30th International Cosmic Ray Conference



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HiRes Stereo and Monocular Spectra

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Abstract content

We present results on the ultra-high energy cosmic ray spectrum as measued by the High Resolution Fly's Eye Experiment. The spectrum is analyzed in two different ways: monocular reconstruction and stereo reconstruction. The monocular spectrum has the highest statistics while the stereo spectrum has the best resolution. The monocular spectrum has a threshold of .1 EeV while the stereo spectrum's energy threshold is near 1 EeV. Both spectra show strong evidence of structure, including the ankle, near 3-5 EeV and the GZK cutoff near 60 EeV. In particular, the GZK cutoff has been clearly observed at the greater than five sigma level.

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

High Resolution Fly's Eye (HiRes)

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 473-476

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