8th International Workshop on Semiconductor Pixel Detectors for Particles and Imaging.



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Total Ionization Dose effects in the FE-I4 front-end chip of the ATLAS Pixel IBL detector

The ATLAS Pixel Insertable B-Layer (IBL) detector was installed into the ATLAS experiment in 2014 and has been in operation since 2015.

During the first year of IBL data taking an increase of the LV current produced by the FEI4 chip was observed, and this increase was traced back to the radiation damage in the chip. The dependence of the current from the

Total Ionizing Dose (TID) and temperature has been tested with X-ray and proton irradiations and will be presented in this talk

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