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

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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 $156\ \mathrm{fb}^{-1}$ at the centre-of-mass *pp* collision energy of $13\ \mathrm{TeV}$. 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.

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