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Simulating cosmic ray modulation over a solar cycle

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Abstract content
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This work studies modulation of galactic cosmic rays in the heliosphere by using a state-of-the-art, time dependent numerical modulation model to calculate cosmic ray transport inside the heliosphere. Results will be compared to different spacecraft observations, in particular observations from Voyager 1 and 2. It will be shown that when incorporating the most recent theoretical advances of the transport coefficients in such a model, which solve the Parker transport equation, that the model result in compatibility with spacecraft observations on a global scale.

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