Contribution ID: **30** Type: **not specified**

Radiation hardness of a CMOS sensor process for a novel Depleted Monolithic Active Pixel Sensor

Wednesday 7 June 2017 10:20 (20 minutes)

Depleted active pixel sensors (DMAPS) are considered for use in outer layers of the upgraded ATLAS pixel detector at HL-LHC. In my talk I will present studies of radiation hardness of a novel low capacitance DMAPS produced by TowerJazz in a 180 nm CMOS process. Charge collection takes place in a high resistivity epitaxial layer, which can be fully depleted even after irradiation. Sensors irradiated up to 1e16 neq/cm2 were characterised by Edge-TCT, Sr90 MIPs, test beam and with X-rays. An overview of results of measurements will be given.

Author: HITI, Bojan (Jozef Stefan Institute (SI))

Presenter: HITI, Bojan (Jozef Stefan Institute (SI))

Session Classification: CMOS