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Reconstruction of Air Shower by TA Surface Array

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Abstract content

Telescope Array (TA) is a EAS detector which is now building in the western desert in Utah, USA. In order to estimate the performance of TA, a detailed detector simulation is being developed in Java. The number of particles produced during the development of the EAS shower with various inclinations is calculated by COSMOS code. Surface detector (SD) of TA consists of two layers of plastic scintillator and wave form is recorded by 50MHz FADC. The detection efficiency of each SD has been evaluated by using the various calibration data and the results of GEANT4 simulation. The analysis methods of the EAS data of SD are also being developed using TA simulation. This report describes the structure of our SD simulation code, the analysis methods.

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'Olivo, 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 1159-1162

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