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New Results from the RD52 (DREAM) Project

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Simultaneous detection of the Cherenkov light and scintillation light produced in hadron showers makes it possible to measure the electromagnetic shower fraction event by event and thus eliminate the detrimental effects of fluctuations in this fraction on the performance of calorimeters.

In the RD52 (DREAM) project, the possibilities of this dual-readout calorimetry are investigated and optimized. In this talk, the latest results of this project will be presented. These results concern the performance of a matrix of molybdenum doped lead tungstate crystals specifically built for this purpose, new data on the application of the polarization of Cherenkov light in this context, and the first test results of prototype modules for the new full-scale DREAM fiber calorimeter.

for the collaboration

RD52 (DREAM)

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