

Hadronic shower properties in highly granular calorimeters with different absorbers

Wednesday, 24 October 2018 16:15 (15)

The CALICE collaboration develops and tests highly granular calorimeter prototypes for future collider experiments. Scintillator-SiPM-based prototype of the ILD hadron calorimeter was tested with steel and tungsten absorbers using single-particle beams from the CERN SPS. The results of beam tests are presented as well as an application of the software compensation technique for energy reconstruction in the range from 10 to 80 GeV. It was observed from experimental data that the achieved improvement of relative energy resolution is about 20% for the noncompensating calorimeter, while it is less than 5% for the compensating one.

Primary author(s) : CHADEEVA, Marina (P.N. Lebedev Physical Institute of RAS (LPI))

Presenter(s) : CHADEEVA, Marina (P.N. Lebedev Physical Institute of RAS (LPI))

Session Classification : Facilities and Advanced Detector Technologies

Track Classification : Facilities and advanced detector technologies