



Contribution ID : 358

Type : **Poster**

Peculiarities of the Energy Spectrum of the 27-Day Variation of the Galactic Cosmic Ray Intensity

Monday, 9 July 2007 14:45 (0:00)

Abstract content

We study the features of the power energy spectrum of the 27-day variation of the galactic cosmic ray intensity by neutron monitors experimental data for different epoch of solar activity in various polarity periods of solar magnetic cycles. It is recognized that, averagely, the power energy spectrum of the 27-day variation of the galactic cosmic ray intensity has tendency to be harder near minima and minima epoch of solar activity than in the maxima epoch for the both of the $A > 0$ and the $A < 0$ polarity periods of solar magnetic cycles. We also study a behaviour of the energy spectrum of the 27-day variation in the Gnevishche's damping period for solar activity maximum (1990), before (1988-1989) and after it (1991-1992). Results obtained from the neutron monitors experimental data has been compared with the expected changes of the theoretical modeling for the 3-D transport equation. The 27-day changes of the solar wind velocity, the interplanetary magnetic field turbulence and the diffusion coefficient were assumed as the general sources of the 27-day variation of the galactic cosmic rays intensity.

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. 1 (SH), pages 601-604

Primary author(s) : Dr. GIL, Agnieszka (Institute of Math. And Physics of University of Podlasie, Siedlce, Poland)

Co-author(s) : Prof. ALANIA, Michael (Institute of Math. And Physics of University of Podlasie, Siedlce, Poland; Institute of Geophysics of Academy of Sciences of Georgia, Tbilisi, Georgia)

Presenter(s) : Dr. GIL, Agnieszka (Institute of Math. And Physics of University of Podlasie, Siedlce, Poland)

Session Classification : Posters 3 + Coffee

Track Classification : SH.3.4