



Contribution ID : 891

Type : **Poster**

REAS2: CORSIKA-based Monte Carlo simulations of geosynchrotron radio emission

Friday, 6 July 2007 14:45 (0:00)

Abstract content

Simulations of geosynchrotron radio emission from extensive air showers performed with the Monte Carlo code REAS1 used analytical parameterisations to describe the spatial, temporal, energy and angular particle distributions in air showers. The successor REAS2 replaces these parameterisations with precise, multi-dimensional histograms derived from per-shower CORSIKA simulations. REAS2 allows an independent selection between parameterisation and histogram for each of the relevant particle distributions, enabling us to study the changes arising from using a more realistic air shower model in detail. We describe the new simulation strategy and illustrate the effects introduced by the improved air shower model.

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 621-624

Primary author(s) : Dr. HUEGE, Tim (Forschungszentrum Karlsruhe); Mr. ULRICH, Ralf (Forschungszentrum Karlsruhe); Dr. ENGEL, Ralph (Forschungszentrum Karlsruhe)

Presenter(s) : Dr. HUEGE, Tim (Forschungszentrum Karlsruhe)

Session Classification : Posters 2 + Coffee

Track Classification : HE.1.6