30th International Cosmic Ray Conference

Contribution ID : **1116** Type : **Poster**

A New Analysis of the EGRET Effective Area and Implications for the Galactic Diffuse Gamma-Ray Flux

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

Abstract content

The EGRET experiment onboard the Compton Gamma-ray Observatory have provided the most precise measurements of the gamma-ray sky to date. EGRET measurements of diffuse emission across the sky show an excess above 1 GeV. This "GeV excess" has been a topic of great debate and interest since its original discovery by Hunter et al. in 1997. We have modified the GLAST simulation and reconstruction software to model the EGRET instrument. This detailed modeling has allowed us to explore the parameters of the EGRET instrument, in both its beam-test configuration and in-orbit on CGRO, in greater detail than has previously been published. We have found that the GeV excess is significantly increased when previously unaccounted for instrumental effects are considered. We will present a new measurement of diffuse gamma-ray emission in the inner Galaxy.

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 525-528

Primary author(s) : Prof. JOHNSON, Robert (U.C. Santa Cruz); BAUGHMAN, Brian (U.C. Santa Cruz)

Co-author(s) : Prof. ATWOOD, William (U.C. Santa Cruz)

Presenter(s) : Prof. JOHNSON, Robert (U.C. Santa Cruz)

Session Classification : Posters 2 + Coffee

Track Classification : OG.2.1