

Shaheda Begum

Shaik

George Mason University/Naval Research Laboratory

Robin Colaninno, Phillip Hess, and Mark Linton

US Naval Research Laboratory, Washington, DC, USA

Poster

The shocks driven by Coronal Mass Ejections (CMEs) and the associated particle acceleration are important phenomena for studying solar energetic particle (SEP) events, which hold significant implications on space weather and forecasting. Recent white-light observations of CMEs from the Solar Orbiter Heliospheric Imager (SoloHI) onboard the Solar Orbiter mission have demonstrated sharp double-front features and unique substructures of the CME-driven shocks. We present the preliminary analysis from an initial small set of the SEP-producing CMEs observed by SoloHI during the years 2022 and 2023. We make an event-to-event comparison of the CME and shock characteristics with the associated in-situ particle data of these SEP events. We also discuss the reconstruction of the three-dimensional geometry of the shock using the third viewpoint of SoloHI in conjunction with STEREO and SOHO observations of these CME-driven shocks.

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