30th International Cosmic Ray Conference

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Total Muon Number Reconstruction with KASCADE-Grande

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Abstract content

KASCADE-Grande is a multi detector setup for the investigation of extensive air showers in the primary energy range of the knee including energies around the so-called second knee. With the data of the 700 x 700 sqm large Grande array shower core position, shower direction, and the total number of electrons are reconstructed for events with primary energy above 50 PeV. Among others, the Grande array measures in coincidence with the original KASCADE muon array consisting of 690 sqm shielded scintillators.The data of these detectors are used to reconstruct the total muon number ($E_{mu} > 230$ MeV) and the muon densities at different radial distances for individual showers, as well as the mean muon lateral distributions at different zenith angular ranges. We report first results of these muon measurements at KASCADE-Grande.

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

KASCADE-Grande 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. 4 (HE part 1), pages 215-218

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