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FBK-INFN-LPNHE thin n-on-p pixel detectors: beamtest results

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To cope with High luminosity conditions of HL-LHC, the ATLAS pixel detectors has to be upgraded to be fully efficient in harsh radiation environment with a good granularity, a maximised geometrical acceptance and an high read out rate.
LPNHE, FBK and INFN are involved in the development of thin and edgeless planar pixel sensors in which the insensitive area at the border of the sensor is minimized thanks to a special technology: the active edge.
We have studied two productions, a first one featured 200 um thick n-on-p edgeless sensors, a second one composed of
100 um thick n-on-p sensors.
Those sensors were tested on beam, both at CERN-SPS and at DESY and their performances before and after irradiation will be presented.

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