



Irfu

Institut de recherche
sur les lois fondamentales
de l'Univers

**Séminaire
SPP**

Lundi 26/05/2014, 11h00

CEA-Saclay Bat 141, salle André Berthelot

Direct Dark Matter Search with DarkSide50

DAVIDE FRANCO

APC

DarkSide-50 is the first physics detector of the DarkSide family, featuring a two-phase underground-argon Time Projection Chamber (50 kg sensitive mass) surrounded by an organic liquid scintillator veto (30 tonnes) and a muon water-Cherenkov detector (1000 tonnes). The two-phase detector is currently operating at Gran Sasso underground laboratory, fully shielded and filled with research grade atmospheric argon. This first run, with regular argon, is focused on the study of the detector response and its performance in background suppression, exploiting the high rate from ^{39}Ar to collect in a few days the electron recoil background statistics expected in few years of data taking with underground, low-radioactivity argon. First results on the measured sub-detectors performances and background rejection power will be reported.

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).