International Workshop on Semiconductor Pixel Detectors for Particles and Imaging (PIXEL2014)



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Operational Experience with the ALICE Pixel Detector

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The ALICE Silicon Pixel Detector (SPD) constitutes the two innermost layers of the ALICE experiment, which is the LHC experiment dedicated to the investigation of strongly interacting matter in heavy-ion collisions. The SPD consists of ~10 million silicon pixels organized in two layers at radii of 39 mm and 76 mm that cover a pseudorapidity range of $|\eta| < 2$ and $|\eta| < 1.4$, respectively.

It provides the position of the primary and secondary vertices, and it has the unique feature of generating a trigger signal that contributes to the L0 trigger of the ALICE experiment.

Installed in 2007, the SPD started to record data since the first LHC collisions. This contribution presents the main features of the SPD, the detector performance and the operational experience, including calibration and optimization activities, since installation in ALICE. The ongoing consolidation activities carried out to prepare the detector for the data taking during the Run2 of LHC will also be described.

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