

Edge-TCT Measurements on 180nm TowerJazz Pixel Sensor for ATLAS ITK (Talk cancelled)

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The ATLAS experiment is planning a major upgrade of its tracking detectors during the Phase-II LHC shut down, to better take advantage of the increased luminosity that will be provided by the HL-LHC. New depleted CMOS sensors are being developed for this upgrade. Preliminary results of the evaluation of TowerJazz 180nm CMOS sensors using the Edge-Transient Current Technique (Edge-TCT) are presented. The suitability of various pixel sizes is assessed including 50um and 20um-sized structures. Charge sharing is quantified using multi-pixel measurements also at various pixel sizes. Radiation damage effects due to neutrons are also investigated.

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