LHC Seminar

SPEAKER: Pasquale Musella (Eidgenoessische Tech. Hochschule Zuerich (CH))

TITLE: **Combined mass and couplings of the Higgs boson at CMS**

DATE: Tue 27/01/2015 11:00

PLACE: Filtration Plant

ABSTRACT

Properties of the Higgs boson with mass near 125 GeV are measured in proton-proton collisions with the CMS experiment at the LHC. Severalproduction and decay channels are analysed and combined. The decay channels include gammagamma, ZZ, WW, tautau, bb and mumu pairs.
The results are based on the full Run 1 data at 7 and 8 TeV corresponding to a total of 25 fb-1.
From the high-resolution gammagamma and ZZ channels, the mass of the Higgs boson is measured to be 125.02+0.26- 0.27 (stat)+0.14-0.15 (syst) GeV. The event yields relative to the standard model predictions have been measured and the Higgs boson couplings to other particles are tested for deviations from the standard model predictions.</p>

Organised by: C. Lourenco, M. Mangano, G. Unal