## Contribution submission to the conference Dortmund 2021

Analysis of shower shapes recorded with the CALICE AH-CAL in 2018 Test Beam Data — •OLIN PINTO for the CALICE-D-Collaboration — Deutsches Elektronen-Synchrotron DESY

The analog hadron calorimeter prototype is a highly granular calorimeter based on steel absorbers and  $30 \times 30 \times 3 \text{ mm}^3$  scintillator tiles read out by Silicon Photomultipliers (SiPM), developed by the CAL-ICE collaboration. It has acquired sizeable datasets with precise fivedimensional information on electromagnetic and hadronic showers in two test-beam periods at the CERN SPS beam test facility The unprecedented granularity of the detector provides detailed information about the properties of electromagnetic and hadronic showers, which helps to constrain shower models through comparisons with model calculations. Results on longitudinal and lateral shower profiles compared to GEANT4 shower models will be discussed which were measured for electrons and pions in the energy range between 10 and 200GeV. A shower parametrization is used on both longitudinal and lateral shower profiles and a comparison is performed with a variety of different hadronic shower models which can provide input for further development of these models.

Part:	Т
Туре:	Vortrag;Talk
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