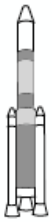

CALOR 2024

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New results of the technological prototype of the CALICE silicon tungsten electromagnetic calorimeter

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The current technological prototype of the SiW ECAL comprises 15 layers equivalent to 15360 readout cells. Each layer has a dimension of about 18x18x0.5 cm3.
In 2021 and 2022 the prototype has been tested in beam tests at DESY and at CERN. We will report on the commissioning and calibration of the prototype (around 450000 parameters in total). Further, a simulation model of the beam test setup has been developed yielding a successful data-Monte Carlo comparison for electrons of 10 GeV. The analysis was complicated by acceptance problems of the prototype caused by the partial delamination of silicon sensors off the interface boards to which they are glued. Since the end of 2022 we are investigating the problem and two alternative solutions will be presented at the conference. The sensors will be mounted on new interface boards that will improve several shortcomings observed with earlier versions and that will facilitate the construction of real size layers.

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