Towards the construction of the ATLAS ITk Strip Endcap detector for the HL-LHC phase

Thursday 7 September 2023 14:00 (10 minutes)

To sustain the five-fold increase in instantaneous luminosity of the High-Luminosity phase of the LHC, the ATLAS experiment will replace its current Inner Detector with a new all-silicon tracker detector. The Inner Tracker (ITk) will consist of an inner silicon pixel detector, surrounded by layers of silicon microstrip sensors. The production phase of the ITk is starting during the year 2023.

This contribution gives an overview of the steps to build the forward regions of the ITk Strip detector (the so-called endcaps), focusing on the loading of the silicon microstrip sensors on the support structures (petals), and on the preparation for the integration of each petal on the final endcap frame.

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