The 27th International Workshop on Vertex Detectors



Contribution ID: 41 Type: not specified

Operational Experience on Current tracker at ATLAS experiment

The tracking and vertexing performance of the ATLAS detector relies critically on the silicon detector consisting of a strip detector (SCT) and a pixel detector.

With the excellent performance of the LHC in Run 2, the silicon tracking detectors have been operated well beyond the original design specifications.

The status and limitations of the detectors with respect to band width, radiation damage to the sensors, and the impact of SEUs on readout, are presented. Also the approaches in hardware, software, and calibration to maintain excellent performance during permanent high luminosity operation are discussed.

Apart from reflecting on Run 2, an outlook is given to the activities in the upcoming long shut-down and the operational challenges of LHC Run 3.

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