Holger MÃ¼ller

List of Publications by Year
in descending order

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55	3,439	186254	206102
papers	citations	28 h-index	48 g-index

56	56	56	2460
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Measurement of the fine-structure constant as a test of the Standard Model. Science, 2018, 360, 191-195.	12.6	574
2	Atom-Interferometry Tests of the Isotropy of Post-Newtonian Gravity. Physical Review Letters, 2008, 100, 031101.	7.8	263
3	A precision measurement of the gravitational redshift by the interference of matter waves. Nature, 2010, 463, 926-929.	27.8	257
4	Atom Interferometry with up to 24-Photon-Momentum-Transfer Beam Splitters. Physical Review Letters, 2008, 100, 180405.	7.8	222
5	Testing sub-gravitational forces on atoms from a miniature in-vacuum source mass. Nature Physics, 2017, 13, 938-942.	16.7	124
6	Gravity surveys using a mobile atom interferometer. Science Advances, 2019, 5, eaax0800.	10.3	122
7	Tests of Relativity by Complementary Rotating Michelson-Morley Experiments. Physical Review Letters, 2007, 99, 050401.	7.8	119
8	Laser phase plate for transmission electron microscopy. Nature Methods, 2019, 16, 1016-1020.	19.0	118
9	Influence of the Coriolis Force in Atom Interferometry. Physical Review Letters, 2012, 108, 090402.	7.8	117
10	Atom Interferometers with Scalable Enclosed Area. Physical Review Letters, 2009, 102, 240403.	7.8	106
11	Atom-wave diffraction between the Raman-Nath and the Bragg regime: Effective Rabi frequency, losses, and phase shifts. Physical Review A, 2008, 77, .	2.5	97
12	A Clock Directly Linking Time to a Particle's Mass. Science, 2013, 339, 554-557.	12.6	94
13	Probing gravity by holding atoms for 20 seconds. Science, 2019, 366, 745-749.	12.6	88
14	The Bose-Einstein Condensate and Cold Atom Laboratory. EPJ Quantum Technology, 2021, 8, .	6.3	85
15	Chameleon dark energy and atom interferometry. Physical Review D, 2016, 94, .	4.7	79
16	Multiaxis atom interferometry with a single-diode laser and a pyramidal magneto-optical trap. Optica, 2017, 4, 1545.	9.3	78
17	Atom Interferometry in an Optical Cavity. Physical Review Letters, 2015, 114, 100405.	7.8	77
18	Quantum test of the equivalence principle and space-time aboard the International Space Station. New Journal of Physics, 2016, 18, 025018.	2.9	75

#	Article	IF	Citations
19	Low-frequency terrestrial gravitational-wave detectors. Physical Review D, 2013, 88, .	4.7	70
20	Noise-Immune Conjugate Large-Area Atom Interferometers. Physical Review Letters, 2009, 103, 050402.	7.8	59
21	Force-Free Gravitational Redshift: Proposed Gravitational Aharonov-Bohm Experiment. Physical Review Letters, 2012, 108, 230404.	7.8	52
22	High-Resolution Atom Interferometers with Suppressed Diffraction Phases. Physical Review Letters, 2015, 115, 083002.	7.8	47
23	Antimatter Interferometry for Gravity Measurements. Physical Review Letters, 2014, 112, 121102.	7.8	46
24	Using an Atom Interferometer to Infer Gravitational Entanglement Generation. PRX Quantum, 2021, 2, .	9.2	46
25	Attractive force on atoms due to blackbody radiation. Nature Physics, 2018, 14, 257-260.	16.7	42
26	MÃ¼ller, Peters & Chu reply. Nature, 2010, 467, E2-E2.	27.8	38
27	Efficient Adiabatic Spin-Dependent Kicks in an Atom Interferometer. Physical Review Letters, 2018, 121, 040402.	7.8	33
28	Phase-locked, low-noise, frequency agile titanium:sapphire lasers for simultaneous atom interferometers. Optics Letters, 2006, 31, 202.	3.3	32
29	Active sub-Rayleigh alignment of parallel or antiparallel laser beams. Optics Letters, 2005, 30, 3323.	3.3	28
30	Sources and technology for an atomic gravitational wave interferometric sensor. General Relativity and Gravitation, 2011, 43, 1905-1930.	2.0	25
31	Label-free optical detection of bioelectric potentials using electrochromic thin films. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17260-17268.	7.1	25
32	Controlling the multiport nature of Bragg diffraction in atom interferometry. Physical Review A, 2016, 94, .	2.5	24
33	High-power near-concentric Fabryâ€“Perot cavity for phase contrast electron microscopy. Review of Scientific Instruments, 2021, 92, 053005.	1.3	24
34	Atomâ€interferometry Measurement of the Fine Structure Constant. Annalen Der Physik, 2019, 531, 1800346.	2.4	22
35	Symmetric Bloch oscillations of matter waves. Physical Review A, 2020, 102, .	2.5	21
36	Observation of the Relativistic Reversal of the Ponderomotive Potential. Physical Review Letters, 2020, 124, 174801.	7.8	17

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37	Precision tests of general relativity with matter waves. Journal of Modern Optics, 2011, 58, 2021-2027.	1.3	14
38	Optical Electrophysiology: Toward the Goal of Label-Free Voltage Imaging. Journal of the American Chemical Society, 2021, 143, 10482-10499.	13.7	13
39	Embedded control system for mobile atom interferometers. Review of Scientific Instruments, 2019, 90, 073103.	1.3	12
40	Nanosecond electro-optical switching with a repetition rate above 20MHz. Review of Scientific Instruments, 2007, 78, 124702.	1.3	9
41	Measurement of a Li7 tune-out wavelength by phase-patterned atom interferometry. Physical Review A, 2019, 100, .	2.5	7
42	Standard model of particle physics tested by the fine-structure constant. Nature, 2020, 588, 37-38.	27.8	7
43	A Flight Capable Atomic Gravity Gradiometer With a Single Laser. , 2020, , .		6
44	Raman transitions driven by phase-modulated light in a cavity atom interferometer. Physical Review A, 2021, 103, .	2.5	5
45	Precision experiments and fundamental physics at low energies - Part I. Annalen Der Physik, 2013, 525, A111-A112.	2.4	4
46	Precision experiments and fundamental physics at low energies â€“ Part II. Annalen Der Physik, 2013, 525, A127.	2.4	3
47	Time for detection. Nature Physics, 2014, 10, 906-907.	16.7	3
48	Perspective: Emerging strategies for determining atomic-resolution structures of macromolecular complexes within cells. Journal of Structural Biology, 2022, 214, 107827.	2.8	3
49	Generalization of the Matsumotoâ€“Tonomura approximation for the phase shift within an open aperture. Ultramicroscopy, 2014, 138, 1-3.	1.9	2
50	COHERENT CONTROL OF ULTRACOLD MATTER: FRACTIONAL QUANTUM HALL PHYSICS AND LARGE-AREA ATOM INTERFEROMETRY. , 2009, , .		2
51	Mobile quantum gravimeter with a novel pyramidal magneto-optical trap. , 2020, , .		2
52	Sensing gravity by holding atoms for 20 seconds. , 2020, , .		1
53	ARE ACTIVE AND PASSIVE ELECTRIC CHARGES EQUAL?. , 2008, , .		0
54	Matter-wave clocks. , 2013, , .		0

#	Article	IF	Citations
55	Offset simultaneous conjugate atom interferometers. Physical Review A, 2020, 101, .	2.5	0