# Stefan Eriksson

List of Publications by Year
in descending order



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|---|---|---|---|
| 66 papers | 2,312 citations | 218677 26 h-index | 206112 48 g-index |
| 67 all docs | 67 docs citations | 67 times ranked | 1368 citing authors |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 1 | Trapped antihydrogen. Nature, 2010, 468, 673-676. | 27.8 | 298 |
| 2 | Description and first application of a new technique to measure the gravitational mass of antihydrogen. Nature Communications, 2013, 4, 1785. | 12.8 | 195 |
| 3 | Microfabricated high-finesse optical cavity with open access and small volume. Applied Physics Letters, 2005, 87, 211106. | 3.3 | 140 |
| 4 | Resonant quantum transitions in trapped antihydrogen atoms. Nature, 2012, 483, 439-443. | 27.8 | 134 |
| 5 | Observation of the 1Sâ€“2S transition in trapped antihydrogen. Nature, 2017, 541, 506-510. | 27.8 | 122 |
| 6 | The GBAR antimatter gravity experiment. Hyperfine Interactions, 2015, 233, 21-27. | 0.5 | 109 |
| 7 | Characterization of the 1Sâ€“2S transition in antihydrogen. Nature, 2018, 557, 71-75. | 27.8 | 107 |
| 8 | Observation of the hyperfine spectrum of antihydrogen. Nature, 2017, 548, 66-69. | 27.8 | 101 |
| 9 | Atom Detection and Photon Production in a Scalable, Open, Optical Microcavity. Physical Review Letters, 2007, 99, 063601. | 7.8 | 96 |
| 10 | Antihydrogen accumulation for fundamental symmetry tests. Nature Communications, 2017, 8, 681. | 12.8 | 64 |
| 11 | Bose-Einstein condensation on a permanent-magnet atom chip. Physical Review A, 2005, 72, . | 2.5 | 59 |
| 12 | Measuring Energy Differences by BEC Interferometry on a Chip. Physical Review Letters, 2010, 105, 243003. | 7.8 | 58 |
| 13 | The ALPHA antihydrogen trapping apparatus. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 735, 319-340. | 1.6 | 51 |
| 14 | Observation of the 1Sâ€“2P Lyman-Î± transition in antihydrogen. Nature, 2018, 561, 211-215. | 27.8 | 51 |
| 15 | An improved limit on the charge of antihydrogen from stochastic acceleration. Nature, 2016, 529, 373-376. | 27.8 | 48 |
| 16 | The Gbar project, or how does antimatter fall?. Hyperfine Interactions, 2014, 228, 141-150. | 0.5 | 47 |
| 17 | Laser cooling of antihydrogen atoms. Nature, 2021, 592, 35-42. | 27.8 | 47 |
| 18 | Investigation of the fine structure of antihydrogen. Nature, 2020, 578, 375-380. | 27.8 | 43 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Pyramidal micromirrors for microsystems and atom chips. Applied Physics Letters, 2006, 88, 071116. | 3.3 | 40 |
| 20 | An experimental limit on the charge of antihydrogen. Nature Communications, 2014, 5, 3955. | 12.8 | 40 |
| 21 | Integrated optical components on atom chips. European Physical Journal D, 2005, 35, 135-139. | 1.3 | 37 |
| 22 | Observations on the dynamics of semiconductor lasers subjected to external optical injection. Journal of Optics B: Quantum and Semiclassical Optics, 2002, 4, 149-154. | 1.4 | 36 |
| 23 | Periodic oscillation within the chaotic region in a semiconductor laser subjected to external optical injection. Optics Letters, 2001, 26, 142. | 3.3 | 30 |
| 24 | Micron-sized atom traps made from magneto-optical thin films. Applied Physics B: Lasers and Optics, 2004, 79, 811-816. | 2.2 | 27 |
| 25 | Strong nuclear force in cold antihydrogen-helium collisions. Physical Review A, 2004, 70, . | 2.5 | 26 |
| 26 | Centrifugal Separation and Equilibration Dynamics in an Electron-Antiproton Plasma. Physical Review Letters, 2011, 106, 145001. | 7.8 | 26 |
| 27 | Antihydrogen annihilation reconstruction with the ALPHA silicon detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 684, 73-81. | 1.6 | 24 |
| 28 | Dependence of the experimental stability diagram of an optically injected semiconductor laser on the laser current. Optics Communications, 2002, 210, 343-353. | 2.1 | 20 |
| 29 | Leptonic annihilation in hydrogen-antihydrogen collisions. Physical Review A, 2004, 70, . | 2.5 | 20 |
| 30 | Experimental and computational study of the injection of antiprotons into a positron plasma for antihydrogen production. Physics of Plasmas, 2013, 20, . | 1.9 | 19 |
| 31 | Atom chip for BEC interferometry. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 051003. | 1.5 | 18 |
| 32 | Discriminating between antihydrogen and mirror-trapped antiprotons in a minimum-B trap. New Journal of Physics, 2012, 14, 015010. | 2.9 | 18 |
| 33 | Enhanced Control and Reproducibility of Non-Neutral Plasmas. Physical Review Letters, 2018, 120, 025001. | 7.8 | 18 |
| 34 | Sympathetic cooling of positrons to cryogenic temperatures for antihydrogen production. Nature Communications, 2021, 12, 6139. | 12.8 | 18 |
| 35 | In situ electromagnetic field diagnostics with an electron plasma in a Penningâ€"Malmberg trap. New Journal of Physics, 2014, 16, 013037. | 2.9 | 17 |
| 36 | Cold atoms in videotape micro-traps. European Physical Journal D, 2005, 35, 105-110. | 1.3 | 15 |

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|---|---|---|---|
| 37 | Trapped antihydrogen. Hyperfine Interactions, 2012, 212, 15-29. | 0.5 | 12 |
| 38 | A simple extended cavity diode laser for spectroscopy around 640 nm. Optics and Laser Technology, 1999, 31, 473-477. | 4.6 | 11 |
| 39 | A three-dimensional electrostatic actuator with a locking mechanism for microcavities on atom chips. Journal of Micromechanics and Microengineering, 2005, 15, S39-S46. | 2.6 | 11 |
| 40 | Precision measurements on trapped antihydrogen in the ALPHA experiment. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170268. | 3.4 | 10 |
| 41 | Hydrogen-Antihydrogen Molecule and Its Properties. Few-Body Systems, 2004, 34, 63. | 1.5 | 9 |
| 42 | Progress towards microwave spectroscopy of trapped antihydrogen. Hyperfine Interactions, 2012, 212, 81-90. | 0.5 | 7 |
| 43 | Silicon vertex detector upgrade in the ALPHA experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 732, 134-136. | 1.6 | 7 |
| 44 | Cold neutral atoms via charge exchange from excited state positronium: a proposal. New Journal of Physics, 2017, 19, 053020. | 2.9 | 6 |
| 45 | The ALPHA â€“ detector: Module Production and Assembly. Journal of Instrumentation, 2012, 7, C01051-C01051. | 1.2 | 5 |
| 46 | Preparation of a Boseâ€“Einstein condensate on a permanent-magnet atom chip. Journal of Physics: Conference Series, 2005, 19, 74-77. | 0.4 | 4 |
| 47 | Antiproton cloud compression in the ALPHA apparatus at CERN. Hyperfine Interactions, 2015, 235, 21-28. | 0.5 | 4 |
| 48 | Permanent-magnet atom chips for the study of long, thin atom clouds. Journal of Physics: Conference Series, 2005, 19, 70-73. | 0.4 | 3 |
| 49 | Alternative method for reconstruction of antihydrogen annihilation vertices. Hyperfine Interactions, 2012, 212, 101-107. | 0.5 | 1 |
| 50 | Electron plasmas as a diagnostic tool for hyperfine spectroscopy of antihydrogen. , 2013, , . | | 1 |
| 51 | Antihydrogen in a bottle. Physics Education, 2013, 48, 212-220. | 0.5 | 1 |
| 52 | Nonlinear dynamics of semiconductor lasers subject to external optical injection. , 0, , . | | 0 |
| 53 | Positronâ€“Electron Annihilation in Hydrogenâ€“Antihydrogen Collisions. Advances in Quantum Chemistry, 2004, 47, 465-480. | 0.8 | 0 |
| 54 | Integration of a tunable optical micro-cavity for single atom detection on an atom chip. , 2007, , . | | 0 |

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|---|---|---|---|
| 55 | Microwave sidebands for atomic physics experiments by period one oscillation in optically injected diode lasers. Europhysics Letters, 2011, 96, 53001. | 2.0 | 0 |
| 56 | Antiparticle plasmas for antihydrogen trapping. , 2012, , . | | 0 |
| 57 | Antihydrogen formation by autoresonant excitation of antiproton plasmas. Hyperfine Interactions, 2012, 212, 61-67. | 0.5 | 0 |
| 58 | Microwave-plasma interactions studied via mode diagnostics in ALPHA. Hyperfine Interactions, 2012, 212, 117-123. | 0.5 | 0 |
| 59 | Autoresonant-spectrometric determination of the residual gas composition in the ALPHA experiment apparatus. Review of Scientific Instruments, 2013, 84, 065110. | 1.3 | 0 |
| 60 | Towards a test of the weak equivalence principle of gravity using anti-hydrogen at CERN. , 2016, , . | | 0 |
| 61 | Limit on the electric charge of antihydrogen. Hyperfine Interactions, 2017, 238, 1. | 0.5 | 0 |
| 62 | Magnetically trapped atoms in the vicinity of an optical nanofibre. Applied Physics B: Lasers and Optics, 2020, 126, 1. | 2.2 | 0 |
| 63 | MEMS actuators for aligning and tuning optical micro cavities on atom chips. , 2006, , . | | 0 |
| 64 | Trapped antihydrogen. , 2011, , 15-29. | | 0 |
| 65 | Progress towards microwave spectroscopy of trapped antihydrogen. , 2011, , 81-90. | | 0 |
| 66 | Microwave-plasma interactions studied via mode diagnostics in ALPHA. , 2012, , 117-123. | | 0 |