Contribution ID: **2** Type: **not specified**

Radiation hardness of the ITkPixV1 and RD53A chips

Tuesday 28 September 2021 15:00 (15 minutes)

The ITkPixV1 chip is the pre-production pixel readout chip for the Phase-2 Upgrade of the ATLAS experiment at the HL-LHC. The harsh environment of HL-LHC, including a peak luminosity of 5x10ˆ34cm-2s-1 and an estimated total ionising dose (TID) of 1 Grad throughout its lifetime is placing strong requirements on the radiation tolerance of the chip. This contribution outlines investigations into the radiation tolerance of ITkPixV1. The impact of TID damage to the digital and analog front-end up to total doses of 1 Grad (at dose rate 4 Mrad/h) is reported.

Author: MIRONOVA, Maria (University of Oxford (GB))

Presenter: MIRONOVA, Maria (University of Oxford (GB))

Session Classification: YSF talks