



EP/PP seminars

SPEAKER: Michael Albrow (Fermi National Accelerator Lab. (Fermilab))

TITLE: **Observation of exclusive two-photon production and other exclusive states in CDF**

DATE: Tue 28/06/2011 11:00

PLACE: TH Theory Conference Room

ABSTRACT

With the Collider Detector at Fermilab (CDF) we have observed the exclusive reaction $p + \bar{p} \rightarrow p + \gamma + \gamma + \bar{p}$ with no other particles produced; the photons are central with $E_T > 2.5$ GeV.

This is an example of a rare class of high energy hadron collision, inelastic but with no hadrons produced, and it is closely related to exclusive Higgs boson production at the LHC ($p + p \rightarrow p + H + p$).

A cross section of order 10 fb for the latter (Standard Model Higgs) is implied. Other exclusive final states have also been observed in CDF ($e+e-$, $\mu+\mu-$, J/ψ , χ_c , and dijets) and will be briefly discussed.

I finish with a short overview of plans to search for exclusive Higgs production using ATLAS and CMS.