



Contribution ID : 383

Type : **Poster**

Empirical Modeling of Cosmic Ray Spectra in the 1 MeV - 100 GeV Energy Range

Abstract content

We propose models which generalize the differential $D(E)$ spectra of galactic (GCR) and anomalous cosmic rays (ACR) during the 11-year solar cycle. The models take into account the cosmic ray (CR) modulation in the Heliosphere. We describe the connection between solar activity variation and the values of model parameters. Our analyses show that the contribution of GCRs and ACRs to the ionization of the ionospheres of outer planets (Jupiter, Saturn, Uranus, Neptune) will increase with growth of the planetary distances from the Sun. The modulated energy spectra of galactic cosmic rays are compared with force field approximation for protons and alpha particles. The error is in the order of 1. 5%. The model solutions are compared with IMAX92, CAPRICE94 and AMS98 measurements. The proposed analytical models give practical possibility for investigation of experimental data from measurements of galactic cosmic rays and their anomalous component.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

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