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Poster
The Space weather Observations at L1 to Advance Readiness 1 (SOLAR-1) spacecraft is the newest space weather satellite of the United States National Oceanic and Atmospheric Administration (NOAA). It was launched on September 24, 2025, and it is currently stationed in a stable orbit around the Sun-Earth Lagrange 1 (L1) point. It is planned to become operational in the spring of 2026. It is designed to deliver real-time observations of the solar corona to help improve forecasts of solar events that can impact Earth. One of the instruments onboard SOLAR-1 is the SupraThermal Ion Sensor (STIS). STIS has two telescopes, one for electrons and one for ions, both equipped with solid state detectors that measure electrons in the range 25-250 keV, and ions in the range 25-6000 keV. The main purpose of STIS is to measure gradual Energetic Ion Enhancements (EIEs) that result from solar wind plasma acceleration by an interplanetary shock as it propagates out from the Sun. This allows the Space Weather Prediction Center (SWPC) to provide an advance warning of an incoming geomagnetic storm (several hours to a day). The STIS data products consist of differential particle fluxes with 2-s cadence plus 1-min averages provided by NOAA’s National Center for Environmental Information (NCEI) and used for space weather alerts by SWPC. In this presentation we discuss the calibration/validation steps taken to ensure accurate and reliable STIS products for operational and scientific use.
Poster session day
Thursday, April 30, 2026
Poster location
42
Meeting homepage
2026 Space Weather Workshop
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