



SPEAKER: Martin Poghosyan (CERN)

TITLE: **Inelastic and diffraction dissociation cross-sections in proton-proton collisions with ALICE**

DATE: Tue 09/10/2012 11:00

PLACE: Main Auditorium

ABSTRACT

ALICE results on proton-proton inelastic and diffractive cross-section measurements performed at $\sqrt{s} = 0.9$ TeV, 2.76 TeV and 7 TeV are presented. The relative rates of single- and double- diffractive processes are measured by studying properties of gaps in the pseudorapidity distribution of charged particles. ALICE trigger efficiencies are determined for various classes of events, using a detector simulation validated with experimental data. The results are presented together with earlier measurements at proton-antiproton and proton-proton colliders at lower energies and with the measurements by other LHC experiments. Predictions by different theoretical models are compared to the data. We will also discuss the main theoretical problems in the field and present some of the recent developments.