



Contribution ID: 124

Type: Oral presentation using Zoom

Status and plans for the CALICE AHCAL

Wednesday, 27 October 2021 19:00 (20 minutes)

The Analog Hadron Calorimeter (AHCAL) concept developed by the CALICE collaboration is a highly granular sampling calorimeter with $3 \times 3 \text{ cm}^2$ plastic scintillator tiles individually read out by silicon photomultipliers (SiPMs) as active material. A large technological prototype has been built and tested in particles beams at DESY and CERN in 2018, and analyses of this data set are well progressed.

Since then, the hardware developments and tests are focused on two areas:

- an alternative readout ASIC (KLauS) which supports operation in power-pulsing mode as well as continuous readout,
- an alternative scintillator geometry (Megatiles) where the segmentation of larger scintillator plates into small tiles is achieved by grooves filled with reflective material.

In addition, dedicated studies have been performed with individual tiles in order to understand the effects dominating the time resolution.

The talk will present an overview of the analyses as well as the hardware developments.

1st preferred time slot for your oral presentation

10:00-12:00 JST (3:00-5:00 CEST, 21:00-23:00 EDT, 18:00-20:00 PDT)

2nd preferred time slot for your oral presentation

19:00-21:00 JST (12:00-14:00 CEST, 6:00-8:00 EDT, 3:00-5:00 PDT)

Primary author: KRUEGER, Katja (DESY)

Presenter: LAUDRAIN, Antoine (Johannes Gutenberg Universitaet Mainz (DE))

Session Classification: B-3: Calorimeters

Track Classification: Parallel sessions: Detectors: Session B: Calorimeters