

Characterisation and testing of ATLAS FE-I4 devices for the HL-LHC

Friday 13 June 2014 14:20 (20 minutes)

The LHC accelerator complex will be upgraded in 2022 to the High-Luminosity-LHC in order to significantly increase statistics for the various physics analyses. These modifications will result in an increase in occupancy and of radiation damage to the ATLAS Inner Detector.

Characterisation and testing in a laboratory environment of novel ATLAS planar pixel designs for the HL-LHC will be presented, including charge collection measurements with radioactive sources and cosmic muons. Non-perpendicular particle tracks, forming clusters of charge within the pixel devices, have been studied. The characterisation and testing facilities (laser and sources) will be used for irradiated samples.

Primary author: NELLIST, Clara (LAL-Orsay (FR))

Co-authors: LOUNIS, Abdenour (Universite de Paris-Sud 11 (FR)); Dr DINU, Nicoleta (Universite de Paris-Sud 11 (FR)); GKOUKOUSIS, Vagelis (Universite de Paris-Sud 11 (FR))

Presenter: NELLIST, Clara (LAL-Orsay (FR))

Session Classification: Session