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

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The ASACUSA Collaboration at CERN's 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 distinguish 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.

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