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[352] A Detector for Measuring the Ground State Hyperfine Splitting of Antihydrogen

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The ASACUSA Collaboration at CERNs Antiproton Decelerator plans to measure the ground state hyperfine splitting of antihydrogen to test the CPT symmetry. Part of the spectrometer line is an antihydrogen detector whose task is to distiguish background events from annihilations of antihydrogen atoms which are produced in small amounts. The antihydrogen detector is composed of a position sensitive central detector and a surrounding hodoscope for tracking which is made up of two layers of plastic scintillators which are read out by SiPMs. Results of last years beamtime will be included, during which direct extractions of antiprotons to the detector have been done in order to study the annihilation signal.

Authors: Ms KOLBINGER, Bernadette (Stefan Meyer Institute); FLECK, Markus (Stefan Meyer Institute); ZMESKAL, Johann (Stefan Meyer Institute); BREUKER, Horst (CERN); AMSLER, Claude (Stefan Meyer Institute); DIER-MAIER, Martin (Stefan Meyer Institute); DUPRÉ, Pierre (Ulmer Fundamental Symmetry Laboratory, RIKEN); HI-GAKI, Hiroyuki (Graduate School of Advanced Science Matter, Hiroshima University); KANAI, Yasuyuki (Nishina Center for Accelerator-Based Science, University of Tokyo); KOBAYASHI, Tatsuhito (Graduate School of Arts and Sciences, University of Tokyo); LEALI, Marco (Dipartimento di Ingegneria dell'Informazione, Università degli Studi di Brescia); LODI-RIZZINI, Evandro (Dipartimento di Ingegneria dell'Informazione, Università degli Studi di Brescia); MÄCKEL, Volkhard (Stefan Meyer Intitute); MALBRUNOT, Chloé (CERN); MASCAGNA, Valerio (Dipartimento di Ingegneria dell'Informazione, Universitá degli Studi di Brescia); MASSICZEK, Oswald (Stefan Meyer Institute); MATSUDA, Yasuyuki (Graduate School of Arts and Sciences, University of Tokyo); MATSUDATE, Takuya (Gradute School of Arts and Sciences, University of Tokyo); NAGATA, Yugo (Department of Physics, Tokyo University of Science); RADICS, Balint (ETH Zürich); SAUERZOPF, Clemens (Stefan Meyer Institute); MARTIN C., Simon (Stefan Meyer Institute); TAJIMA, Minori (Ulmer Fundamental Symmery Laboratory, RIKEN); TORII, Hiroyuki A. (Graduate School of Arts and Sciences, University of Tokyo); ULMER, Stefan (Ulmer Fundamental Symmetry Laboratory, RIKEN); KURODA, Naofumi (Graduate School of Arts and Sciences, University of Tokyo); VENTURELLI, Luca (Dipartimento di Ingegneria dell'Informazione, Universitá degli Studi di Brescia); WIDMANN, Eberhard (Stefan Meyer Institute); YAMAZAKI, Yasunori (Ulmer Fundamental Symmetry Laboratory, RIKEN)

Presenter: Ms KOLBINGER, Bernadette (Stefan Meyer Institute)

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