

The ATLAS Inner Tracker Strip Detector System

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The Upgrade of the Large Hadron Collider to the High Luminosity LHC (HL-LHC) is scheduled to start around 2028 and will result in the delivery of ten times more integrated luminosity to the experiments. To withstand the much harsher radiation and occupancy conditions of the HL-LHC, the inner tracker of the ATLAS detector must be redesigned and rebuilt completely. The design of the ATLAS Upgrade inner tracker (ITk) has already been defined. It consists of several layers of silicon particle detectors. The innermost layers will be composed of silicon pixel sensors, and the outer layers will consist of silicon microstrip sensors. This talk will focus on the latest research and development activities performed by the China ITk strips group with respect to the assembly and test of the strip modules towards the on-going site qualifications.

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