Contribution ID: **17** Type: **Standard (20 min including discussion)**

Radiation hardness of 3D pixel detectors up to 2e16 neq/cm2

Friday 4 December 2015 09:20 (20 minutes)

A new generation of radiation-hard 3D detectors optimised for the HL-LHC with small pitches of 25 and 50 um (implying inter-electrode spacings of only about 35 μm) is under development. Until these new productions are available, radiation hardness studies of existing pixel devices from the IBL/AFP generation with about 70 μm inter-electrode spacing are on-going. This presentation will give an overview and focus on recent results obtained with FEI3 pixel detectors irradiated with neutrons in Ljbuljana up to fluences of 2e16 neq/cm2, including IV, power dissipation and charge collection measurements.

Primary authors: VÁZQUEZ FURELOS, David (IFAE - Barcelona (ES)); CAVALLARO, Emanuele (IFAE - Barcelona (ES)); LOPEZ PAZ, Ivan (Universitat Autònoma de Barcelona (ES)); LANGE, Joern (IFAE Barcelona); GRINSTEIN, Sebastian (IFAE - Barcelona (ES))

Presenter: LANGE, Joern (IFAE Barcelona)

Session Classification: 3D and Pixel detectors