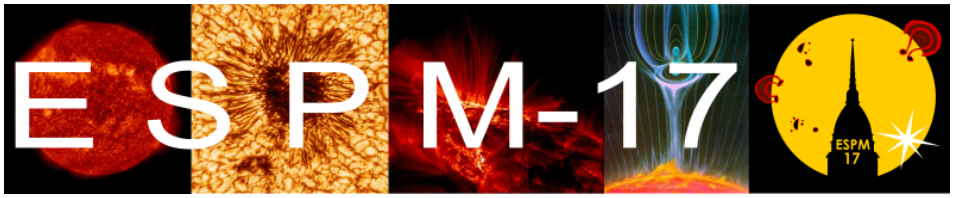

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Soft X-ray Solar Flare Spectroscopy: Synergistic Observations from XSM and STIX

We present a detailed analysis of solar flares observed on 30 September 2022 using high-resolution spectroscopic data from the X-ray Spectrometer (XSM) onboard Chandrayaan-2 and the Spectrometer/Telescope for Imaging X-rays (STIX). By leveraging XSM's broad-band spectral sensitivity and STIX's spectra in the softer energy range, we explore the intricate dynamics of solar flare emissions.

We conducted a comparative study of solar flares, focusing on key spectral features such as line emissions and continua in the soft X-ray band. The synergy between XSM and STIX data enables a comprehensive understanding of flare morphology and evolution.

Key findings include determinations of flare temperatures, emission measures, and elemental abundances, providing valuable insights into theoretical models of physical processes crucial for solar flares.

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Session Classification: Coffee break and poster session 2

Track Classification: Multi-scale energy release, flares and coronal mass ejections