

Beamtest data analysis and simulation validation for the CEPC AHCAL prototype

A technological prototype of high-granularity analog hadronic calorimeter (AHCAL) based on the plastic scintillator have been developed. The AHCAL prototype consists of a total of 12960 SiPM-on-Tile units in 40 longitudinal layers. Each layer is instrumented with plastic scintillator tiles as active material and a steel plate as absorber. In 2022 and 2023, the AHCAL prototype successfully conducted beam tests at CERN using beam particles in the range from 1 to 350 GeV. This contribution will present beamtest results and MC simulation validation, including the performance analysis of electromagnetic and hadronic shower.

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