

CESIUM CALIBRATION OF THE LHCb HADRON CALORIMETER

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The LHCb Hadron Calorimeter (HCAL) is a sampling iron-scintillator calorimeter of 5.6_I thickness. It is equipped with an embedded calibration system based on Cs^{137} radioactive source, which is its main calibration tool. HCAL information is used in the LHCb L0 trigger for event selection, therefore it is important to have a precise and reliable calibration system which produces result immediately after the calibration run. This report describes the layout of the LHCb HCAL and its calibration system and details of the calibration procedure. Special emphasis is put on the data analysis procedure and visualization software. The cesium calibration system is regularly used for the HCAL calibration starting from the beginning of the LHCb operation in 2008. The results on the HCAL performance and last calibration run will be discussed.

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