Cynthia
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Oral
(Invited Talk)
Mesoscale structures (as blobs) are excellent transients to study the kinematic of the slow and intermediate solar wind. Particularly, blobs have been considered for a long time as the only tracers in white-light data of the slow solar wind, localized at equatorial latitudes along the solar minimum of activity. Therefore, the application of appropriate techniques to diminish projective effects of white-light data becomes crucial to investigate the kinematic behavior of the solar wind. In this talk I will describe and discuss the limitations of the reconstruction technique known as the height-time analysis (HT-analysis) developed by Mierla et al. 2008, originally applied to Cor1 A/B coronagraphs on board SECCHI/STEREO. The HT-analysis technique is based on a coordinate system for a stereoscopic reconstruction provided by epipolar planes (EP) assuming that: (i) the spacecraft are in the ecliptic plane, (ii) an a doc geometry can be use for the reconstruction instead of projective geometry, and (iii) EP can be consider parallel to the ecliptic plane in each image. Specifically, in this study the HT-analysis technique is applied to pair combinations of coronagraphs C2 & C3 and Cor2 A/B on board LASCO/SOHO and SECCHI/STEREO, respectively, to obtain deprojected trajectories of blobs along 2007 and 2008 to analyze the kinematic behavior of the slow solar wind. The importance of the exploration of appropriate techniques to reduce projective effects in white-light trajectories enables linking multi-spacecraft locations to accurately trace the solar wind, one of the goals of the future PUNCH mission.
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