



Analysis of local HCS variations from multi-spacecraft observations

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We have studied the local variability of the Heliospheric Current Sheet (HCS). Its local magnetic structure is observed as a boundary through which the magnetic field inverts its direction toward or away from Sun. In this work, we have used data from ACE, WIND, STEREO A and B spacecrafts. Solar wind features and magnetic field variations obtained from each spacecraft and for each event analyzed have been used to estimate temporal and spatial dependences in the local HCS structure. We have tried as well of determining their connection with the neutral line at the corona. We have grouped the selected events according to their magnetic connection, therefore analyzing possible variations on the local orientation. Three methods (MVA, CVA and HYTARO) have been used to evaluate changes of the HCS local orientations. Results and future goals are summarized in this work.