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Simulating Solar Energetic Particle Transport As Observed By Solar Orbiter

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Modelling solar energetic particles allows for the prediction of incoming solar radiation events as a way to protect against their potential harmful impact in space. Using omni-directional intensity and anisotropy data from the Solar Orbiter spacecraft for a solar event during December 2020, the particle transport in the turbulent interplanetary medium is simulated. The mean free path as a function of rigidity is derived and compared to theoretical estimates. The derived mean free path can be used in future predictive models to forecast the solar energetic particle intensity.

Apply to be considered for a student ; award (Yes / No)?

Yes

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

Hons

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