

The ATLAS Inner Tracker Strip Detector system tests - development of DAQ and DCS

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The new ATLAS Inner Tracker (ITk), consisting of pixel and microstrip detectors, will replace the current tracking system of the ATLAS detector to cope with the challenging conditions of the high luminosity LHC. System tests of the strip sub-detector are being developed which serve as a testbed for testing and evaluating the performance of several close-to-final detector components before production. System tests for the barrel and end-cap region are being developed and operated using pre-production staves and petals, as the building blocks of the detector. This contribution shows the developments of a FELIX-based DAQ system as the foreseen system for Phase-II to work with staves and petals of the ITk strip detector. As a benchmark, the FELIX results are compared to the ones gained with the collaboration internal DAQ systems used by the assembly sites. Moreover, several DCS tools for control and monitoring of the detector developed and validated at the system tests will be presented.

Alternate track

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