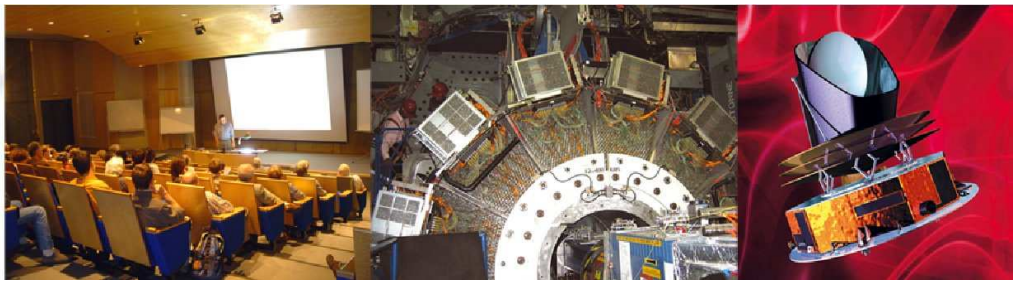
LABORATOIRE DE L'ACCÉLÉRATEUR LINÉAIRE



Séminaire du Laboratoire de l'Accélérateur Linéaire

Andi Cucoanes

Subatech

Mardi 17 Mars 2015 à 11 :00

Running and future experiments with reactor antineutrinos

The seminar provides an overview on the reactor experiments using reactor neutrinos, with a special accent on the experiments in which the author participated. The first part is dedicated to Theta13 experiments : Double Chooz, Daya Bay and Reno, where in addition to the presentation of the main analyses, the seminar will show the efforts of understanding the recent spectrum distortion beyond 5 MeV in Double Chooz, and a general discussion on the systematics cancellation in these experiments. Here the accent will be on the systematics induced by the antineutrino flux produced by reactors and the treatment of this uncertainty we published recently in in arXiv :1501.00356 from evident reasons : it represents presently the most important contribution to the total systematics budget for all previous mentioned experiments. Further the seminar will present the reactor antineutrino anomaly and the short baseline projects aiming to provide solutions to this problematic. I'll consider two examples : SoLid and Stereo. The seminar contains details related to the context of reactor safeguards with neutrinos, presenting the Nucifer experiment and its last analysis but also the future of the neutrino physics program with the JUNO experiment.

Salle 101 du LAL - Bât. 200, Orsay

Thé et café seront servis 5 mn avant le séminaire

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