

# Otfried GÃ¼hne

## List of Publications by Year in descending order

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Version: 2024-02-01

107  
papers

8,349  
citations

81900

39  
h-index

46799

89  
g-index

108  
all docs

108  
docs citations

108  
times ranked

3515  
citing authors

#	ARTICLE	IF	CITATIONS
1	Symmetries in quantum networks lead to no-go theorems for entanglement distribution and to verification techniques. <i>Nature Communications</i> , 2022, 13, 496.	12.8	15
2	Structure of dimension-bounded temporal correlations. <i>Physical Review A</i> , 2022, 105, .	2.5	4
3	Quantum-Inspired Hierarchy for Rank-Constrained Optimization. <i>PRX Quantum</i> , 2022, 3, .	9.2	5
4	Statistical Methods for Quantum State Verification and Fidelity Estimation. <i>Advanced Quantum Technologies</i> , 2022, 5, .	3.9	13
5	Statistically significant tests of multiparticle quantum correlations based on randomized measurements. <i>Physical Review A</i> , 2022, 106, .	2.5	11
6	Quantum measurement incompatibility in subspaces. <i>Physical Review A</i> , 2021, 103, .	2.5	7
7	A complete hierarchy for the pure state marginal problem in quantum mechanics. <i>Nature Communications</i> , 2021, 12, 1012.	12.8	15
8	Bound Entanglement from Randomized Measurements. <i>Physical Review Letters</i> , 2021, 126, 150501.	7.8	29
9	Geometry of Faithful Entanglement. <i>Physical Review Letters</i> , 2021, 126, 140503.	7.8	17
10	Exploring the relationship between the faithfulness and entanglement of two qubits. <i>Physical Review A</i> , 2021, 103, .	2.5	5
11	Characterizing quantum networks: Insights from coherence theory. <i>Physical Review A</i> , 2021, 103, .	2.5	19
12	Quantum entanglement in the triangle network. <i>Physical Review A</i> , 2021, 103, .	2.5	25
13	Genuine multipartite entanglement in time. <i>SciPost Physics</i> , 2021, 10, .	4.9	15
14	Finding optimal Bell inequalities using the cone-projection technique. <i>Physical Review A</i> , 2021, 104, .	2.5	2
15	Optimal Entanglement Certification from Moments of the Partial Transpose. <i>Physical Review Letters</i> , 2021, 127, 060504.	7.8	27
16	Generalizing Optimal Bell Inequalities. <i>Physical Review Letters</i> , 2020, 125, 200401.	7.8	5
17	Some Quantum Measurements with Three Outcomes Can Reveal Nonclassicality where All Two-Outcome Measurements Fail to Do So. <i>Physical Review Letters</i> , 2020, 125, 230402.	7.8	10
18	Experimentally Accessible Lower Bounds for Genuine Multipartite Entanglement and Coherence Measures. <i>Physical Review Applied</i> , 2020, 13, .	3.8	23

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19	Proof of the Peres Conjecture for Contextuality. <i>Physical Review Letters</i> , 2020, 124, 230401.	7.8	15
20	Quantum steering. <i>Reviews of Modern Physics</i> , 2020, 92, .	45.6	315
21	Characterizing quantum states via sector lengths. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2020, 53, 345302.	2.1	11
22	Genuine temporal correlations can certify the quantum dimension. <i>New Journal of Physics</i> , 2020, 22, 023028.	2.9	15
23	Quantum steering of Bell-diagonal states with generalized measurements. <i>Physical Review A</i> , 2020, 101, .	2.5	3
24	Simulating extremal temporal correlations. <i>New Journal of Physics</i> , 2020, 22, 103037.	2.9	10
25	Entropic uncertainty relations from quantum designs. <i>Physical Review Research</i> , 2020, 2, .	3.6	12
26	Characterizing multipartite entanglement classes via higher-dimensional embeddings. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 335302.	2.1	4
27	Certifying quantum memories with coherence. <i>Physical Review A</i> , 2019, 99, .	2.5	9
28	Geometry of Einstein-Podolsky-Rosen Correlations. <i>Physical Review Letters</i> , 2019, 122, 240401.	7.8	27
29	Detecting coherence via spectrum estimation. <i>Physical Review A</i> , 2019, 99, .	2.5	18
30	Characterizing Multipartite Entanglement with Moments of Random Correlations. <i>Physical Review Letters</i> , 2019, 122, 120505.	7.8	41
31	Quantifying Quantum Resources with Conic Programming. <i>Physical Review Letters</i> , 2019, 122, 130404.	7.8	94
32	Optimal verification of general bipartite pure states. <i>Npj Quantum Information</i> , 2019, 5, .	6.7	30
33	Unified picture for spatial, temporal, and channel steering. <i>Physical Review A</i> , 2018, 97, .	2.5	22
34	Convex Optimization over Classes of Multipartite Entanglement. <i>Physical Review Letters</i> , 2018, 120, 050506.	7.8	23
35	Characterizing Genuine Multilevel Entanglement. <i>Physical Review Letters</i> , 2018, 120, 060502.	7.8	40
36	Optimal Classical Simulation of State-Independent Quantum Contextuality. <i>Physical Review Letters</i> , 2018, 120, 130401.	7.8	30

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37	Bounds on absolutely maximally entangled states from shadow inequalities, and the quantum MacWilliams identity. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 175301.	2.1	45
38	Structure of temporal correlations of a qubit. New Journal of Physics, 2018, 20, 102001.	2.9	31
39	Entropic Steering Criteria: Applications to Bipartite and Tripartite Systems. Entropy, 2018, 20, 763.	2.2	21
40	Steering criteria from general entropic uncertainty relations. Physical Review A, 2018, 98, .	2.5	47
41	Constraints on correlations in multiqubit systems. Physical Review A, 2018, 97, .	2.5	4
42	Entanglement properties of quantum grid states. Physical Review A, 2018, 97, .	2.5	13
43	The structure of ultrafine entanglement witnesses. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 365307.	2.1	3
44	Enhanced entanglement criterion via symmetric informationally complete measurements. Physical Review A, 2018, 98, .	2.5	34
45	Completing the proof of "Generic quantum nonlocality". Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 1281-1285.	2.1	13
46	Graphical description of unitary transformations on hypergraph states. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 19LT01.	2.1	10
47	Graph states and local unitary transformations beyond local Clifford operations. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 195302.	2.1	15
48	Combinatorial entanglement: detecting entanglement in quantum states using grid-labelled graphs. Electronic Notes in Discrete Mathematics, 2017, 61, 819-825.	0.4	1
49	Absolutely Maximally Entangled States of Seven Qubits Do Not Exist. Physical Review Letters, 2017, 118, 200502.	7.8	68
50	Almost all four-particle pure states are determined by their two-body marginals. Physical Review A, 2017, 96, .	2.5	13
51	Characterizing the width of entanglement. New Journal of Physics, 2016, 18, 123024.	2.9	4
52	Steering Maps and Their Application to Dimension-Bounded Steering. Physical Review Letters, 2016, 116, 090403.	7.8	35
53	Characterizing Ground and Thermal States of Few-Body Hamiltonians. Physical Review Letters, 2016, 117, 010403.	7.8	13
54	Quantifying Entanglement of Maximal Dimension in Bipartite Mixed States. Physical Review Letters, 2016, 117, 190502.	7.8	19

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55	Evaluating the geometric measure of multipartite entanglement. <i>Annalen Der Physik</i> , 2016, 528, 278-287.	2.4	25
56	Multipartite entanglement as an emergent phenomenon. <i>Physical Review A</i> , 2016, 93, .	2.5	19
57	Contextuality in Phase Space. <i>Physical Review Letters</i> , 2015, 114, 250403.	7.8	22
58	One-to-One Mapping between Steering and Joint Measurability Problems. <i>Physical Review Letters</i> , 2015, 115, 230402.	7.8	131
59	Relaxations of separability in multipartite systems: Semidefinite programs, witnesses and volumes. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 505302.	2.1	28
60	Systematic Errors in Current Quantum State Tomography Tools. <i>Physical Review Letters</i> , 2015, 114, 080403.	7.8	82
61	Evaluating Convex Roof Entanglement Measures. <i>Physical Review Letters</i> , 2015, 114, 160501.	7.8	50
62	Entanglement and nonclassical properties of hypergraph states. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 335303.	2.1	45
63	Joint Measurability of Generalized Measurements Implies Classicality. <i>Physical Review Letters</i> , 2014, 113, 160403.	7.8	172
64	Fifty years of Bell's theorem. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 420301.	2.1	14
65	Scaling of genuine multipartite entanglement close to a quantum phase transition. <i>Physical Review B</i> , 2014, 89, .	3.2	62
66	Analytical characterization of the genuine multipartite negativity. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 155301.	2.1	31
67	Steering Bound Entangled States: A Counterexample to the Stronger Peres Conjecture. <i>Physical Review Letters</i> , 2014, 113, 050404.	7.8	68
68	Bounding the quantum dimension with contextuality. <i>Physical Review A</i> , 2014, 89, .	2.5	47
69	Entanglement criteria for Dicke states. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 385304.	2.1	39
70	Device-Independent Entanglement Quantification and Related Applications. <i>Physical Review Letters</i> , 2013, 111, 030501.	7.8	127
71	Certifying Systematic Errors in Quantum Experiments. <i>Physical Review Letters</i> , 2013, 110, 180401.	7.8	30
72	Bounding Temporal Quantum Correlations. <i>Physical Review Letters</i> , 2013, 111, 020403.	7.8	78

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73	Computing complexity measures for quantum states based on exponential families. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 125301.	2.1	18
74	Tests against noncontextual models with measurement disturbances. Physical Review A, 2013, 87, .	2.5	13
75	Entropic uncertainty relations and the stabilizer formalism. Journal of Mathematical Physics, 2012, 53, .	1.1	8
76	Estimating Entanglement Monotones with a Generalization of the Wootters Formula. Physical Review Letters, 2012, 109, 200503.	7.8	39
77	Permutationally invariant state reconstruction. New Journal of Physics, 2012, 14, 105001.	2.9	73
78	Algorithm for characterizing stochastic local operations and classical communication classes of multiparticle entanglement. Physical Review A, 2012, 86, .	2.5	18
79	Optimal Inequalities for State-Independent Contextuality. Physical Review Letters, 2012, 109, 250402.	7.8	66
80	Taming Multiparticle Entanglement. Physical Review Letters, 2011, 106, 190502.	7.8	215
81	Entanglement criteria and full separability of multi-qubit quantum states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 406-410.	2.1	32
82	Memory cost of quantum contextuality. New Journal of Physics, 2011, 13, 113011.	2.9	67
83	Experimental demonstration of a hyper-entangled ten-qubit Schrödinger cat state. Nature Physics, 2010, 6, 331-335.	16.7	282
84	Experimental multiparticle entanglement dynamics induced by decoherence. Nature Physics, 2010, 6, 943-946.	16.7	152
85	Compatibility and noncontextuality for sequential measurements. Physical Review A, 2010, 81, .	2.5	81
86	Increasing the Statistical Significance of Entanglement Detection in Experiments. Physical Review Letters, 2010, 104, 210401.	7.8	32
87	Multiparticle covariance matrices and the impossibility of detecting graph-state entanglement with two-particle correlations. Physical Review A, 2010, 82, .	2.5	34
88	Separability criteria for genuine multiparticle entanglement. New Journal of Physics, 2010, 12, 053002.	2.9	212
89	Quantifying entanglement with covariance matrices. Physical Review A, 2010, 81, .	2.5	33
90	Entanglement detection. Physics Reports, 2009, 474, 1-75.	25.6	1,668

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91	Entanglement and Permutational Symmetry. Physical Review Letters, 2009, 102, 170503.	7.8	89
92	Low energy properties of evenâ€legged $d$ -dimensional quantum spin systems: a variational approach. Physica Status Solidi (B): Basic Research, 2008, 245, 1552-1562.	1.5	2
93	Optimal Spin Squeezing Inequalities Detect Bound Entanglement in Spin Models. Physical Review Letters, 2007, 99, 250405.	7.8	181
94	Toolbox for entanglement detection and fidelity estimation. Physical Review A, 2007, 76, .	2.5	92
95	Experimental entanglement of six photons in graph states. Nature Physics, 2007, 3, 91-95.	16.7	554
96	Nonlinear Entanglement Witnesses. Physical Review Letters, 2006, 96, 170502.	7.8	102
97	Entanglement criteria based on local uncertainty relations are strictly stronger than the computable cross norm criterion. Physical Review A, 2006, 74, .	2.5	83
98	Experimental Analysis of a Four-Qubit Photon Cluster State. Physical Review Letters, 2005, 95, 210502.	7.8	238
99	Multipartite entanglement in spin chains. New Journal of Physics, 2005, 7, 229-229.	2.9	155
100	Bell Inequalities for Graph States. Physical Review Letters, 2005, 95, 120405.	7.8	147
101	Detecting Genuine Multipartite Entanglement with Two Local Measurements. Physical Review Letters, 2005, 94, 060501.	7.8	262
102	Entanglement detection in the stabilizer formalism. Physical Review A, 2005, 72, .	2.5	176
103	Experimental Detection of Multipartite Entanglement using Witness Operators. Physical Review Letters, 2004, 92, 087902.	7.8	371
104	Entropic uncertainty relations and entanglement. Physical Review A, 2004, 70, .	2.5	120
105	Characterizing Entanglement via Uncertainty Relations. Physical Review Letters, 2004, 92, 117903.	7.8	237
106	Investigating Three Qubit Entanglement with Local Measurements. International Journal of Theoretical Physics, 2003, 42, 1001-1013.	1.2	50
107	Entanglement characterization using quantum designs. Quantum - the Open Journal for Quantum Science, 0, 4, 325.	0.0	22