

Claudio Cesar

List of Publications by Year in descending order

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75
papers

3,079
citations

249298

26
h-index

175968

55
g-index

77
all docs

77
docs citations

77
times ranked

1182
citing authors

#	ARTICLE	IF	CITATIONS
1	Laser cooling of antihydrogen atoms. Nature, 2021, 592, 35-42.	13.7	47
2	Sympathetic cooling of positrons to cryogenic temperatures for antihydrogen production. Nature Communications, 2021, 12, 6139.	5.8	18
3	Investigation of the fine structure of antihydrogen. Nature, 2020, 578, 375-380.	13.7	43
4	Characterization of the $1S \leftarrow 2S$ transition in antihydrogen. Nature, 2018, 557, 71-75.	13.7	107
5	Enhanced Control and Reproducibility of Non-Neutral Plasmas. Physical Review Letters, 2018, 120, 025001.	2.9	18
6	Observation of the $1S \leftarrow 2P$ Lyman- β transition in antihydrogen. Nature, 2018, 561, 211-215.	13.7	51
7	Observation of the $1S \leftarrow 2S$ transition in trapped antihydrogen. Nature, 2017, 541, 506-510.	13.7	122
8	Antihydrogen accumulation for fundamental symmetry tests. Nature Communications, 2017, 8, 681.	5.8	64
9	Observation of the hyperfine spectrum of antihydrogen. Nature, 2017, 548, 66-69.	13.7	101
10	Cryogenic mount for mirror and piezoelectric actuator for an optical cavity. Review of Scientific Instruments, 2017, 88, 063104.	0.6	10
11	Limit on the electric charge of antihydrogen. Hyperfine Interactions, 2017, 238, 1.	0.2	0
12	An atomic beam of ${}^6\text{Li} \rightarrow {}^7\text{Li}$ for high resolution spectroscopy from matrix isolation sublimation. Journal of Physics: Conference Series, 2016, 733, 012063.	0.3	0
13	A sensitive detection method for high resolution spectroscopy of trapped antihydrogen, hydrogen and other trapped species. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 074001.	0.6	4
14	An improved limit on the charge of antihydrogen from stochastic acceleration. Nature, 2016, 529, 373-376.	13.7	48
15	Matrix isolation sublimation: An apparatus for producing cryogenic beams of atoms and molecules. Review of Scientific Instruments, 2015, 86, 073109.	0.6	6
16	Antiproton cloud compression in the ALPHA apparatus at CERN. Hyperfine Interactions, 2015, 235, 21-28.	0.2	4
17	Slow ground state molecules from matrix isolation sublimation. Journal of Physics: Conference Series, 2015, 635, 102011.	0.3	0
18	In situ electromagnetic field diagnostics with an electron plasma in a Penning-Malmberg trap. New Journal of Physics, 2014, 16, 013037.	1.2	17

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19	Slow ground state molecules from matrix isolation sublimation. , 2014, , .		0
20	Slow ground state molecules from matrix isolation sublimation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 245302.	0.6	6
21	An experimental limit on the charge of antihydrogen. Nature Communications, 2014, 5, 3955.	5.8	40
22	Description and first application of a new technique to measure the gravitational mass of antihydrogen. Nature Communications, 2013, 4, 1785.	5.8	195
23	Autoresonant-spectrometric determination of the residual gas composition in the ALPHA experiment apparatus. Review of Scientific Instruments, 2013, 84, 065110.	0.6	0
24	Electron plasmas as a diagnostic tool for hyperfine spectroscopy of antihydrogen. , 2013, , .		1
25	Evaporative cooling of antiprotons for the production of trappable antihydrogen. , 2013, , .		0
26	Experimental and computational study of the injection of antiprotons into a positron plasma for antihydrogen production. Physics of Plasmas, 2013, 20, .	0.7	19
27	Discriminating between antihydrogen and mirror-trapped antiprotons in a minimum-B trap. New Journal of Physics, 2012, 14, 015010.	1.2	18
28	Antiparticle plasmas for antihydrogen trapping. , 2012, , .		0
29	Resonant quantum transitions in trapped antihydrogen atoms. Nature, 2012, 483, 439-443.	13.7	134
30	Source of slow lithium atoms from Ne or H ₂ matrix isolation sublimation. Journal of Chemical Physics, 2012, 136, 154202.	1.2	8
31	The ALPHA "detector: Module Production and Assembly. Journal of Instrumentation, 2012, 7, C01051-C01051.	0.5	5
32	Antihydrogen formation by autoresonant excitation of antiproton plasmas. Hyperfine Interactions, 2012, 212, 61-67.	0.2	0
33	Trapped antihydrogen. Hyperfine Interactions, 2012, 212, 15-29.	0.2	12
34	Microwave-plasma interactions studied via mode diagnostics in ALPHA. Hyperfine Interactions, 2012, 212, 117-123.	0.2	0
35	Alternative method for reconstruction of antihydrogen annihilation vertices. Hyperfine Interactions, 2012, 212, 101-107.	0.2	1
36	Microwave-plasma interactions studied via mode diagnostics in ALPHA. , 2012, , 117-123.		0

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37	Advances towards a new measurement of the $1S \rightarrow 2S$ transition of positronium This paper was presented at the International Conference on Precision Physics of Simple Atomic Systems, held at <i>École de Physique, les Houches, France, 30 May – 4 June, 2010.</i> Canadian Journal of Physics, 2011, 89, 29-35.	0.4	15
38	Antiparticle sources for antihydrogen production and trapping. Journal of Physics: Conference Series, 2011, 262, 012001.	0.3	1
39	Search for trapped antihydrogen in ALPHA This paper was presented at the International Conference on Precision Physics of Simple Atomic Systems, held at <i>École de Physique, les Houches, France, 30 May – 4 June, 2010.</i> Canadian Journal of Physics, 2011, 89, 7-16.	0.4	0
40	Towards antihydrogen trapping and spectroscopy at ALPHA. Hyperfine Interactions, 2011, 199, 39-48.	0.2	0
41	Centrifugal Separation and Equilibration Dynamics in an Electron-Antiproton Plasma. Physical Review Letters, 2011, 106, 145001.	2.9	26
42	Autoresonant Excitation of Antiproton Plasmas. Physical Review Letters, 2011, 106, 025002.	2.9	62
43	Spectroscopy of lithium atoms sublimated from isolation matrix of solid Ne. Journal of Chemical Physics, 2011, 135, 134201.	1.2	7
44	Trapped antihydrogen. , 2011, , 15-29.		0
45	Towards antihydrogen trapping and spectroscopy at ALPHA. , 2011, , 39-48.		0
46	Trapped antihydrogen. Nature, 2010, 468, 673-676.	13.7	298
47	Evaporative Cooling of Antiprotons to Cryogenic Temperatures. Physical Review Letters, 2010, 105, 013003.	2.9	89
48	Antimatter transport processes. Journal of Physics: Conference Series, 2010, 257, 012004.	0.3	0
49	Possible mechanism for enhancing the trapping and cooling of antihydrogen. Physical Review A, 2009, 80, .	1.0	2
50	Antihydrogen Physics at ALPHA/CERN This paper was presented at the International Conference on Precision Physics of Simple Atomic Systems, held at University of Windsor, Windsor, Ontario, Canada on 21 – 26 July 2008.. Canadian Journal of Physics, 2009, 87, 791-797.	0.4	13
51	Antiproton, positron, and electron imaging with a microchannel plate/phosphor detector. Review of Scientific Instruments, 2009, 80, 123701.	0.6	39
52	Magnetic multipole induced zero-rotation frequency bounce-resonant loss in a Penning – Malmberg trap used for antihydrogen trapping. Physics of Plasmas, 2009, 16, 100702.	0.7	5
53	A new trap loading mechanism for hydrogen This paper was presented at the International Conference on Precision Physics of Simple Atomic Systems, held at University of Windsor, Windsor, Ontario, Canada on 21 – 26 July 2008.. Canadian Journal of Physics, 2009, 87, 799-806.	0.4	5
54	Production of antihydrogen at reduced magnetic field for anti-atom trapping. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 011001.	0.6	30

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55	Temporally Controlled Modulation of Antihydrogen Production and the Temperature Scaling of Antiproton-Positron Recombination. <i>Physical Review Letters</i> , 2008, 101, 053401.	2.9	26
56	Particle Physics Aspects of Antihydrogen Studies with ALPHA at CERN. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	11
57	First Attempts at Antihydrogen Trapping in ALPHA. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	4
58	Antiproton compression and radial measurements. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	1
59	A novel antiproton radial diagnostic based on octupole induced ballistic loss. <i>Physics of Plasmas</i> , 2008, 15, 032107.	0.7	8
60	Compression of Antiproton Clouds for Antihydrogen Trapping. <i>Physical Review Letters</i> , 2008, 100, 203401.	2.9	53
61	Spectroscopy of low-energy atoms released from a solid noble-gas matrix: Proposal for a trap-loading technique. <i>Physical Review A</i> , 2007, 76, .	1.0	14
62	Antimatter Plasmas in a Multipole Trap for Antihydrogen. <i>Physical Review Letters</i> , 2007, 98, 023402.	2.9	75
63	Positron plasma control techniques for the production of cold antihydrogen. <i>Physical Review A</i> , 2007, 76, .	1.0	19
64	Towards antihydrogen confinement with the ALPHA antihydrogen trap. <i>Hyperfine Interactions</i> , 2006, 172, 81-89.	0.2	3
65	Search for Laser-Induced Formation of Antihydrogen Atoms. <i>Physical Review Letters</i> , 2006, 97, 213401.	2.9	31
66	Evidence For The Production Of Slow Antiprotonic Hydrogen In Vacuum. <i>Physical Review Letters</i> , 2006, 97, 153401.	2.9	37
67	Sideband cooling of ions in a non-neutral buffer gas. <i>Physical Review A</i> , 2006, 73, .	1.0	10
68	Spatial Distribution of Cold Antihydrogen Formation. <i>Physical Review Letters</i> , 2005, 94, 033403.	2.9	82
69	New Source of Dense, Cryogenic Positron Plasmas. <i>Physical Review Letters</i> , 2005, 95, 025002.	2.9	90
70	Three-Dimensional Annihilation Imaging of Trapped Antiprotons. <i>Physical Review Letters</i> , 2004, 92, 065005.	2.9	41
71	Complete nondestructive diagnostic of nonneutral plasmas based on the detection of electrostatic modes. <i>Physics of Plasmas</i> , 2003, 10, 3056-3064.	0.7	50
72	Positron Plasma Diagnostics and Temperature Control for Antihydrogen Production. <i>Physical Review Letters</i> , 2003, 91, 055001.	2.9	94

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73	Production and detection of cold antihydrogen atoms. Nature, 2002, 419, 456-459.	13.7	719
74	Trapping and spectroscopy of hydrogen. , 1997, 109, 293-304.		6
75	Angular dependence of phase conjugation in SF ₆ . Optics Letters, 1988, 13, 1108.	1.7	13