

Tests of SiPM-on-Tile modules for the CMS HGCal

Our group works on the development of highly granular hadronic calorimeters based on small scintillator tiles read out by Silicon Photomultipliers (SiPMs). This “SiPM-on-tile” technology will be used for the upgrade of the calorimeter endcap of the CMS detector for HL-LHC. An important ingredient for these calorimeters is the readout electronics, which is fully integrated into the detector layers.

During this year we will test the first active detector elements with design and components as foreseen for the final detector. The tests comprise basic electronics tests in the lab, tests in a climate chamber at -30 degree C and tests with particles in beam.

The student is supposed to contribute to these tests.

Group

FH-FTX-DTA

Project Category

B2. Development of experimental equipment (hardware-oriented)

Special Qualifications

enjoy working with hardware and electronics; prior experience is an advantage, but not necessary

Authors: KRUEGER, Katja (DESY (FTX Fachgruppe DTA)); REINECKE, Mathias (FE (FEB Analog Elektronik))