

The AEGIS experiment at CERN

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The main goal of the AEGIS collaboration is the measurement of the gravitational acceleration of antimatter in the Earth field. The AEGIS experiment is presently taking data at the CERN Antiproton Decelerator (AD) facility. The first step of the measurement is the creation of a beam of anti-hydrogen through the combination of antiprotons and positrons. The beam will be directed toward a moiré deflectometer able to detect the vertical displacement due to the interaction of the neutral anti-atoms with the Earth gravitational field. This measurement would be of great interest as it would probe the Weak Equivalence Principle of General Relativity with antimatter. The experimental apparatus, the measurement strategy and technique and the results obtained so far will be presented.

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