



A new view of solar wind structures: Combined interplanetary scintillation and STEREO HI studies of the inner solar wind

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The heliospheric imagers (HI) on the STEREO A and B spacecraft are now providing the first continuous, detailed images of structures in the interplanetary solar wind. When combined with simultaneous radio measurements of interplanetary scintillation (IPS), STEREO images allow the structure of the solar wind to be studied with much greater certainty than has been possible before. The STEREO HI images provide information on the global structure of large-scale features, while the IPS measurements provide fine-scale information on the structures embedded within the large features. In the paper we discuss the techniques employed to combine the IPS and STEREO measurements and go on to present results from a series of combined studies of coronal mass ejections and co-rotating interaction regions in the inner solar wind. We also show that structures seen in the inner solar wind by STEREO HI and in IPS results can be related to disturbances in the solar wind at Venus recorded by the ASPERA instrument on the Venus Express spacecraft.