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A new approach to modeling the effects of the wavy current sheet on cosmic rays in the heliosphere

Tuesday 4 August 2015 16:00 (1 hour)

The study of the modulation of cosmic rays in the heliosphere has recently been done by using increasingly the stochastic differential equation (SDE) approach to solving the well-known transport equation. 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 increasing solar activity up to extreme solar maximum conditions. This can be done because these pseudo-particles can be traced so that insightful trajectories of how they respond to the wavy HCS can be computed and displayed. The results of this numerical modeling study will be presented.

Collaboration

– not specified –

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