Contribution ID: **13** Type: **Poster**

Modeling Radiation Damage Effects in 3D Pixel Digitization for the ATLAS Detector

Monday 11 September 2017 16:15 (15 minutes)

Modeling Radiation Damage Effects in 3D Pixel Digitization for the ATLAS Detector

Silicon Pixel detectors are at the core of the current and planned upgrade of the ATLAS detector. As the detector in closest proximity to the interaction point, these detectors will be subjected to a significant amount of radiation over their lifetime: prior to the HL-LHC, the innermost layers will receive a fluence in excess of 10ˆ15 neq/cm2 and the HL-LHC detector upgrades must cope with an order of magnitude higher fluence integrated over their lifetimes. This poster presents the details of a new digitization model that includes radiation damage effects to the 3D Pixel sensors for the ATLAS Detector.

Primary author: WALLANGEN, Veronica (Stockholm University (SE))

Presenter: WALLANGEN, Veronica (Stockholm University (SE))

Session Classification: Poster Exposition and coffee break