



## *Séminaire du Laboratoire de l'Accélérateur Linéaire*

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IAS et LAL

**Mardi 10 Février 2015 à 11 :00**

## **The new Planck release : general overview of the Planck results and news from the CMB at large angular scales**

Planck is the ESA telescope that surveyed with unprecedented precision the Cosmic Microwave Background (CMB), providing with the highest resolution measurements so far of the CMB temperature and polarization anisotropies. The second Planck data release that includes the full mission and the first Planck polarization data has just become available. In this talk I will go through a brief introduction about the CMB -in particular the CMB polarization- and I will give an overview of the new Planck results, focusing on the improvement of the constraints on the cosmological parameters thanks to the new full mission and polarization data. Also, I will give the status of the Planck analysis on the CMB at large angular scales. The high precision measurement of the CMB polarization at large angular scales is in fact one of the main challenge left for the present and the future CMB experiments. I will show how the EE and BB spectra at low- $l$  can be used to improve the constraints on the cosmological parameters, in particular those related to the reionization history ( $\tau$ ) and the amount of tensor modes ( $r$ ). I will present some theoretical implications of the results and the future prospects in view of the Planck release at the end of 2015 and future experiments like CoRE+.

**Salle 101 du LAL - Bât. 200, Orsay**

Thé et café seront servis 5 mn avant le séminaire



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