

Highly Granular Calorimeters for Particle Flow

Friday, May 28, 2021 7:25 AM (25 minutes)

Particle Flow algorithms promise to reach unprecedented jet energy resolution as needed for precision measurements at a future Higgs Factory. This is accomplished by combining the information from detector components in an optimal way. A key ingredient for this approach are highly granular calorimeters that provide a clear separation of nearby showers as well as a good energy measurement. The CALICE collaboration is devoted to developing such calorimeter concepts optimised for Particle Flow reconstruction.

The presentation will discuss recent developments of CALICE calorimeter prototypes and results from beam tests. It will also highlight further applications of highly granular calorimeters, like the upgrade of the CMS calorimeter endcap for HL-LHC (HGCAL) and possible use in future detectors.

TIPP2020 abstract resubmission?

Funding information

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Session Classification: Plenary