Service de Physique des Particules
SÉMINAIRE

******

Lundi 1 décembre 11h00

CEA-Saclay Bât 141, salle André Berthelot

Development of a Low Energy Positron Source and an Efficient Positron-Positronium Converter for Positively Charged Anti-Hydrogen Production

Tomoko Muranaka

CEA/SPP

Do we really know gravity?
In spite of several challenges for more than twenty years, there is no direct and conclusive observation of the gravitational interaction between antimatter and matter (or antimatter) until now. One practical approach to realise a direct gravity measurement uses positively charged anti-hydrogen $\overline{H}^+$, as proposed by J. Walz and T. Hansch in 2004.
Our method for producing $\overline{H}^+$ is based on antiprotons interacting with Positronium, obtained with a positron-Positronium (e^+-Ps) converter. Aiming to produce sufficient amounts of Ps, we have recently installed a compact positron source in Saclay and studied positron-Positronium converters in CERN. First results of these two experiments and their status will be presented.

Le cafe sera servi 10 minutes avant

Contact : fabrice.couderc@cea.fr - Tel : +33 1 69 08 86 83

http://irfu.cea.fr/Phocea/Vie_des_labos/Seminaires/index.php