

Abstract Submitted
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Commissioning of the ATLAS Pixel Detector with Cosmic ray Data and readiness for collision PRAFULLA BEHERA, The University of Iowa, THE ATLAS COLLABORATION — The 80-million channel state-of-the-art Pixel Detector is the innermost sub-detector in the ATLAS experiment at LHC within a pseudorapidity coverage of 2.5. It plays a critical role in charged particle tracking and secondary vertex reconstruction with its characteristic high precision. The calibration and commissioning of the Pixel Detector were accomplished in situ in the ATLAS pit with cooling and detector control system. We present the performance of the Pixel Detector from analysis of the cosmic ray data to demonstrate that the detector is ready for collision and highlight where it will be vital in combination with the rest of the sub-detectors in some of the physics processes. The talk will show all aspects of detector operation, including the monitoring and safety system, the DAQ system and calibration procedures.

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