Contribution ID: **630** Type: **Parallel Sessions**

Measurements of Y(nS) polarization with the CMS experiment

Saturday 7 July 2012 14:45 (15 minutes)

The polarizations of the Upsilon(1S), Upsilon(2S) and Upsilon(3S) mesons produced in proton-proton collisions at = 7 TeV are measured using a data sample collected with the CMS detector at the LHC, corresponding to an integrated luminosity of around 5 fb^{-1}. The measurements are based on the analysis of the dimuon decay angular distributions, analyzed in three different polarization frames, and are presented as a function of the Upsilon transverse momentum, in two rapidity ranges. The measurement of the polarization parameters, lambda_theta, lambda_phi and lambda_{theta phi} is complemented by the determination of the frame-invariant quantity lambda_tilde, which provides a very useful intrinsic test of the reliability of the whole analysis chain and supplementary physical information.

Author: Mr KNUNZ, Valentin (Austrian Academy of Sciences (AT))

Presenter: Mr KNUNZ, Valentin (Austrian Academy of Sciences (AT))

Session Classification: Room 217 - Education & Outreach - QCD, Jet, Parton Distributions - TR15&6

Track Classification: Track 6. QCD, Jets, Parton Distributions