

## **Radiation hardness of 3D pixel detectors up to $2e16$ neq/cm<sup>2</sup>**

*Friday, December 4, 2015 9:20 AM (20 minutes)*

A new generation of radiation-hard 3D detectors optimised for the HL-LHC with small pitches of 25 and 50  $\mu\text{m}$  (implying inter-electrode spacings of only about 35  $\mu\text{m}$ ) is under development. Until these new productions are available, radiation hardness studies of existing pixel devices from the IBL/AFP generation with about 70  $\mu\text{m}$  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 Ljubljana up to fluences of  $2e16$  neq/cm<sup>2</sup>, including IV, power dissipation and charge collection measurements.

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