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Poster
Space Weather has traditionally explored the Sun’s immediate influence on the Earth system and its technology, including the direct impact on humans. With increasing missions to Mars and beyond, as well as future plans to send humans to Mars, space weather has recently expanded to include not only Mars, but also the entire heliosphere. One critical asset that has made studying space weather at Mars possible is NASA’s Mars Atmosphere and Volatile Evolution mission (MAVEN). MAVEN has instruments on board to not only study the solar irradiance, solar wind, and energetic particles, but also the in-situ and remote sensing instruments to directly measure the Sun’s impact, and its variability, on the Martian environment. Additionally, the well-established personnel, tools, and methods of NASA’s Community Coordinated Modeling Center (CCMC) and Moon-to-Mars (M2M) Space Weather Analysis Office make a perfect pairing to provide the assets capable of real-time space weather monitoring and data serving of the space weather at Mars. At its initial stage, the Mars Space Weather Collaboration effort is focusing on proof-of-concepts to explore what planetary data are available and if it is possible to implement near real time space weather information at Mars. The ultimate goal of the team is to understand the gaps in space weather research and monitoring at Mars and beyond with emphases on open collaboration with others to fill in those gaps. This presentation will provide an overview of the current efforts of the Mars Space Weather Collaboration, as well as present some of the open-access tools developed for the community to monitor space weather at Mars.

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