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Using the ARGO-YBJ experiment to determine the attenuation and the absorption lengths

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Abstract content

Using the data taken by the ARGO-YBJ experiment (606 g/cm^2 , Tibet, P.R.China) in the period of July to September 2006, the first measurement of EAS size spectrum in the range of $N_e = 5 \times 10^4 - 5 \times 10^6$ is presented at different zenith angles. The attenuation and absorption lengths have been determined by applying different analysis methods. Furthermore the proton-air inelastic cross section around few hundred TeV is explored by using the factor $k = \lambda_{abs}^{sim} / \lambda_{pair}^{sim}$ obtained on the base of Monte Carlo simulation.

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

ARGO-YBJ 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. 4 (HE part 1), pages 135-138

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