Fourier Transform Using 3-Qubit Conditional Gates and Ultrasensitive Magnetometry with RF-Driven Trapped Ions , 2017, , . | | 0 |
| 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 rules—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 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 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 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 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:mprescripts></mml:mprescripts> <mml:none /> <mml:mn>13 </mml:mn> </mml:none </mml:mi </mml:mmultiscripts> </mml:mrow> nuclear spins in nanodiamond</mml:math | 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 |

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 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 |
| | | | |

An Introduction to Entanglement Theory. , 2014, , 173-209.

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 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 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 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 |
| 214 | Input–output Gaussian channels: theory and application. New Journal of Physics, 2012, 14, 093046. | 2.9 | 8 |
| 215 | Robust dynamical decoupling with concatenated continuous driving. New Journal of Physics, 2012, 14, 113023. | 2.9 | 145 |
| 216 | Quantum magnetism of spin-ladder compounds with trapped-ion crystals. New Journal of Physics, 2012, 14, 093042. | 2.9 | 21 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 217 | Generation of Mesoscopic Entangled States in a Cavity Coupled to an Atomic Ensemble. Physical Review Letters, 2012, 108, 123603. | 7.8 | 20 |
| 218 | Coherent optimal control of photosynthetic molecules. Physical Review A, 2012, 85, . | 2.5 | 44 |
| 219 | Quantum Metrology in Non-Markovian Environments. Physical Review Letters, 2012, 109, 233601. | 7.8 | 477 |
| 220 | Dipolar Bose-Einstein condensate of dark-state polaritons. Physical Review A, 2012, 86, . | 2.5 | 3 |
| 221 | Precise Experimental Investigation of Eigenmodes in a Planar Ion Crystal. Physical Review Letters, 2012, 109, 263003. | 7.8 | 49 |
| 222 | Coherence and decoherence in biological systems: principles of noise-assisted transport and the origin of long-lived coherences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 3638-3657. | 3.4 | 103 |
| 223 | Quantum limits for the magnetic sensitivity of a chemical compass. Physical Review A, 2012, 85, . | 2.5 | 53 |
| 224 | Compact Continuous-Variable Entanglement Distillation. Physical Review Letters, 2012, 108, 060502. | 7.8 | 54 |
| 225 | The nature of the low energy band of the Fenna-Matthews-Olson complex: Vibronic signatures. Journal of Chemical Physics, 2012, 136, 155102. | 3.0 | 41 |
| 226 | Computation of Two-Dimensional Spectra Assisted by Compressed Sampling. Journal of Physical Chemistry Letters, 2012, 3, 2692-2696. | 4.6 | 20 |
| 227 | Pulsed Laser Cooling for Cavity Optomechanical Resonators. Physical Review Letters, 2012, 108, 153601. | 7.8 | 94 |
| 228 | Non-Markovianity-Assisted Steady State Entanglement. Physical Review Letters, 2012, 108, 160402. | 7.8 | 161 |
| 229 | Robust trapped-ion quantum logic gates by continuous dynamical decoupling. Physical Review A, 2012, 85, . | 2.5 | 80 |
| 230 | Long-lived driven solid-state quantum memory. New Journal of Physics, 2012, 14, 093030. | 2.9 | 19 |
| 231 | Probing biological light-harvesting phenomena by optical cavities. Physical Review B, 2012, 85, . | 3.2 | 28 |
| 232 | Mapping coherence in measurement via full quantum tomography of a hybrid optical detector. Nature Photonics, 2012, 6, 364-368. | 31.4 | 74 |
| 233 | Spin Peierls Quantum Phase Transitions in Coulomb Crystals. Physical Review Letters, 2012, 109, 010501. | 7.8 | 28 |
| 234 | Quantum memory, entanglement and sensing with room temperature atoms. Journal of Physics: Conference Series, 2011, 264, 012022. | 0.4 | 0 |

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 235 | Enhancement of laser cooling by the use of magnetic gradients. New Journal of Physics, 2011, 13, 033009. | 2.9 | 15 |
| 236 | Measuring Entanglement in Condensed Matter Systems. Physical Review Letters, 2011, 106, 020401. | 7.8 | 64 |
| 237 | Generalized Polaron Ansatz for the Ground State of the Sub-Ohmic Spin-Boson Model: An Analytic Theory of the Localization Transition. Physical Review Letters, 2011, 107, 160601. | 7.8 | 95 |
| 238 | Tensor network methods with graph enhancement. Physical Review B, 2011, 84, . | 3.2 | 6 |
| 239 | Chain Representations of Open Quantum Systems and Their Numerical Simulation with Time-Adaptive Density Matrix Renormalisation Group Methods. Semiconductors and Semimetals, 2011, 85, 115-143. | 0.7 | 13 |
| 240 | Quantum memory for entangled continuous-variable states. Nature Physics, 2011, 7, 13-16. | 16.7 | 130 |
| 241 | Quantum gates and memory using microwave-dressed states. Nature, 2011, 476, 185-188. | 27.8 | 202 |
| 242 | Electron-Mediated Nuclear-Spin Interactions between Distant Nitrogen-Vacancy Centers. Physical Review Letters, 2011, 107, 150503. | 7.8 | 92 |
| 243 | Focus on quantum effects and noise in biomolecules. New Journal of Physics, 2011, 13, 115002. | 2.9 | 30 |
| 244 | Optimal verification of entanglement in a photonic cluster state experiment. New Journal of Physics, 2011, 13, 033033. | 2.9 | 8 |
| 245 | Arrays of waveguide-coupled optical cavities that interact strongly with atoms. New Journal of Physics, 2011, 13, 113002. | 2.9 | 37 |
| 246 | The inhomogeneous Kibble–Zurek mechanism: vortex nucleation during Bose–Einstein condensation. New Journal of Physics, 2011, 13, 083022. | 2.9 | 49 |
| 247 | Simulation of noise-assisted transport via optical cavity networks. Physical Review A, 2011, 83, . | 2.5 | 28 |
| 248 | Frustrated Quantum Spin Models with Cold Coulomb Crystals. Physical Review Letters, 2011, 107, 207209. | 7.8 | 36 |
| 249 | Spin-chain-based full quantum computation by accessing only two spins. , 2011, , . | | 0 |
| 250 | Entanglement and Non-Markovianity of Quantum Evolutions. Physical Review Letters, 2010, 105, 050403. | 7.8 | 765 |
| 251 | A Reversible Theory of Entanglement and its Relation to the Second Law. Communications in Mathematical Physics, 2010, 295, 829-851. | 2.2 | 58 |
| 252 | A Generalization of Quantum Stein's Lemma. Communications in Mathematical Physics, 2010, 295, 791-828. | 2.2 | 79 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 253 | Noise-assisted energy transfer in quantum networks and light-harvesting complexes. New Journal of Physics, 2010, 12, 065002. | 2.9 | 262 |
| 254 | Quantum coherence in ion channels: resonances, transport and verification. New Journal of Physics, 2010, 12, 085001. | 2.9 | 67 |
| 255 | Fast and Robust Laser Cooling of Trapped Systems. Physical Review Letters, 2010, 104, 043003. | 7.8 | 37 |
| 256 | Superfast Laser Cooling. Physical Review Letters, 2010, 104, 183001. | 7.8 | 33 |
| 257 | Exact mapping between system-reservoir quantum models and semi-infinite discrete chains using orthogonal polynomials. Journal of Mathematical Physics, 2010, 51, . | 1.1 | 214 |
| 258 | ESTIMATING PURITY AND ENTROPY IN STABILIZER STATE EXPERIMENTS. International Journal of Quantum Information, 2010, 08, 325-335. | 1.1 | 4 |
| 259 | Exact matrix product solutions in the Heisenberg picture of an open quantum spin chain. New Journal of Physics, 2010, 12, 025005. | 2.9 | 41 |
| 260 | Highly efficient estimation of entanglement measures for large experimentally created graph states via simple measurements. New Journal of Physics, 2010, 12, 083026. | 2.9 | 9 |
| 261 | Focus on Quantum Information and Many-Body Theory. New Journal of Physics, 2010, 12, 025001. | 2.9 | Ο |
| 262 | Upper bounds on fault tolerance thresholds of noisy Clifford-based quantum computers. New Journal of Physics, 2010, 12, 033012. | 2.9 | 11 |
| 263 | Entanglement quantification from incomplete measurements: applications using photon-number-resolving weak homodyne detectors. New Journal of Physics, 2010, 12, 033042. | 2.9 | 14 |
| 264 | Entanglement and entangling power of the dynamics in light-harvesting complexes. Physical Review A, 2010, 81, . | 2.5 | 181 |
| 265 | Quantum Coherence of Discrete Kink Solitons in Ion Traps. Physical Review Letters, 2010, 104, 043004. | 7.8 | 44 |
| 266 | Markovian master equations: a critical study. New Journal of Physics, 2010, 12, 113032. | 2.9 | 171 |
| 267 | Structural Defects in Ion Chains by Quenching the External Potential: The Inhomogeneous Kibble-Zurek Mechanism. Physical Review Letters, 2010, 105, 075701. | 7.8 | 120 |
| 268 | Noise-Enhanced Classical and Quantum Capacities in Communication Networks. Physical Review Letters, 2010, 105, 190501. | 7.8 | 64 |
| 269 | Efficient Simulation of Strong System-Environment Interactions. Physical Review Letters, 2010, 105, 050404. | 7.8 | 348 |
| 270 | Scalable quantum computation via local control of only two qubits. Physical Review A, 2010, 81, . | 2.5 | 80 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 271 | Efficient quantum state tomography. Nature Communications, 2010, 1, 149. | 12.8 | 394 |
| 272 | <i>Colloquium</i> : Area laws for the entanglement entropy. Reviews of Modern Physics, 2010, 82, 277-306. | 45.6 | 1,945 |
| 273 | Spontaneous nucleation of structural defects in inhomogeneous ion chains. New Journal of Physics, 2010, 12, 115003. | 2.9 | 72 |
| 274 | Joint Photon Statistics of Photon-Subtracted Squeezed Light. , 2009, , . | | 1 |
| 275 | Quantitative verification of entanglement and fidelities from incomplete measurement data. Journal of Modern Optics, 2009, 56, 2100-2105. | 1.3 | 28 |
| 276 | Renormalization algorithm with graph enhancement. Physical Review A, 2009, 79, . | 2.5 | 14 |
| 277 | Complete Criterion for Separability Detection. Physical Review Letters, 2009, 103, 160404. | 7.8 | 26 |
| 278 | Steady state entanglement in the mechanical vibrations of two nanomechanical oscillators. , 2009, , . | | 0 |
| 279 | Power of symmetric extensions for entanglement detection. Physical Review A, 2009, 80, . | 2.5 | 50 |
| 280 | Noise enhanced transport in light-harvesting complexes and networks. , 2009, , . | | 1 |
| 281 | Entanglement of multiparty stabilizer, symmetric, and antisymmetric states. , 2009, , . | | 0 |
| 282 | Manipulating the quantum information of the radial modes of trapped ions: linear phononics, entanglement generation, quantum state transmission and non-locality tests. New Journal of Physics, 2009, 11, 023007. | 2.9 | 32 |
| 283 | Measuring measurement: theory and practice. New Journal of Physics, 2009, 11, 093038. | 2.9 | 73 |
| 284 | â€~Quantum random walks: an introductory overview' (2003) by J. Kempe. Contemporary Physics, 2009, 50, 337-337. | 1.8 | 1 |
| 285 | A proposed testbed for detector tomography. Journal of Modern Optics, 2009, 56, 432-441. | 1.3 | 31 |
| 286 | Generation of continuous variable squeezing and entanglement of trapped ions in time-varying potentials. Quantum Information Processing, 2009, 8, 619-630. | 2.2 | 16 |
| 287 | Tomography of quantum detectors. Nature Physics, 2009, 5, 27-30. | 16.7 | 267 |
| 288 | Critical and noncritical long-range entanglement in Klein-Gordon fields. Physical Review A, 2009, 80, . | 2.5 | 89 |

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 289 | Density Matrix Renormalization Group in the Heisenberg Picture. Physical Review Letters, 2009, 102, 057202. | 7.8 | 52 |
| 290 | Less Is More. Science, 2009, 324, 342-343. | 12.6 | 7 |
| 291 | Full characterization of quantum optical detectors. , 2009, , . | | 0 |
| 292 | Highly efficient energy excitation transfer in light-harvesting complexes: The fundamental role of noise-assisted transport. Journal of Chemical Physics, 2009, 131, . | 3.0 | 527 |
| 293 | Entanglement manipulation under non-entangling operations. Journal of Physics: Conference Series, 2009, 143, 012009. | 0.4 | 1 |
| 294 | On the Power of the PPT Constraint in the Symmetric Extensions Test for Separability. Lecture Notes in Computer Science, 2009, , 94-106. | 1.3 | 0 |
| 295 | Quantum manyâ€body phenomena in coupled cavity arrays. Laser and Photonics Reviews, 2008, 2, 527-556. | 8.7 | 399 |
| 296 | Entanglement theory and the second law of thermodynamics. Nature Physics, 2008, 4, 873-877. | 16.7 | 141 |
| 297 | Methods for Detecting Acceleration Radiation in a Bose-Einstein Condensate. Physical Review Letters, 2008, 101, 110402. | 7.8 | 55 |
| 298 | Creation of cluster states of trapped ions by collective addressing. Physical Review A, 2008, 78, . | 2.5 | 18 |
| 299 | Robust control of quantized motional states of a chain of trapped ions by collective adiabatic passage. Physical Review A, 2008, 77, . | 2.5 | 7 |
| 300 | Migration of Bosonic Particles across a Mott Insulator to a Superfluid Phase Interface. Physical Review Letters, 2008, 100, 070602. | 7.8 | 18 |
| 301 | Steady State Entanglement in the Mechanical Vibrations of Two Dielectric Membranes. Physical Review Letters, 2008, 101, 200503. | 7.8 | 261 |
| 302 | Double Well Potentials and Quantum Phase Transitions in Ion Traps. Physical Review Letters, 2008, 101, 260504. | 7.8 | 83 |
| 303 | Squeezing the limit: quantum benchmarks for the teleportation and storage of squeezed states. New Journal of Physics, 2008, 10, 113014. | 2.9 | 50 |
| 304 | Many-body physics and the capacity of quantum channels with memory. New Journal of Physics, 2008, 10, 043032. | 2.9 | 21 |
| 305 | A polaritonic two-component Bose–Hubbard model. New Journal of Physics, 2008, 10, 033011. | 2.9 | 30 |
| 306 | Dephasing-assisted transport: quantum networks and biomolecules. New Journal of Physics, 2008, 10, 113019. | 2.9 | 762 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 307 | Light-shift-induced photonic nonlinearities. New Journal of Physics, 2008, 10, 043010. | 2.9 | 18 |
| 308 | State transfer in highly connected networks and a quantum Babinet principle. Physical Review A, 2008, 78, . | 2.5 | 16 |
| 309 | Random circuits by measurements on weighted graph states. Physical Review A, 2008, 78, . | 2.5 | 13 |
| 310 | Remarks on duality transformations and generalized stabilizer states. Journal of Modern Optics, 2007, 54, 2193-2201. | 1.3 | 8 |
| 311 | Entanglement dynamics in chains of qubits with noise and disorder. New Journal of Physics, 2007, 9, 79-79. | 2.9 | 68 |
| 312 | The emergence of typical entanglement in two-party random processes. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 8081-8108. | 2.1 | 56 |
| 313 | Fast cooling of trapped ions using the dynamical Stark shift. New Journal of Physics, 2007, 9, 279-279. | 2.9 | 26 |
| 314 | Canonical and micro-canonical typical entanglement of continuous variable systems. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 9551-9576. | 2.1 | 16 |
| 315 | Statistics Dependence of the Entanglement Entropy. Physical Review Letters, 2007, 98, 220603. | 7.8 | 63 |
| 316 | Spin Chains and Channels with Memory. Physical Review Letters, 2007, 99, 120504. | 7.8 | 72 |
| 317 | Effective Spin Systems in Coupled Microcavities. Physical Review Letters, 2007, 99, 160501. | 7.8 | 158 |
| 318 | Generic Entanglement Can Be Generated Efficiently. Physical Review Letters, 2007, 98, 130502. | 7.8 | 95 |
| 319 | Teleportation Fidelities of Squeezed States from Thermodynamical State Space Measures. Physical Review Letters, 2007, 98, . | 7.8 | 17 |
| 320 | Strong Photon Nonlinearities and Photonic Mott Insulators. Physical Review Letters, 2007, 99, 103601. | 7.8 | 99 |
| 321 | Strongly Interacting Polaritons in Coupled Arrays of Cavities. , 2007, , . | | 3 |
| 322 | Quantum Phase Transitions in Coupled Arrays of Cavities. AIP Conference Proceedings, 2007, , . | 0.4 | 0 |
| 323 | Entanglement scaling in lattice systems. Journal of Physics: Conference Series, 2007, 67, 012021. | 0.4 | 0 |
| 324 | Stochastic Resonance Phenomena in Quantum Many-Body Systems. Physical Review Letters, 2007, 98, . | 7.8 | 62 |

| # | Article | IF | CITATIONS |
|-----|---|-----------|---------------|
| 325 | Geometric phases and critical phenomena in a chain of interacting spins. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 1271-1285. | 2.1 | 8 |
| 326 | Fast Cooling of Trapped Ions Using the Dynamical Stark Shift. AIP Conference Proceedings, 2007, , . | 0.4 | 0 |
| 327 | Excitation and entanglement transfer near quantum critical points. Optics and Spectroscopy (English) Tj ETQq1 1 | 0.784314 | 4 rgBT /Overl |
| 328 | On the experimental feasibility of continuous-variable optical entanglement distillation. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2007, 103, 173-177. | 0.6 | 7 |
| 329 | Remarks on the Equivalence of Full Additivity and Monotonicity for the Entanglement Cost. Open Systems and Information Dynamics, 2007, 14, 333-339. | 1.2 | 8 |
| 330 | Quantum Phase Transitions with Photons and Polaritons. , 2007, , . | | 0 |
| 331 | Entanglement in Systems of Interacting Harmonic Oscillators. , 2007, , 43-62. | | 0 |
| 332 | Ground-State Approximation for Strongly Interacting Spin Systems in Arbitrary Spatial Dimension. Physical Review Letters, 2006, 97, 107206. | 7.8 | 49 |
| 333 | Entanglement-area law for general bosonic harmonic lattice systems. Physical Review A, 2006, 73, . | 2.5 | 173 |
| 334 | Entanglement scaling in classical and quantum harmonic oscillator lattices. AIP Conference Proceedings, 2006, , . | 0.4 | 0 |
| 335 | Excitation and Entanglement Transfer Versus Spectral Gap. AIP Conference Proceedings, 2006, , . | 0.4 | 0 |
| 336 | Strongly interacting polaritons in coupled arrays of cavities. Nature Physics, 2006, 2, 849-855. | 16.7 | 830 |
| 337 | When are correlations quantum?—verification and quantification of entanglement by simple measurements. New Journal of Physics, 2006, 8, 266-266. | 2.9 | 97 |
| 338 | Excitation and entanglement transfer versus spectral gap. New Journal of Physics, 2006, 8, 94-94. | 2.9 | 66 |
| 339 | Classical simulability, entanglement breaking, and quantum computation thresholds (Invited Paper). , 2005, , . | | 0 |
| 340 | Entanglement on mixed stabilizer states: normal forms and reduction procedures. New Journal of Physics, 2005, 7, 170-170. | 2.9 | 34 |
| 341 | Quantum information processing and communication. European Physical Journal D, 2005, 36, 203-228. | 1.3 | 272 |
| 342 | Quantum Information and Triangular Optical Lattices. Optics and Spectroscopy (English Translation) Tj ETQq0 0 (| OrgBT ∕Ov | erlock 10 Tf |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 343 | Manipulating quantum information by propagation. Journal of Optics B: Quantum and Semiclassical Optics, 2005, 7, S601-S609. | 1.4 | 16 |
| 344 | Remote implementation of quantum operations. Journal of Optics B: Quantum and Semiclassical Optics, 2005, 7, S384-S391. | 1.4 | 25 |
| 345 | Publisher's Note: Multiparticle entanglement under asymptotic positive-partial-transpose-preserving operations [Phys. Rev.72, 042325 (2005)]. Physical Review A, 2005, 72, . | 2.5 | 1 |
| 346 | Classical simulability, entanglement breaking, and quantum computation thresholds. Physical Review A, 2005, 71, . | 2.5 | 34 |
| 347 | Publisher's Note: Logarithmic Negativity: A Full Entanglement Monotone That Is not Convex [Phys. Rev. Lett.95, 090503 (2005)]. Physical Review Letters, 2005, 95, . | 7.8 | 43 |
| 348 | High efficiency transfer of quantum information and multiparticle entanglement generation in translation-invariant quantum chains. New Journal of Physics, 2005, 7, 73-73. | 2.9 | 124 |
| 349 | Multiparticle entanglement under asymptotic positive-partial-transpose-preserving operations. Physical Review A, 2005, 72, . | 2.5 | 15 |
| 350 | Multiparticle entanglement manipulation under positive partial transpose preserving operations. Physical Review A, 2005, 71, . | 2.5 | 29 |
| 351 | Entropy, Entanglement, and Area: Analytical Results for Harmonic Lattice Systems. Physical Review Letters, 2005, 94, 060503. | 7.8 | 303 |
| 352 | Logarithmic Negativity: A Full Entanglement Monotone That is not Convex. Physical Review Letters, 2005, 95, 090503. | 7.8 | 913 |
| 353 | Local copying of orthogonal entangled quantum states. New Journal of Physics, 2004, 6, 164-164. | 2.9 | 24 |
| 354 | Dynamics and manipulation of entanglement in coupled harmonic systems with many degrees of freedom. New Journal of Physics, 2004, 6, 36-36. | 2.9 | 235 |
| 355 | Distillation of continuous-variable entanglement with optical means. Annals of Physics, 2004, 311, 431-458. | 2.8 | 92 |
| 356 | Three-Spin Interactions in Optical Lattices and Criticality in Cluster Hamiltonians. Physical Review Letters, 2004, 93, 056402. | 7.8 | 190 |
| 357 | Towards Quantum Entanglement in Nanoelectromechanical Devices. Physical Review Letters, 2004, 93, 190402. | 7.8 | 174 |
| 358 | Robust Creation of Entanglement between Ions in Spatially Separate Cavities. Physical Review Letters, 2003, 91, 067901. | 7.8 | 209 |
| 359 | INTRODUCTION TO THE BASICS OF ENTANGLEMENT THEORY IN CONTINUOUS-VARIABLE SYSTEMS. International Journal of Quantum Information, 2003, 01, 479-506. | 1.1 | 283 |
| 360 | Entangling Power of Passive Optical Elements. Physical Review Letters, 2003, 90, 047904. | 7.8 | 120 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 361 | Hot entanglement in a simple dynamical model. Journal of Modern Optics, 2003, 50, 881-889. | 1.3 | 36 |
| 362 | Construction of extremal local positive-operator-valued measures under symmetry. Physical Review A, 2003, 67, . | 2.5 | 18 |
| 363 | Entanglement Cost under Positive-Partial-Transpose-Preserving Operations. Physical Review Letters, 2003, 90, 027901. | 7.8 | 199 |
| 364 | Remarks on entanglement measures and non-local state distinguishability. Journal of Physics A, 2003, 36, 5605-5615. | 1.6 | 31 |
| 365 | Robust generation of entanglement between two cavities mediated by short interactions with an atom. Physical Review A, 2003, 67, . | 2.5 | 50 |
| 366 | Driving non-Gaussian to Gaussian states with linear optics. Physical Review A, 2003, 67, . | 2.5 | 165 |
| 367 | The benefit of doing things slowly: employing dissipation for the robust creation of entanglement between ions in spatially separate cavities. , 2003, , . | | Ο |
| 368 | Hot entanglement in a simple dynamical model. Journal of Modern Optics, 2003, 50, 881-889. | 1.3 | 7 |
| 369 | Entanglement Purification via Entanglement Swapping. , 2003, , 193-209. | | Ο |
| 370 | Quantum and Classical Correlations in Quantum Brownian Motion. Physical Review Letters, 2002, 89, 137902. | 7.8 | 65 |
| 371 | Quantum-information processing in strongly detuned optical cavities. Physical Review A, 2002, 65, . | 2.5 | 72 |
| 372 | Conditions for the Local Manipulation of Gaussian States. Physical Review Letters, 2002, 89, 097901. | 7.8 | 34 |
| 373 | Remote control of restricted sets of operations: Teleportation of angles. Physical Review A, 2002, 65, . | 2.5 | 140 |
| 374 | Symmetric qubits from cavity states. Physical Review A, 2002, 66, . | 2.5 | 2 |
| 375 | On the quantification of entanglement in infinite-dimensional quantum systems. Journal of Physics A, 2002, 35, 3911-3923. | 1.6 | 101 |
| 376 | Decoherence and Quantum Error Correction in Frequency Standards. , 2002, , 337-345. | | 3 |
| 377 | Entanglement simulations of Shor's algorithm. Journal of Modern Optics, 2002, 49, 1325-1353. | 1.3 | 25 |
| 378 | Entangled Light from White Noise. Physical Review Letters, 2002, 88, 197901. | 7.8 | 280 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 379 | Distilling Gaussian States with Gaussian Operations is Impossible. Physical Review Letters, 2002, 89, 137903. | 7.8 | 490 |
| 380 | Entanglement properties of the harmonic chain. Physical Review A, 2002, 66, . | 2.5 | 318 |
| 381 | The physics of forgetting: Landauer's erasure principle and information theory. Contemporary Physics, 2001, 42, 25-60. | 1.8 | 199 |
| 382 | Light-Shift-Induced Quantum Gates for Ions in Thermal Motion. Physical Review Letters, 2001, 87, 127901. | 7.8 | 72 |
| 383 | Optimal local discrimination of two multipartite pure states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 288, 62-68. | 2.1 | 145 |
| 384 | Bounds on relative entropy of entanglement for multi-party systems. Journal of Physics A, 2001, 34, 6997-7002. | 1.6 | 61 |
| 385 | Singlet-aided infinite resource reduction in the comparison of distant fields. Physical Review A, 2001, 63, . | 2.5 | 3 |
| 386 | Quantum remote control: Teleportation of unitary operations. Physical Review A, 2001, 63, . | 2.5 | 207 |
| 387 | Asymptotic Relative Entropy of Entanglement. Physical Review Letters, 2001, 87, 217902. | 7.8 | 72 |
| 388 | Ordering states with entanglement measures. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 268, 31-34. | 2.1 | 79 |
| 389 | Coherent manipulation of two dipole—dipole interacting ions. Journal of Modern Optics, 2000, 47, 401-414. | 1.3 | 1 |
| 390 | Tripartite entanglement and quantum relative entropy. Journal of Physics A, 2000, 33, 8809-8818. | 1.6 | 30 |
| 391 | Coherent manipulation of two dipole-dipole interacting ions. Journal of Modern Optics, 2000, 47, 401-414. | 1.3 | 14 |
| 392 | Operator monotones, the reduction criterion and the relative entropy. Journal of Physics A, 2000, 33, L193-L197. | 1.6 | 56 |
| 393 | Equivalent classes of closed three-level systems. Physical Review A, 2000, 62, . | 2.5 | 4 |
| 394 | Efficient Factorization with a Single Pure Qubit andlogNMixed Qubits. Physical Review Letters, 2000, 85, 3049-3052. | 7.8 | 85 |
| 395 | Entangling atoms and ions in dissipative environments. Journal of Modern Optics, 2000, 47, 2583-2598. | 1.3 | 81 |
| 396 | Classical Information and Distillable Entanglement. Physical Review Letters, 2000, 84, 1611-1614. | 7.8 | 49 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 397 | Fast quantum gates for cold trapped ions. Physical Review A, 2000, 62, . | 2.5 | 132 |
| 398 | Optimal local implementation of nonlocal quantum gates. Physical Review A, 2000, 62, . | 2.5 | 273 |
| 399 | Quantum stochastic resonance in electron shelving. Physical Review A, 2000, 62, . | 2.5 | 22 |
| 400 | Quantum-information distribution via entanglement. Physical Review A, 2000, 61, . | 2.5 | 83 |
| 401 | Mixed state dense coding and its relation to entanglement measures. Journal of Modern Optics, 2000, 47, 291-310. | 1.3 | 99 |
| 402 | Entanglement quantification and purification in continuous-variable systems. Physical Review A, 2000, 61, . | 2.5 | 165 |
| 403 | Mixed state dense coding and its relation to entanglement measures. Journal of Modern Optics, 2000, 47, 291-310. | 1.3 | 13 |
| 404 | Entangling atoms and ions in dissipative environments. Journal of Modern Optics, 2000, 47, 2583-2598. | 1.3 | 14 |
| 405 | Minimal Conditions for Local Pure-State Entanglement Manipulation. Physical Review Letters, 1999, 83, 1455-1458. | 7.8 | 144 |
| 406 | The Holevo bound and Landauer's principle. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 263, 281-284. | 2.1 | 16 |
| 407 | Quantum telecloning and multiparticle entanglement. Physical Review A, 1999, 59, 156-161. | 2.5 | 509 |
| 408 | Proposal for Teleportation of an Atomic State via Cavity Decay. Physical Review Letters, 1999, 83, 5158-5161. | 7.8 | 428 |
| 409 | Entanglement-Assisted Local Manipulation of Pure Quantum States. Physical Review Letters, 1999, 83, 3566-3569. | 7.8 | 256 |
| 410 | Cavity-loss-induced generation of entangled atoms. Physical Review A, 1999, 59, 2468-2475. | 2.5 | 468 |
| 411 | A comparison of entanglement measures. Journal of Modern Optics, 1999, 46, 145-154. | 1.3 | 246 |
| 412 | A comparison of entanglement measures. Journal of Modern Optics, 1999, 46, 145-154. | 1.3 | 26 |
| 413 | Basics of quantum computation. Progress in Quantum Electronics, 1998, 22, 1-39. | 7.0 | 98 |
| 414 | Teleportation, entanglement and thermodynamics in the quantum world. Contemporary Physics, 1998, 39, 431-446. | 1.8 | 266 |

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 415 | Implementations of quantum logic: fundamental and experimental limits. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1998, 356, 1823-1839. | 3.4 | 11 |
| 416 | Entanglement measures and purification procedures. Physical Review A, 1998, 57, 1619-1633. | 2.5 | 1,119 |
| 417 | The quantum-jump approach to dissipative dynamics in quantum optics. Reviews of Modern Physics, 1998, 70, 101-144. | 45.6 | 1,174 |
| 418 | Multiparticle entanglement purification protocols. Physical Review A, 1998, 57, R4075-R4078. | 2.5 | 205 |
| 419 | Generation and Preservation of Coherence in Dissipative Quantum Optical Environments. Physica Scripta, 1998, T76, 152. | 2.5 | 11 |
| 420 | Broadcasting of entanglement via local copying. Physical Review A, 1997, 55, 3327-3332. | 2.5 | 81 |
| 421 | Quantum error correction in the presence of spontaneous emission. Physical Review A, 1997, 55, 67-71. | 2.5 | 63 |
| 422 | Conditional generation of error syndromes in fault-tolerant error correction. Physical Review A, 1997, 55, 4593-4596. | 2.5 | 16 |
| 423 | Decoherence and quantum error correction. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1997, 355, 2381-2385. | 3.4 | 2 |
| 424 | Statistical inference, distinguishability of quantum states, and quantum entanglement. Physical Review A, 1997, 56, 4452-4455. | 2.5 | 174 |
| 425 | Quantum correlations, local interactions and error correction. Journal of Modern Optics, 1997, 44, 2185-2205. | 1.3 | 9 |
| 426 | Decoherence limits to quantum computation using trapped ions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1997, 453, 2017-2041. | 2.1 | 87 |
| 427 | Decoherence Limits to Quantum Factoring. , 1997, , 311-316. | | 1 |
| 428 | Quantifying Entanglement. Physical Review Letters, 1997, 78, 2275-2279. | 7.8 | 1,584 |
| 429 | Improvement of Frequency Standards with Quantum Entanglement. Physical Review Letters, 1997, 79, 3865-3868. | 7.8 | 782 |
| 430 | Computers and communication in the quantum world. Physics World, 1996, 9, 19-20. | 0.0 | 7 |
| 431 | Inhibition of spontaneous decay by continuous measurements. Proposal for realizable experiment. Optics Communications, 1996, 123, 278-286. | 2.1 | 37 |
| 432 | The asymptotic behaviour of the spectrum of resonance fluorescence. Journal of Modern Optics, 1996, 43, 2171-2187. | 1.3 | 2 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 433 | Conditional resonance-fluorescence spectra of single atoms. Physical Review A, 1996, 53, 1164-1178. | 2.5 | 19 |
| 434 | Realistic lower bounds for the factorization time of large numbers on a quantum computer. Physical Review A, 1996, 53, 2986-2990. | 2.5 | 102 |
| 435 | Narrow absorption lines induced by electron shelving. Journal of Modern Optics, 1996, 43, 753-772. | 1.3 | 10 |
| 436 | The asymptotic behaviour of the spectrum of resonance fluorescence. Journal of Modern Optics, 1996, 43, 2171-2188. | 1.3 | 1 |
| 437 | Dark periods in the resonance fluorescence of a single ? system. European Physical Journal B, 1995, 96, 533-539. | 1.5 | 10 |
| 438 | Spectral structures induced by electron shelving. Physical Review A, 1995, 52, 3333-3343. | 2.5 | 42 |
| 439 | Quantum beats revisited: a quantum jump approach. Journal of the European Optical Society Part B: Quantum Optics, 1994, 6, 15-25. | 1.2 | 42 |
| 440 | Coherence with incoherent light: A new type of quantum beat for a single atom. Physical Review A, 1993, 47, 2186-2190. | 2.5 | 58 |
| 441 | Macroscopic dark periods without a metastable state. Physical Review A, 1992, 46, 373-379. | 2.5 | 79 |
| 442 | Entanglement Measures. , 0, , 161-175. | | 5 |
| 443 | Open quantum system approaches to biological systems. , 0, , 14-52. | | 1 |
| 444 | Optimizing quantum codes with an application to the loss channel with partial erasure information. Quantum - the Open Journal for Quantum Science, 0, 6, 667. | 0.0 | 0 |