Contribution ID: **25**   Type: **not specified**

L2 tracking robustness and trigger study for semileptonic ttH channel

Wednesday 8 April 2009 11:45 (15 minutes)

The ATLAS trigger is made up of three levels. The second level is software based and the earliest stage where data is available from the tracking detectors. Tracking is needed to verify several signatures with different requirements. IDScan is an algorithm which reconstructs tracks from hits in the Pixel and SCT detector. The robustness of this algorithm against missing layers of the detector is crucial and the results of this study are shown in this talk. A promising but also very challenging channel for a Higgs discovery in the low mass region is the ttbarH associated production, where the Higgs decays to a bbbar pair. Due to the complex final state of jets, lepton and missing energy it is possible to trigger on many different signatures. In this talk, the efficiencies of the various trigger signatures and their combination are presented.

Author: BERNIUS, Catrin (University College London)

Presenter: BERNIUS, Catrin (University College London)

Session Classification: Parallel Session 3 B - Higgs

Track Classification: Higgs