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and the CubIXSS Team

Poster

The CubeSat Imaging X-ray Solar Spectrometer (CubIXSS) is a 16U CubeSat funded under NASA's space weather initiative via H-FORT to measure soft X-ray spectral emission from the solar corona. CubIXSS uses two co-optimized, cross-calibrated instruments to fill a critical X-ray observational gap:

- * MOXSI, a novel diffractive spectral imager using a pinhole camera and X-ray transmission diffraction grating for spectroscopy of flares and active regions over an unprecedented spectral range of 1 to $>70 \text{ \AA}$; and
- * SASS, a suite of four spatially-integrated off-the-shelf spectrometers for high-cadence, high-sensitivity X-ray spectra of lines and continuum from 0.5 to $>30 \text{ keV}$.

These instruments provide sensitive, precise measurements of abundances of key trace ion species, whose X-ray spectral signatures provide a unique diagnostic of the chromospheric or coronal origins of heated plasma across a broad temperature range from ~ 1 to $>30 \text{ MK}$, thereby providing insight into links between plasma heating, particle acceleration, and magnetic reconnection. Concurrently, our database of high-cadence, high-resolution soft X-ray spectra across this unprecedented wavelength/energy range can serve as inputs to drive Earth ionosphere models.

CubIXSS is currently undergoing integration and test, and will launch into sun-synchronous polar orbit on Dec 2026 on USSF-178. We will launch together with SunCET, an H-FORT CubeSat using a novel wide-field EUV imager to study CME and solar wind acceleration through the inner and middle corona. In combination, CubIXSS and SunCET are a powerful space weather suite to understand the energetics of solar eruptions and the connections between coronal heating and solar wind formation and acceleration.

Poster session day

Wednesday, April 29, 2026

Poster location

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Meeting homepage

[2026 Space Weather Workshop](#)

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