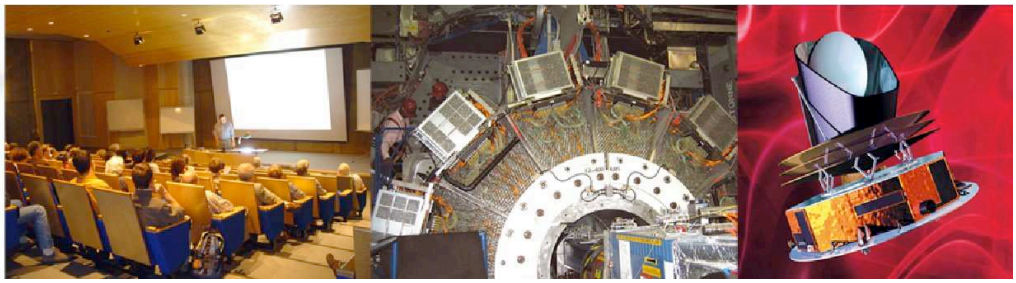
LABORATOIRE DE L'ACCÉLÉRATEUR LINÉAIRE



Séminaire du Laboratoire de l'Accélérateur Linéaire

Carlos Hernandez Monteagudo

Max-Planck Institut für Astrophysik (Garching)

Mardi 16 Mars 2010 à 11 :00

Cosmology with Multifrequency Observations of the Cosmic Microwave Background : the WMAP and Planck experiments

I will review the Physics involved in the generation of anisotropies in the intensity and polarization of the Cosmic Microwave Background (CMB). I will make particular emphasis in the different scenarios where those anisotropies are generated, and the richness of the physical processes involved. I will address the possibility of studying the recombination of hydrogen when the universe was only 380,000 years old, the enrichment with metals of the Intergalactic Medium when the first generation of stars turned on, and the presence of hot moving gas in the distant and local universe. I will also describe the sensitivity of the CMB on the accelerated expansion of the Universe and the possibility of setting constraints on Dark Energy by means of CMB observations. From this theoretical background, I will move onto the observational constraints that have been established in existing CMB data from the WMAP experiment, and those to be set in upcoming data from the Planck mission.

Salle 101 du LAL - Bât. 200, Orsay

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

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