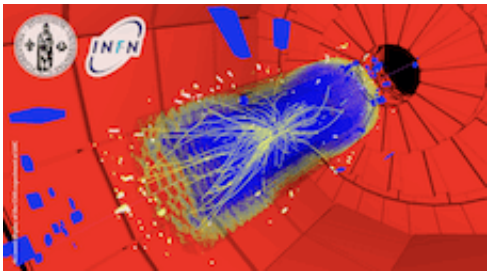

Contribution ID: **18** Type: **Talk**

Offline calibrations and performance of the ATLAS Pixel Detector

Wednesday, 6 July 2011 11:40 (20 minutes)

The ATLAS Pixel Detector is the innermost detector of the ATLAS experiment at the Large Hadron Collider at CERN. It consists of 1744 silicon sensors equipped with approximately 80 M electronic channels, providing typically three measurement points with high resolution for particles emerging from the beam-interaction region, thus allowing to measure particle tracks and secondary vertices with very high precision.
In this talk the performance reached by the Pixel Detector with LHC collision data will be presented, with particular attention to its spatial resolution, efficiency, particle identification properties, the measurement of the Lorentz angle. In addition, depletion depth has been measured, allowing to monitor
sensors radiation damage.
Offline calibration procedures and optimization techniques will be discussed in detail.

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