GÃ©za TÃ³th

List of Publications by Year
in descending order

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84 papers	8,307 citations	61977 43 h-index	71682 76 g-index
84 all docs	84 docs citations	84 times ranked	4188 citing authors

#	Article	IF	Citations
1	Entanglement detection. Physics Reports, 2009, 474, 1-75.	25.6	1,668
2	Digital Logic Gate Using Quantum-Dot Cellular Automata. Science, 1999, 284, 289-291.	12.6	572
3	Quantum metrology from a quantum information science perspective. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 424006.	2.1	523
4	Multipartite entanglement and high-precision metrology. Physical Review A, 2012, 85, .	2.5	344
5	Detecting Genuine Multipartite Entanglement with Two Local Measurements. Physical Review Letters, 2005, 94, 060501.	7.8	262
6	Experimental Analysis of a Four-Qubit Photon Cluster State. Physical Review Letters, 2005, 95, 210502.	7.8	238
7	Experimental Entanglement of a Six-Photon Symmetric Dicke State. Physical Review Letters, 2009, 103, 020504.	7.8	211
8	Quasiadiabatic switching for metal-island quantum-dot cellular automata. Journal of Applied Physics, 1999, 85, 2977-2984.	2.5	209
9	Experimental Observation of Four-Photon Entangled Dicke State with High Fidelity. Physical Review Letters, 2007, 98, 063604.	7.8	187
10	Optimal Spin Squeezing Inequalities Detect Bound Entanglement in Spin Models. Physical Review Letters, 2007, 99, 250405.	7.8	181
11	Entanglement detection in the stabilizer formalism. Physical Review A, 2005, 72, .	2.5	176
12	Detecting Multiparticle Entanglement of Dicke States. Physical Review Letters, 2014, 112, 155304.	7.8	172
13	Hydrodynamics of Topological Defects in Nematic Liquid Crystals. Physical Review Letters, 2002, 88, 105504.	7.8	168
14	Spin squeezing and entanglement. Physical Review A, 2009, 79, .	2.5	164
15	Permutationally Invariant Quantum Tomography. Physical Review Letters, 2010, 105, 250403.	7.8	157
16	Multipartite entanglement in spin chains. New Journal of Physics, 2005, 7, 229-229.	2.9	155
17	Entanglement between two spatially separated atomic modes. Science, 2018, 360, 416-418.	12.6	155
18	Entanglement witnesses in spin models. Physical Review A, 2005, 71, .	2.5	152

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19	Experimental demonstration of a binary wire for quantum-dot cellular automata. Applied Physics Letters, 1999, 74, 2875-2877.	3.3	150
20	Bell Inequalities for Graph States. Physical Review Letters, 2005, 95, 120405.	7.8	147
21	Experimental demonstration of clocked single-electron switching in quantum-dot cellular automata. Applied Physics Letters, 2000, 77, 295-297.	3.3	109
22	Noise Robustness of the Nonlocality of Entangled Quantum States. Physical Review Letters, 2007, 99, 040403.	7.8	101
23	Quantum computing with quantum-dot cellular automata. Physical Review A, 2001, 63, .	2.5	100
24	Detection of multipartite entanglement in the vicinity of symmetric Dicke states. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 275.	2.1	99
25	Entanglement and Permutational Symmetry. Physical Review Letters, 2009, 102, 170503.	7.8	89
26	Power gain in a quantum-dot cellular automata latch. Applied Physics Letters, 2002, 81, 1332-1334.	3.3	88
27	Extremal properties of the variance and the quantum Fisher information. Physical Review A, 2013, 87, .	2.5	84
28	Entanglement criteria based on local uncertainty relations are strictly stronger than the computable cross norm criterion. Physical Review A, 2006, 74, .	2.5	83
29	Experimental demonstration of a latch in clocked quantum-dot cellular automata. Applied Physics Letters, 2001, 78, 1625-1627.	3.3	75
30	Spin Squeezing Inequalities for Arbitrary Spin. Physical Review Letters, 2011, 107, 240502.	7.8	75
31	Quantum cellular neural networks. Superlattices and Microstructures, 1996, 20, 473-478.	3.1	74
32	Permutationally invariant state reconstruction. New Journal of Physics, 2012, 14, 105001.	2.9	73
33	Entanglement detection in optical lattices of bosonic atoms with collective measurements. Physical Review A, 2004, 69, .	2.5	59
34	Generation of Macroscopic Singlet States in a Cold Atomic Ensemble. Physical Review Letters, 2014, 113, 093601.	7.8	55
35	Entanglement detection based on interference and particle counting. Physical Review A, 2003, 68, .	2.5	53
36	Generation of macroscopic singlet states in atomic ensembles. New Journal of Physics, 2010, 12, 053007.	2.9	53

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37	Genuine tripartite entangled states with a local hidden-variable model. Physical Review A, 2006, 74, .	2.5	52
38	Experimental Comparison of Efficient Tomography Schemes for a Six-Qubit State. Physical Review Letters, 2014, 113, 040503.	7.8	52
39	Evaluating Convex Roof Entanglement Measures. Physical Review Letters, 2015, 114, 160501.	7.8	50
40	QUBIT4MATLAB V3.0: A program package for quantum information science and quantum optics for MATLAB. Computer Physics Communications, 2008, 179, 430-437.	7.5	48
41	Measurement-induced, spatially-extended entanglement in a hot, strongly-interacting atomic system. Nature Communications, 2020, 11, 2415.	12.8	48
42	Spin squeezing and entanglement for an arbitrary spin. Physical Review A, 2014, 89, .	2.5	47
43	Energy and multipartite entanglement in multidimensional and frustrated spin models. Physical Review A, 2006, 73, .	2.5	46
44	Entanglement and extreme spin squeezing for a fluctuating number of indistinguishable particles. Physical Review A, 2012, 86, .	2.5	44
45	Hydrodynamics of domain growth in nematic liquid crystals. Physical Review E, 2003, 67, 051705.	2.1	43
46	Two-setting Bell inequalities for graph states. Physical Review A, 2006, 73, .	2.5	42
47	Macroscopic singlet states for gradient magnetometry. Physical Review A, 2013, 88, .	2.5	42
48	Role of correlation in the operation of quantum-dot cellular automata. Journal of Applied Physics, 2001, 89, 7943-7953.	2.5	38
49	Quantum Nondemolition Measurement Enables Macroscopic Leggett-Garg Tests. Physical Review Letters, 2015, 115, 200403.	7.8	38
50	Quantum States with a Positive Partial Transpose are Useful for Metrology. Physical Review Letters, 2018, 120, 020506.	7.8	36
51	Practical methods for witnessing genuine multi-qubit entanglement in the vicinity of symmetric states. New Journal of Physics, 2009, 11, 083002.	2.9	34
52	Separability criteria and entanglement witnesses for symmetric quantum states. Applied Physics B: Lasers and Optics, 2010, 98, 617-622.	2.2	32
53	Precision bounds for gradient magnetometry with atomic ensembles. Physical Review A, 2018, 97, .	2.5	31
54	Detecting metrologically useful entanglement in the vicinity of Dicke states. New Journal of Physics, 2015, 17, 083027.	2.9	30

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55	Optimal witnessing of the quantum Fisher information with few measurements. Physical Review A, 2017, 95, .	2.5	24
56	Efficient algorithm for multiqudit twirling for ensemble quantum computation. Physical Review A, 2007, 75, .	2.5	22
57	Correlated electron transport in coupled metal double dots. Applied Physics Letters, 1998, 73, 2787-2789.	3.3	21
58	Addendum to â€œSufficient conditions for three-particle entanglement and their tests in recent experimentsâ€• Physical Review A, 2005, 72, .	2.5	21
59	Number-operatorâ€“annihilation-operator uncertainty as an alternative for the number-phase uncertainty relation. Physical Review A, 2010, 81, .	2.5	21
60	Partial transposition as a direct link between concurrence and negativity. Physical Review A, 2015, 91, .	2.5	21
61	Detection of multipartite entanglement with two-body correlations. Applied Physics B: Lasers and Optics, 2006, 82, 237-241.	2.2	19
62	Entanglement and extreme spin squeezing of unpolarized states. New Journal of Physics, 2017, 19, 013027.	2.9	18
63	Domain Motion in Confined Liquid Crystals. Journal of Statistical Physics, 2002, 107, 187-202.	1.2	16
64	Entanglement and extreme planar spin squeezing. Physical Review A, 2018, 97, .	2.5	16
65	Activating Hidden Metrological Usefulness. Physical Review Letters, 2020, 125, 020402.	7.8	14
66	Uncertainty relations with the variance and the quantum Fisher information based on convex decompositions of density matrices. Physical Review Research, 2022, 4, .	3.6	14
67	Conductance suppression due to correlated electron transport in coupled double quantum dots. Physical Review B, 1999, 60, 16906-16912.	3.2	12
68	Analogic CNN algorithms for 3D interpolation-approximation and object rotation using controlled switched templates. International Journal of Circuit Theory and Applications, 1996, 24, 409-424.	2.0	10
69	Mapping the spatial distribution of entanglement in optical lattices. Physical Review A, 2010, 82, .	2.5	10
70	Optimized parameter estimation in the presence of collective phase noise. Physical Review A, 2016, 94, .	2.5	9
71	Modeling nematohydrodynamics in liquid crystal devices. Computer Physics Communications, 2002, 147, 7-12.	7.5	6
72	Entanglement loss in molecular quantum-dot qubits due to interaction with the environment. Journal of Physics Condensed Matter, 2018, 30, 195602.	1.8	5

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73	Bound entangled singlet-like states for quantum metrology. Physical Review Research, 2021, 3, .	3.6	5
74	Two Measurement Settings can Suffice to Verify Multipartite Entanglement. AIP Conference Proceedings, 2004, , .	0.4	3
75	Matrix variances with projections. Acta Scientiarum Mathematicarum, 2012, 78, 683-688.	0.4	3
76	CNNUM stereo architecture and 3D template design techniques. International Journal of Circuit Theory and Applications, 1999, 27, 25-41.	2.0	2
77	Stretching the limits of multiparticle entanglement. , 0, 4, 30.		1
78	Generalized spin squeezing criteria: Entanglement detection with collective measurements. , 2009, , .		0
79	Six-photon entangled Dicke state enabled by a UV enhancement cavity as novel SPDC photon source. , 2010, , .		0
80	Generation of a macroscopic singlet state in an atomic ensemble. , 2011, , .		0
81	Generation of a macroscopic singlet state in an atomic ensemble. , 2011, , .		0
82	Generation of a macroscopic singlet state in an atomic ensemble. , 2012, , .		0
83	Activating hidden metrological usefulness. , 2021, , .		0
84	CNNUM stereo architecture and 3D template design techniques. International Journal of Circuit Theory and Applications, 1999, 27, 25-41.	2.0	0