

The performance and operational experience of ATLAS SemiConductor Tracker in Run-2 at LHC

Monday, 25 May 2020 23:53 (5 minutes)

The performance of ATLAS SemiConductor Tracker (SCT) in Run-2 at Large Hadron Collider (LHC) has been reviewed during the current long shutdown. The LHC successfully completed its Run-2 operation (2015-2018) with a total integrated delivered luminosity of 156 fb^{-1} at the centre-of-mass pp collision energy of 13 TeV. The LHC high performance provide us a good opportunity for physics analysis. It came with high instantaneous luminosity and pileup conditions that were far in excess of what the SCT was originally designed to meet. The first significant effects of radiation damage in the SCT were also observed during Run-2. This talk will summarise the operational experience and performance of the SCT during Run-2, with a focus on the impact and mitigation of radiation damage effects.

Funding information

Primary author: MOCHIZUKI, Kazuya (Universite de Montreal (CA))

Co-author: JINNOUCHI, Osamu (Tokyo Institute of Technology (JP))

Presenter: MOCHIZUKI, Kazuya (Universite de Montreal (CA))

Session Classification: Poster

Track Classification: Experiments: Trackers