Space weather reaserch from interplanetary scintillation measurements

Munetoshi Tokumaru[1], Masayoshi Kojima[1], Ken'ichi Fujiki[1], Atsushi Yokobe[2], Tomoaki Ohmi[1], Masanobu Higashiyama[3], Masahiro Yamashita[4]

[1] STE Lab., Nagoya Univ., [2] Particle and Astrophysical Sci./STE Lab., Nagoya Univ., [3] STEL,Nagoya Univ, [4] Particle and Astrophysical, Nagoya Univ

http://stesun5.stelab.nagoya-u.ac.jp/~tokumaru

Interplanetary scintillation (IPS) observations at 327 MHz have been carried out regularly at Solar-Terrestrial Environment Laboratory (STEL), Nagoya University to study the solar wind. Recently, the accuracy of the IPS obervations has been greatly improved by employing the computer-assisted tomography (CAT) technique, and data obtained from the IPS CAT analysis are found to be as accurate as in situ data for the large-scale stable (i.e. corotating) structure. As for the transient solar wind, its 3-dimensional structure can be also studied by analyzing daily IPS data. These progress lead to increased importance of IPS observations for the space weather research. Here,we report on recent results from STEL IPS observations and our future plan.