Christian Smorra

List of Publications by Year
in descending order

46	1,198	361413 20	361022 35
papers	citations	h-index	g-index

48	48	48	771
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A 16-parts-per-trillion measurement of the antiproton-to-proton chargeâ€“mass ratio. Nature, 2022, 601, 53-57.	27.8	25
2	Millicharged Dark Matter Detection with Ion Traps. PRX Quantum, 2022, 3, .	9.2	20
3	Sympathetic cooling schemes for separately trapped ions coupled via image currents. New Journal of Physics, 2022, 24, 033021.	2.9	6
4	Constraints on the Coupling between Axionlike Dark Matter and Photons Using an Antiproton Superconducting Tuned Detection Circuit in a Cryogenic Penning Trap. Physical Review Letters, 2021, 126, 041301.	7.8	32
5	Sympathetic cooling of a trapped proton mediated by an LC circuit. Nature, 2021, 596, 514-518.	27.8	17
6	Precision Measurements of the Fundamental Properties of the Proton and Antiproton. Journal of Physics: Conference Series, 2020, 1412, 032001.	0.4	2
7	Superconducting Solenoid System with Adjustable Shielding Factor for Precision Measurements of the Properties of the Antiproton. Physical Review Applied, 2019, 12, .	3.8	6
8	Measurement of Ultralow Heating Rates of a Single Antiproton in a Cryogenic Penning Trap. Physical Review Letters, 2019, 122, 043201.	7.8	10
9	Direct limits on the interaction of antiprotons with axion-like dark matter. Nature, 2019, 575, 310-314.	27.8	47
10	Challenging the standard model by high-precision comparisons of the fundamental properties of protons and antiprotons. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170275.	3.4	3
11	350-fold improved measurement of the antiproton magnetic moment using a multi-trap method. Hyperfine Interactions, 2018, 239, 1.	0.5	4
12	Progress towards an improved comparison of the proton-to-antiproton charge-to-mass ratios. Hyperfine Interactions, 2018, 239, 1.	0.5	2
13	Sympathetic cooling of protons and antiprotons with a common endcap Penning trap. Journal of Modern Optics, 2018, 65, 568-576.	1.3	27
14	Sixfold improved single particle measurement of the magnetic moment of the antiproton. Nature Communications, 2017, 8, 14084.	12.8	40
15	Observation of individual spin quantum transitions of a single antiproton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 769, 1-6.	4.1	17
16	A parts-per-billion measurement of the antiproton magnetic moment. Nature, 2017, 550, 371-374.	27.8	96
17	Towards an Improved Measurement of the Proton Magnetic Moment. , 2017, , .		0
18	Double-trap measurement of the proton magnetic moment at 0.3 parts per billion precision. Science, 2017, 358, 1081-1084.	12.6	81

#	Article	IF	Citations
19	Improved limit on the directly measured antiproton lifetime. New Journal of Physics, 2017, 19, 083023.	2.9	30
20	A Test of Charge-Parity-Time Invariance at the Atto-Electronvolt Scale. , 2017, , .		0
21	Highly sensitive superconducting circuits at âˆ¼4700 kHz with tunable quality factors for image-current detection of single trapped antiprotons. Review of Scientific Instruments, 2016, 87, 113305.	1.3	32
22	BASE â€“ The Baryon Antibaryon Symmetry Experiment. European Physical Journal: Special Topics, 2015, 224, 3055-3108.	2.6	53
23	Das magnetische Moment des Protons. Physik in Unserer Zeit, 2015, 46, 92-97.	0.0	0
24	High-precision comparison of the antiproton-to-proton charge-to-mass ratio. Nature, 2015, 524, 196-199.	27.8	114
25	A reservoir trap for antiprotons. International Journal of Mass Spectrometry, 2015, 389, 10-13.	1.5	23
26	An RFQ cooler and buncher for the TRIGA-SPEC experiment. Applied Physics B: Lasers and Optics, 2014, 114, 129-136.	2.2	14
27	Towards a high-precision measurement of the antiproton magnetic moment. Hyperfine Interactions, 2014, 228, 31-36.	0.5	7
28	A high-resolution multi-reflection time-of-flight mass spectrograph for precision mass measurements at RIKEN/SLOWRI. Nuclear Instruments & Methods in Physics Research B, 2014, 335, 39-53.	1.4	62
29	Direct high-precision mass measurements on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Am</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>241</mml:mn><mml:mo>,</mml:mo><mml:mn>243</mml:mn></mml:mrow></mml:mmultiscripts></mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Pu</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>244</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>, a	2.0	31
30	Direct high-precision measurement of the magnetic moment of the proton. Nature, 2014, 509, 596-599.	27.8	79
31	The magnetic moments of the proton and the antiproton. Journal of Physics: Conference Series, 2014, 488, 012033.	0.4	5
32	The Magnetic Moments of the Proton and the Antiproton. Springer Tracts in Modern Physics, 2014, , 165-201.	0.1	2
33	Demonstration of the double Penning Trap technique with a single proton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 723, 78-81.	4.1	26
34	A novel ion cooling trap for multi-reflection time-of-flight mass spectrograph. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 544-549.	1.4	21
35	Direct mass measurements of cadmium and palladium isotopes and their double-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î²</mml:mi></mml:math>transition<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>values. Physical Review C, 2012, 85, .	2.9	12
36	Qvalue and half-life of double-electron capture in184Os. Physical Review C, 2012, 86, .	2.9	16

#	Article	IF	Citations
37	Targets on superhydrophobic surfaces for laser ablation ion sources. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 676, 84-89.	1.6	3
38	Mass measurements on stable nuclides in the rare-earth region with the Penning-trap mass spectrometer TRIGA-TRAP. Physical Review C, 2011, 84, .	2.9	13
39	First investigation of phase-shifted Ramsey excitation in Penning trap mass spectrometry. International Journal of Mass Spectrometry, 2011, 303, 27-30.	1.5	8
40	Accuracy studies with carbon clusters at the Penning trap mass spectrometer TRIGA-TRAP. European Physical Journal D, 2010, 58, 47-52.	1.3	14
41	Transport of fission products with a helium gas-jet at TRIGA-SPEC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 613, 226-231.	1.6	19
42	High-Precision Mass Measurements At TRIGA-TRAP. AIP Conference Proceedings, 2010, , .	0.4	1
43	A carbon-cluster laser ion source for TRIGA-TRAP. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 154028.	1.5	17
44	Position-sensitive ion detection in precision Penning trap mass spectrometry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 606, 475-483.	1.6	18
45	Recent developments in ion detection techniques for Penning trap mass spectrometry at TRIGA-TRAP. European Physical Journal A, 2009, 42, 311-317.	2.5	30
46	TRIGA-SPEC: A setup for mass spectrometry and laser spectroscopy at the research reactor TRIGA Mainz. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 594, 162-177.	1.6	113