



Irfu

Institut de recherche
sur les lois fondamentales
de l'Univers

**Séminaire
SPP**

Mercredi 26/06/2013, 14h00-15h00

CEA-Saclay Bat 141, salle André Berthelot

Liquid Argon Detectors at Fermilab : From R&D to LBNE

BRIAN REBEL

Fermilab

Liquid argon time projection chambers (LArTPCs) are an exciting new technology for neutrino detectors. This technology provides excellent position resolution that rivals bubble chamber images, but in a digital format. The striking advantage of liquid argon time projection chambers for neutrino physics is the ability to distinguish between electrons, produced in charged current interactions, and gammas, produced by the decay of neutral pions created in neutral current interactions, with high efficiency. This talk will outline the Fermilab R&D program aimed toward development of the multi-kiloton LBNE detector for long baseline neutrino physics. Results from the various aspects of the program will be presented, as well as the status of LBNE.

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).