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## Radiometric cross-calibration of HRI/EUI on Solar Orbiter and AIA/SDO

The extreme ultraviolet High-Resolution Imager (HRI) of the EUI telescope onboard Solar Orbiter observes the solar corona in a  $\sim 5$  *mathringA* passband near 174 *mathringA* with unprecedented high spatial resolution. We perform radiometric cross-calibration of the HRI and the EUV channels of the Atmospheric Imaging Assembly (AIA) telescope of the SDO in order to allow further mutual analysis of the observational data. We apply differential emission measure analysis using quasi-simultaneous images in 7 spectral channels –HRI and 6 AIA –and compare the real and the simulated images on the per-pixel basis across the mutual field-of-view. The comparison suggests that the real HRI images have 60-80% larger signal than predicted by the DEM analysis. While the DEM analysis is known to be error-prone, a reasonably good re-production of the original images justifies the approach. However, the observed difference in real/simulated signal suggests either AIA absolute calibration or EUI absolute calibration is off. We found also that adding of the HRI signal to the AIA-based DEM inversion procedure brings information about moderate  $\sim 1$  MK plasma. We discuss how the mutual observation can be used to better understand the physics of individual events or structures.

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