ECAL group in the LUXE Experiment

AGH-UST Cracow, LAL Orsay, JINR Dubna, Tel Aviv University and Tomsk State University

Application for one week of test-beam time in December 2021

Scientific goal: Test of sensor prototypes, front-end ASICs and data pre-processor for the ECAL of the LUXE experiment

Short description:

For the instrumentation of the LUXE ECAL prototypes of three different sensor technologies are under study. The test-beam will be used to collect data with triggered single electrons with all three sensor technologies to measure and compare the performance in terms of S/N, homogeneity of the response and stability. For these measurements, the sensors will installed in the mechanical frame in between tungsten plates and read out by prototypes of the front-end ASICs and FPGA data pre-processors.

The participating laboratories will use their own equipment for these measurements. The beam-telescope will be used. A magnet is not needed.