

Mercredi 29 février 11h00

CEA-Saclay Bat 141, salle André Berthelot

SUperSYmmetry search at LHC : The case for stop

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With the advent of the LHC machine, we expect our vision of the world at microscopic scales to be dramatically transformed by major discoveries which will solve the shortcomings of the Standard Model of particle physics. Supersymmetry (Susy) naturally solves some of these shortcomings by associating with each Standard Model particle a partner having the same gauge interactions. The lightest supersymmetric partner of the top quark (stop1), benefitting from a large mixing between the chiral Susy partners of the top quark, might be the lightest squark, whose discovery would be an opening to the Susy world. During this seminar, I will review phenomenological arguments ranging from the Higgs to the Dark Matter sector as motivations for searching the stop1 at the LHC. Finally, I will present a strategy for a coherent stop1 search versus the stop1 mass, which is as model independent as possible

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).