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CREAM-III calorimeter beam test

Abstract content

The CREAM-III calorimeter was calibrated at CERN in October 2006, in preparation for a flight in December 2007. The calorimeter consists of twenty 3.5 mm thick tungsten plates interleaved with 20 layers of 0.5 mm scintillating fiber ribbons, for a total depth of 20 radiation lengths. The calorimeter is preceded by two graphite target layers with a total depth of 0.5 proton interaction lengths to induce showers in the calorimeter. Using 150 GeV/c electron beams incident on the center of each fiber ribbon position, all ribbons were calibrated. By comparing the measured data with simulations, preliminary calibration constants were obtained. After the calibration, linearity and energy resolutions of the calorimeter for electron beams with various energies were measured. This paper will discuss preliminary results of the calorimeter beam test.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

Primary author(s) : Mr. YOON, Y. S. (Dept. of Physics and IPST, University of Maryland)

Co-author(s) : AHN, H. S. (Institute for Physical Science and Technology, University of Maryland); GANEL, O. (Institute for Physical Science and Technology, University of Maryland); HAN, J. H. (Institute for Physical Science and Technology, University of Maryland); JEON, J. A. (Dept. of Physics, Ewha Womans University); KIM, C. H. (Institute for Physical Science and Technology, University of Maryland); KIM, K. C. (Institute for Physical Science and Technology, University of Maryland); LEE, M. H. (Institute for Physical Science and Technology, University of Maryland); LUTZ, L. (Institute for Physical Science and Technology, University of Maryland); MALININ, A. (Institute for Physical Science and Technology, University of Maryland); NAM, S. (Dept. of Physics, Ewha Womans University); PARK, I. H. (Dept. of Physics, Ewha Womans University); PARK, J. H. (Dept. of Physics, Ewha Womans University); PARK, N. H. (Dept. of Physics, Ewha Womans University); SEO, E. S. (Dept. of Physics and IPST, University of Maryland); WALPOLE, P. (Institute for Physical Science and Technology, University of Maryland); WU, J. (Institute for Physical Science and Technology, University of Maryland); YANG, J. (Dept. of Physics, Ewha Womans University); YOO, J. H. (Institute for Physical Science and Technology, University of Maryland); ZINN, S. Y. (Institute for Physical Science and Technology, University of Maryland)

Presenter(s) : Mr. YOON, Y. S. (Dept. of Physics and IPST, University of Maryland)

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