

Commissioning and performance of the LHCb Silicon Tracker

The LHCb Silicon Tracker is a silicon micro-strip detector covering a sensitive area of 12 m² with a total of 272 thousand readout channels. Two different detector modules are employed in the different parts of the detector. The installation of the detector was completed by early summer 2008 and the commissioning has reached its final stage. Currently, both detectors have 99.7% of the channels fully functioning. Commissioning with particles has started using cosmic rays, albeit with a low rate due to the geometry of LHCb. Nevertheless, these events could be used to perform a coarse time and spatial alignment. In addition, the detector has been commissioned using beam-induced events from the LHC injection tests in 2008 and 2009. These events allowed to study the performance in much more detail. Especially, the detector modules could be aligned with an accuracy of about 10 μm . In this contribution, we will present results from the reconstruction of data collected during these LHC injection tests and we look forward to showing results from the first beam gas and beam collisions in the LHC which are expected to take place at the end of 2009.

Summary (Additional text describing your work. Can be pasted here or give an URL to a PDF document):

<http://www.physik.uzh.ch/~tilburg/VCI2010/Summary.pdf>

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