



CERN Joint EP/PP & LPCC/EP/PP

SPEAKER: Guido Tonelli (Universita' di Pisa, INFN, CERN)
Gunther Roland (Massachusetts Institute of Technology (MIT))

TITLE: **Long-Range Near-Side Angular Correlations in Proton-Proton Interactions in CMS.**

DATE: Tue 21/09/2010 17:00

PLACE: Main Auditorium

ABSTRACT

The CMS Collaboration

Results on two-particle angular correlations for charged particles emitted in proton-proton collisions at center of mass energies of 0.9, 2.36 and 7TeV over a broad range of pseudorapidity (η) and azimuthal angle (ϕ) are presented using data collected with the CMS detector at the LHC. Short-range correlations in $\Delta\eta$, which are studied in minimum bias events, are characterized using a simple independent cluster parameterization in order to quantify their strength (cluster size) and their extent in η (cluster decay width). Long-range azimuthal correlations are studied more differentially as a function of charged particle multiplicity and particle transverse momentum using a 980nb⁻¹ data set at 7TeV. In high multiplicity events, a pronounced structure emerges in the two-dimensional correlation function for particles in intermediate p_T 's of 1-3GeV/c, $2.0 < |\Delta\eta| < 4.8$ and $\Delta\phi \approx 0$. This is the first observation of such a ridge-like feature in two-particle correlation functions in pp or p-pbar collisions

Organised by: M.Mangano, M.Spiropulu, G.Unal.....**Tea
and Coffee will be served at 16:30