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## Overview of total ionizing dose levels in the Large Hadron Collider during 2022 restart

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During the Large Hadron Collider (LHC) operation small fractions of the beam are lost continuously, leading to mixed-field radiation. Whereas the 2022 radiation environment in the majority of the locations follows expectations established both through measurements and simulations, some discrepancies with respect to the Run 2 operation (2015-2018) were detected. This work presents an overview of the 2022 Total Ionizing Dose (TID) levels as measured by the Beam Loss Monitors (BLMs) distributed along the LHC, focusing on the similarities and most prominent discrepancies with respect to the Run 2 operation.

### Funding Agency

### Footnotes

### I have read and accept the Privacy Policy Statement

Yes

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