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Poster
Global models of the geospace environment, including those used in the prediction of space weather phenomena, rely on a set of upstream solar wind conditions outside the bow shock to drive the model. Generally, these data are provided by the OMNI dataset, a set of observations of the solar wind typically collected near the L1 Lagrange point and ballistically propagated to Earth's bow shock nose. The actual solar wind conditions outside the bow shock may differ from the OMNI data, leading to erroneous model inputs. Erroneous model inputs will lead to erroneous model outputs, hence erroneous predictions of space weather phenomena. Interplanetary Coronal Mass Ejections (ICMEs) are the drivers of the strongest magnetic storms. In this case study, we examine the accuracy of the OMNI data in representing ICMEs near Earth. This presentation will include examples of global magnetosphere simulations driven with the OMNI data and data near Earth to illustrate potential uncertainties in global simulation output during ICME events.

Poster category:

Poster category
Solar and Interplanetary Research and Applications
Poster session day
Tuesday, April 16, 2024
Poster location
22
Meeting homepage
Space Weather Workshop 2024
Download to PDF