

# Hendrik Ulbricht

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

4,918  
citations

172457

29  
h-index

110387

64  
g-index

71  
all docs

71  
docs citations

71  
times ranked

4864  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interlayer cohesive energy of graphite from thermal desorption of polyaromatic hydrocarbons. <i>Physical Review B</i> , 2004, 69, .	3.2	972
2	Models of wave-function collapse, underlying theories, and experimental tests. <i>Reviews of Modern Physics</i> , 2013, 85, 471-527.	45.6	775
3	Spin Entanglement Witness for Quantum Gravity. <i>Physical Review Letters</i> , 2017, 119, 240401.	7.8	415
4	Interaction of C <sub>60</sub> with Carbon Nanotubes and Graphite. <i>Physical Review Letters</i> , 2003, 90, 095501.	7.8	203
5	Spectroscopy of Single- and Double-Wall Carbon Nanotubes in Different Environments. <i>Nano Letters</i> , 2005, 5, 511-514.	9.1	199
6	Physisorption of molecular oxygen on single-wall carbon nanotube bundles and graphite. <i>Physical Review B</i> , 2002, 66, .	3.2	177
7	A Kapitza-Dirac-Talbot-Lau interferometer for highly polarizable molecules. <i>Nature Physics</i> , 2007, 3, 711-715.	16.7	175
8	Thermal desorption of gases and solvents from graphite and carbon nanotube surfaces. <i>Carbon</i> , 2006, 44, 2931-2942.	10.3	160
9	Near-field interferometry of a free-falling nanoparticle from a point-like source. <i>Nature Communications</i> , 2014, 5, 4788.	12.8	158
10	Gravitational decoherence. <i>Classical and Quantum Gravity</i> , 2017, 34, 193002.	4.0	124
11	Pump-Probe Spectroscopy of Exciton Dynamics in (6,5) Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2007, 111, 3831-3835.	3.1	105
12	Parametric feedback cooling of levitated optomechanics in a parabolic mirror trap. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 1421.	2.1	95
13	Force sensing with an optically levitated charged nanoparticle. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	94
14	Macroscopic Quantum Resonators (MAQRO): 2015 update. <i>EPJ Quantum Technology</i> , 2016, 3, .	6.3	77
15	Theory and experimental verification of Kapitza-Dirac-Talbot-Lau interferometry. <i>New Journal of Physics</i> , 2009, 11, 043032.	2.9	74
16	Experimental Realization of a Thermal Squeezed State of Levitated Optomechanics. <i>Physical Review Letters</i> , 2016, 117, 273601.	7.8	74
17	Desorption kinetics and interaction of Xe with single-wall carbon nanotube bundles. <i>Chemical Physics Letters</i> , 2002, 363, 252-260.	2.6	56
18	Precession Motion in Levitated Optomechanics. <i>Physical Review Letters</i> , 2018, 121, 253601.	7.8	53

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19	Wave and Particle in Molecular Interference Lithography. <i>Physical Review Letters</i> , 2009, 103, 263601.	7.8	52
20	Experimental methods of molecular matter-wave optics. <i>Reports on Progress in Physics</i> , 2013, 76, 086402.	20.1	50
21	Interaction of molecular oxygen with single-wall carbon nanotube bundles and graphite. <i>Surface Science</i> , 2003, 532-535, 852-856.	1.9	49
22	Acceleration sensing with magnetically levitated oscillators above a superconductor. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	48
23	Matter-Wave Metrology as a Complementary Tool for Mass Spectrometry. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 6195-6198.	13.8	45
24	Optomechanical test of the Schrödinger-Newton equation. <i>Physical Review D</i> , 2016, 93, .	4.7	41
25	Non-interferometric test of the continuous spontaneous localization model based on rotational optomechanics. <i>New Journal of Physics</i> , 2018, 20, 083022.	2.9	41
26	Present status and future challenges of non-interferometric tests of collapse models. <i>Nature Physics</i> , 2022, 18, 243-250.	16.7	40
27	Quantum physics in space. <i>Physics Reports</i> , 2022, 951, 1-70.	25.6	38
28	Real-time Kalman filter: Cooling of an optically levitated nanoparticle. <i>Physical Review A</i> , 2018, 97, .	2.5	35
29	Influence of conformational molecular dynamics on matter wave interferometry. <i>Physical Review A</i> , 2010, 81, .	2.5	33
30	Photon Bunching in a Rotating Reference Frame. <i>Physical Review Letters</i> , 2019, 123, 110401.	7.8	30
31	On the Existence of Low-Mass Dark Matter and its Direct Detection. <i>Scientific Reports</i> , 2015, 5, 8058.	3.3	28
32	Testing the foundation of quantum physics in space via Interferometric and non-interferometric experiments with mesoscopic nanoparticles. <i>Communications Physics</i> , 2021, 4, .	5.3	28
33	A proposal for the experimental detection of CSL induced random walk. <i>Scientific Reports</i> , 2015, 5, 7664.	3.3	25
34	Direct measurement of the electrostatic image force of a levitated charged nanoparticle close to a surface. <i>Physical Review A</i> , 2018, 98, .	2.5	25
35	UV and VUV Ionization of Organic Molecules, Clusters, and Complexes. <i>Journal of Physical Chemistry A</i> , 2009, 113, 9952-9957.	2.5	24
36	Quantum technologies in space. <i>Experimental Astronomy</i> , 2021, 51, 1677-1694.	3.7	23

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37	Gas-phase formation of large neutral alkaline-earth metal tryptophan complexes. <i>Journal of the American Society for Mass Spectrometry</i> , 2008, 19, 1021-1026.	2.8	22
38	Absolute absorption spectroscopy based on molecule interferometry. <i>Physical Review A</i> , 2008, 78, .	2.5	18
39	Thermal and electrical properties of porphyrin derivatives and their relevance for molecule interferometry. <i>Journal of Chemical Physics</i> , 2007, 126, 164304.	3.0	17
40	Talbot-Lau effect beyond the point-particle approximation. <i>Physical Review A</i> , 2019, 100, .	2.5	15
41	Detecting Acceleration-Enhanced Vacuum Fluctuations with Atoms Inside a Cavity. <i>Physical Review Letters</i> , 2020, 125, 241301.	7.8	15
42	Revealing and concealing entanglement with noninertial motion. <i>Physical Review A</i> , 2020, 101, .	2.5	15
43	Wigner Function Reconstruction in Levitated Optomechanics. <i>Quantum Measurements and Quantum Metrology</i> , 2017, 4, .	3.3	14
44	Characterization of non-linearities through mechanical squeezing in levitated optomechanics. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	14
45	Dynamical model selection near the quantum-classical boundary. <i>Physical Review A</i> , 2018, 98, .	2.5	13
46	Gas phase sorting of fullerenes, polypeptides and carbon nanotubes. <i>Nanotechnology</i> , 2008, 19, 045502.	2.6	12
47	Effects of Newtonian gravitational self-interaction in harmonically trapped quantum systems. <i>Scientific Reports</i> , 2016, 6, 30840.	3.3	11
48	Exciton dynamics probed in carbon nanotube suspensions with narrow diameter distribution. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 3186-3191.	1.5	10
49	Surpassing the Energy Resolution Limit with Ferromagnetic Torque Sensors. <i>Physical Review Letters</i> , 2021, 127, 070801.	7.8	10
50	Collapse models: from theoretical foundations to experimental verifications. <i>Journal of Physics: Conference Series</i> , 2014, 504, 012023.	0.4	9
51	Detection of anisotropic particles in levitated optomechanics. <i>Physical Review A</i> , 2018, 98, .	2.5	8
52	Optimal control for feedback cooling in cavityless levitated optomechanics. <i>New Journal of Physics</i> , 2019, 21, 073019.	2.9	8
53	Static force characterization with Fano anti-resonance in levitated optomechanics. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	8
54	Zelâ€™dovich Amplification in a Superconducting Circuit. <i>Physical Review Letters</i> , 2020, 125, 140801.	7.8	7

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55	Cold Beams of Biomolecules for Quantum Optics. Acta Physica Hungarica A Heavy Ion Physics, 2006, 26, 87-94.	0.4	6
56	Note: A helical velocity selector for continuous molecular beams. Review of Scientific Instruments, 2010, 81, 106107.	1.3	6
57	Optomechanical interface for probing matter-wave coherence. Scientific Reports, 2013, 3, 3378.	3.3	6
58	Probing modified gravity with magnetically levitated resonators. Physical Review D, 2021, 104, .	4.7	6
59	Interaction kinetics of atoms and molecules on carbon nanotube surfaces. Surface Science, 2009, 603, 1853-1862.	1.9	5
60	Test quantum mechanics in space – invest US\$1 billion. Nature, 2021, 596, 32-34.	27.8	5
61	Gravity-related collapse of the wave function and spontaneous heating: Revisiting the experimental bounds. AVS Quantum Science, 2021, 3, 045602.	4.9	5
62	Prospects for near-field interferometric tests of collapse models. Physical Review A, 2021, 103, .	2.5	4
63	Is Quantum Linear Superposition an Exact Principle of Nature?. The Frontiers Collection, 2015, , 151-164.	0.2	1
64	Classical Tracking for Quantum Trajectories. , 2021, , .		1
65	Wetting of Single-Wall Carbon Nanotube Ropes and Graphite. AIP Conference Proceedings, 2003, , .	0.4	0
66	Cover Picture: Matter-Wave Metrology as a Complementary Tool for Mass Spectrometry (Angew.) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50	13.8	0
67	Coherent control of the motion of complex molecules and the coupling to internal state dynamics. Faraday Discussions, 2011, 153, 237.	3.2	0
68	Testing Fundamental Physics by Using Levitated Mechanical Systems. , 2021, , 303-332.		0
69	New Avenues for Testing Collapse Models. Fundamental Theories of Physics, 2021, , 423-436.	0.3	0
70	Scaling effect and optimization of SOI dual-waveguide optical trapping. , 2020, , .		0