

EGU21-10630

<https://doi.org/10.5194/egusphere-egu21-10630>

EGU General Assembly 2021

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## Solar Orbiter observations of solar wind current sheets and their deHoffman-Teller frames

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Solar wind current sheets have been extensively studied at 1 AU. The recent advent of Parker Solar Probe and Solar Orbiter (SolO) has enabled us to study these structures at a range of heliocentric distances.

We present SolO observations of current sheets in the solar wind at heliocentric distances between 0.55 and 0.85 AU, some of which show signatures of ongoing magnetic reconnection. We develop a method to find the deHoffman-Teller frame which minimizes the Y-component (the component tangential to the spacecraft orbit) of the electric field. Using the electric field measurements from RPW and magnetic field measurements from MAG, we use our method to determine the deHoffman-Teller frame of solar wind current sheets. The same method can also be used on the Alfvénic turbulence and structures found in the solar wind to obtain a measure of the solar wind velocity.

Our preliminary results show a good agreement between our modified deHoffmann-Teller analysis based on the single component E-field, and the conventional deHoffman-Teller analysis based on 3D plasma velocity measurements from PAS. This opens up the possibility to use the RPW and MAG data to obtain an estimate of the solar wind velocity when particle data is unavailable.

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