Margaret D Reid

List of Publications by Year
in descending order

142 papers	7,613 citations	66250 44 h-index	60403 85 g-index
145 all docs	145 docs citations	145 times ranked	2615 citing authors

#	Article	IF	Citations
1	Full multipartite steering inseparability, genuine multipartite steering, and monogamy for continuous-variable systems. Physical Review A, 2022, 105, .	1.0	10
2	Simulating complex networks in phase space: Gaussian boson sampling. Physical Review A, 2022, 105, .	1.0	14
3	Simulating macroscopic quantum correlations in linear networks. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 429, 127911.	0.9	5
4	Bipartite Leggett-Garg and macroscopic Bell-inequality violations using cat states: Distinguishing weak and deterministic macroscopic realism. Physical Review A, 2022, 105, .	1.0	5
5	Macroscopic delayed choice and retrocausality: Quantum eraser, Leggett-Garg, and dimension witness tests with cat states. Physical Review A, 2022, 105, .	1.0	2
6	Fate of the False Vacuum: Finite Temperature, Entropy, and Topological Phase in Quantum Simulations of the Early Universe. PRX Quantum, 2021, 2, .	3.5	19
7	Objective Quantum Fields, Retrocausality and Ontology. Entropy, 2021, 23, 749.	1.1	5
8	Testing macroscopic local realism using local nonlinear dynamics and time settings. Physical Review A, 2020, 102, .	1.0	9
9	Tests for Einstein-Podolsky-Rosen steering in two-mode systems of identical massive bosons. Physical Review A, 2020, 101, .	1.0	5
10	Dynamics of transient cat states in degenerate parametric oscillation with and without nonlinear Kerr interactions. Physical Review A, 2020, 101, .	1.0	24
11	Retrocausal model of reality for quantum fields. Physical Review Research, 2020, 2, .	1.3	12
12	Overcoming decoherence of SchrÃ¶dinger cat states formed in a cavity using squeezed-state inputs. Physical Review Research, 2020, 2, .	1.3	14
13	Discrete time symmetry breaking in quantum circuits: exact solutions and tunneling. New Journal of Physics, 2019, 21, 093035.	1.2	11
14	Criteria to detect genuine multipartite entanglement using spin measurements. Physical Review A, 2019, 100, .	1.0	7
15	SchrÃ¶dinger cat states and steady states in subharmonic generation with Kerr nonlinearities. Physical Review A, 2019, 100, .	1.0	15
16	Quantifying the Mesoscopic Nature of Einstein-Podolsky-Rosen Nonlocality. Physical Review Letters, 2019, 123, 120402.	2.9	11
17	Nonlocal Pair Correlations in a Higher-Order Bose Gas Soliton. Physical Review Letters, 2019, 122, 203604.	2.9	12
18	Quantum fidelity measures for mixed states. Reports on Progress in Physics, 2019, 82, 076001.	8.1	85

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19	Leggett-Garg tests of macrorealism for dynamical cat states evolving in a nonlinear medium. Physical Review A, 2019, 99, .	1.0	12
20	Mesoscopic two-mode entangled and steerable states of 40Â000 atoms in a Bose-Einstein-condensate interferometer. Physical Review A, 2019, 100, .	1.0	11
21	Criteria to detect macroscopic quantum coherence, macroscopic quantum entanglement, and an Einstein-Podolsky-Rosen paradox for macroscopic superposition states. Physical Review A, 2019, 100, .	1.0	6
22	Robustness of quantum Fourier transform interferometry. Optics Letters, 2019, 44, 343.	1.7	9
23	Bell inequalities for falsifying mesoscopic local realism via amplification of quantum noise. Physical Review A, 2018, 97, .	1.0	9
24	Leggett-Garg tests of macrorealism for bosonic systems including double-well Bose-Einstein condensates and atom interferometers. Physical Review A, 2018, 97, .	1.0	14
25	Simulating and assessing boson sampling experiments with phase-space representations. Physical Review A, 2018, 97, .	1.0	13
26	Entanglement, nonlocality and multi-particle quantum correlations. AIP Conference Proceedings, 2018, , .	0.3	1
27	Weak measurements and quantum weak values for NOON states. Physical Review A, 2018, 97, .	1.0	8
28	Creation, storage, and retrieval of an optomechanical cat state. Physical Review A, 2018, 98, .	1.0	21
29	Einstein-Podolsky-Rosen steering, depth of steering, and planar spin squeezing in two-mode Bose-Einstein condensates. Physical Review A, 2018, 98, .	1.0	10
30	Quantum entanglement for systems of identical bosons: I. General features. Physica Scripta, 2017, 92, 023004.	1.2	27
31	Monogamy inequalities for certifiers of continuous-variable Einstein-Podolsky-Rosen entanglement without the assumption of Gaussianity. Physical Review A, 2017, 96, .	1.0	4
32	Interpreting the macroscopic pointer by analysing the elements of reality of a SchrÃ¶dinger cat. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 41LT01.	0.7	12
33	Pulsed Entanglement of Two Optomechanical Oscillators and Furryâ€™s Hypothesis. Physical Review Letters, 2017, 119, 023601.	2.9	38
34	Simulation of an optomechanical quantum memory in the nonlinear regime. Physical Review A, 2017, 96, .	1.0	12
35	Quantum entanglement for systems of identical bosons: II. Spin squeezing and other entanglement tests. Physica Scripta, 2017, 92, 023005.	1.2	20
36	Scaling of boson sampling experiments. Physical Review A, 2016, 94, .	1.0	10

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37	Signifying the nonlocality of NOON states using Einstein-Podolsky-Rosen steering inequalities. Physical Review A, 2016, 94, .	1.0	13
38	Quantifying the mesoscopic quantum coherence of approximate NOON states and spin-squeezed two-mode Bose-Einstein condensates. Physical Review A, 2016, 94, .	1.0	29
39	Coherent states in projected Hilbert spaces. Physical Review A, 2016, 94, .	1.0	5
40	Violations of multisetting quaternion and octonion Bell inequalities. Physical Review A, 2015, 92, .	1.0	1
41	Secure Continuous Variable Teleportation and Einstein-Podolsky-Rosen Steering. Physical Review Letters, 2015, 115, 180502.	2.9	237
42	Nonlinear Entanglement and its Application to Generating Cat States. Physical Review Letters, 2015, 114, 100403.	2.9	26
43	Multipartite Einsteinâ€“Podolskyâ€“Rosen steering and genuine tripartite entanglement with opticalÂnetworks. Nature Physics, 2015, 11, 167-172.	6.5	249
44	Classifying Directional Gaussian Entanglement, Einstein-Podolsky-Rosen Steering, and Discord. Physical Review Letters, 2015, 114, 060402.	2.9	111
45	Einsteinâ€“Podolskyâ€“Rosen quantum simulations in nonclassical phase-space. Journal of the Optical Society of America B: Optical Physics, 2015, 32, A64.	0.9	0
46	Decoherence of Einsteinâ€“Podolskyâ€“Rosen steering. Journal of the Optical Society of America B: Optical Physics, 2015, 32, A82.	0.9	49
47	Simulating Bell violations without quantum computers. Physica Scripta, 2014, T160, 014009.	1.2	11
48	Detecting faked continuous-variable entanglement using one-sided device-independent entanglement witnesses. Physical Review A, 2014, 89, .	1.0	49
49	Criteria for genuine<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>N</mml:mi></mml:math>-partite continuous-variable entanglement and Einstein-Podolsky-Rosen steering. Physical Review A, 2014, 90, .	1.0	67
50	Probabilistic simulation of mesoscopic â€œSchrÃ¶dinger catâ€•states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 946-949.	0.9	6
51	Scalable quantum simulation of pulsed entanglement and Einstein-Podolsky-Rosen steering in optomechanics. Physical Review A, 2014, 90, .	1.0	58
52	Probabilistic quantum phase-space simulation of Bell violations and their dynamical evolution. Physical Review A, 2014, 90, .	1.0	16
53	Quantum probabilistic sampling of multipartite 60-qubit Bell-inequality violations. Physical Review A, 2014, 90, .	1.0	14
54	Monogamy inequalities for the Einstein-Podolsky-Rosen paradox and quantum steering. Physical Review A, 2013, 88, .	1.0	98

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55	Genuine Multipartite Einstein-Podolsky-Rosen Steering. Physical Review Letters, 2013, 111, 250403.	2.9	188
56	Signifying quantum benchmarks for qubit teleportation and secure quantum communication using Einstein-Podolsky-Rosen steering inequalities. Physical Review A, 2013, 88, .	1.0	106
57	Towards an Einsteinâ€“Podolskyâ€“Rosen paradox between two macroscopic atomic ensembles at room temperature. New Journal of Physics, 2013, 15, 063027.	1.2	13
58	Two-setting multisite Bell inequalities for loophole-free tests with up to 50%loss. Physical Review A, 2013, 87, .	1.0	2
59	Einstein-Podolsky-Rosen paradox and quantum steering in pulsed optomechanics. Physical Review A, 2013, 88, .	1.0	79
60	Entanglement, number fluctuations and optimized interferometric phase measurement. New Journal of Physics, 2012, 14, 093012.	1.2	23
61	One-way EPR steering and genuine multipartite EPR steering. , 2012, , .		0
62	Einstein-Podolsky-Rosen entanglement and steering in two-well Bose-Einstein-condensate ground states. Physical Review A, 2012, 86, .	1.0	67
63	Dynamical preparation of Einstein-Podolsky-Rosen entanglement in two-well Bose-Einstein condensates. Physical Review A, 2012, 86, .	1.0	29
64	Quantum dynamics in ultracold atomic physics. Frontiers of Physics, 2012, 7, 16-30.	2.4	13
65	Entanglement and nonlocality in multi-particle systems. Frontiers of Physics, 2012, 7, 72-85.	2.4	24
66	Unified criteria for multipartite quantum nonlocality. Physical Review A, 2011, 84, .	1.0	100
67	Entanglement, EPR steering, and Bell-nonlocality criteria for multipartite higher-spin systems. Physical Review A, 2011, 83, .	1.0	48
68	Einstein-Podolsky-Rosen Entanglement Strategies in Two-Well Bose-Einstein Condensates. Physical Review Letters, 2011, 106, 120405.	2.9	73
69	Planar quantum squeezing and atom interferometry. Physical Review A, 2011, 84, .	1.0	56
70	Planar quantum squeezing and atom interferometry. , 2011, , .		0
71	Conservation rules for entanglement transfer between qubits. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 215505.	0.6	10
72	Bell inequalities for continuous-variable measurements. Physical Review A, 2010, 81, .	1.0	22

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73	Testing for Multipartite Quantum Nonlocality Using Functional Bell Inequalities. Physical Review Letters, 2009, 103, 180402.	2.9	27
74	Experimental criteria for steering and the Einstein-Podolsky-Rosen paradox. Physical Review A, 2009, 80, .	1.0	463
75	Colloquium: The Einstein-Podolsky-Rosen paradox: From concepts to applications. Reviews of Modern Physics, 2009, 81, 1727-1751.	16.4	518
76	Digital quantum memories with symmetric pulses. Optics Express, 2009, 17, 9662.	1.7	6
77	Spin entanglement, decoherence and Bohmâ€™s EPR paradox. Optics Express, 2009, 17, 18693.	1.7	33
78	Dynamical oscillator-cavity model for quantum memories. Physical Review A, 2009, 79, .	1.0	32
79	Entanglement evolution of two remote and non-identical Jaynesâ€“Cummings atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 065507.	0.6	54
80	Multipartite quantum nonlocality using functional Bell inequalities. , 2009, , .		0
81	Bright continuous-variable entanglement from the quantum optical dimer. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 015501.	0.6	19
82	Criteria for generalized macroscopic and mesoscopic quantum coherence. Physical Review A, 2008, 77, .	1.0	29
83	New S-scopic and multipartite EPR and Bell inequalities. , 2008, , .		0
84	Signatures for generalized macroscopic and S-scopic superpositions. , 2007, , .		0
85	Bell Inequalities for Continuous-Variable Correlations. Physical Review Letters, 2007, 99, 210405.	2.9	78
86	Uncertainty relations for the realization of macroscopic quantum superpositions and EPR paradoxes. Journal of Modern Optics, 2007, 54, 2373-2380.	0.6	23
87	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.	0.2	0
88	Necessary and sufficient criteria for Steering and the EPR paradox. , 2007, , .		0
89	Continuous variable tripartite entanglement and Einsteinâ€“Podolskyâ€“Rosen correlations from triple nonlinearities. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 2515-2533.	0.6	24
90	Signatures for Generalized Macroscopic Superpositions. Physical Review Letters, 2006, 97, 170405.	2.9	49

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91	Macroscopic quantum SchrÃ¶dinger and Einsteinâ€“Podolskyâ€“Rosen paradoxes. Journal of Modern Optics, 2005, 52, 2245-2252.	0.6	5
92	Critical fluctuations and entanglement in the nondegenerate parametric oscillator. Physical Review A, 2004, 70, .	1.0	66
93	Einstein-Podolsky-Rosen Correlations, Entanglement and Quantum Cryptography. Springer Series on Atomic, Optical, and Plasma Physics, 2004, , 337-364.	0.1	2
94	Violation of multiparticle Bell inequalities for low- and high-flux parametric amplification using both vacuum and entangled input states. Physical Review A, 2002, 66, .	1.0	34
95	Bell Inequalities with SchrÃ¶dinger Cats. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2001, 56, 220-223.	0.7	5
96	New Tests of Macroscopic Local Realism. , 2001, , 176-186.		0
97	Quantum cryptography with a predetermined key, using continuous-variable Einstein-Podolsky-Rosen correlations. Physical Review A, 2000, 62, .	1.0	158
98	Incompatibility of Macroscopic Local Realism with Quantum Mechanics in Measurements with Macroscopic Uncertainties. Physical Review Letters, 2000, 84, 2765-2769.	2.9	23
99	Violations of Bell inequalities for measurements with macroscopic uncertainties: What it means to violate macroscopic local realism. Physical Review A, 2000, 62, .	1.0	13
100	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.	1.0	46
101	Macroscopic Local Realism: How Do We Define It and Is It Compatible with Quantum Mechanics?. Annals of Physics, 1998, 265, 52-79.	1.0	5
102	Contradiction of Quantum Mechanics with Local Hidden Variables for Quadrature Phase Amplitude Measurements. Physical Review Letters, 1998, 80, 3169-3172.	2.9	100
103	Macroscopic elements of reality and the Einstein - Podolsky - Rosen paradox. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1997, 9, 489-499.	1.0	9
104	Implications of the recent experimental realisation of the Einstein-Podolsky-Rosen paradox. Europhysics Letters, 1996, 36, 1-6.	0.7	10
105	Transient macroscopic quantum superposition states in degenerate parametric oscillation using squeezed reservoir fields. Physical Review A, 1995, 52, 2388-2391.	1.0	16
106	Violations of Bell's inequalities in multiparticle states generated using parametric amplification. Journal of the European Optical Society Part B: Quantum Optics, 1994, 6, 1-8.	1.2	3
107	Squeezing of intensity fluctuations in frequency summation. Physical Review A, 1994, 49, 2881-2890.	1.0	7
108	Transient macroscopic quantum superposition states in degenerate parametric oscillation: Calculations in the large-quantum-noise limit using the positivePrepresentation. Physical Review A, 1994, 50, 4330-4338.	1.0	31

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109	Multiparticle and higher-spin tests of quantum mechanics using parametric down-conversion. Physical Review A, 1994, 50, 3661-3681.	1.0	7
110	Violation of Bellâ€™s inequality by macroscopic states generated via parametric down-conversion. Physical Review A, 1993, 47, 4412-4421.	1.0	18
111	Macroscopic quantum superposition states in nondegenerate parametric oscillation. Physical Review A, 1993, 47, 552-555.	1.0	53
112	Quantum noise reduction in the squeezed pump non-degenerate parametric oscillator. Journal of the European Optical Society Part B: Quantum Optics, 1992, 4, 181-187.	1.2	6
113	Effect of bistability and superpositions on quantum statistics in degenerate parametric oscillation. Physical Review A, 1992, 46, 4131-4137.	1.0	24
114	Macroscopic boson states exhibiting the Greenberger-Horne-Zeilinger contradiction with local realism. Physical Review Letters, 1992, 69, 997-1001.	2.9	35
115	Quantum-noise reduction in intracavity four-wave mixing. Physical Review A, 1990, 42, 6767-6773.	1.0	17
116	Correlations in nondegenerate parametric oscillation. II. Below threshold results. Physical Review A, 1990, 41, 3930-3949.	1.0	158
117	Optical Einstein-Podolsky-Rosen Correlations. , 1990, , 981-985.		0
118	Correlations in nondegenerate parametric oscillation: Squeezing in the presence of phase diffusion. Physical Review A, 1989, 40, 4493-4506.	1.0	109
119	Demonstration of the Einstein-Podolsky-Rosen paradox using nondegenerate parametric amplification. Physical Review A, 1989, 40, 913-923.	1.0	716
120	Einstein-Podolsky-Rosen Correlations in Nondegenerate Parametric Amplification. Springer Proceedings in Physics, 1989, , 111-121.	0.1	0
121	Quantum Correlations of Phase in Nondegenerate Parametric Oscillation. Physical Review Letters, 1988, 60, 2731-2733.	2.9	426
122	Quantum theory of optical bistability without adiabatic elimination. Physical Review A, 1988, 37, 4792-4818.	1.0	67
123	Absorption Spectroscopy beyond the Shot-Noise Limit. Physical Review Letters, 1988, 60, 1940-1942.	2.9	35
124	Laser bandwidth effects on squeezing in intracavity parametric oscillation. Physical Review A, 1988, 37, 1806-1808.	1.0	18
125	Quantum analysis of intensity fluctuations in the nondegenerate parametric oscillator. Physical Review A, 1988, 38, 788-799.	1.0	71
126	Squeezing of quantum solitons. Physical Review Letters, 1987, 58, 1841-1844.	2.9	226

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127	Squeezed-light generation by four-wave mixing near an atomic resonance. Journal of the Optical Society of America B: Optical Physics, 1987, 4, 1453.	0.9	97
128	Quantum Nondemolition Detection of Optical Quadrature Amplitudes. Physical Review Letters, 1986, 57, 2473-2476.	2.9	218
129	Squeezing in nondegenerate four-wave mixing. Physical Review A, 1986, 33, 4465-4468.	1.0	29
130	Quantum theory of nondegenerate four-wave mixing. Physical Review A, 1986, 34, 4929-4955.	1.0	109
131	Violations of classical inequalities in quantum optics. Physical Review A, 1986, 34, 1260-1276.	1.0	216
132	Theory of Squeezed Light Generation. Springer Proceedings in Physics, 1986, , 31-45.	0.1	4
133	Squeezing via optical bistability. Physical Review A, 1985, 32, 396-401.	1.0	61
134	Squeezing of Quantum Fluctuations via Atomic Coherence Effects. Physical Review Letters, 1985, 55, 1288-1290.	2.9	44
135	Generation of squeezed states via degenerate four-wave mixing. Physical Review A, 1985, 31, 1622-1635.	1.0	190
136	Generation and detection of squeezed states of light by nondegenerate four-wave mixing in an optical fiber. Physical Review A, 1985, 32, 1550-1562.	1.0	162
137	Squeezing in four-wave mixingâ€”anharmonic-oscillator model. Journal of the Optical Society of America B: Optical Physics, 1985, 2, 1682.	0.9	13
138	Violation of Bell's Inequalities in Quantum Optics. Physical Review Letters, 1984, 53, 955-957.	2.9	22
139	Quantum statistics of degenerate four wave mixing. Optics Communications, 1984, 50, 406-410.	1.0	43
140	Quantum fluctuations in the two-photon laser. Physical Review A, 1983, 28, 332-343.	1.0	81
141	Unified approach to multiphoton lasers and multiphoton bistability. Physical Review A, 1981, 24, 2029-2043.	1.0	55
142	Contradiction of quantum mechanics with local hidden variables for quadrature phase amplitude measurements. , 0, , .		0