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Séminaire SPP

Mercredi 4 février 14h00

CEA-Saclay Bât 141, salle André Berthelot

Axions : Motivation, Cosmological Role, and Experimental Searches

Georg Raffelt

(Max Planck Institute for Physics, Munich)

Perhaps the most credible explanation for the absence of CP-violating effects in QCD remains the Peccei-Quinn mechanism of dynamical symmetry restoration, implying the existence of axions, very low-mass very weakly interacting pion-like particles. They are also an excellent candidate for the cold dark matter of the universe or can provide a hot dark matter component. Ongoing search experiments include CAST at CERN (solar axions) and ADMX in California (search for axion cold dark matter with realistic parameters). Precision measurements of the cosmic microwave background by the upcoming PLANCK satellite will also have an important bearing on axion cosmology.

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 Emilie Chancrin, tél. 01 69 08 23 50, e-mail : `emilie.chancrin@cea.fr`. (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).