Contribution ID: **141** Type: **Parallel**

Measurement of elliptic flow in sqrt(s_NN)=2.76 TeV PbPb collisions with the ATLAS detector at the LHC.

Friday, May 27, 2011 3:00 PM (20 minutes)

The measurement of the elliptic flow for charged particles in Pb+Pb collisions at sqrt(s_NN)=2.76 TeV with the ATLAS detector will be presented in a wide range of pseudorapidity, transverse momentum and collision centrality. The elliptic flow is measured by correlating azimuthal angles of reconstructed particle tracks with the event plane angle obtained from forward calorimeters. A large pseudorapidity gap between the tracking system and forward calorimeters significantly reduces contributions from short-range non-flow effects. For the first time at this energy, elliptic flow is measured over 5 units of pseudorapidity, from -2.5 to 2.5, and over a broad range in transverse momentum, 0.5-20 GeV. The results will be discussed in the context of previous measurements and theoretical model predictions.

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Session Classification: Global and collective dynamics

Track Classification: Global and collective dynamics