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CMS FPix sensor study for phase I upgrade

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The next incarnation of the CMS forward pixel detector, to be installed at the year end extended technical stop 2016-17, will need to survive an integrated luminosity of 300 fb^{-1} with the inner radius of the active region of the disks decreasing from 6 to 4.5 cm. Based on the Run 1 experience and irradiation studies, the Phase 1 FPIX sensors will again be n-on-n DOFZ, with parameters similar to those in the present run. We will review the design choices including a study during the prototyping phase to explore different p-stop layouts. Results from the quality assurance probing of the first batches of sensor wafers will be described. The IV measurements are particularly impressive with current densities in range of $3\text{-}4 \text{ nA/cm}^2$ at the full depletion voltage.

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Session Classification: After dinner POSTER session, with drinks: (All presenters are requested/encouraged to attend their posters; All participants are requested to participate the session, with drinks!)

Track Classification: Pixels (including CCD's) - Charged particle tracking