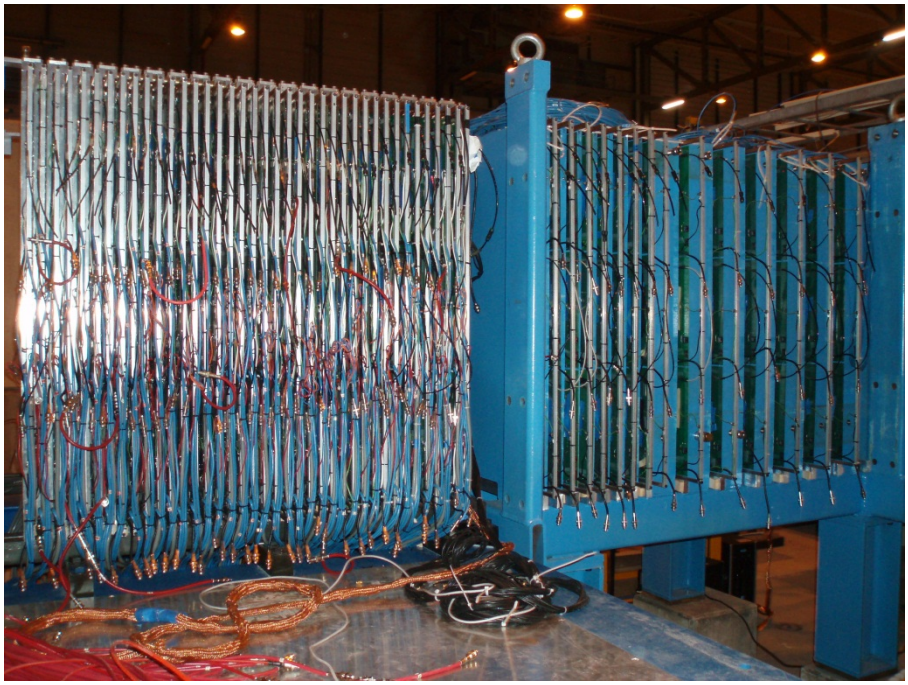
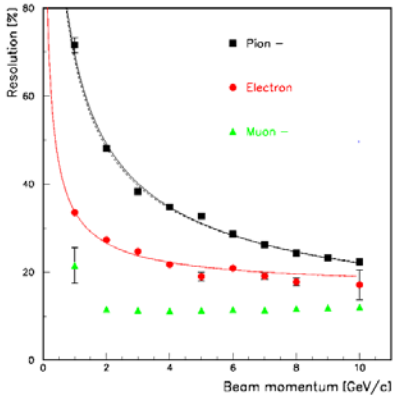
DHCAL completed data taking at CERN

†The Digital Hadron Calorimeter, DHCAL, completed its data taking in the CERN test beam. The DHCAL is an RPC-based imaging hadron calorimeter with a world record channel count, close to half a million. The RPCs are readout by 1 x 1 cm^2 pads and a single threshold, hence the denotation of digital. In the CERN test beam the RPCs were interleaved with 1 cm thick Tungsten plates, serving as absorber material. The DHCAL collected of the order of 40 Million events in the energy range of 1 to 300 GeV. The data are being analyzed and will provide information on hadronic showers with unprecedented spatial resolution. Furthermore, the successful operation of the DHCAL validates its technical approach to imaging hadron calorimetry.



Photograph of the DHCAL (including the tail catcher) after decabling. Each layer is readout by approximately 10,000 channels.



Resolution measured at the PS with pions, electrons and muons.

The platform with the main DHCAL stack and some of the readout electronics and power supplies being lifted out of the experimental enclosure.

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