

Performance of ALICE Forward Calorimeter E-Pad using hadron and electron beams at SPS

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We are developing a Forward Calorimeter (FoCal) as one of the proposed ALICE upgrade projects at CERN. The FoCal extends the scope of ALICE, which was designed for the comprehensive study of hot and dense partonic matter, by adding new capabilities to explore the small-x region in parton distribution for nucleons and nuclei.

The electromagnetic calorimeter (FoCal-E) equipped with 18 pad readout and 2 pixel layers and the hadronic calorimeter (FoCal-H) have been tested in high energy particle beams at the CERN SPS in November 2022. The primary objective was the validation of the pad ASICs and of the read-out electronics, and to quantify the performance of the individual and combined sub-systems of the FoCal.

In this presentation we will be given an overview of the FoCal prototypes tested in beam in 2021 and 2022 and show the most recent results.

Theory / experiment

Experiment

Group or collaboration name

ALICE

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