Sven Herrmann

List of Publications by Year
in descending order

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40 papers	2,185 citations	304743 22 h-index	395702 33 g-index
42 all docs	42 docs citations	42 times ranked	1298 citing authors

#	Article	IF	Citations
1	Atom-Interferometry Tests of the Isotropy of Post-Newtonian Gravity. Physical Review Letters, 2008, 100, 031101.	7.8	263
2	Modern Michelson-Morley Experiment using Cryogenic Optical Resonators. Physical Review Letters, 2003, 91, 020401.	7.8	237
3	Atom Interferometry with up to 24-Photon-Momentum-Transfer Beam Splitters. Physical Review Letters, 2008, 100, 180405.	7.8	222
4	STE-QUESTâ€"test of the universality of free fall using cold atom interferometry. Classical and Quantum Gravity, 2014, 31, 115010.	4.0	159
5	Tests of Relativity by Complementary Rotating Michelson-Morley Experiments. Physical Review Letters, 2007, 99, 050401.	7.8	119
6	Atom interferometry tests of local Lorentz invariance in gravity and electrodynamics. Physical Review D, 2009, 80, .	4.7	111
7	Atom Interferometers with Scalable Enclosed Area. Physical Review Letters, 2009, 102, 240403.	7.8	106
8	Test of the Isotropy of the Speed of Light Using a Continuously Rotating Optical Resonator. Physical Review Letters, 2005, 95, 150401.	7.8	96
9	Optical cavity tests of Lorentz invariance for the electron. Physical Review D, 2003, 68, .	4.7	89
10	Test of the Gravitational Redshift withGalileoSatellites in an Eccentric Orbit. Physical Review Letters, 2018, 121, 231102.	7.8	88
11	Macroscopic Quantum Resonators (MAQRO): 2015 update. EPJ Quantum Technology, 2016, 3, .	6.3	77
12	Noise-Immune Conjugate Large-Area Atom Interferometers. Physical Review Letters, 2009, 103, 050402.	7.8	59
13	Collective-Mode Enhanced Matter-Wave Optics. Physical Review Letters, 2021, 127, 100401.	7.8	52
14	Testing the equivalence principle with atomic interferometry. Classical and Quantum Gravity, 2012, 29, 184003.	4.0	50
15	A Compact Atom Interferometer for Future Space Missions. Microgravity Science and Technology, 2010, 22, 551-561.	1.4	48
16	Design of a dual species atom interferometer for space. Experimental Astronomy, 2015, 39, 167-206.	3.7	48
17	Tests of Lorentz invariance using hydrogen molecules. Physical Review D, 2004, 70, .	4.7	37
18	Astrodynamical Space Test of Relativity using Optical Devices I (ASTROD I)â€"a class-M fundamental physics mission proposal for cosmic vision 2015â€“2025: 2010 Update. Experimental Astronomy, 2012, 34, 181-201.	3.7	37

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19	Twin-lattice atom interferometry. Nature Communications, 2021, 12, 2544.	12.8	37
20	Offset compensation by use of amplitude-modulated sidebands in optical frequency standards. Optics Letters, 2003, 28, 2186.	3.3	31
21	Miniaturized Lab System for Future Cold Atom Experiments in Microgravity. Microgravity Science and Technology, 2017, 29, 37-48.	1.4	27
22	Precision test of the isotropy of light propagation. Applied Physics B: Lasers and Optics, 2003, 77, 719-731.	2.2	24
23	Quantum test of the Universality of Free Fall using rubidium and potassium. European Physical Journal D, 2020, 74, 1.	1.3	24
24	Degenerate Quantum Gases in Microgravity. Microgravity Science and Technology, 2011, 23, 287-292.	1.4	22
25	6W, 1 kHz linewidth, tunable continuous-wave near-infrared laser. Optics Express, 2009, 17, 5246.	3.4	21
26	A three-layer magnetic shielding for the MAIUS-1 mission on a sounding rocket. Review of Scientific Instruments, 2016, 87, 063101.	1.3	20
27	TESTING THE FOUNDATIONS OF RELATIVITY USING CRYOGENIC OPTICAL RESONATORS. International Journal of Modern Physics D, 2002, 11, 1101-1108.	2.1	19
28	BOOST: A satellite mission to test Lorentz invariance using high-performance optical frequency references. Physical Review D, 2018, 97, .	4.7	17
29	Evaporative cooling from an optical dipole trap in microgravity. Physical Review A, 2020, 101, .	2.5	12
30	Nanosecond electro-optical switching with a repetition rate above 20MHz. Review of Scientific Instruments, 2007, 78, 124702.	1.3	9
31	Atom interferometry in space: Thermal management and magnetic shielding. Review of Scientific Instruments, 2014, 85, 083105.	1.3	7
32	Testing Fundamental Physics with Degenerate Quantum Gases in Microgravity. Microgravity Science and Technology, 2010, 22, 529-538.	1.4	6
33	All-optical matter-wave lens using time-averaged potentials. Communications Physics, 2022, 5, .	5.3	4
34	A space-based optical Kennedy-Thorndike experiment testing special relativity. , 2013, , .		3
35	The Space-Time Asymmetry Research (STAR) program. , 2010, , .		2
36	mSTAR: Testing special relativity in space using high performance optical frequency references. , 2015, , .		2

#	Article	IF	Citations
37	Multiphoton- and simultaneous conjugate Ramsey-Bordeì•atom interferometers. AIP Conference Proceedings, 2008, , .	0.4	0
38	Generating an ultra-stable microwave in the drop tower. , 2011, , .		0
39	Measuring the fine structure constant using multiphoton atom interferometry. , 2008, , .		0
40	TESTING LORENTZ INVARIANCE. , 2012, , .		0