



Contribution ID : 790

Type : **Poster**

Characteristics and Performances of the electronics for the fluorescence detectors of the Telescope Array experiment

Friday, 6 July 2007 14:45 (0:00)

Abstract content

The three stations of the Telescope Array fluorescence detectors (FDs) contain 12 telescopes each, and each of the telescopes has a 256 pixel PMT camera with a field of view of 18 degree x 16 degrees. The fluorescence signals of each pixel are digitized with their waveforms by the Signal Digitizer/Finder modules (SDFs). The signal alerts from the SDFs are sent to the Track Finder modules (TF) to generate first trigger signals for air shower events. When a shower track image is found in one camera, the Central Trigger Distributor (CTD) module sends the final trigger signal to all the telescopes to store their data. Here we will describe the characteristic features and performances of the electronics, which are developed and measured through laboratory tests and actual fluorescence light measurements.

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

The Telescope Array Collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olive, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 5 (HE part 2), pages 1009-1012

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Session Classification : Posters 2 + Coffee

Track Classification : HE.1.5