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## DHCAL Response to Positrons and Pions

*Saturday 11 June 2011 12:00 (20 minutes)*

As part of the overall program of the CALICE collaboration, a group led by Argonne National Laboratory built a large-size prototype of a Digital Hadron Calorimeter (DHCAL). The DHCAL consists of 51 layers, each with  $96 \times 96$  square cm readout pads. The total number of readout channels exceeds 470,000 in less than  $2 \text{ m}^3$  of detector volume and thus enables the measurement of hadronic showers with unprecedented spatial resolution.

The DHCAL underwent extensive testing at the Fermilab Testbeam Facility in October 2010 and January 2011. This talk presents preliminary results from the analysis of both positron and pion events of momenta between 2 and 60 GeV/c. These results are considered to be a first validation of the viability of the DHCAL concept.

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