Joint EP/PP/LPCC seminars

SPEAKER: Frank-Peter Schilling (Inst. fuer Experimentelle Kernphys.-Universitaet Karlsruhe-KIT)

TITLE: **Top Quark Physics with CMS**

DATE: Tue 14/06/2011 11:00

PLACE: Filtration Plant

ABSTRACT

The top quark is the heaviest known elementary particle, and could play a special role in the Standard Model. Its coupling to the Higgs boson is large, and it could also play a role in electroweak symmetry breaking and the generation of particle masses in alternatives to the
Higgs mechanism. There are various hints at deviations from the Standard Model expectation which have been observed recently by Tevatron experiments in top final states.
Several signatures of new physics accessible at the LHC either suffer from top-quark production as a significant background or contain top quarks themselves. In this talk, we present results on top quark physics obtained from the first LHC data collected by the CMS experiment.They include measurements of the top pair production cross section in various channels and their combination, measurements of the top quark mass, the single top cross section, a search for new particles decaying into top pairs, and a first look at the charge asymmetry.

Organised by: M. Mangano, M. Spiropulu, G. Unal.....
Tea and Coffee will be served at 10h30