30th International Cosmic Ray Conference

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Features of geosynchrotron radio emission from CORSIKA-simulated air showers

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Abstract content

Using our new Monte Carlo code REAS2, geosynchrotron radio emission from extensive air showers can now be calculated on the basis of individual high quality CORSIKA-simulated showers. We present an analysis of the radio emission properties predicted by REAS2, with particular focus on shower to shower fluctuations and primary particle composition effects which can now for the first time be investigated in depth. Additionally, more general radio emission features and their dependence on parameters of the associated air shower are discussed with emphasis on the parameter range relevant to the Pierre Auger Observatory.

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. 4 (HE part 1), pages 617-620

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