



Contribution ID: 443

Type: Oral Presentation

A new approach to modeling the heliospheric current sheet

Thursday, 2 July 2015 09:40 (20 minutes)

Abstract content
 (Max 300 words)
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Recently, the modulation of cosmic rays in the heliosphere has increasingly been studied by solving the well known transport equation via an approach based on stochastic differential equations (SDEs). This approach, which is now well established and published, allows for an in-depth study of the modulation effects of the wavy heliospheric current sheet (HCS), in particular as its waviness increases with solar activity up to extreme maximum conditions. This is possible because of the numerical stability of the approach as well as its ability to trace pseudo-particles so that insightful trajectories of how they respond to the wavy HCS can be computed and displayed. The results of this numerical modeling study are presented.

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Yes

Level for award (Hons, MSc, PhD, N/A)?

PhD

Main supervisor (name and email) and his / her institution

Prof. M.S. Potgieter
 marius.potgieter@nwu.ac.za
 North-West University

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Yes

Primary author: Mr RAATH, Jan-Louis (North-West University)

Co-authors: Prof. POTGIETER, Marius (North-West University); Dr STRAUSS, du Toit (North-West University)

Presenter: Mr RAATH, Jan-Louis (North-West University)

Session Classification: Space

Track Classification: Track D2 - Space Science