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Characterization of the new Stripixel detectors

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The Centro Nacional de Microelectrónica (IMB-CNM-CSIC) of Barcelona in collaboration with the Brookhaven National Laboratory (BNL) of New York have developed a new design and technology for the novel prototypes generation of stripixel detectors, 2D position sensitive detectors manufactured using a true single-sided processing.
The new device is a dual-column 3D detector in which the p+ and n+ columns are arranged in squared active area in a quincunx pattern (with the p+ columns as the central elements) .
Double metal layer technology has been used to allow a projective X-Y read out with the use of two different multichannel chips.
The new prototypes have been characterized with the use of Transient Current Technique measurements performed with different laser of different wavelength. Charge Collection Efficiency and detection sensibility have been measured with the use of a radioactive 90Sr source. Two-dimensional position sensitivity has been tested using a collimated laser set up and the ALIBAVA readout system. The experimental results will be presented.

Primary author: Ms BASSIGNANA, Daniela (IMB-CNM, CSIC)

Co-authors: Dr FLETA, Celeste (IMB-CNM, CSIC); Dr QUIRION, David (IMB-CNM, CSIC); Dr PELLEGRINI, Giulio (IMB-CNM, CSIC); Dr LOZANO, Manuel (IMB-CNM, CSIC); Dr TUUVA, Tuure (Lappeenranta University); Dr LI, Zheng (BNL)

Presenter: Ms BASSIGNANA, Daniela (IMB-CNM, CSIC)

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