Sebastian Deffner

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7422334/publications.pdf

Version: 2024-02-01

87	4,555	116194	124990
papers	citations	36 h-index	64 g-index

91	91	91	1990
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ergotropy from quantum and classical correlations. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 025301.	0.7	11
2	Fluctuation theorem for irreversible entropy production in electrical conduction. Physical Review E, 2022, 105, L012105.	0.8	4
3	Eavesdropping on the Decohering Environment: Quantum Darwinism, Amplification, and the Origin of Objective Classical Reality. Physical Review Letters, 2022, 128, 010401.	2.9	21
4	Boosting engine performance with Boseâ€“Einstein condensation. New Journal of Physics, 2022, 24, 025001.	1.2	24
5	Three phases of quantum annealing: Fast, slow, and very slow. Physical Review A, 2022, 105, .	1.0	6
6	From quantum speed limits to energy-efficient quantum gates. New Journal of Physics, 2022, 24, 055002.	1.2	19
7	Quantum thermodynamic devices: From theoretical proposals to experimental reality. AVS Quantum Science, 2022, 4, .	1.8	73
8	Kibbleâ€“Zurek Scaling from Linear Response Theory. Entropy, 2022, 24, 666.	1.1	4
9	Assessing the performance of quantum annealing with nonlinear driving. Physical Review A, 2022, 105, .	1.0	5
10	Shortcuts in Stochastic Systems and Control of Biophysical Processes. Physical Review X, 2022, 12, .	2.8	12
11	Redundantly Amplified Information Suppresses Quantum Correlations in Many-Body Systems. Physical Review Letters, 2022, 129, .	2.9	11
12	Controlling the speed and trajectory of evolution with counterdiabatic driving. Nature Physics, 2021, 17, 135-142.	6.5	61
13	Time-Rescaling of Dirac Dynamics: Shortcuts to Adiabaticity in Ion Traps and Weyl Semimetals. Entropy, 2021, 23, 81.	1.1	10
14	Information Scrambling versus Decoherenceâ€”Two Competing Sinks for Entropy. PRX Quantum, 2021, 2, .	3.5	31
15	Jarzynski Equality for Conditional Stochastic Work. Journal of Statistical Physics, 2021, 183, 1.	0.5	7
16	Energetic cost of Hamiltonian quantum gates. Europhysics Letters, 2021, 134, 40002.	0.7	23
17	Quantum Heat Engines with Singular Interactions. Symmetry, 2021, 13, 978.	1.1	13
18	Quantum Euler Relation for Local Measurements. Entropy, 2021, 23, 889.	1.1	1

#	Article	IF	Citations
19	Quantum and Classical Ergotropy from Relative Entropies. Entropy, 2021, 23, 1107.	1.1	9
20	Quantum Otto engines at relativistic energies. New Journal of Physics, 2021, 23, 105001.	1.2	17
21	Negative entropy production rates in Drude-Sommerfeld metals. Physical Review E, 2021, 103, 012109.	0.8	7
22	Thermodynamics of Statistical Anyons. PRX Quantum, 2021, 2, .	3.5	14
23	Environment-Assisted Shortcuts to Adiabaticity. Entropy, 2021, 23, 1479.	1.1	3
24	Diverging Quantum Speed Limits: A Herald of Classicality. PRX Quantum, 2021, 2, .	3.5	15
25	Thermodynamic control â€"An old paradigm with new applications. Europhysics Letters, 2020, 131, 20001.	0.7	51
26	Quantum scrambling and the growth of mutual information. Quantum Science and Technology, 2020, 5, 035005.	2.6	19
27	Orthogonality Catastrophe as a Consequence of the Quantum Speed Limit. Physical Review Letters, 2020, 124, 110601.	2.9	59
28	Bosons outperform fermions: The thermodynamic advantage of symmetry. Physical Review E, 2020, 101, 012110.	0.8	42
29	Quantum speed limits and the maximal rate of information production. Physical Review Research, 2020, 2, .	1.3	42
30	Kibble-Zurek scaling in quantum speed limits for shortcuts to adiabaticity. Physical Review Research, 2020, 2, .	1.3	22
31	Endoreversible Otto Engines at Maximal Power. Journal of Non-Equilibrium Thermodynamics, 2020, 45, 305-310.	2.4	45
32	An introduction to using counterdiabatic driving to eliminate genetic lag in changing environments. , 2020, , .		0
33	Stochastic thermodynamics of relativistic Brownian motion. New Journal of Physics, 2020, 22, 073054.	1.2	11
34	Non-Thermal Quantum Engine in Transmon Qubits. Entropy, 2019, 21, 545.	1.1	25
35	Quantum to classical transition in an information ratchet. Physical Review E, 2019, 99, 042129.	0.8	8
36	Equilibration in Quantum Systems. Physics Magazine, 2019, 12, .	0.1	1

#	Article	IF	Citations
37	Disorder-assisted graph coloring on quantum annealers. Physical Review A, 2019, 100, .	1.0	8
38	Jarzynski Equality for Driven Quantum Field Theories. Physical Review X, 2018, 8, .	2.8	22
39	Precision thermometry and the quantum speed limit. Quantum Science and Technology, 2018, 3, 025002.	2.6	50
40	Quantum fluctuation theorem for error diagnostics in quantum annealers. Scientific Reports, 2018, 8, 17191.	1.6	36
41	Efficiency of Harmonic Quantum Otto Engines at Maximal Power. Entropy, 2018, 20, 875.	1.1	69
42	Minimal dissipation in processes far from equilibrium. Physical Review E, 2018, 98, .	0.8	24
43	Quantum Zeno effect in correlated qubits. Physical Review A, 2018, 98, .	1.0	10
44	Trade-Off Between Speed and Cost in Shortcuts to Adiabaticity. Physical Review Letters, 2017, 118, 100601.	2.9	163
45	Fast forward to the classical adiabatic invariant. Physical Review E, 2017, 95, 032122.	0.8	42
46	Quantum speed limits: from Heisenbergâ€™s uncertainty principle to optimal quantum control. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 453001.	0.7	334
47	Kibble-Zurek scaling of the irreversible entropy production. Physical Review E, 2017, 96, 052125.	0.8	27
48	Demonstration of entanglement assisted invariance on IBM's quantum experience. Heliyon, 2017, 3, e00444.	1.4	26
49	Geometric quantum speed limits: a case for Wigner phase space. New Journal of Physics, 2017, 19, 103018.	1.2	59
50	Quantum stochastic thermodynamic on harmonic networks. New Journal of Physics, 2016, 18, 011001.	1.2	2
51	Non-hermitian quantum thermodynamics. Scientific Reports, 2016, 6, 23408.	1.6	58
52	Foundations of statistical mechanics from symmetries of entanglement. New Journal of Physics, 2016, 18, 063013.	1.2	19
53	Repeatability of measurements: Non-Hermitian observables and quantum Coriolis force. Physical Review A, 2016, 94, .	1.0	11
54	Quantum work and the thermodynamic cost of quantum measurements. Physical Review E, 2016, 94, 010103.	0.8	81

#	Article	IF	Citations
55	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="script">PT</mml:mi></mml:math>-symmetric slowing down of decoherence. Physical Review A, 2016, 94, .	1.0	32
56	Shortcuts to adiabaticity: suppression of pair production in driven Dirac dynamics. New Journal of Physics, 2016, 18, 012001.	1.2	39
57	Quantum work statistics of charged Dirac particles in time-dependent fields. Physical Review E, 2015, 92, 032137.	0.8	13
58	Thermodynamic universality of quantum Carnot engines. Physical Review E, 2015, 92, 042126.	0.8	102
59	Shortcuts to adiabaticity from linear response theory. Physical Review E, 2015, 92, 042148.	0.8	46
60	Exorcizing Maxwellâ€™s Demon. Physics Magazine, 2015, 8, .	0.1	0
61	Environment-Assisted Speed-up of the Field Evolution in Cavity Quantum Electrodynamics. Physical Review Letters, 2015, 114, 233602.	2.9	94
62	Jarzynski Equality in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="script">P</mml:mi><mml:mi mathvariant="script">T</mml:mi></mml:math>-Symmetric Quantum Mechanics. Physical Review Letters, 2015, 114, 150601.	2.9	49
63	From spooky foundations. Nature Physics, 2015, 11, 383-384.	6.5	6
64	Quantum work distribution for a driven diatomic molecule. Chemical Physics, 2015, 446, 18-23.	0.9	11
65	Interference of identical particles and the quantum work distribution. Physical Review E, 2014, 90, 062121.	0.8	31
66	Optimal driving of isothermal processes close to equilibrium. Journal of Chemical Physics, 2014, 140, 244119.	1.2	66
67	Classical and Quantum Shortcuts to Adiabaticity for Scale-Invariant Driving. Physical Review X, 2014, 4, .	2.8	195
68	Optimal control of a qubit in an optical cavity. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 145502.	0.6	61
69	Information Processing and the Second Law of Thermodynamics: An Inclusive, Hamiltonian Approach. Physical Review X, 2013, 3, .	2.8	134
70	Information-driven current in a quantum Maxwell demon. Physical Review E, 2013, 88, 062128.	0.8	42
71	Thermodynamic length for far-from-equilibrium quantum systems. Physical Review E, 2013, 87, 022143.	0.8	42
72	Quantum Speed Limit for Non-Markovian Dynamics. Physical Review Letters, 2013, 111, 010402.	2.9	351

#	Article	IF	Citations
73	Energyâ€“time uncertainty relation for driven quantum systems. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 335302.	0.7	142
74	Quantum entropy production in phase space. Europhysics Letters, 2013, 103, 30001.	0.7	31
75	Holevo's bound from a general quantum fluctuation theorem. Physical Review A, 2012, 86, .	1.0	69
76	Single-Ion Heat Engine at Maximum Power. Physical Review Letters, 2012, 109, 203006.	2.9	362
77	Nonequilibrium Entropy Production for Open Quantum Systems. Physical Review Letters, 2011, 107, 140404.	2.9	172
78	Quantum fluctuation theorems in the strong damping limit. Europhysics Letters, 2011, 94, 30001.	0.7	20
79	Quantum work statistics of linear and nonlinear parametric oscillators. Chemical Physics, 2010, 375, 200-208.	0.9	61
80	Generalized Clausius Inequality for Nonequilibrium Quantum Processes. Physical Review Letters, 2010, 105, 170402.	2.9	183
81	Nonequilibrium work distribution of a quantum harmonic oscillator. Physical Review E, 2008, 77, 021128.	0.8	130
82	Employing Trapped Cold Ions to Verify the Quantum Jarzynski Equality. Physical Review Letters, 2008, 101, 070403.	2.9	128
83	Quantum speed-limited depletion of physical resources. , 0, 5, 55.		2
84	Thermodynamics of quantum information. , 0, , 3-1-3-36.		6
85	The principles of modern thermodynamics. , 0, , .		0
86	Thermodynamics of quantum systems. , 0, , .		0
87	Quantum refrigerators â€“ the quantum thermodynamics of cooling Bose gases. , 0, 3, 20.		2