



Contribution ID: 539

Type: Parallel Talk

The operational experience, challenges and performance of the ATLAS Semiconductor Tracker during LHC Run-2 and SCT operation prospect for Run-3

Friday, 8 July 2022 09:35 (18 minutes)

The Large Hadron Collider (LHC) recently completed its Run-2 operation period (2015-2018) which delivered an integrated luminosity of 156 fb⁻¹ at the centre-of-mass pp collision energy of 13-TeV. This marked 10 years of successful operation by the ATLAS Semiconductor Tracker (SCT), which operated during Run-2 with 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. The SCT operations, performance and radiation damage studies were published as a paper [1]. This talk summarises the operational experience, challenges and performance of the SCT during Run-2, and Run 3 operation prospects with a focus on the impact and mitigation of radiation damage effects.

In-person participation

Yes

Primary authors: ZHU, Junjie; SCHOPF, Elisabeth**Presenter:** SCHOPF, Elisabeth**Session Classification:** Operation, Performance and Upgrade (Incl. HL-LHC) of Present Detectors**Track Classification:** Operation, Performance and Upgrade (Incl. HL-LHC) of Present Detectors