30th International Cosmic Ray Conference



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Ranging of Extensive Airshowers by Spectral Measurements

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Abstract content

We study the feasibility of measuring the distance to an extensive air shower using the fact that shorter wavelengths undergo more scattering than longer ones. In principle measuring the spectral distribution of light arriving at a detector provides information about the distance to the shower independent of its brightness or other features. Such measurements may also provide event-by-event measurements of atmospheric properties along the line of sight. We discuss how such measurements could be done with very fast Geiger-mode avalanche photodiodes.

If this papers 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. 2 (OG part 1), pages 473-474

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