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Edgeless planar pixel sensors with ATLAS and CMS designs produced by FBK-CMM

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In view of the LHC roadmap towards the High Luminosity LHC (HL-LHC), n-on-p silicon technology is a promising candidate to achieve a large area equipped with pixel sensors, since it is radiation hard and cost effective.
The talk reports on the first batch of n-on-p edgeless planar pixel sensors produced by FBK-CMM using an Active Edge technology where the detector edge is made by staggered trenches. The process was performed both on Si-Si and SOI wafers. Several kinds of pixel detectors, e.g., compatible with read-out chips such as FE-I4, PSI46, and RD53A, have been realized on wafers.
In the talk we will present the sensor technology and offer an overview of the first electrical characterization of the devices we have produced.

TRACK

Planar Sensors

Author: Dr RONCHIN, Sabina (FBK, TIFPA - INFN, Trento, Italy)

Co-authors: Prof. MESSINEO, Alberto (Universita di Pisa, INFN Pisa); Dr GIACOMINI, Gabriele (Brookhaven National Lab, Instrumentation Division); Prof. DALLA-BETTA, Gian-Franco (University of Trento, TIFPA - INFN, Trento, Italy); Dr CALDERINI, Giovanni (LPNHE Paris); Dr DARBO, Giovanni (INFN Genova); Dr BOMBEN, Marco (LPNHE Paris); Dr MESCHINI, Marco (INFN Firenze); Dr BOSCARDIN, Maurizio (FBK, TIFPA - INFN); Dr ZORZI, Nicola (FBK, TIFPA - INFN)

Presenter: Dr RONCHIN, Sabina (FBK, TIFPA - INFN, Trento, Italy)

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