

Paul Skrzypczyk

List of Publications by Year in descending order

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64
papers

5,028
citations

126907

33
h-index

128289

60
g-index

64
all docs

64
docs citations

64
times ranked

2994
citing authors

#	ARTICLE	IF	CITATIONS
1	The role of quantum information in thermodynamics—a topical review. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 143001.	2.1	640
2	Multidimensional quantum entanglement with large-scale integrated optics. <i>Science</i> , 2018, 360, 285-291.	12.6	554
3	How Small Can Thermal Machines Be? The Smallest Possible Refrigerator. <i>Physical Review Letters</i> , 2010, 105, 130401.	7.8	325
4	Work extraction and thermodynamics for individual quantum systems. <i>Nature Communications</i> , 2014, 5, 4185.	12.8	297
5	Quantifying Einstein-Podolsky-Rosen Steering. <i>Physical Review Letters</i> , 2014, 112, 180404.	7.8	295
6	Quantum steering: a review with focus on semidefinite programming. <i>Reports on Progress in Physics</i> , 2017, 80, 024001.	20.1	293
7	Entanglement enhances cooling in microscopic quantum refrigerators. <i>Physical Review E</i> , 2014, 89, 032115.	2.1	160
8	Virtual qubits, virtual temperatures, and the foundations of thermodynamics. <i>Physical Review E</i> , 2012, 85, 051117.	2.1	159
9	Extractable Work from Correlations. <i>Physical Review X</i> , 2015, 5, .	8.9	143
10	Detection of entanglement in asymmetric quantum networks and multipartite quantum steering. <i>Nature Communications</i> , 2015, 6, 7941.	12.8	137
11	Quantum Cheshire Cats. <i>New Journal of Physics</i> , 2013, 15, 113015.	2.9	130
12	Nonlocal correlations in the star-network configuration. <i>Physical Review A</i> , 2014, 90, .	2.5	98
13	Hierarchy of Steering Criteria Based on Moments for All Bipartite Quantum Systems. <i>Physical Review Letters</i> , 2015, 115, 210401.	7.8	96
14	Nonlocality Distillation and Postquantum Theories with Trivial Communication Complexity. <i>Physical Review Letters</i> , 2009, 102, 160403.	7.8	94
15	The smallest refrigerators can reach maximal efficiency. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 492002.	2.1	92
16	Thermodynamics of quantum systems with multiple conserved quantities. <i>Nature Communications</i> , 2016, 7, 12049.	12.8	82
17	Optimal randomness certification in the quantum steering and prepare-and-measure scenarios. <i>New Journal of Physics</i> , 2015, 17, 113010.	2.9	78
18	All Sets of Incompatible Measurements give an Advantage in Quantum State Discrimination. <i>Physical Review Letters</i> , 2019, 122, 130403.	7.8	74

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19	Quantitative relations between measurement incompatibility, quantum steering, and nonlocality. <i>Physical Review A</i> , 2016, 93, .	2.5	69
20	Thermodynamic cost of creating correlations. <i>New Journal of Physics</i> , 2015, 17, 065008.	2.9	68
21	Maximal Randomness Generation from Steering Inequality Violations Using Qudits. <i>Physical Review Letters</i> , 2018, 120, 260401.	7.8	62
22	General Method for Constructing Local Hidden Variable Models for Entangled Quantum States. <i>Physical Review Letters</i> , 2016, 117, 190401.	7.8	60
23	Closed sets of nonlocal correlations. <i>Physical Review A</i> , 2009, 80, .	2.5	58
24	Physics within a quantum reference frame. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 145304.	2.1	58
25	All Entangled States can Demonstrate Nonclassical Teleportation. <i>Physical Review Letters</i> , 2017, 119, 110501.	7.8	57
26	Robustness of Measurement, Discrimination Games, and Accessible Information. <i>Physical Review Letters</i> , 2019, 122, 140403.	7.8	57
27	Performance of autonomous quantum thermal machines: Hilbert space dimension as a thermodynamical resource. <i>Physical Review E</i> , 2016, 94, 032120.	2.1	50
28	Postquantum Steering. <i>Physical Review Letters</i> , 2015, 115, 190403.	7.8	48
29	Quantifying Measurement Incompatibility of Mutually Unbiased Bases. <i>Physical Review Letters</i> , 2019, 122, 050402.	7.8	46
30	Passivity, complete passivity, and virtual temperatures. <i>Physical Review E</i> , 2015, 91, 052133.	2.1	44
31	Bound Nonlocality and Activation. <i>Physical Review Letters</i> , 2011, 106, 020402.	7.8	40
32	Most energetic passive states. <i>Physical Review E</i> , 2015, 92, 042147.	2.1	38
33	Multi-core fiber integrated multi-port beam splitters for quantum information processing. <i>Optica</i> , 2020, 7, 542.	9.3	38
34	Device-independent quantum key distribution with single-photon sources. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 4, 260.	0.0	35
35	Loss-tolerant Einstein-Podolsky-Rosen steering for arbitrary-dimensional states: Joint measurability and unbounded violations under losses. <i>Physical Review A</i> , 2015, 92, .	2.5	34
36	Emergence of Quantum Correlations from Nonlocality Swapping. <i>Physical Review Letters</i> , 2009, 102, 110402.	7.8	33

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37	Small quantum absorption refrigerator with reversed couplings. <i>Physical Review E</i> , 2015, 92, 012136.	2.1	33
38	Large violation of Bell inequalities using both particle and wave measurements. <i>Physical Review A</i> , 2011, 84, .	2.5	29
39	Measurement-device-independent entanglement and randomness estimation in quantum networks. <i>Physical Review A</i> , 2017, 95, .	2.5	28
40	Operational Interpretation of Weight-Based Resource Quantifiers in Convex Quantum Resource Theories. <i>Physical Review Letters</i> , 2020, 125, 110401.	7.8	28
41	Connecting processes with indefinite causal order and multi-time quantum states. <i>New Journal of Physics</i> , 2017, 19, 103022.	2.9	24
42	Catalytic Quantum Teleportation. <i>Physical Review Letters</i> , 2021, 127, 080502.	7.8	24
43	Network Quantum Steering. <i>Physical Review Letters</i> , 2021, 127, 170405.	7.8	22
44	Dimension of physical systems, information processing, and thermodynamics. <i>New Journal of Physics</i> , 2014, 16, 123050.	2.9	20
45	Experimental multipartite entanglement and randomness certification of the W state in the quantum steering scenario. <i>Quantum Science and Technology</i> , 2017, 2, 015011.	5.8	18
46	All States are Universal Catalysts in Quantum Thermodynamics. <i>Physical Review X</i> , 2021, 11, .	8.9	17
47	Classical communication cost of quantum steering. <i>Physical Review A</i> , 2016, 94, .	2.5	16
48	Necessary detection efficiencies for secure quantum key distribution and bound randomness. <i>Physical Review A</i> , 2016, 93, .	2.5	16
49	Methods to estimate entanglement in teleportation experiments. <i>Physical Review A</i> , 2019, 99, .	2.5	15
50	Couplers for non-locality swapping. <i>New Journal of Physics</i> , 2009, 11, 073014.	2.9	13
51	A formalism for steering with local quantum measurements. <i>New Journal of Physics</i> , 2018, 20, 083040.	2.9	13
52	Bipartite Postquantum Steering in Generalized Scenarios. <i>Physical Review Letters</i> , 2020, 125, 050404.	7.8	13
53	Operational advantages provided by nonclassical teleportation. <i>Physical Review Research</i> , 2020, 2, .	3.6	12
54	Multiobject operational tasks for convex quantum resource theories of state-measurement pairs. <i>Physical Review Research</i> , 2020, 2, .	3.6	10

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55	Experimental Study of Nonclassical Teleportation Beyond Average Fidelity. Physical Review Letters, 2018, 121, 140501.	7.8	9
56	Optimal randomness generation from optical Bell experiments. New Journal of Physics, 2015, 17, 022003.	2.9	5
57	Adjusting inequalities for detection-loophole-free steering experiments. Physical Review A, 2016, 94, .	2.5	5
58	Operational Significance of the Quantum Resource Theory of Buscemi Nonlocality. PRX Quantum, 2021, 2, .	9.2	5
59	Complexity of compatible measurements. Physical Review Research, 2020, 2, .	3.6	4
60	Exploring the limits of no backwards in time signalling. Quantum - the Open Journal for Quantum Science, 0, 3, 211.	0.0	4
61	Predictably random. Nature Physics, 2021, 17, 431-432.	16.7	2
62	Characterization of Quantum Betting Tasks in Terms of Arimoto Mutual Information. PRX Quantum, 2022, 3, .	9.2	1
63	Taming catalysts in quantum thermodynamics. New Journal of Physics, 2015, 17, 081003.	2.9	0
64	Causality: relaxing before exploring. , 0, 1, 3.		0