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Poster
The NASA Interstellar Mapping and Acceleration Probe (IMAP) mission will launch in September 2025 and travel to the Earth-Sun Lagrange 1 (L1) point. In addition to the broad range of excellent science that the ten IMAP instruments will generate, IMAP will continuously telemeter selected data of interest for advancing space weather predictions using five of the in-situ instruments on IMAP. The IMAP space weather system, called I-ALiRT (IMAP Active Link for Real-Time), is based on the very successful Real-Time Solar Wind (RTSW) data from the Advanced Composition Explorer (ACE), with enhanced cadences and including new, additional data products. Furthermore, IMAP, alongside NOAA's SWFO-L1 that launches with it, will contribute to a 6-point constellation of in situ observatories measuring the solar wind and space weather observables at L1. Such an advanced and unprecedented L1-constellation should offer exciting new insight on the nature, structure, and spatiotemporal dynamics of the solar wind and interplanetary magnetic field at 1 au and strategies and errors in propagating the observables from L1 to Earth's magnetosphere. This presentation will highlight the I-ALiRT system and its data products.

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