

TCP2014

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Book of abstracts

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Opening

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Optical sideband cooling of an ion to the ground state of its motion in a Penning trap

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Basics of antimatter science

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What (anti-)matters with antimatter?

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Two-photon laser spectroscopy of antiprotonic Helium and antiproton-to-electron mass ratio

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Current status of the TAMUTRAP facility

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First direct high-precision measurement of the magnetic moment of the proton and status of BASE

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The GBAR antimatter gravity experiment

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Antiproton cloud radial compression in the ALPHA apparatus at CERN

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Antihydrogen annihilation vertex detection in the ALPHA experiment

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Beta-decay of highly-charged ions

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Laser-based tests of fundamental symmetries and interactions at the ESR

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The SCRIT electron scattering facility

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Low energy storage rings for molecular physics

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RIKEN's new cryogenic electrostatic ion storage ring for atomic and molecular physics: RICE

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Rapid cooling of isolated small carbon cluster anions

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Overview on MRTOF mass spectrometry

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First direct mass measurements with the MR-TOF-MS at the FRS ion catcher

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Polyanion production in Penning and RFQ ion traps

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The MR-TOF isobar separator for the TITAN facility at TRIUMF

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The ASACUSA CUSP experiment

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Using GPU parallelization to perform realistic simulations of the LPCTrap experiments : from a trapped ion cloud to a time-of-flight measurement.

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Dynamical effects in the X-ray transition strengths of astrophysically relevant Fe¹⁶⁺ ions

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High-resolution intensity ratio measurements in EUV spectral wavelength for ions of astrophysical interest

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BASE - High-precision tests of CPT invariance using antiprotons

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Scalable quantum information processing with trapped ions at NIST

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PI-ICR technique for mass measurements on short-lived nuclides and the PENTATRAP project

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Highly charged ions for atomic clocks and search for variation of the fine structure constant

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Laser spectroscopy of atoms in superfluid helium for the measurement of nuclear spins and electromagnetic moments of radioisotope atoms

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Quantum simulation of the Jaynes-Cummings-Hubbard Model using trapped ions

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