

# Christian Smorra

## List of Publications by Year in descending order

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46  
papers

1,198  
citations

361045

20  
h-index

360668

35  
g-index

48  
all docs

48  
docs citations

48  
times ranked

771  
citing authors

#	ARTICLE	IF	CITATIONS
1	A 16-parts-per-trillion measurement of the antiproton-to-proton charge-to-mass ratio. <i>Nature</i> , 2022, 601, 53-57.	13.7	25
2	Millicharged Dark Matter Detection with Ion Traps. <i>PRX Quantum</i> , 2022, 3, .	3.5	20
3	Sympathetic cooling schemes for separately trapped ions coupled via image currents. <i>New Journal of Physics</i> , 2022, 24, 033021.	1.2	6
4	Constraints on the Coupling between Axionlike Dark Matter and Photons Using an Antiproton Superconducting Tuned Detection Circuit in a Cryogenic Penning Trap. <i>Physical Review Letters</i> , 2021, 126, 041301.	2.9	32
5	Sympathetic cooling of a trapped proton mediated by an LC circuit. <i>Nature</i> , 2021, 596, 514-518.	13.7	17
6	Precision Measurements of the Fundamental Properties of the Proton and Antiproton. <i>Journal of Physics: Conference Series</i> , 2020, 1412, 032001.	0.3	2
7	Superconducting Solenoid System with Adjustable Shielding Factor for Precision Measurements of the Properties of the Antiproton. <i>Physical Review Applied</i> , 2019, 12, .	1.5	6
8	Measurement of Ultralow Heating Rates of a Single Antiproton in a Cryogenic Penning Trap. <i>Physical Review Letters</i> , 2019, 122, 043201.	2.9	10
9	Direct limits on the interaction of antiprotons with axion-like dark matter. <i>Nature</i> , 2019, 575, 310-314.	13.7	47
10	Challenging the standard model by high-precision comparisons of the fundamental properties of protons and antiprotons. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170275.	1.6	3
11	350-fold improved measurement of the antiproton magnetic moment using a multi-trap method. <i>Hyperfine Interactions</i> , 2018, 239, 1.	0.2	4
12	Progress towards an improved comparison of the proton-to-antiproton charge-to-mass ratios. <i>Hyperfine Interactions</i> , 2018, 239, 1.	0.2	2
13	Sympathetic cooling of protons and antiprotons with a common endcap Penning trap. <i>Journal of Modern Optics</i> , 2018, 65, 568-576.	0.6	27
14	Sixfold improved single particle measurement of the magnetic moment of the antiproton. <i>Nature Communications</i> , 2017, 8, 14084.	5.8	40
15	Observation of individual spin quantum transitions of a single antiproton. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 769, 1-6.	1.5	17
16	A parts-per-billion measurement of the antiproton magnetic moment. <i>Nature</i> , 2017, 550, 371-374.	13.7	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. <i>Science</i> , 2017, 358, 1081-1084.	6.0	81

#	ARTICLE	IF	CITATIONS
19	Improved limit on the directly measured antiproton lifetime. <i>New Journal of Physics</i> , 2017, 19, 083023.	1.2	30
20	A Test of Charge-Parity-Time Invariance at the Atto-Electronvolt Scale. , 2017, , .		0
21	Highly sensitive superconducting circuits at $\approx 1/4700$ kHz with tunable quality factors for image-current detection of single trapped antiprotons. <i>Review of Scientific Instruments</i> , 2016, 87, 113305.	0.6	32
22	BASE – The Baryon Antibaryon Symmetry Experiment. <i>European Physical Journal: Special Topics</i> , 2015, 224, 3055-3108.	1.2	53
23	Das magnetische Moment des Protons. <i>Physik in Unserer Zeit</i> , 2015, 46, 92-97.	0.0	0
24	High-precision comparison of the antiproton-to-proton charge-to-mass ratio. <i>Nature</i> , 2015, 524, 196-199.	13.7	114
25	A reservoir trap for antiprotons. <i>International Journal of Mass Spectrometry</i> , 2015, 389, 10-13.	0.7	23
26	An RFQ cooler and buncher for the TRIGA-SPEC experiment. <i>Applied Physics B: Lasers and Optics</i> , 2014, 114, 129-136.	1.1	14
27	Towards a high-precision measurement of the antiproton magnetic moment. <i>Hyperfine Interactions</i> , 2014, 228, 31-36.	0.2	7
28	A high-resolution multi-reflection time-of-flight mass spectrograph for precision mass measurements at RIKEN/SLOWRI. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2014, 335, 39-53.	0.6	62
29	Direct high-precision mass measurements on $^{241}\text{Am}$ and $^{243}\text{Pu}$ . <i>Nature</i> , 2014, 509, 596-599.	13.7	79
30	Direct high-precision measurement of the magnetic moment of the proton. <i>Nature</i> , 2014, 509, 596-599.	13.7	79
31	The magnetic moments of the proton and the antiproton. <i>Journal of Physics: Conference Series</i> , 2014, 488, 012033.	0.3	5
32	The Magnetic Moments of the Proton and the Antiproton. <i>Springer Tracts in Modern Physics</i> , 2014, , 165-201.	0.1	2
33	Demonstration of the double Penning Trap technique with a single proton. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2013, 723, 78-81.	1.5	26
34	A novel ion cooling trap for multi-reflection time-of-flight mass spectrograph. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2013, 317, 544-549.	0.6	21
35	Direct mass measurements of cadmium and palladium isotopes and their double- $\beta$ transition values. <i>Physical Review C</i> , 2012, 85, .	1.1	12
36	Qvalue and half-life of double-electron capture in $^{184}\text{Os}$ . <i>Physical Review C</i> , 2012, 86, .	1.1	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.	0.7	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, .	1.1	13
39	First investigation of phase-shifted Ramsey excitation in Penning trap mass spectrometry. International Journal of Mass Spectrometry, 2011, 303, 27-30.	0.7	8
40	Accuracy studies with carbon clusters at the Penning trap mass spectrometer TRIGA-TRAP. European Physical Journal D, 2010, 58, 47-52.	0.6	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.	0.7	19
42	High-Precision Mass Measurements At TRIGA-TRAP. AIP Conference Proceedings, 2010, , .	0.3	1
43	A carbon-cluster laser ion source for TRIGA-TRAP. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 154028.	0.6	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.	0.7	18
45	Recent developments in ion detection techniques for Penning trap mass spectrometry at TRIGA-TRAP. European Physical Journal A, 2009, 42, 311-317.	1.0	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.	0.7	113