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The ATLAS ITk Strip Detector System for the Phase-II LHC Upgrade

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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 summarize results achieved during prototyping and the current status of production and pre- production on various detector components, with an emphasis on QA and QC procedures.

Collaboration

ATLAS-ITK Collaboration

Role of Submitter

The presenter will be selected later by the Collaboration

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