Contribution submission to the conference SMuK 2023

Multi-layer tile modules test system using cosmic ray for the CMS HGCAL upgrade — •JIA-HAO LI — Deutsches Elektronen-Synchrotron DESY, Notkestr. 85, 22607 Hamburg, Germany

The CMS experiment plans to upgrade its calorimeter endcap for the high luminosity phase of the LHC with the High Granularity Calorimeter (HGCAL). The hadronic calorimeter (CE-H) part of the HGCAL in the lower radiation dose region is composed of scintillator-base tile modules using the SiPM-on-tile technology for particle detection. The tile module is equipped with HGCROC ASIC for data readout. The fast command and slow control signals from the counting room are also received by the HGCROC. To test and calibrate the tile modules, a cosmic ray measuring test with multi-layer tile modules parallel to each other is set up for quality control and a better understanding of the property and capability of the tile module. The presentation will discuss the idea and current status of the cosmic test setup at DESY.

Part:	Т
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