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Type: Parallel Session Talk

Commissioning and Performance of the ATLAS Inner Detector with proton-proton Collisions at the LHC

Thursday 22 July 2010 11:18 (15 minutes)

ATLAS is a multipurpose experiment which records the products of the LHC collisions. To reconstruct trajectories of charged particles produced in these collisions, the experiment is equipped with large-scale tracking systems built of silicon planar sensors (pixel and strip-based), as well as a drift-tube based detector system. This talk will cover the first experience gained with these tracking systems, such as the commissioning and first operational experience, including monitoring and calibration procedures. The talk will further address the alignment procedures and the results obtained. Finally, the performance of the tracking systems with the LHC in collision mode will be presented and compared with the expected parameters and with the Monte Carlo simulations, also covering their particle identification capabilities.

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