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## Calibration of the DHCAL

*Thursday, 9 February 2012 18:15 (20 minutes)*

The Digital Hadron Calorimeter (DHCAL) is a large scale prototype of an imaging calorimeter, using Resistive Plate Chambers (RPCs) as active medium. The calorimeter counts close to 500,000 readout channels.

In this talk we will present the measurement of the performance parameters of the RPCs, i.e. the noise rate, the MIP detection efficiency and the pad multiplicity. The measurements were performed using trigger-less, as well as triggered data taking in the muon beam of the Fermilab test beam facility. Results are presented on the geometrical alignment, the scan of the response across a single readout pad and the response over the entire surface of the active layers of the calorimeter. The noise rate measurements identify uncorrelated and correlated noise, as well as effects from the electronic readout system.

When appropriate the measurements are compared to Monte Carlo simulations of the setup.

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