Geophysical Research Abstracts, Vol. 7, 02574, 2005
SRef-ID: 1607-7962/gra/EGU05-A-02574

Statistical Study of Strong Flow Neutral Sheets

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We study the Earth's magnetotail neutral sheet for events with strong plasma flow ($>$ 150 km/s) perpendicular to the local magnetic field direction. Using the Cluster data for the 2001 and 2002 tail season, July through October, we obtained 68 intervals of 12 minutes for which both C1 and C3 remained near the neutral sheet. We have already shown that the magnetic turbulence in the neutral sheet is produce by a streaming instability, most probably the Kelvin-Helmholz instability. We will now investigate other parameters of the neutral sheet, like temperature, flow directions and inclinations, and search for (a)symmetries in the neutral sheet and dependencies on flow and local time.