

Deep Inelastic Scattering 2025



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The ATLAS ITk Strip Detector Overview

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ATLAS is currently preparing for the HL-LHC upgrade, with an all-silicon Inner Tracker (ITk) that will replace the current Inner Detector. The ITk will feature a pixel detector surrounded by a strip detector, with the strip system consisting of 4 barrel layers and 6 endcap disks. After completion of final design reviews in key areas, such as Sensors, Modules, Front-End electronics and ASICs, a large-scale prototyping program has been completed in all areas successfully. We present an overview of the Strip System, and highlight the final design choices of sensors, module designs and ASICs. We will summarise the current status of pre-production and production on various detector components, with an emphasis on QA and QC procedures.

Author: COLANGELI, Luca Sesto (University of Toronto (CA))

Presenter: COLANGELI, Luca Sesto (University of Toronto (CA))

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