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Poster
The Mauna Loa Solar Observatory (MLSO) has been in operation as a ground-based solar coronagraph research facility since 1965, providing key observations to unlock the mysteries behind coronal heating, solar wind generation, and coronal mass ejection (CME) acceleration in the inner solar atmosphere. In November 2022, following the eruption of Mauna Loa volcano and the destruction of part of the access road, MLSO was closed except for special campaigns to support solar eclipses and NASA's Parker Solar Probe perihelion passes.

In March of this year the access road was reopened and MLSO resumed operations to provide prompt CME alerts during the NASA Artemis II mission. Due to its small internal occulter design, the MLSO K-coronagraph (K-Cor) instrument detects CMEs 30--60 minutes before they are visible in space-based coronagraphs such as NOAA's CCOR or NASA's LASCO coronagraphs. Combined with its 2.5 minute data latency, MLSO/K-Cor can provide critical near-real-time alerts of CMEs with speed, position, and acceleration measurements that can indicate the likelihood of Solar Energetic Particle (SEP) radiation storms that are the primary hazard to astronauts on deep space exploration missions to the Moon and Mars.
Poster session day
Thursday, April 30, 2026
Poster location
31
Meeting homepage
2026 Space Weather Workshop
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