STUDY OF SIPMS FOR CALORIMETRY APPLICATIONS

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This study is aimed to evaluate the compatibility of SiPM readout of an electromagnetic calorimeter, and the possible capability of SiPMs to improve the detector performance over standard PMT readout.

THE EXPERIMETAL SET-UP

A piece of a lead-scintillating-fiber calorimeter is connected through light-guides to PMTs at one edge. Similar lightguides are used to connect SiPMs at the other side, testing different configuration of adapters for the guides.

- Each SiPM channel is calibrated by low-voltage regulation, using self trigger rate. The SiPMs photoelectron spectrum show enough stability in the light yields.
- The SiPM efficiency has been studied using an external trigger and cosmic rays, first preliminary results are presented.

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