Abstract Submitted
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Testing of Edgeless Planar Detectors for the LHC[1] WILLIAM SPEARMAN, University of Dallas, GENNARO RUGGIERO, CERN — One goal of the TOTEM project at CERN's LHC is to measure protons scattered at very high pseudorapidities. Conventional detectors have very large dead zones making them a non-option for an experiment which requires detection capabilities at about 1 mm from the beam. To overcome the limitations of conventional detectors, edgeless planar detectors were developed which will be placed in special fixtures in the beam pipe known as Roman Pots. To make these detectors edgeless, current terminating structures were used which channel the current generated by electrostatic impurities and the current resulting from the biasing voltage away from the sensitive area. The design and testing of the current terminating capability of these structures, with special regard concerning the effects of radiation on the performance of these silicon detectors, will be discussed.

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