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Highly granular hadron calorimeter: software compensation and shower decomposition

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The highly granular analogue hadron calorimeter was developed and constructed by the CALICE collaboration and intensively tested with both steel and tungsten absorbers. The active layers of the calorimeter are assembled from the scintillator tiles with the individual readout by silicon photomultipliers. The longitudinal and radial development of showers induced by hadrons in the energy range from 1 to 100 GeV were studied in unprecedented detail and compared to Geant4 simulations. The possibility to achieve the hadron energy resolution of 45%/sqrt(E) with software compensation is demonstrated.

Presentation type

Section talk (10+5 min)

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