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## Results and Methods of the Test and Calibration of SUIT on board Aditya-L1

The Solar Ultraviolet Imaging Telescope (SUIT) onboard Aditya-L1 performs spatially resolved full-disk imaging of the Sun across the 200–400 nm wavelength range with eleven bandpasses. SUIT provides a comprehensive view of different layers of the solar atmosphere, enabling the study of dynamic solar phenomena such as flares and jets, magnetic structures like plages, active regions, and network regions, and irradiance studies in NUV bands absorbed by O<sub>2</sub> and O<sub>3</sub> in Earth's upper atmosphere- necessary for studying Sun-Earth climatic relationships.

Given the volume and complexity of SUIT's observations, precise calibration is essential to derive scientifically accurate data. Reliable calibration profiles and an accurate account of payload optical characteristics, such as plate scale, modulation transfer function (MTF), field of view, and total photometric error, are critical for the reliability of data calibration in the image processing pipeline.

This work presents the calibration test methodology and the results, helping us quantify the payload's optical properties and perform reliable calibration of SUIT data.

### Contribution Type

### Theme

Solar Magnetism in High-Resolution

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