ICRC2015

ICRC
The Astroparticle Physics Conference
34th International Cosmic Ray Conference
July 30 - August 6, 2015
The Hague, The Netherlands

Contribution ID: **559** Type: **Poster contribution**

THE RELATIONSHIP BETWEEN GALACTIC COSMIC RAYS AND SOLAR WIND

Saturday 1 August 2015 15:30 (1 hour)

The relationship between galactic cosmic rays and solar wind is investigated using an extended time- dependent and anisotropic force field model, where galactic cosmic rays flux is found to be related to the solar wind speed through the local interstellar spectrum and a modulation parameter. Galactic cosmic ray flux calculated at 1au within the energy range (0.2 –88)GeV using the model is also presented, the flux variation with time calculated at 1au at a fixed energy range using the model is also presented and the solution is used to predict the flux variation at earth. The mechanism of cosmic rays transport considered here are only the diffusion and convection, other processes such as particle drifts, energy losses and magnetic irregularities among others are not considered in this work.

Collaboration

– not specified –

Registration number following ”ICRC2015-I/”

481

Authors: Dr WANG, CHARLES (UNIVERSITY OF ABERDEEN); Mrs IHONGO, GRACE (UNIVERSITY OF ABERDEEN)

Presenter: Mrs IHONGO, GRACE (UNIVERSITY OF ABERDEEN)

Session Classification: Poster 2 CR

Track Classification: CR-TH