Contribution ID: **272** Type: **Poster**

Electrical testing in ITk module assembly

The ATLAS experiment is planning a complete replacement of its inner detector with a new all-silicon inner tracker (ITk), consisting of a pixel detector in the region closest to the beam pipe, and a strip detector at higher radii for the high luminosity phase of the LHC.

In order to facilitate a multi-site construction effort, the ITk strip detector employs a highly modular design: the smallest structures (modules) are built into larger structures (staves and petals), which are built into the still larger structures (cylinders and disks) that make up the detector.

Individual modules are planned to be operated in a long term test setup in order to study long term effects from prolonged operation under detector-like conditions, i.e. cold, dry and high voltage. Here we introduce a series of electrical testing involving sensor, powerboard, hybrid and module in the quality control of ITk strip module assembly. We also present utilizing container technology for quickly deploying software between different computers and detailed testing procedures embodied in IHEP standard operating procedure webpage.

Primary author: WANG, Chengwei (IHEP)

Presenter: WANG, Chengwei (IHEP)

Session Classification: 墙报展及评选

Track Classification: 粒子物理实验技术