

2nd Metis Science Meeting



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Metis, ASPIICS and CODEX: Perspectives for Joint Science

In 2024, the coronagraphs ASPIICS and CODEX will be launched on the formation flying PROBA-3 ESA mission and on the ISS with a NASA-KASI-INAF mission, respectively. The 150-m separation between the formation-flying Coronagraph and Occulter satellites of PROBA-3 will allow long-duration, eclipse-like imaging of the inner corona, down to heliocentric heights of 1.1 solar radii. Besides the cold ($1.e+4$ K) He I D3 587.6 nm, and hot ($2.e+6$ K) Fe XIV 530.3 nm emission-lines, ASPIICS will image the visible-light, broadband polarized brightness (pB) of the K-corona. CODEX will measure the K-coronal intensity ratios at 390 nm and 410 nm where the strong absorption lines are concentrated in the photospheric spectrum, i.e., Ca II lines and the G band. The shape of the continuous coronal spectrum can offer a direct measure of the coronal electron temperature. The inner field-of-view of ASPIICS will complement that of Metis, already operational on Solar Orbiter since 2020. Additionally, the coronal electron temperature from CODEX will provide a critical physical parameter for the Metis Doppler-dimming diagnostics of the solar wind speed. The presentation will review the perspective opportunities for joint science with Metis, ASPIICS and CODEX.

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