# MAGNETOPAUSE PRESSURE BALANCE IN SUBSOLAR POINT DURING NORTHWARD IMF ORIENTATION AND HIGH LEVEL OF TURBULENCE IN MAGNETOSHEATH IN ACCORDANCE WITH THEMIS DATA

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Plasma static and dynamic, magnetic pressure variations at the subsolar point of the magnetosphere of the Earth are studied using data of THEMIS satellites. The interval when interplanetary magnetic field (IMF) had the northward orientation and magnetopause crossings had features near to the tangentional discontinuity was selected. 18 magnetopause crossings were analyzed. Great variations of plasma flow parameters and magnetic field were simultaneously observed in the magnetosheath (turbulent magnetosheath). It is shown that in spite of such great magnetosheath variations and limited applicability of MHD approximation to the noncollisional plasma, the condition of stress balance is fulfilled in the limited regions near magnetopause just before the magnetopause and after it. The problem of magnetosheath plasma penetration inside the magnetosphere is discussed.

Magnetopause, pressure balance, magnetic field fluctuations

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