

S001-P02

ポスター 3 : 11/6 AM1/AM2 (9:00-12:30)

#坪内 健¹⁾

⁽¹⁾ 電気通信大学

Property of the heliosheath plasma associated with the compression at the termination shock

#Ken Tsubouchi¹⁾

⁽¹⁾The University of Electro-Communications

The interaction between the solar wind and local interstellar medium forms the termination shock (TS) and the heliopause (HP). Voyager 1 and 2 have already crossed both the TS and HP. Their crossing positions show that the TS is asymmetric in a radial distance, while the HP is almost symmetric. The thickness of the heliosheath (HS), the region between the TS and HP, is consequently asymmetric. The MHD modelings suggested that the effect of the interstellar magnetic field can account for this asymmetry. In this study, we focus on another factor that affects the HS thickness. The Voyager 2 measurements showed that the compressional ratio at the TS is smaller than expected from the MHD theory. The presence of pickup ions (PUIs) modifies the compression property at the TS. We performed the one-dimensional hybrid simulation and investigated the correlation between the PUI density and the plasma properties in the HS. We especially pay attention to the variability of the specific heat ratio which controls the plasma heating at the TS. Associations with the HS thickness are further discussed.