The Solar Orbiter EUI instrument on-ground calibration activities

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The Extreme Ultraviolet Imager (EUI) instrument is one of the ten scientific instruments on-board the Solar Orbiter mission. It will provide high-resolution and full-sun images of the solar corona in the EUV (17.1 nm and 30.4 nm) and in the VUV (121.6 nm).

The on-ground calibration activities of the EUI instrument started at sub-system level, with the detectors, the band-pass filters and the mirror coating characterization at the operating wavelengths. The three instrument cameras were then calibrated individually, before assembly in the instrument. The final end-to-end calibration of the flight instrument in the EUV and NUV was finally performed in order to validate the entire observation and acquisition chain, improve the radiometric model of the instrument, and obtain correction map to be uploaded for in-flight image on-board processing.

The EUI instrument is now installed on the Solar Orbiter platform, which is undergoing validation and test activities to be performed for launch readiness.

Keywords

Extreme Ultraviolet, Solar Orbiter, Flight Model, End-to-End Calibration