

11th International "Hiroshima" Symposium on the Development and Application of Semiconductor Tracking Detectors (HSTD11) in conjunction with 2nd Workshop on SOI Pixel Detectors (SOIPIX2017) at OIST, Okinawa, Japan

Contribution ID: 10

Type: POSTER

Final system test results of the DEPFET based Belle II pixel detector PXD

Sunday 10 December 2017 20:47 (1 minute)

The DEPFET PXD Collaboration is building a highly granular, ultra-transparent active pixel detector for high performance vertex reconstruction at the Belle II experiment, KEK, Japan. A complete detector system is being developed, including solutions for ultra-thin sensors and their mechanical support, r/o ASICs, cooling, services, and a DAQ system capable of handling the huge amount of data coming from the pixel detector.

The sensor production as well as the final ASIC production is finished and the module series production is in full swing. Final system tests as well as detailed characterization of the modules have been done. Recent milestone achievements are a full system test of PXD and SVD in the test beam and the commissioning of the pre-experiment "BEAST 2" which is about to start early 2018. This paper will focus on the achievements during the full system test at DESY early 2017 and present a detailed discussion of one of the last open questions for the operation of the DEPFET PXD system at the SuperKEKB collider –the so-called gated mode of the DEPFET system.

Author: ANDRICEK, Ladislav (MPG Semiconductor Lab)

Presenter: ANDRICEK, Ladislav (MPG Semiconductor Lab)

Session Classification: POSTER

Track Classification: Large scale applications