Contribution ID : **380** Type : **Plenary/section talk**

The AEgIS experiment: towards antimatter gravity measurements

Wednesday, 24 October 2018 09:40 (20)

The AEgIS (Antimatter Experiment: Gravity, Interferometry, Spectroscopy) is a CERN based experiment aiming to probe the Weak Equivalence Principle of General Relativity with antimatter by studying free fall of antihydrogen in the Earth's gravitational field. A pulsed cold beam of antihydrogen produced by charge exchange between Rydberg positronium and cold antiprotons will be horizontally accelerated by an electric field gradient and whose free fall will then be measured by a classical moiré. deflectometer. An overview of the experimental setup, the present status of the experiment along with current achievements and results will be presented.

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Session Classification : Facilities and Advanced Detector Technologies

Track Classification : Facilities and advanced detector technologies