M20b Comparison of Solar Wind Speed with LASCO Data Analyzed by Tomography Method During Whole Sun Month

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We have analyzed the relation between solar wind speeds observed by interplanetary scintillation (IPS) and coronal densities derived from solar minimum LASCO observations during the "Whole Sun Month" period. We expect that during this period the large scale coronal features were rather stable, which is favorable for our study. Since both IPS and coronagraph observations are biased by the effect of line-of-sight integration, tomography techniques are applied to both data sets. For this analysis we made a synoptic map of the solar wind speed at the source surface $(2.5R_s)$ derived from the IPS tomography. These speeds are traced from the source surface to the height of the LASCO observations along the magnetic field lines determined from the source surface potential field model. The same analysis is done for the data of the Mauna Loa Mk-III K-coronameter. Using this comparison of IPS and LASCO data we can study how the mass density in the source region affects the solar wind acceleration. In addition, we investigate how the structure of the solar wind is generated at the coronal base by a correlation analysis of the wind speed distribution and coronal density maps at several heights.