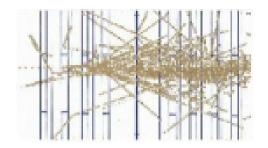
Calor 2008



Contribution ID: 40

Type: oral presentation

The CMS Barrel Calorimeter Response to Particle Beams from 2 to 350 GeV/c

Thursday, 29 May 2008 10:00 (20 minutes)

Summary

We report on the response of the CMS barrel calorimeter to hadrons and muons over a wide momentum range from

2 to $350~\mbox{GeV/c}.$ To our knowledge, this is the widest range of momenta in which any calorimeter system has been

studied. These tests, carried out at the H2 beam line at CERN, provide a welth of information, especially at low

energies. We present the analysis on the calorimeter response to charge pions, kaons, protons and antiprotons and

discuss the underlying phenomena. We also present techniques that deal with the corrections to the signals from

the considerably different electromagnetic (EB) and hadronic (HB) barrel calorimeters in reconstructing the energies

of hadrons. The corrected data set corrected for the combined system is linear over to +/-4% for beam momenta over 4 GeV/c.

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Session Classification: LHC

Track Classification: LHC