

## **Reconstructions of the Solar Wind Structure in the Inner Heliosphere and at the Inner Planets**

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We are able to reconstruct the inner heliosphere in three dimensions through the use of a Computer Assisted Tomography (C.A.T.) algorithm which incorporates a kinematic solar-wind model. This C.A.T. technique can use multiple lines of sight from either observations of interplanetary scintillation (IPS) or Thomson-scattered white-light brightness from the Solar Mass Ejection Imager (SMEI), or both of these as input. We present an overview of results of inner-heliosphere reconstructions along with evaluations of density and/or velocity at various points in the inner heliosphere such as the inner planets and deep-space spacecraft. Various large-scale features can be reconstructed, such as interplanetary coronal mass ejections (ICMEs), co-rotating features, and also the fast and slow solar wind streams.