

The Commissioning and Performance of the Outer Tracker Detector for LHCb

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The LHCb experiment is designed to study B -decays at the LHC. It is crucial to accurately and efficiently detect the charged decay particles in the high-density particle environment of the LHC. For this, the Outer Tracker (OT) is being constructed, consisting of ~55,000 straw tubes, covering in total an area of 360 m² of double layers. At the time of the conference, the detector will be fully equipped with readout electronics and commissioned using cosmic rays.

The performance of the final detector has been checked with a beam test at DESY, Hamburg. The final readout electronics, in terms of efficiency, position resolution, noise and cross talk has been validated and showed good performance according to the requirements. In addition, the detector and readout electronics quality has been scrutinized both at the time of production and at installation, yielding a negligible number of bad channels. Finally, results will be presented on the commissioning of the detector in situ with the use of cosmic rays.

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

Please see attached pdf document:

<http://www.nikhef.nl/~h71/talks/Vienna/lhcb-ot-vienna2010.pdf>

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