

# Performances of the third UFSD production at FBK

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In this presentation we describe the third production of Ultra-Fast Silicon Detectors (UFSD3) by Fondazione Bruno Kessler (FBK) in Trento, in collaboration with University of Trento and National Institute of Nuclear Physics (INFN) in Torino.

The new UFSD3 production has been designed in order to study specific features requested for the future Endcap Timing Layer of CMS at the High Luminosity LHC, such as uniformity and narrow interpad distance. Uniformity studies have been done by FBK on wafer and in Torino on cut structures.

Different strategies for gain termination implants have been pursued and measurements of the resulting inactive space between pads have been performed using the Transient Current Technique (TCT).

Plans towards future UFSD production at FBK will also be discussed.

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