TamÃ¡s VÃ©rtesi

List of Publications by Year
in descending order

104 papers	3,458 citations	117571 34 h-index	161767 54 g-index
104 all docs	104 docs citations	104 times ranked	1547 citing authors

#	Article	IF	Citations
1	One-way Einstein-Podolsky-Rosen Steering. Physical Review Letters, 2014, 112, .	2.9	227
2	Joint Measurability, Einstein-Podolsky-Rosen Steering, and Bell Nonlocality. Physical Review Letters, 2014, 113, 160402.	2.9	209
3	Closing the Detection Loophole in Bell Experiments Using Qudits. Physical Review Letters, 2010, 104, 060401.	2.9	188
4	Inequivalence of entanglement, steering, and Bell nonlocality for general measurements. Physical Review A, 2015, 92, .	1.0	165
5	Detecting nonlocality in many-body quantum states. Science, 2014, 344, 1256-1258.	6.0	129
6	Maximal violation of a bipartite three-setting, two-outcome Bell inequality using infinite-dimensional quantum systems. Physical Review A, 2010, 82, .	1.0	103
7	Robust and Versatile Black-Box Certification of Quantum Devices. Physical Review Letters, 2014, 113, 040401.	2.9	96
8	Dimension Witnesses and Quantum State Discrimination. Physical Review Letters, 2013, 110, 150501.	2.9	80
9	Disproving the Peres conjecture by showing Bell nonlocality from bound entanglement. Nature Communications, 2014, 5, 5297.	5.8	75
10	Self-testing quantum states and measurements in the prepare-and-measure scenario. Physical Review A, 2018, 98, .	1.0	75
11	Testing the Structure of Multipartite Entanglement with Bell Inequalities. Physical Review Letters, 2012, 108, 110501.	2.9	72
12	Geometry of the set of quantum correlations. Physical Review A, 2018, 97, .	1.0	71
13	More efficient Bell inequalities for Werner states. Physical Review A, 2008, 78, .	1.0	69
14	Optimal randomness certification from one entangled bit. Physical Review A, 2016, 93, .	1.0	67
15	Physical characterization of quantum devices from nonlocal correlations. Physical Review A, 2015, 91, .	1.0	62
16	Bounding the Set of Finite Dimensional Quantum Correlations. Physical Review Letters, 2015, 115, 020501.	2.9	61
17	Quantum bounds on Bell inequalities. Physical Review A, 2009, 79, .	1.0	58
18	Closed sets of nonlocal correlations. Physical Review A, 2009, 80, .	1.0	58

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19	Semi-device-independent bounds on entanglement. Physical Review A, 2011, 83, .	1.0	58
20	All quantum states useful for teleportation are nonlocal resources. Physical Review A, 2013, 87, .	1.0	57
21	Better local hidden variable models for two-qubit Werner states and an upper bound on the Grothendieck constant<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>K</mml:mi><mml:mi>G</mml:mi></mml:msub><mml:mo stretchy="false">(</mml:mo><mml:mn>3</mml:mn><mml:mo stretchy="false">)</mml:mo></mml:math>. Quantum - the Open Journal for Quantum Science, 0, 1, 3.	0.0	57
22	Algorithmic Construction of Local Hidden Variable Models for Entangled Quantum States. Physical Review Letters, 2016, 117, 190402.	2.9	55
23	Guaranteed violation of a Bell inequality without aligned reference frames or calibrated devices. Scientific Reports, 2012, 2, 470.	1.6	54
24	Postquantum Steering. Physical Review Letters, 2015, 115, 190403.	2.9	48
25	On diabatization and the topological D-matrix: Theory and numerical studies of the Hâ€‰+â€‰H2system and the C2H2molecule. Faraday Discussions, 2004, 127, 337-353.	1.6	47
26	Quantum Nonlocality Does Not Imply Entanglement Distillability. Physical Review Letters, 2012, 108, 030403.	2.9	47
27	Device-independent tomography of multipartite quantum states. Physical Review A, 2014, 90, .	1.0	47
28	Self-testing nonprojective quantum measurements in prepare-and-measure experiments. Science Advances, 2020, 6, eaaw6664.	4.7	45
29	Thermal entanglement in the nanotubular systemNa2V3O7. Physical Review B, 2006, 73, .	1.1	44
30	N-State Adiabatic-to-Diabatic Transformation Angle:Â Theory and Application. Journal of Physical Chemistry A, 2005, 109, 3476-3484.	1.1	39
31	Efficiency of higher-dimensional Hilbert spaces for the violation of Bell inequalities. Physical Review A, 2008, 77, .	1.0	39
32	Activation of Nonlocal Quantum Resources. Physical Review Letters, 2011, 106, 060403.	2.9	38
33	Two-qubit Bell inequality for which positive operator-valued measurements are relevant. Physical Review A, 2010, 82, .	1.0	37
34	Demonstration of Einstein-Podolsky-Rosen Steering Using Single-Photon Path Entanglement and Displacement-Based Detection. Physical Review Letters, 2016, 117, 070404.	2.9	37
35	Multisetting Bell-type inequalities for detecting genuine multipartite entanglement. Physical Review A, 2011, 83, .	1.0	36
36	Quantum States with a Positive Partial Transpose are Useful for Metrology. Physical Review Letters, 2018, 120, 020506.	2.9	36

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37	Device-Independent Certification of a Nonprojective Qubit Measurement. Physical Review Letters, 2016, 117, 260401.	2.9	35
38	Characterization of Quantum Correlations with Local Dimension Constraints and Its Device-Independent Applications. Physical Review X, 2014, 4, .	2.8	34
39	Bounding the dimension of bipartite quantum systems. Physical Review A, 2009, 79, .	1.0	33
40	Characterizing finite-dimensional quantum behavior. Physical Review A, 2015, 92, .	1.0	31
41	Ab initioconical intersections for the Na+H2 system: A four-state study. Journal of Chemical Physics, 2003, 119, 6588-6596.	1.2	28
42	Measurement incompatibility does not give rise to Bell violation in general. New Journal of Physics, 2018, 20, 013021.	1.2	27
43	Generalized Clauser-Horne-Shimony-Holt inequalities maximally violated by higher-dimensional systems. Physical Review A, 2008, 77, .	1.0	26
44	Closed sets of correlations: answers from the zoo. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 424029.	0.7	24
45	Multipartite nonlocality and random measurements. Physical Review A, 2017, 96, .	1.0	24
46	Translationally invariant multipartite Bell inequalities involving only two-body correlators. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 424024.	0.7	23
47	Analytic study of some excited state effects in a slightly bent Rennerâ€“Teller molecule. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 025102.	0.6	22
48	Certifying entangled measurements in known Hilbert spaces. Physical Review A, 2011, 83, .	1.0	20
49	Persistency of entanglement and nonlocality in multipartite quantum systems. Physical Review A, 2012, 86, .	1.0	20
50	Nonlocal multipartite correlations from local marginal probabilities. Physical Review A, 2012, 86, .	1.0	19
51	Observation of Stronger-than-Binary Correlations with Entangled Photonic Qutrits. Physical Review Letters, 2018, 120, 180402.	2.9	18
52	Perturbative analysis of possible failures in the traditional adiabatic conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 353, 11-18.	0.9	17
53	Highly noise resistant multiqubit quantum correlations. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 465301.	0.7	17
54	Entanglement without hidden nonlocality. New Journal of Physics, 2016, 18, 113019.	1.2	16

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55	Qutrit witness from the Grothendieck constant of order four. Physical Review A, 2017, 96, .	1.0	16
56	Activating Hidden Metrological Usefulness. Physical Review Letters, 2020, 125, 020402.	2.9	14
57	The Berry phase revisited: application to Bornâ€“Oppenheimer molecular systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 4603-4620.	0.6	13
58	Survey on the Bell nonlocality of a pair of entangled qudits. Physical Review A, 2018, 98, .	1.0	13
59	The Electronic Non-Adiabatic Coupling Matrix:â€‰ A Numerical Study of the Curl Condition and the Quantization Condition Employing the Mathieu Equation. Journal of Physical Chemistry A, 2003, 107, 7189-7196.	1.1	12
60	Blaschke-term interpretation of multiple-Ï€ geometric phases. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 354, 196-199.	0.9	12
61	Genuine tripartite entanglement in the noninteracting Fermi gas. Physical Review A, 2007, 75, .	1.0	12
62	Reciprocity in the degeneracies of some tetra-atomic molecular ions. Journal of Chemical Physics, 2011, 135, 084101.	1.2	12
63	Closing the detection loophole in multipartite Bell tests using Greenberger-Horne-Zeilinger states. Physical Review A, 2012, 86, .	1.0	12
64	EPR Steering inequalities with Communication Assistance. Scientific Reports, 2016, 6, 21634.	1.6	12
65	On the peculiarities of the diabatic framework: New insight. Journal of Chemical Physics, 2004, 120, 2565-2574.	1.2	11
66	A field theoretical approach to calculate electronic Born-Oppenheimer coupling terms. Journal of Chemical Physics, 2004, 121, 4000-4013.	1.2	11
67	Experimental Semi-Device-Independent Certification of Entangled Measurements. Physical Review Letters, 2014, 113, 080405.	2.9	11
68	A quasi-static treatment of multiple phase jumps. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, 2443-2456.	0.6	10
69	Lower bound on the communication cost of simulating bipartite quantum correlations. Physical Review A, 2009, 80, .	1.0	10
70	Concavity of the set of quantum probabilities for any given dimension. Physical Review A, 2009, 80, .	1.0	10
71	Closing the detection loophole in tripartite Bell tests using theWstate. Physical Review A, 2015, 92, .	1.0	10
72	Large Berry phases in layered graphene. Physical Review B, 2008, 78, .	1.1	9

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73	Proposed experiment to test fundamentally binary theories. Physical Review A, 2017, 96, .	1.0	9
74	Nonclassicality threshold for the three-qubit Greenberger-Horne-Zeilinger state. Physical Review A, 2011, 84, .	1.0	8
75	Bounding the persistency of the nonlocality ofWstates. Physical Review A, 2016, 93, .	1.0	8
76	Electronic Diabatic Framework:â€‰ Restrictions Due to Quantization of the Nonadiabatic Coupling Matrix. Journal of Physical Chemistry A, 2004, 108, 9134-9142.	1.1	7
77	The origin of molecular distortions: A proposed experimental test. Journal of Chemical Physics, 2006, 125, 064102.	1.2	7
78	Family of Bell inequalities violated by higher-dimensional bound entangled states. Physical Review A, 2017, 96, .	1.0	7
79	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>k</mml:mi></mml:math> -uniform mixed states. Physical Review A, 2019, 100, .	1.0	7
80	Derivation of the electronic nonadiabatic coupling field in molecular systems: An algebraic-vectorial approach. Journal of Chemical Physics, 2004, 120, 8420-8424.	1.2	5
81	Phase avalanches in near-adiabatic evolutions. Physical Review A, 2006, 73, .	1.0	5
82	Bell inequalities violated using detectors of low efficiency. Physical Review A, 2015, 92, .	1.0	5
83	Strength and typicality of nonlocality in multisetting and multipartite Bell scenarios. Physical Review A, 2020, 101, .	1.0	5
84	Bound entangled singlet-like states for quantum metrology. Physical Review Research, 2021, 3, .	1.3	5
85	Bond dimension witnesses and the structure of homogeneous matrix product states. Quantum - the Open Journal for Quantum Science, 0, 2, 50.	0.0	5
86	Pair annihilation of conical intersections and a study to infer the phenomenon. Chemical Physics Letters, 2004, 392, 17-22.	1.2	4
87	Vectorâ”Algebra Approach To Obtain Molecular Fields from Conical Intersections:Â Numerical Applications to H + H2and Na + H2â€. Journal of Physical Chemistry A, 2004, 108, 8590-8598.	1.1	4
88	Certifying nonlocality from separable marginals. Physical Review A, 2014, 89, .	1.0	4
89	Closing the detection loophole in multipartite Bell experiments with a limited number of efficient detectors. Physical Review A, 2018, 98, .	1.0	4
90	Class of genuinely high-dimensionally-entangled states with a positive partial transpose. Physical Review A, 2019, 100, .	1.0	4

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91	Experimentally friendly approach towards nonlocal correlations in multisetting N-partite Bell scenarios. Quantum - the Open Journal for Quantum Science, 0, 5, 430.	0.0	4
92	Cyclic Einstein-Podolsky-Rosen steering. Physical Review Research, 2021, 3, .	1.3	4
93	Nonseparability tests by noncommutativity of excitations. Physical Review A, 2007, 75, .	1.0	3
94	Naturally restricted subsets of nonsignaling correlations: typicality and convergence. Quantum - the Open Journal for Quantum Science, 0, 6, 765.	0.0	3
95	Platonic Bell inequalities for all dimensions. Quantum - the Open Journal for Quantum Science, 0, 6, 756.	0.0	3
96	Relative information encoded in the degree of entanglement to discriminate bipartite states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 357, 167-170.	0.9	2
97	Unexpected phase-jumps upon cycling around a conical intersection. Journal of Molecular Structure, 2007, 838, 20-23.	1.8	2
98	Discrimination between evolution operators. Physical Review A, 2007, 76, .	1.0	1
99	Power of unentangled measurements on two antiparallel spins. Physical Review A, 2007, 75, .	1.0	1
100	Excited state corrections to looped adiabatic-to-diabatic transformation phases. Chemical Physics, 2008, 351, 136-140.	0.9	1
101	Absolute nonlocality via distributed computing without communication. Physical Review A, 2015, 92, .	1.0	1
102	On the detectability of threefold degeneracies of real Hamiltonians. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 334, 363-369.	0.9	0
103	Disproving hidden variable models with spin magnitude conservation. Communications Physics, 2019, 2, .	2.0	0
104	Activating hidden metrological usefulness. , 2021, , .		0