

**Structure of the cross-tail current during magnetic reconnection in the Earth's magnetotail.**

# Tomohiko Izutsu[1]; Tsugunobu Nagai[2]

[1] Dept.Earth Planet. Sci.,Tokyo Tech; [2] Tokyo Institue of Technology

We study structure of the cross-tail current during magnetic reconnection in the Earth's magnetotail.

We carry out superposed analysis of the current density as a function of distance from X-type neutral line by the Cluster spacecraft in the period July-October 2001. The cross-tail current density has a peak in the center of the current sheet in quiet periods. During reconnection, the cross-tail current density near the edge of the current sheet is enhanced.