

Mardi 17/05/2016, 11h00

CEA-Saclay Bât. 141, salle André Berthelot

The High Altitude Water Cherenkov Observatory

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The High Altitude Water Cherenkov (HAWC) experiment is a large field of view, continuously operated TeV gamma ray observatory located at 4,100 meters above sea level inside the Pico de Orizaba national park in Mexico. It consists of an array of 300 water Cherenkov detectors densely-spaced over an area of 22,000 square meters. The high altitude, the large active area, and the optical isolation of the PMTs provide better angular and energy resolutions, an improved background rejection, and an order of magnitude increase in sensitivity with respect to its predecessor. The improved performance allows us to detect both transient and steady emissions, to study the Galactic diffuse emission at TeV energies, and to measure or constrain the TeV spectra of GeV gamma ray sources discovered with the Fermi satellite. In addition, HAWC is sensitive to prompt emission from gamma ray bursts above 100 GeV. The HAWC array was inaugurated on March 20, 2015. I will present the preliminary results using data from the first year of the full array.

Le café sera servi 10 minutes avant.

NB : La présentation d'une pièce d'identité est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance Martine Oger, tél. 01 69 08 23 50, e-mail : martine.oger@cea.fr. (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).