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Selection of Surviving Primary Protons at 4300 m a.s.l. with the ARGO-YBJ experiment.

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Abstract content

The primary proton spectrum up to 100 TeV has been investigated by balloon- and satellite-borne instruments. Above this energy range only ground-based air shower arrays can measure the cosmic ray spectrum with a technique moderately sensitive to nuclear composition. An array which exploits the full coverage approach at very high altitude can achieve an energy threshold well below the TeV region, thus allowing, in principle, the calibration of the proton content in the primary cosmic ray flux.

The capability of the ARGO-YBJ experiment, located at the YangBaJing Cosmic Ray Laboratory (4300 m a.s.l., Tibet, P.R. China), in selecting the surviving primary cosmic ray protons around 100 TeV is discussed. A procedure looking for quasi-unaccompanied events with a very steep lateral distribution is also presented.

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

ARGO-YBJ

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 43-46

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