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The Sun’s Alfven zone is the region of space where the solar wind transitions from a subAlfvenic to a superAlfvenic flow. This boundary, which is expected to lie between approximately 10 to 20 solar radii, plays an important role in models of solar wind acceleration and heating, and in the transport of angular momentum, magnetohydrodynamic waves, and turbulence. Mapping the Alfven zone by identifying and tracking Sunward-flowing features in PUNCH images (DeForest et al. 2014; Cranmer et al. 2023) is one of the science goals of the mission. Here we review some of the key insights and contextual information about the Alfven zone that have been provided by recent modeling and in-situ data-analysis efforts. We also present preliminary results based on Sunward-flow-tracking methods applied to early PUNCH data.
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