

Recent results of the technological prototypes of the CALICE highly granular calorimeters

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The CALICE Collaboration has been conducting R&D for highly granular calorimeters since more than 15 years with an emphasis on detectors for Linear Colliders. This contribution will describe the commissioning, including beam tests, of large scale technological prototypes of a silicon tungsten electromagnetic calorimeter and hadron calorimeters featuring either a gaseous medium or scintillator with SiPM as an active material. Where applicable, raw performances of the calorimeter such as energy resolution and linearity will be presented but also studies exploiting the distinct features of granular calorimeters regarding pattern recognition. Meanwhile, the technology of granular calorimeters has been established, and the principle is part of nearly every design of detectors of energy frontier projects and beyond.

In addition to a summary of the state of the art of the CALICE prototypes, the contribution will also outline adaptations of the current design to meet the needs of calorimeters for applications beyond linear colliders.

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