



## *Séminaire du Laboratoire de l'Accélérateur Linéaire*

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**Vendredi 4 Octobre 2013 à 14 :30**

## **Search for the Higgs boson decaying to b-quarks**

The recently discovered Higgs boson is being studied in several decay modes allowing to independently measure its coupling and hence to verify its identity. Among the various channels, one of the most difficult is the measurement of the Higgs decaying into b-quarks. The mode has in fact the largest branching fraction but also the largest backgrounds. For this reason associated productions of the Hbb processes have been studied at the LHC. While the most sensitive final state is the one obtained from the Higgs being produced in association with a vector boson (VH) where the V decays to lepton and/or neutrinos, also other associated productions (ttH, VBF and b(b)H) are studied. In this seminar we will review the analysis techniques used by the CMS experiment for all the search channels of the Higgs to bb and interpret the results in terms of SM couplings and MSSM limits.

**Salle 101 du LAL - Bât. 200, Orsay**

Thé et café seront servis 1/4 h avant le séminaire



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