

# Reinhard F Werner

## List of Publications by Year in descending order

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135  
papers

17,818  
citations

25014

57  
h-index

13365

130  
g-index

138  
all docs

138  
docs citations

138  
times ranked

6031  
citing authors

#	ARTICLE	IF	CITATIONS
1	Computable measure of entanglement. <i>Physical Review A</i> , 2002, 65, .	1.0	3,613
2	Quantum states with Einstein-Podolsky-Rosen correlations admitting a hidden-variable model. <i>Physical Review A</i> , 1989, 40, 4277-4281.	1.0	3,078
3	Finitely correlated states on quantum spin chains. <i>Communications in Mathematical Physics</i> , 1992, 144, 443-490.	1.0	1,028
4	Optimal cloning of pure states. <i>Physical Review A</i> , 1998, 58, 1827-1832.	1.0	445
5	Evaluating capacities of bosonic Gaussian channels. <i>Physical Review A</i> , 2001, 63, .	1.0	438
6	All-multipartite Bell-correlation inequalities for two dichotomic observables per site. <i>Physical Review A</i> , 2001, 64, .	1.0	391
7	Bound Entangled Gaussian States. <i>Physical Review Letters</i> , 2001, 86, 3658-3661.	2.9	361
8	Entanglement measures under symmetry. <i>Physical Review A</i> , 2001, 64, .	1.0	337
9	Entanglement properties of the harmonic chain. <i>Physical Review A</i> , 2002, 66, .	1.0	318
10	Observation of one-way Einstein-Podolsky-Rosen steering. <i>Nature Photonics</i> , 2012, 6, 596-599.	15.6	308
11	Quantum error-correcting codes associated with graphs. <i>Physical Review A</i> , 2001, 65, .	1.0	298
12	Quantum information processing and communication. <i>European Physical Journal D</i> , 2005, 36, 203-228.	0.6	272
13	Entanglement of Formation for Symmetric Gaussian States. <i>Physical Review Letters</i> , 2003, 91, 107901.	2.9	250
14	Continuous Variable Quantum Key Distribution: Finite-Key Analysis of Composable Security against Coherent Attacks. <i>Physical Review Letters</i> , 2012, 109, 100502.	2.9	237
15	All teleportation and dense coding schemes. <i>Journal of Physics A</i> , 2001, 34, 7081-7094.	1.6	212
16	Optimal manipulations with qubits: Universal-NOT gate. <i>Physical Review A</i> , 1999, 60, R2626-R2629.	1.0	198
17	Proof of Heisenberg's Error-Disturbance Relation. <i>Physical Review Letters</i> , 2013, 111, 160405.	2.9	191
18	Quantum channels with memory. <i>Physical Review A</i> , 2005, 72, .	1.0	185

#	ARTICLE	IF	CITATIONS
19	Bell's inequalities and quantum field theory. I. General setting. Journal of Mathematical Physics, 1987, 28, 2440-2447.	0.5	182
20	Implementation of continuous-variable quantum key distribution with composable and one-sided-device-independent security against coherent attacks. Nature Communications, 2015, 6, 8795.	5.8	175
21	Optimal cloning of pure states, testing single clones. Journal of Mathematical Physics, 1999, 40, 3283-3299.	0.5	166
22	The vacuum violates Bell's inequalities. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 110, 257-259.	0.9	161
23	<i>Colloquium</i>: Quantum root-mean-square error and measurement uncertainty relations. Reviews of Modern Physics, 2014, 86, 1261-1281.	16.4	148
24	Estimating Entanglement Measures in Experiments. Physical Review Letters, 2007, 98, 110502.	2.9	147
25	Electric Quantum Walks with Individual Atoms. Physical Review Letters, 2013, 110, 190601.	2.9	139
26	Non-Gaussian Cloning of Quantum Coherent States is Optimal. Physical Review Letters, 2005, 95, 070501.	2.9	138
27	Counterexample to an additivity conjecture for output purity of quantum channels. Journal of Mathematical Physics, 2002, 43, 4353-4357.	0.5	137
28	Gaussian entanglement of formation. Physical Review A, 2004, 69, .	1.0	130
29	Estimating the spectrum of a density operator. Physical Review A, 2001, 64, .	1.0	127
30	Maximal violation of Bell's inequalities is generic in quantum field theory. Communications in Mathematical Physics, 1987, 110, 247-259.	1.0	124
31	Connes' embedding problem and Tsirelson's problem. Journal of Mathematical Physics, 2011, 52, .	0.5	124
32	Exact Antiferromagnetic Ground States of Quantum Spin Chains. Europhysics Letters, 1989, 10, 633-637.	0.7	120
33	Hiding Classical Data in Multipartite Quantum States. Physical Review Letters, 2002, 89, 097905.	2.9	120
34	Quantum harmonic analysis on phase space. Journal of Mathematical Physics, 1984, 25, 1404-1411.	0.5	104
35	Index Theory of One Dimensional Quantum Walks and Cellular Automata. Communications in Mathematical Physics, 2012, 310, 419-454.	1.0	101
36	Bell's inequalities and quantum field theory. II. Bell's inequalities are maximally violated in the vacuum. Journal of Mathematical Physics, 1987, 28, 2448-2456.	0.5	100

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37	Separability properties of tripartite states with $U \otimes \check{U} \otimes U$ -symmetry. <i>Physical Review A</i> , 2001, 63, .	1.0	99
38	Quantum lost and found. <i>Journal of Modern Optics</i> , 2003, 50, 915-933.	0.6	95
39	Asymptotic evolution of quantum walks with random coin. <i>Journal of Mathematical Physics</i> , 2011, 52, .	0.5	93
40	Tema con variazioni: quantum channel capacity. <i>New Journal of Physics</i> , 2004, 6, 26-26.	1.2	89
41	Heisenberg uncertainty for qubit measurements. <i>Physical Review A</i> , 2014, 89, .	1.0	89
42	Screen observables in relativistic and nonrelativistic quantum mechanics. <i>Journal of Mathematical Physics</i> , 1986, 27, 793-803.	0.5	82
43	Recurrence for Discrete Time Unitary Evolutions. <i>Communications in Mathematical Physics</i> , 2013, 320, 543-569.	1.0	81
44	Molecular binding in interacting quantum walks. <i>New Journal of Physics</i> , 2012, 14, 073050.	1.2	78
45	Bell's inequalities for states with positive partial transpose. <i>Physical Review A</i> , 2000, 61, .	1.0	76
46	Finitely Correlated Pure States. <i>Journal of Functional Analysis</i> , 1994, 120, 511-534.	0.7	75
47	Positive Representations of General Commutation Relations Allowing Wick Ordering. <i>Journal of Functional Analysis</i> , 1995, 134, 33-99.	0.7	74
48	Reexamination of quantum bit commitment: The possible and the impossible. <i>Physical Review A</i> , 2007, 76, .	1.0	73
49	Semicausal operations are semilocalizable. <i>Europhysics Letters</i> , 2002, 57, 782-788.	0.7	69
50	The Information-Disturbance Tradeoff and the Continuity of Stinespring's Representation. <i>IEEE Transactions on Information Theory</i> , 2008, 54, 1708-1717.	1.5	69
51	Propagation of Quantum Walks in Electric Fields. <i>Physical Review Letters</i> , 2013, 111, 160601.	2.9	68
52	An application of Bell's inequalities to a quantum state extension problem. <i>Letters in Mathematical Physics</i> , 1989, 17, 359-363.	0.5	66
53	Asymptotic relative entropy of entanglement for orthogonally invariant states. <i>Physical Review A</i> , 2002, 66, .	1.0	64
54	Clean positive operator valued measures. <i>Journal of Mathematical Physics</i> , 2005, 46, 082109.	0.5	64

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55	Unitarity plus causality implies localizability. <i>Journal of Computer and System Sciences</i> , 2011, 77, 372-378.	0.9	64
56	Iterative Optimization of Quantum Error Correcting Codes. <i>Physical Review Letters</i> , 2005, 94, 080501.	2.9	63
57	Uncertainty relations for angular momentum. <i>New Journal of Physics</i> , 2015, 17, 093046.	1.2	63
58	Mixed states with positive Wigner functions. <i>Journal of Mathematical Physics</i> , 1995, 36, 62-75.	0.5	60
59	Measurement uncertainty relations. <i>Journal of Mathematical Physics</i> , 2014, 55, .	0.5	57
60	Bulk-edge correspondence of one-dimensional quantum walks. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 21LT01.	0.7	49
61	Ground states of VBS models on cayley trees. <i>Journal of Statistical Physics</i> , 1992, 66, 939-973.	0.5	48
62	DISTILLABILITY AND POSITIVITY OF PARTIAL TRANSPOSES IN GENERAL QUANTUM FIELD SYSTEMS. <i>Reviews in Mathematical Physics</i> , 2005, 17, 545-576.	0.7	48
63	Strong Einstein-Podolsky-Rosen entanglement from a single squeezed light source. <i>Physical Review A</i> , 2011, 83, .	1.0	48
64	Distillability via Protocols Respecting the Positivity of Partial Transpose. <i>Physical Review Letters</i> , 2001, 87, 257902.	2.9	47
65	Valence bond states on quantum spin chains as ground states with spectral gap. <i>Journal of Physics A</i> , 1991, 24, L185-L189.	1.6	46
66	Why two qubits are special. <i>Journal of Mathematical Physics</i> , 2000, 41, 6772.	0.5	44
67	Abundance of translation invariant pure states on quantum spin chains. <i>Letters in Mathematical Physics</i> , 1992, 25, 249-258.	0.5	42
68	Lower bounds on entanglement measures from incomplete information. <i>Physical Review A</i> , 2008, 77, .	1.0	41
69	State-Independent Uncertainty Relations and Entanglement Detection in Noisy Systems. <i>Physical Review Letters</i> , 2017, 119, 170404.	2.9	39
70	Asymptotic behavior of quantum walks with spatio-temporal coin fluctuations. <i>Quantum Information Processing</i> , 2012, 11, 1219-1249.	1.0	38
71	The Topological Classification of One-Dimensional Symmetric Quantum Walks. <i>Annales Henri Poincare</i> , 2018, 19, 325-383.	0.8	38
72	On the notion of entanglement in Hilbert spaces. <i>Russian Mathematical Surveys</i> , 2005, 60, 359-360.	0.2	35

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73	A continuity theorem for Stinespring's dilation. <i>Journal of Functional Analysis</i> , 2008, 255, 1889-1904.	0.7	35
74	Creating anomalous Floquet Chern insulators with magnetic quantum walks. <i>Physical Review B</i> , 2019, 99, .	1.1	35
75	On quantum error-correction by classical feedback in discrete time. <i>Journal of Mathematical Physics</i> , 2004, 45, 2600-2612.	0.5	34
76	Implementation of Clifford gates in the Ising-anyon topological quantum computer. <i>Physical Review A</i> , 2009, 79, .	1.0	34
77	Coherent states of the q-canonical commutation relations. <i>Communications in Mathematical Physics</i> , 1994, 164, 455-471.	1.0	32
78	Universally Programmable Quantum Cellular Automaton. <i>Physical Review Letters</i> , 2006, 97, 020502.	2.9	32
79	Time asymptotics and entanglement generation of Clifford quantum cellular automata. <i>Journal of Mathematical Physics</i> , 2010, 51, 015203.	0.5	32
80	Quantum walks in external gauge fields. <i>Journal of Mathematical Physics</i> , 2019, 60, 012107.	0.5	29
81	On the structure of Clifford quantum cellular automata. <i>Journal of Mathematical Physics</i> , 2008, 49, 112104.	0.5	28
82	Ergodicity of quantum cellular automata. <i>Journal of Statistical Physics</i> , 1996, 82, 963-998.	0.5	27
83	On Bell's inequalities and algebraic invariants. <i>Letters in Mathematical Physics</i> , 1995, 33, 321-334.	0.5	26
84	Comment on "What Bell did". <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 424011.	0.7	26
85	Quantum Information Theory " an Invitation. , 2001, , 14-57.		25
86	ENTANGLEMENT, HAAG-DUALITY AND TYPE PROPERTIES OF INFINITE QUANTUM SPIN CHAINS. <i>Reviews in Mathematical Physics</i> , 2006, 18, 935-970.	0.7	24
87	Wigner quantisation of arrival time and oscillator phase. <i>Journal of Physics A</i> , 1988, 21, 4565-4575.	1.6	23
88	Uncertainty from Heisenberg to Today. <i>Foundations of Physics</i> , 2019, 49, 460-491.	0.6	23
89	A short impossibility proof of quantum bit commitment. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2013, 377, 1076-1087.	0.9	21
90	Complete homotopy invariants for translation invariant symmetric quantum walks on a chain. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 2, 95.	0.0	21

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91	Gaussian entanglement for quantum key distribution from a single-mode squeezing source. <i>New Journal of Physics</i> , 2013, 15, 053049.	1.2	20
92	Schwartz operators. <i>Reviews in Mathematical Physics</i> , 2016, 28, 1630001.	0.7	20
93	Unbounded Generators of Dynamical Semigroups. <i>Open Systems and Information Dynamics</i> , 2017, 24, 1740015.	0.5	20
94	Quantum spin chains with quantum group symmetry. <i>Communications in Mathematical Physics</i> , 1996, 174, 477-507.	1.0	18
95	Maximal violation of Bell inequalities by position measurements. <i>Journal of Mathematical Physics</i> , 2010, 51, .	0.5	17
96	Extremal Quantum Correlations and Cryptographic Security. <i>Physical Review Letters</i> , 2011, 106, 250502.	2.9	17
97	Revivals in quantum walks with a quasiperiodically-time-dependent coin. <i>Physical Review A</i> , 2016, 93, .	1.0	17
98	The free quon gas suffers Gibbs' paradox. <i>Physical Review D</i> , 1993, 48, 2929-2934.	1.6	16
99	Characterization of informational completeness for covariant phase space observables. <i>Journal of Mathematical Physics</i> , 2012, 53, 102103.	0.5	16
100	Eigenvalue measurement of topologically protected edge states in split-step quantum walks. <i>New Journal of Physics</i> , 2019, 21, 043031.	1.2	16
101	PERMUTATION AND ITS PARTIAL TRANSPOSE. <i>International Journal of Quantum Information</i> , 2007, 05, 469-507.	0.6	15
102	Steering, or maybe why Einstein did not go all the way to Bell's argument. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 424008.	0.7	15
103	Optimality of entropic uncertainty relations. <i>International Journal of Quantum Information</i> , 2015, 13, 1550045.	0.6	15
104	Quantum Cryptography as a Retrodiction Problem. <i>Physical Review Letters</i> , 2009, 103, 220504.	2.9	14
105	Uncertainty relations for general phase spaces. <i>Frontiers of Physics</i> , 2016, 11, 1.	2.4	14
106	Irreversibility of entanglement distillation for a class of symmetric states. <i>Physical Review A</i> , 2004, 69, .	1.0	13
107	Tunneling Times with Covariant Measurements. <i>Foundations of Physics</i> , 2009, 39, 829-846.	0.6	12
108	Measurement Uncertainty for Finite Quantum Observables. <i>Mathematics</i> , 2016, 4, 38.	1.1	12

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109	Quantum lost and found. <i>Journal of Modern Optics</i> , 2003, 50, 915-933.	0.6	12
110	Remarks on a quantum state extension problem. <i>Letters in Mathematical Physics</i> , 1990, 19, 319-326.	0.5	11
111	Dilations of symmetric operators shifted by a unitary group. <i>Journal of Functional Analysis</i> , 1990, 92, 166-176.	0.7	11
112	Meaner king uses biased bases. <i>Physical Review A</i> , 2007, 75, .	1.0	11
113	Exact energy–time uncertainty relation for arrival time by absorption. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 185301.	0.7	11
114	A Quantum Dynamical Approach to Matrix Khrushchev's Formulas. <i>Communications on Pure and Applied Mathematics</i> , 2016, 69, 909-957.	1.2	11
115	Finitely Correlated Pure States. <i>NATO ASI Series Series B: Physics</i> , 1994, , 193-202.	0.2	10
116	Chiral Floquet Systems and Quantum Walks at Half-Period. <i>Annales Henri Poincare</i> , 2021, 22, 375-413.	0.8	6
117	How to Correct Small Quantum Errors. <i>Lecture Notes in Physics</i> , 2002, , 263-286.	0.3	6
118	ON HAAG DUALITY FOR PURE STATES OF QUANTUM SPIN CHAINS. <i>Reviews in Mathematical Physics</i> , 2008, 20, 707-724.	0.7	5
119	A counterexample in coagulation theory. <i>Journal of Mathematical Physics</i> , 1991, 32, 2276-2278.	0.5	4
120	Quantum Walks with Nonorthogonal Position States. <i>Physical Review Letters</i> , 2012, 109, 240503.	2.9	4
121	Sharp uncertainty relations for number and angle. <i>Journal of Mathematical Physics</i> , 2018, 59, .	0.5	4
122	The Wigner distribution of n arbitrary observables. <i>Journal of Mathematical Physics</i> , 2020, 61, 082103.	0.5	4
123	Quantum Walks: Schur Functions Meet Symmetry Protected Topological Phases. <i>Communications in Mathematical Physics</i> , 2022, 389, 31-74.	1.0	4
124	The Gibbs Variational Principle for General BCS-Type Models. <i>Europhysics Letters</i> , 1989, 9, 633-638.	0.7	3
125	Quantum de Finetti theorems and mean-field theory from quantum phase space representations. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 135302.	0.7	3
126	Bounds on the speedup in quantum signaling. <i>Physical Review A</i> , 2017, 95, .	1.0	3



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127	Minimizing the relative entropy in a face. Letters in Mathematical Physics, 1990, 19, 7-14.	0.5	2
128	Verschränkung - Schlüssel zur Quantenwelt. Quanteninformatiionstheorie Teil 1: Grundlagen. Physik in Unserer Zeit, 2010, 41, 236-242.	0.0	2
129	Geheime Nachrichten und schnelle Rechner. Quanteninformatiionstheorie Teil 2: Anwendungen. Physik in Unserer Zeit, 2010, 41, 292-299.	0.0	2
130	HOW LONG CAN IT TAKE FOR A QUANTUM CHANNEL TO FORGET EVERYTHING?. International Journal of Quantum Information, 2012, 10, 1250057.	0.6	2
131	Entanglement distillation using the exchange interaction. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	1
132	Gaussian Quantum Cellular Automata. , 2007, , 85-99.		1
133	Monodromy Analysis of the Computational Power of the Ising Topological Quantum Computer. , 2010, , .		0
134	Full counting statistics of stationary particle beams. Journal of Mathematical Physics, 2013, 54, 042109.	0.5	0
135	Numerical optimization of amplitude-modulated pulses in microwave-driven entanglement generation. Quantum Science and Technology, 2022, 7, 045005.	2.6	0