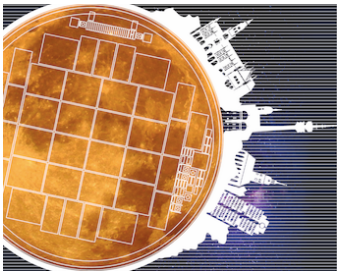

Contribution ID: **1** Type: **not specified**

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

In view of the LHC upgrade phases towards the High Luminosity LHC (HL-LHC), the ATLAS experiment plans to upgrade the Inner Detector with an all-silicon system.
The n-on-p silicon technology is a promising candidate to achieve a large area instrumented with pixel sensors, since it is radiation hard and cost effectiveness.
The paper reports on the performance of 130 μm thick n-in-p planar pixel sensors produced by FBK-CMM.
After discussing the sensor technology an overview of 2017 testbeam results of the produced devices will be given, before and after irradiation, including hit and charge collection efficiency and space resolution.
Preliminary testbeam results for the new thin and edgeless productions at FBK-CMM will be also presented, with a special focus on the hit efficiency at the detector edge.

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