

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 | Quantum physics in space. <i>Physics Reports</i> , 2022, 951, 1-70. | 25.6 | 38 |
| 2 | Present status and future challenges of non-interferometric tests of collapse models. <i>Nature Physics</i> , 2022, 18, 243-250. | 16.7 | 40 |
| 3 | Testing Fundamental Physics by Using Levitated Mechanical Systems. , 2021, , 303-332. | | 0 |
| 4 | Prospects for near-field interferometric tests of collapse models. <i>Physical Review A</i> , 2021, 103, . | 2.5 | 4 |
| 5 | Quantum technologies in space. <i>Experimental Astronomy</i> , 2021, 51, 1677-1694. | 3.7 | 23 |
| 6 | 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 |
| 7 | Test quantum mechanics in space – invest US\$1 billion. <i>Nature</i> , 2021, 596, 32-34. | 27.8 | 5 |
| 8 | Surpassing the Energy Resolution Limit with Ferromagnetic Torque Sensors. <i>Physical Review Letters</i> , 2021, 127, 070801. | 7.8 | 10 |
| 9 | Probing modified gravity with magnetically levitated resonators. <i>Physical Review D</i> , 2021, 104, . | 4.7 | 6 |
| 10 | New Avenues for Testing Collapse Models. <i>Fundamental Theories of Physics</i> , 2021, , 423-436. | 0.3 | 0 |
| 11 | Gravity-related collapse of the wave function and spontaneous heating: Revisiting the experimental bounds. <i>AVS Quantum Science</i> , 2021, 3, 045602. | 4.9 | 5 |
| 12 | Classical Tracking for Quantum Trajectories. , 2021, , . | | 1 |
| 13 | Zelâ™dovich Amplification in a Superconducting Circuit. <i>Physical Review Letters</i> , 2020, 125, 140801. | 7.8 | 7 |
| 14 | Detecting Acceleration-Enhanced Vacuum Fluctuations with Atoms Inside a Cavity. <i>Physical Review Letters</i> , 2020, 125, 241301. | 7.8 | 15 |
| 15 | Revealing and concealing entanglement with noninertial motion. <i>Physical Review A</i> , 2020, 101, . | 2.5 | 15 |
| 16 | Scaling effect and optimization of SOI dual-waveguide optical trapping. , 2020, , . | | 0 |
| 17 | Optimal control for feedback cooling in cavityless levitated optomechanics. <i>New Journal of Physics</i> , 2019, 21, 073019. | 2.9 | 8 |
| 18 | Characterization of non-linearities through mechanical squeezing in levitated optomechanics. <i>Applied Physics Letters</i> , 2019, 115, . | 3.3 | 14 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Photon Bunching in a Rotating Reference Frame. <i>Physical Review Letters</i> , 2019, 123, 110401. | 7.8 | 30 |
| 20 | Talbot-Lau effect beyond the point-particle approximation. <i>Physical Review A</i> , 2019, 100, . | 2.5 | 15 |
| 21 | Acceleration sensing with magnetically levitated oscillators above a superconductor. <i>Applied Physics Letters</i> , 2019, 115, . | 3.3 | 48 |
| 22 | Static force characterization with Fano anti-resonance in levitated optomechanics. <i>Applied Physics Letters</i> , 2019, 114, . | 3.3 | 8 |
| 23 | Real-time Kalman filter: Cooling of an optically levitated nanoparticle. <i>Physical Review A</i> , 2018, 97, . | 2.5 | 35 |
| 24 | 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 |
| 25 | Precession Motion in Levitated Optomechanics. <i>Physical Review Letters</i> , 2018, 121, 253601. | 7.8 | 53 |
| 26 | Detection of anisotropic particles in levitated optomechanics. <i>Physical Review A</i> , 2018, 98, . | 2.5 | 8 |
| 27 | Dynamical model selection near the quantum-classical boundary. <i>Physical Review A</i> , 2018, 98, . | 2.5 | 13 |
| 28 | 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 |
| 29 | Force sensing with an optically levitated charged nanoparticle. <i>Applied Physics Letters</i> , 2017, 111, . | 3.3 | 94 |
| 30 | Gravitational decoherence. <i>Classical and Quantum Gravity</i> , 2017, 34, 193002. | 4.0 | 124 |
| 31 | Spin Entanglement Witness for Quantum Gravity. <i>Physical Review Letters</i> , 2017, 119, 240401. | 7.8 | 415 |
| 32 | Wigner Function Reconstruction in Levitated Optomechanics. <i>Quantum Measurements and Quantum Metrology</i> , 2017, 4, . | 3.3 | 14 |
| 33 | 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 |
| 34 | Experimental Realization of a Thermal Squeezed State of Levitated Optomechanics. <i>Physical Review Letters</i> , 2016, 117, 273601. | 7.8 | 74 |
| 35 | Effects of Newtonian gravitational self-interaction in harmonically trapped quantum systems. <i>Scientific Reports</i> , 2016, 6, 30840. | 3.3 | 11 |
| 36 | Macroscopic Quantum Resonators (MAQRO): 2015 update. <i>EPJ Quantum Technology</i> , 2016, 3, . | 6.3 | 77 |

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|----|---|------|-----------|
| 37 | Optomechanical test of the Schrödinger-Newton equation. <i>Physical Review D</i> , 2016, 93, . | 4.7 | 41 |
| 38 | A proposal for the experimental detection of CSL induced random walk. <i>Scientific Reports</i> , 2015, 5, 7664. | 3.3 | 25 |
| 39 | On the Existence of Low-Mass Dark Matter and its Direct Detection. <i>Scientific Reports</i> , 2015, 5, 8058. | 3.3 | 28 |
| 40 | Is Quantum Linear Superposition an Exact Principle of Nature?. <i>The Frontiers Collection</i> , 2015, , 151-164. | 0.2 | 1 |
| 41 | Near-field interferometry of a free-falling nanoparticle from a point-like source. <i>Nature Communications</i> , 2014, 5, 4788. | 12.8 | 158 |
| 42 | Collapse models: from theoretical foundations to experimental verifications. <i>Journal of Physics: Conference Series</i> , 2014, 504, 012023. | 0.4 | 9 |
| 43 | Experimental methods of molecular matter-wave optics. <i>Reports on Progress in Physics</i> , 2013, 76, 086402. | 20.1 | 50 |
| 44 | Models of wave-function collapse, underlying theories, and experimental tests. <i>Reviews of Modern Physics</i> , 2013, 85, 471-527. | 45.6 | 775 |
| 45 | Optomechanical interface for probing matter-wave coherence. <i>Scientific Reports</i> , 2013, 3, 3378. | 3.3 | 6 |
| 46 | Coherent control of the motion of complex molecules and the coupling to internal state dynamics. <i>Faraday Discussions</i> , 2011, 153, 237. | 3.2 | 0 |
| 47 | Influence of conformational molecular dynamics on matter wave interferometry. <i>Physical Review A</i> , 2010, 81, . | 2.5 | 33 |
| 48 | Note: A helical velocity selector for continuous molecular beams. <i>Review of Scientific Instruments</i> , 2010, 81, 106107. | 1.3 | 6 |
| 49 | Wave and Particle in Molecular Interference Lithography. <i>Physical Review Letters</i> , 2009, 103, 263601. | 7.8 | 52 |
| 50 | Theory and experimental verification of Kapitzaâ€“Diracâ€“Talbotâ€“Lau interferometry. <i>New Journal of Physics</i> , 2009, 11, 043032. | 2.9 | 74 |
| 51 | Interaction kinetics of atoms and molecules on carbon nanotube surfaces. <i>Surface Science</i> , 2009, 603, 1853-1862. | 1.9 | 5 |
| 52 | UV and VUV Ionization of Organic Molecules, Clusters, and Complexes. <i>Journal of Physical Chemistry A</i> , 2009, 113, 9952-9957. | 2.5 | 24 |
| 53 | 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 |
| 54 | Matterâ€“Wave Metrology as a Complementary Tool for Mass Spectrometry. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 6195-6198. | 13.8 | 45 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 55 | Cover Picture: Matter-Wave Metrology as a Complementary Tool for Mass Spectrometry (Angew.) Tj ETQq1 1 0.784314 rgBT ₀ /Overlo | 13.8 | 18 |
| 56 | Absolute absorption spectroscopy based on molecule interferometry. Physical Review A, 2008, 78, . | 2.5 | 18 |
| 57 | Gas phase sorting of fullerenes, polypeptides and carbon nanotubes. Nanotechnology, 2008, 19, 045502. | 2.6 | 12 |
| 58 | Pump-Probe Spectroscopy of Exciton Dynamics in (6,5) Carbon Nanotubes. Journal of Physical Chemistry C, 2007, 111, 3831-3835. | 3.1 | 105 |
| 59 | Thermal and electrical properties of porphyrin derivatives and their relevance for molecule interferometry. Journal of Chemical Physics, 2007, 126, 164304. | 3.0 | 17 |
| 60 | A Kapitzaâ€“Diracâ€“Talbotâ€“Lau interferometer for highly polarizable molecules. Nature Physics, 2007, 3, 711-715. | 16.7 | 175 |
| 61 | Cold Beams of Biomolecules for Quantum Optics. Acta Physica Hungarica A Heavy Ion Physics, 2006, 26, 87-94. | 0.4 | 6 |
| 62 | Exciton dynamics probed in carbon nanotube suspensions with narrow diameter distribution. Physica Status Solidi (B): Basic Research, 2006, 243, 3186-3191. | 1.5 | 10 |
| 63 | Thermal desorption of gases and solvents from graphite and carbon nanotube surfaces. Carbon, 2006, 44, 2931-2942. | 10.3 | 160 |
| 64 | Spectroscopy of Single- and Double-Wall Carbon Nanotubes in Different Environments. Nano Letters, 2005, 5, 511-514. | 9.1 | 199 |
| 65 | Interlayer cohesive energy of graphite from thermal desorption of polyaromatic hydrocarbons. Physical Review B, 2004, 69, . | 3.2 | 972 |
| 66 | Interaction of molecular oxygen with single-wall carbon nanotube bundles and graphite. Surface Science, 2003, 532-535, 852-856. | 1.9 | 49 |
| 67 | Interaction of C ₆₀ with Carbon Nanotubes and Graphite. Physical Review Letters, 2003, 90, 095501. | 7.8 | 203 |
| 68 | Wetting of Single-Wall Carbon Nanotube Ropes and Graphite. AIP Conference Proceedings, 2003, , . | 0.4 | 0 |
| 69 | Physisorption of molecular oxygen on single-wall carbon nanotube bundles and graphite. Physical Review B, 2002, 66, . | 3.2 | 177 |
| 70 | Desorption kinetics and interaction of Xe with single-wall carbon nanotube bundles. Chemical Physics Letters, 2002, 363, 252-260. | 2.6 | 56 |