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Test of front-end electronics with large dynamic range coupled to SiPM for space-based calorimetry

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Abstract content

Recent advances in the development of silicon photodetectors working in the Geiger mode (SiPM), open new perspectives in space-based or balloon-borne calorimetry. However, present SiPM devices suffer from a number of limitations, including the intrinsic dynamic range of the photodetector and its operational stability, that have to be overcome in view of their utilization in ionization calorimetry. Test results will be presented on the readout performance of a SiPM prototype, optically coupled to scintillating fibers, and connected to low-noise front-end electronics with large dynamic range.

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

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 2 (OG part 1), pages 317-320

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