Contribution ID: **163** Type: **not specified**

Prospects for Measuring the Cosmic-Ray Proton Spectrum Using the LAT Instrument on the Fermi Gamma-Ray Space Telescope

Monday, 27 July 2009 15:40 (20 minutes)

The Fermi Gamma-Ray Space Telescope was launched in June 2008 and the onboard Large Area Telescope (LAT) has been collecting data since August of that same year. The LAT is currently being used to study a wide range of science topics in high-energy astrophysics, one of which is the study of high-energy cosmic rays. The LAT has recently demonstrated its ability to measure cosmic-ray electrons, and the Fermi LAT Collaboration has published a measurement of the high-energy cosmic-ray electron spectrum in the 20 GeV to 1 TeV energy range. This talk will discuss the prospects for using the LAT to perform a similar analysis to measure cosmic-ray proton events. The instrument response for cosmic-ray protons will be characterized and an assessment of the potential to measure the cosmic-ray proton energy spectrum will be presented.

Authors: Prof. WINER, Brian (The Ohio State University and The Fermi LAT Collaboration); Mr SMITH, Patrick (The Ohio State University and The Fermi LAT Collaboration); Prof. HUGHES, Richard (The Ohio State University and The Fermi LAT Collaboration)

Presenter: Mr SMITH, Patrick (The Ohio State University and The Fermi LAT Collaboration)

Session Classification: Particle Astrophysics and Cosmology I

Track Classification: Particle Astrophysics and Cosmology