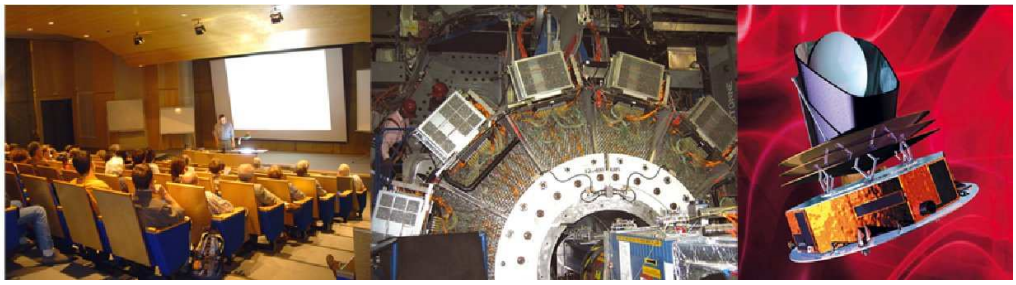
LABORATOIRE DE L'ACCÉLÉRATEUR LINÉAIRE



Séminaire du Laboratoire de l'Accélérateur Linéaire

Benjamin Rouillé D'orfeuil

LAL

Mardi 12 Fevrier 2013 à 11 :00

A few grams of matter in a bright world

The study of the most energetic component of the cosmic ray radiation, whose constituents - the ultrahigh energy cosmic rays (UHECRs) - have macroscopic energy, gives rise to numerous theoretical, phenomenological and experimental efforts. The observation of particles from space that reach the terrestrial atmosphere with energies exceeding 10^{20}eV is puzzling and poses some interesting and challenging physical/astrophysical questions. In an attempt to characterize the UHECR radiation, it is necessary to consider its three spectral dimensions : energy, mass and angular spectra. Indeed, these are tightly connected and will depend on : the angular distribution of UHECR sources and their density, the injected spectrum and composition and the propagation of UHECRs from their source to the Earth due to the interactions with low-energy photon backgrounds and deflections in magnetic fields. I will discuss the impact of these astrophysical parameters on the UHECRs observables.

Salle 101 du LAL - Bât. 200, Orsay

Thé et café seront servis 1/4 h avant le séminaire

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