

Latest Minimum Bias and Underlying Event Measurements with the ATLAS Detector

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While the modelling of Minimum Bias (MB) is a crucial ingredient to learn about the description of soft QCD processes, the studies of the Underlying Event (UE) shed light on the description of both soft and hard QCD processes at hadron colliders. The ATLAS collaboration has provided measurements of the inclusive charged-particle multiplicity and its dependence on transverse momentum and pseudorapidity in special data sets with low LHC beam currents, recorded at center-of-mass energies of 8 TeV and 13 TeV. Moreover, results on the number and transverse-momentum sum of charged particles as a function of the leading high p_T track in events taken at a center-of-mass energy of 13 TeV are presented. These results are separated in the towards, transverse, and away from the leading track and allow to test the modelling of the Underlying Event in modern MC generators. Furthermore, event-shape variables based on charged particles have been measured in Z-events and have been compared with the predictions of different state-of-the-art MC generators. These measurements test the Underlying Event in a complementary way.

Author: KAR, Deepak (University of the Witwatersrand (ZA))

Presenter: KAR, Deepak (University of the Witwatersrand (ZA))

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