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Some remarks about lateral distribution function of charged particles at energy above 10^{17} eV.

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Abstract content

The lateral distribution function (LDF) of charged particles is a basic characteristic of extensive air showers (EAS). It is necessary for determination of total number of particles at observation level and this number is used as an estimate of primary energy. We consider the experimental LDF's obtained with MSU, Yakutsk and AGASA arrays. It should be noted that scintillator detectors of the AGASA and Yakutsk arrays measure the energy deposit of shower particles at different distances from shower core whereas Geiger counters employed at the MSU array measure the number of charged particles directly. Experimental data are compared with calculations in the framework of the QGSJET model. It is shown that some discrepancy between various LDF's exists.

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. 4 (HE part 1), pages 183-186

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