

Margaret D Reid

List of Publications by Year in descending order

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142
papers

7,613
citations

57752

44
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53222

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145
all docs

145
docs citations

145
times ranked

2300
citing authors

#	ARTICLE	IF	CITATIONS
1	Demonstration of the Einstein-Podolsky-Rosen paradox using nondegenerate parametric amplification. <i>Physical Review A</i> , 1989, 40, 913-923.	2.5	716
2	<i>Colloquium</i> : The Einstein-Podolsky-Rosen paradox: From concepts to applications. <i>Reviews of Modern Physics</i> , 2009, 81, 1727-1751.	45.6	518
3	Experimental criteria for steering and the Einstein-Podolsky-Rosen paradox. <i>Physical Review A</i> , 2009, 80, .	2.5	463
4	Quantum Correlations of Phase in Nondegenerate Parametric Oscillation. <i>Physical Review Letters</i> , 1988, 60, 2731-2733.	7.8	426
5	Multipartite Einstein-Podolsky-Rosen steering and genuine tripartite entanglement with optical networks. <i>Nature Physics</i> , 2015, 11, 167-172.	16.7	249
6	Secure Continuous Variable Teleportation and Einstein-Podolsky-Rosen Steering. <i>Physical Review Letters</i> , 2015, 115, 180502.	7.8	237
7	Squeezing of quantum solitons. <i>Physical Review Letters</i> , 1987, 58, 1841-1844.	7.8	226
8	Quantum Nondemolition Detection of Optical Quadrature Amplitudes. <i>Physical Review Letters</i> , 1986, 57, 2473-2476.	7.8	218
9	Violations of classical inequalities in quantum optics. <i>Physical Review A</i> , 1986, 34, 1260-1276.	2.5	216
10	Generation of squeezed states via degenerate four-wave mixing. <i>Physical Review A</i> , 1985, 31, 1622-1635.	2.5	190
11	Genuine Multipartite Einstein-Podolsky-Rosen Steering. <i>Physical Review Letters</i> , 2013, 111, 250403.	7.8	188
12	Generation and detection of squeezed states of light by nondegenerate four-wave mixing in an optical fiber. <i>Physical Review A</i> , 1985, 32, 1550-1562.	2.5	162
13	Correlations in nondegenerate parametric oscillation. II. Below threshold results. <i>Physical Review A</i> , 1990, 41, 3930-3949.	2.5	158
14	Quantum cryptography with a predetermined key, using continuous-variable Einstein-Podolsky-Rosen correlations. <i>Physical Review A</i> , 2000, 62, .	2.5	158
15	Classifying Directional Gaussian Entanglement, Einstein-Podolsky-Rosen Steering, and Discord. <i>Physical Review Letters</i> , 2015, 114, 060402.	7.8	111
16	Quantum theory of nondegenerate four-wave mixing. <i>Physical Review A</i> , 1986, 34, 4929-4955.	2.5	109
17	Correlations in nondegenerate parametric oscillation: Squeezing in the presence of phase diffusion. <i>Physical Review A</i> , 1989, 40, 4493-4506.	2.5	109
18	Signifying quantum benchmarks for qubit teleportation and secure quantum communication using Einstein-Podolsky-Rosen steering inequalities. <i>Physical Review A</i> , 2013, 88, .	2.5	106

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19	Contradiction of Quantum Mechanics with Local Hidden Variables for Quadrature Phase Amplitude Measurements. <i>Physical Review Letters</i> , 1998, 80, 3169-3172.	7.8	100
20	Unified criteria for multipartite quantum nonlocality. <i>Physical Review A</i> , 2011, 84, .	2.5	100
21	Monogamy inequalities for the Einstein-Podolsky-Rosen paradox and quantum steering. <i>Physical Review A</i> , 2013, 88, .	2.5	98
22	Squeezed-light generation by four-wave mixing near an atomic resonance. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1987, 4, 1453.	2.1	97
23	Quantum fidelity measures for mixed states. <i>Reports on Progress in Physics</i> , 2019, 82, 076001.	20.1	85
24	Quantum fluctuations in the two-photon laser. <i>Physical Review A</i> , 1983, 28, 332-343.	2.5	81
25	Einstein-Podolsky-Rosen paradox and quantum steering in pulsed optomechanics. <i>Physical Review A</i> , 2013, 88, .	2.5	79
26	Bell Inequalities for Continuous-Variable Correlations. <i>Physical Review Letters</i> , 2007, 99, 210405.	7.8	78
27	Einstein-Podolsky-Rosen Entanglement Strategies in Two-Well Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2011, 106, 120405.	7.8	73
28	Quantum analysis of intensity fluctuations in the nondegenerate parametric oscillator. <i>Physical Review A</i> , 1988, 38, 788-799.	2.5	71
29	Quantum theory of optical bistability without adiabatic elimination. <i>Physical Review A</i> , 1988, 37, 4792-4818.	2.5	67
30	Einstein-Podolsky-Rosen entanglement and steering in two-well Bose-Einstein-condensate ground states. <i>Physical Review A</i> , 2012, 86, .	2.5	67
31	Criteria for genuine N -partite continuous-variable entanglement and Einstein-Podolsky-Rosen steering. <i>Physical Review A</i> , 2014, 90, .	2.5	67
32	Critical fluctuations and entanglement in the nondegenerate parametric oscillator. <i>Physical Review A</i> , 2004, 70, .	2.5	66
33	Squeezing via optical bistability. <i>Physical Review A</i> , 1985, 32, 396-401.	2.5	61
34	Scalable quantum simulation of pulsed entanglement and Einstein-Podolsky-Rosen steering in optomechanics. <i>Physical Review A</i> , 2014, 90, .	2.5	58
35	Planar quantum squeezing and atom interferometry. <i>Physical Review A</i> , 2011, 84, .	2.5	56
36	Unified approach to multiphoton lasers and multiphoton bistability. <i>Physical Review A</i> , 1981, 24, 2029-2043.	2.5	55

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37	Entanglement evolution of two remote and non-identical Jaynes-Cummings atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 065507.	1.5	54
38	Macroscopic quantum superposition states in nondegenerate parametric oscillation. Physical Review A, 1993, 47, 552-555.	2.5	53
39	Signatures for Generalized Macroscopic Superpositions. Physical Review Letters, 2006, 97, 170405.	7.8	49
40	Detecting faked continuous-variable entanglement using one-sided device-independent entanglement witnesses. Physical Review A, 2014, 89, .	2.5	49
41	Decoherence of Einstein-Podolsky-Rosen steering. Journal of the Optical Society of America B: Optical Physics, 2015, 32, A82.	2.1	49
42	Entanglement, EPR steering, and Bell-nonlocality criteria for multipartite higher-spin systems. Physical Review A, 2011, 83, .	2.5	48
43	Contradiction of quantum mechanics with local hidden variables for quadrature phase measurements on pair-coherent states and squeezed macroscopic superpositions of coherent states. Physical Review A, 1999, 60, 4259-4271.	2.5	46
44	Squeezing of Quantum Fluctuations via Atomic Coherence Effects. Physical Review Letters, 1985, 55, 1288-1290.	7.8	44
45	Quantum statistics of degenerate four wave mixing. Optics Communications, 1984, 50, 406-410.	2.1	43
46	Pulsed Entanglement of Two Optomechanical Oscillators and Furry's Hypothesis. Physical Review Letters, 2017, 119, 023601.	7.8	38
47	Absorption Spectroscopy beyond the Shot-Noise Limit. Physical Review Letters, 1988, 60, 1940-1942.	7.8	35
48	Macroscopic boson states exhibiting the Greenberger-Horne-Zeilinger contradiction with local realism. Physical Review Letters, 1992, 69, 997-1001.	7.8	35
49	Violation of multiparticle Bell inequalities for low- and high-flux parametric amplification using both vacuum and entangled input states. Physical Review A, 2002, 66, .	2.5	34
50	Spin entanglement, decoherence and Bohm's EPR paradox. Optics Express, 2009, 17, 18693.	3.4	33
51	Dynamical oscillator-cavity model for quantum memories. Physical Review A, 2009, 79, .	2.5	32
52	Transient macroscopic quantum superposition states in degenerate parametric oscillation: Calculations in the large-quantum-noise limit using the positive representation. Physical Review A, 1994, 50, 4330-4338.	2.5	31
53	Squeezing in nondegenerate four-wave mixing. Physical Review A, 1986, 33, 4465-4468.	2.5	29
54	Criteria for generalized macroscopic and mesoscopic quantum coherence. Physical Review A, 2008, 77, .	2.5	29

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55	Dynamical preparation of Einstein-Podolsky-Rosen entanglement in two-well Bose-Einstein condensates. <i>Physical Review A</i> , 2012, 86, .	2.5	29
56	Quantifying the mesoscopic quantum coherence of approximate NOON states and spin-squeezed two-mode Bose-Einstein condensates. <i>Physical Review A</i> , 2016, 94, .	2.5	29
57	Testing for Multipartite Quantum Nonlocality Using Functional Bell Inequalities. <i>Physical Review Letters</i> , 2009, 103, 180402.	7.8	27
58	Quantum entanglement for systems of identical bosons: I. General features. <i>Physica Scripta</i> , 2017, 92, 023004.	2.5	27
59	Nonlinear Entanglement and its Application to Generating Cat States. <i>Physical Review Letters</i> , 2015, 114, 100403.	7.8	26
60	Effect of bistability and superpositions on quantum statistics in degenerate parametric oscillation. <i>Physical Review A</i> , 1992, 46, 4131-4137.	2.5	24
61	Continuous variable tripartite entanglement and Einstein-Podolsky-Rosen correlations from triple nonlinearities. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2006, 39, 2515-2533.	1.5	24
62	Entanglement and nonlocality in multi-particle systems. <i>Frontiers of Physics</i> , 2012, 7, 72-85.	5.0	24
63	Dynamics of transient cat states in degenerate parametric oscillation with and without nonlinear Kerr interactions. <i>Physical Review A</i> , 2020, 101, .	2.5	24
64	Incompatibility of Macroscopic Local Realism with Quantum Mechanics in Measurements with Macroscopic Uncertainties. <i>Physical Review Letters</i> , 2000, 84, 2765-2769.	7.8	23
65	Uncertainty relations for the realization of macroscopic quantum superpositions and EPR paradoxes. <i>Journal of Modern Optics</i> , 2007, 54, 2373-2380.	1.3	23
66	Entanglement, number fluctuations and optimized interferometric phase measurement. <i>New Journal of Physics</i> , 2012, 14, 093012.	2.9	23
67	Violation of Bell's Inequalities in Quantum Optics. <i>Physical Review Letters</i> , 1984, 53, 955-957.	7.8	22
68	Bell inequalities for continuous-variable measurements. <i>Physical Review A</i> , 2010, 81, .	2.5	22
69	Creation, storage, and retrieval of an optomechanical cat state. <i>Physical Review A</i> , 2018, 98, .	2.5	21
70	Quantum entanglement for systems of identical bosons: II. Spin squeezing and other entanglement tests. <i>Physica Scripta</i> , 2017, 92, 023005.	2.5	20
71	Bright continuous-variable entanglement from the quantum optical dimer. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2008, 41, 015501.	1.5	19
72	Fate of the False Vacuum: Finite Temperature, Entropy, and Topological Phase in Quantum Simulations of the Early Universe. <i>PRX Quantum</i> , 2021, 2, .	9.2	19

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73	Laser bandwidth effects on squeezing in intracavity parametric oscillation. <i>Physical Review A</i> , 1988, 37, 1806-1808.	2.5	18
74	Violation of Bell's inequality by macroscopic states generated via parametric down-conversion. <i>Physical Review A</i> , 1993, 47, 4412-4421.	2.5	18
75	Quantum-noise reduction in intracavity four-wave mixing. <i>Physical Review A</i> , 1990, 42, 6767-6773.	2.5	17
76	Transient macroscopic quantum superposition states in degenerate parametric oscillation using squeezed reservoir fields. <i>Physical Review A</i> , 1995, 52, 2388-2391.	2.5	16
77	Probabilistic quantum phase-space simulation of Bell violations and their dynamical evolution. <i>Physical Review A</i> , 2014, 90, .	2.5	16
78	Schrödinger cat states and steady states in subharmonic generation with Kerr nonlinearities. <i>Physical Review A</i> , 2019, 100, .	2.5	15
79	Quantum probabilistic sampling of multipartite 60-qubit Bell-inequality violations. <i>Physical Review A</i> , 2014, 90, .	2.5	14
80	Leggett-Garg tests of macrorealism for bosonic systems including double-well Bose-Einstein condensates and atom interferometers. <i>Physical Review A</i> , 2018, 97, .	2.5	14
81	Overcoming decoherence of Schrödinger cat states formed in a cavity using squeezed-state inputs. <i>Physical Review Research</i> , 2020, 2, .	3.6	14
82	Simulating complex networks in phase space: Gaussian boson sampling. <i>Physical Review A</i> , 2022, 105, .	2.5	14
83	Squeezing in four-wave mixing's anharmonic-oscillator model. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1985, 2, 1682.	2.1	13
84	Violations of Bell inequalities for measurements with macroscopic uncertainties: What it means to violate macroscopic local realism. <i>Physical Review A</i> , 2000, 62, .	2.5	13
85	Quantum dynamics in ultracold atomic physics. <i>Frontiers of Physics</i> , 2012, 7, 16-30.	5.0	13
86	Towards an Einstein-Podolsky-Rosen paradox between two macroscopic atomic ensembles at room temperature. <i>New Journal of Physics</i> , 2013, 15, 063027.	2.9	13
87	Signifying the nonlocality of NOON states using Einstein-Podolsky-Rosen steering inequalities. <i>Physical Review A</i> , 2016, 94, .	2.5	13
88	Simulating and assessing boson sampling experiments with phase-space representations. <i>Physical Review A</i> , 2018, 97, .	2.5	13
89	Interpreting the macroscopic pointer by analysing the elements of reality of a Schrödinger cat. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 41LT01.	2.1	12
90	Simulation of an optomechanical quantum memory in the nonlinear regime. <i>Physical Review A</i> , 2017, 96, .	2.5	12

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91	Nonlocal Pair Correlations in a Higher-Order Bose Gas Soliton. <i>Physical Review Letters</i> , 2019, 122, 203604.	7.8	12
92	Leggett-Garg tests of macrorealism for dynamical cat states evolving in a nonlinear medium. <i>Physical Review A</i> , 2019, 99, .	2.5	12
93	Retrocausal model of reality for quantum fields. <i>Physical Review Research</i> , 2020, 2, .	3.6	12
94	Simulating Bell violations without quantum computers. <i>Physica Scripta</i> , 2014, T160, 014009.	2.5	11
95	Discrete time symmetry breaking in quantum circuits: exact solutions and tunneling. <i>New Journal of Physics</i> , 2019, 21, 093035.	2.9	11
96	Quantifying the Mesoscopic Nature of Einstein-Podolsky-Rosen Nonlocality. <i>Physical Review Letters</i> , 2019, 123, 120402.	7.8	11
97	Mesoscopic two-mode entangled and steerable states of 40,000 atoms in a Bose-Einstein-condensate interferometer. <i>Physical Review A</i> , 2019, 100, .	2.5	11
98	Implications of the recent experimental realisation of the Einstein-Podolsky-Rosen paradox. <i>Europhysics Letters</i> , 1996, 36, 1-6.	2.0	10
99	Conservation rules for entanglement transfer between qubits. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2010, 43, 215505.	1.5	10
100	Scaling of boson sampling experiments. <i>Physical Review A</i> , 2016, 94, .	2.5	10
101	Einstein-Podolsky-Rosen steering, depth of steering, and planar spin squeezing in two-mode Bose-Einstein condensates. <i>Physical Review A</i> , 2018, 98, .	2.5	10
102	Full multipartite steering inseparability, genuine multipartite steering, and monogamy for continuous-variable systems. <i>Physical Review A</i> , 2022, 105, .	2.5	10
103	Macroscopic elements of reality and the Einstein - Podolsky - Rosen paradox. <i>Quantum and Semiclassical Optics: Journal of the European Optical Society Part B</i> , 1997, 9, 489-499.	0.9	9
104	Bell inequalities for falsifying mesoscopic local realism via amplification of quantum noise. <i>Physical Review A</i> , 2018, 97, .	2.5	9
105	Testing macroscopic local realism using local nonlinear dynamics and time settings. <i>Physical Review A</i> , 2020, 102, .	2.5	9
106	Robustness of quantum Fourier transform interferometry. <i>Optics Letters</i> , 2019, 44, 343.	3.3	9
107	Weak measurements and quantum weak values for NOON states. <i>Physical Review A</i> , 2018, 97, .	2.5	8
108	Squeezing of intensity fluctuations in frequency summation. <i>Physical Review A</i> , 1994, 49, 2881-2890.	2.5	7

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109	Multiparticle and higher-spin tests of quantum mechanics using parametric down-conversion. <i>Physical Review A</i> , 1994, 50, 3661-3681.	2.5	7
110	Criteria to detect genuine multipartite entanglement using spin measurements. <i>Physical Review A</i> , 2019, 100, .	2.5	7
111	Quantum noise reduction in the squeezed pump non-degenerate parametric oscillator. <i>Journal of the European Optical Society Part B: Quantum Optics</i> , 1992, 4, 181-187.	1.2	6
112	Digital quantum memories with symmetric pulses. <i>Optics Express</i> , 2009, 17, 9662.	3.4	6
113	Probabilistic simulation of mesoscopic Schrödinger cat states. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 946-949.	2.1	6
114	Criteria to detect macroscopic quantum coherence, macroscopic quantum entanglement, and an Einstein-Podolsky-Rosen paradox for macroscopic superposition states. <i>Physical Review A</i> , 2019, 100, .	2.5	6
115	Macroscopic Local Realism: How Do We Define It and Is It Compatible with Quantum Mechanics?. <i>Annals of Physics</i> , 1998, 265, 52-79.	2.8	5
116	Bell Inequalities with Schrödinger Cats. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2001, 56, 220-223.	1.5	5
117	Macroscopic quantum Schrödinger and Einstein-Podolsky-Rosen paradoxes. <i>Journal of Modern Optics</i> , 2005, 52, 2245-2252.	1.3	5
118	Coherent states in projected Hilbert spaces. <i>Physical Review A</i> , 2016, 94, .	2.5	5
119	Tests for Einstein-Podolsky-Rosen steering in two-mode systems of identical massive bosons. <i>Physical Review A</i> , 2020, 101, .	2.5	5
120	Objective Quantum Fields, Retrocausality and Ontology. <i>Entropy</i> , 2021, 23, 749.	2.2	5
121	Simulating macroscopic quantum correlations in linear networks. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2022, 429, 127911.	2.1	5
122	Bipartite Leggett-Garg and macroscopic Bell-inequality violations using cat states: Distinguishing weak and deterministic macroscopic realism. <i>Physical Review A</i> , 2022, 105, .	2.5	5
123	Monogamy inequalities for certifiers of continuous-variable Einstein-Podolsky-Rosen entanglement without the assumption of Gaussianity. <i>Physical Review A</i> , 2017, 96, .	2.5	4
124	Theory of Squeezed Light Generation. <i>Springer Proceedings in Physics</i> , 1986, , 31-45.	0.2	4
125	Violations of Bell's inequalities in multiparticle states generated using parametric amplification. <i>Journal of the European Optical Society Part B: Quantum Optics</i> , 1994, 6, 1-8.	1.2	3
126	Two-setting multisite Bell inequalities for loophole-free tests with up to 50% loss. <i>Physical Review A</i> , 2013, 87, .	2.5	2

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127	Einstein-Podolsky-Rosen Correlations, Entanglement and Quantum Cryptography. Springer Series on Atomic, Optical, and Plasma Physics, 2004, , 337-364.	0.2	2
128	Macroscopic delayed choice and retrocausality: Quantum eraser, Leggett-Garg, and dimension witness tests with cat states. Physical Review A, 2022, 105, .	2.5	2
129	Violations of multisetting quaternion and octonion Bell inequalities. Physical Review A, 2015, 92, .	2.5	1
130	Entanglement, nonlocality and multi-particle quantum correlations. AIP Conference Proceedings, 2018, , .	0.4	1
131	Contradiction of quantum mechanics with local hidden variables for quadrature phase amplitude measurements. , 0, , .		0
132	Signatures for generalized macroscopic and S-sopic superpositions. , 2007, , .		0
133	Continuous variable tripartite entanglement and Einstein-Podolsky-Rosen correlations from triple nonlinearities. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2007, 103, 187-192.	0.6	0
134	Planar quantum squeezing and atom interferometry. , 2011, , .		0
135	One-way EPR steering and genuine multipartite EPR steering. , 2012, , .		0
136	Einsteinâ€Podolskyâ€Rosen quantum simulations in nonclassical phase-space. Journal of the Optical Society of America B: Optical Physics, 2015, 32, A64.	2.1	0
137	Necessary and sufficient criteria for Steering and the EPR paradox. , 2007, , .		0
138	New S-sopic and multipartite EPR and Bell inequalities. , 2008, , .		0
139	Multipartite quantum nonlocality using functional Bell inequalities. , 2009, , .		0
140	Einstein-Podolsky-Rosen Correlations in Nondegenerate Parametric Amplification. Springer Proceedings in Physics, 1989, , 111-121.	0.2	0
141	Optical Einstein-Podolsky-Rosen Correlations. , 1990, , 981-985.		0
142	New Tests of Macroscopic Local Realism. , 2001, , 176-186.		0