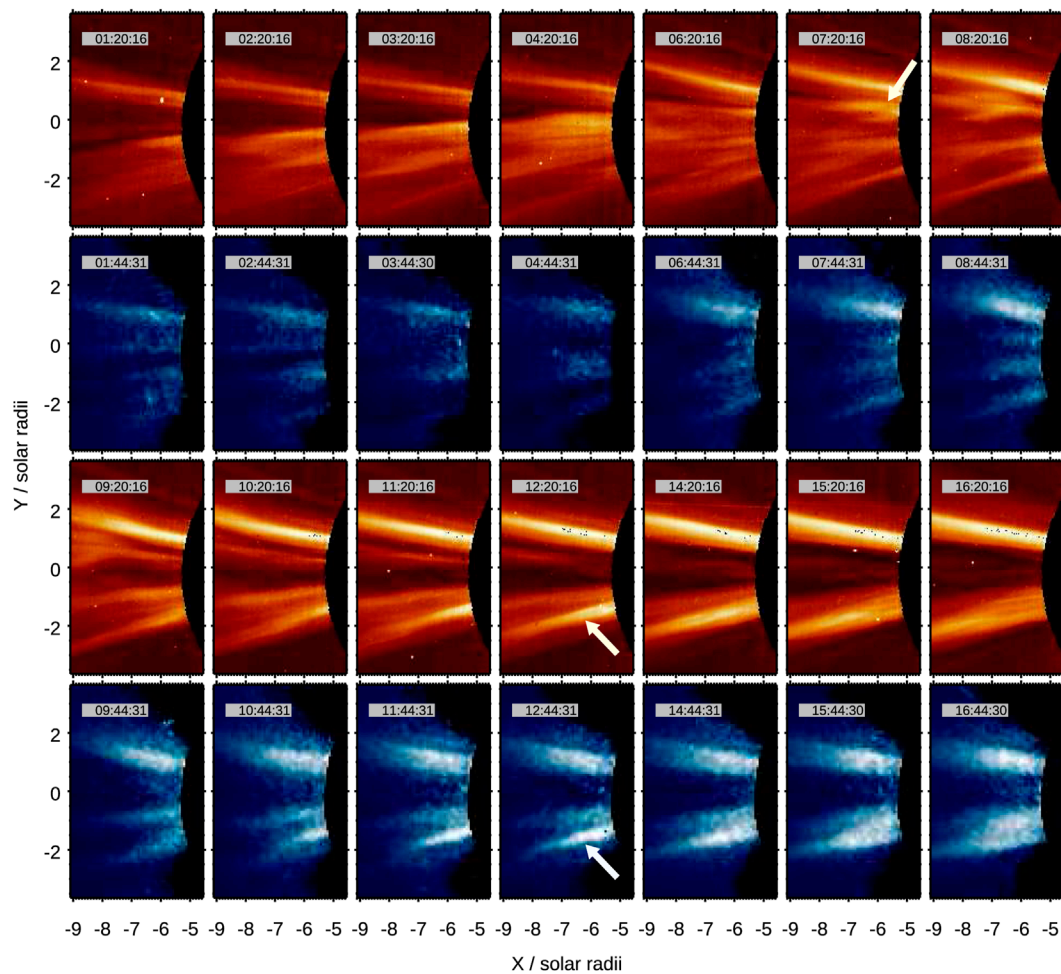




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**FIGURE 8**

A series of images taken by the Metis coronagraphs almost simultaneously in its WL (odd rows, in red gradient color) and UV (even rows, in blue) channels, covering the transit of the CME through the SoLO field of view. The arrows indicate the features corresponding with the FSI first and second eruption structures.

We estimate the CME speed to be  $\sim 300 \text{ km s}^{-1}$ , based solely on the transit time of the front through the COR2 field of view, assuming the front is near the plane of the sky.

Additionally, coronagraphic images from Metis (WL and Lyman- $\alpha$  UV channels) reveal the propagation of the CME closer to the plane of the sky. Although the eruption is also subtle in these images, the combination of both STEREO-A and SoLO views allows us to constrain the CME trajectory.

In [Figure 8](#), we show a sequence of close-up WL and UV images covering the evolution of the event through the Metis field of view. The first structure was seen in WL images after 2021 April 24 at 01:20 UT, centered roughly on the equatorial region, till approximately 09:20 UT. This phase of the event was, however, barely visible in the Lyman- $\alpha$  UV channel. After 10:20 UT, a relatively narrow and bright feature appeared in the FSI images at a position angle  $\sim 110^\circ$  corresponding to the second structure. This second feature was also clearly seen in the Lyman- $\alpha$  UV channel, suggesting, in this case, the presence of dense, cool prominence-like material, consistent with both the *in situ* SWEAP composition measurements and the

bright eruption in FSI 304  $\text{\AA}$  pass-band. The images were processed with the base-difference algorithm over a minimum background described by [Patel et al. \(2022\)](#), to emphasize small-scale structures.

### 4.3 Heliosphere

SoloHI observed the erupting prominence during a brief observing period during the cruise phase. When the second structure erupted near the ecliptic plane, SoloHI was in an ideal position for eastern limb SoloHI observations. However, the instrument was designed for optimal observations during the Solo perihelia between 0.3–0.6 au, and in this case, the spacecraft was near 0.87 au, too far from the Sun for optimal cadence and noise level. The instrument was running at just a 3-h cadence and with longer exposures that tend to increase noise. Furthermore, about 5% of the inner portion of the field of view is impacted by stray light from the solar arrays. In general, when SoloHI is closer to the Sun and to reduce the amount of stray light, the solar arrays are angled away from the star. At 0.87 au, to absorb the necessary amount of sunlight, these