

The three-dimensional structure of the solar wind determined by combining the MHD simulation and the IPS observation data

Keiji Hayashi[1], Masayoshi Kojima[2], Munetoshi Tokumaru[2], Ken'ichi Fujiki[2]

[1] STELab, Nagoya Univ., [2] STE Lab., Nagoya Univ.

<http://stesun5.stelab.nagoya-u.ac.jp/~khayashi/>

The MHD simulation model to determine the three-dimensional solar wind structure by introducing the IPS observation data made at STEL of Nagoya University is presented. Giving the inner boundary conditions that are determined from the IPS observations data and some assumptions, we can calculate the solar wind structure in the space from 0.25 to 5 AU that are consistent with both the basic equations and the observed data. Various agreements are seen in the comparison with the nearby-Earth and Ulysses data, while these in-situ data have been made independently of our simulation model.