

Characteristics of Magnetosheath-Magnetosphere Interface at the time of LLBL Formation

Kiyoshi Maezawa [1]

[1] Dept of Physics, Nagoya Univ

The formation mechanism of the LLBL (Low Latitude Boundary Layer) is still an unresolved issue of the magnetospheric physics. Two possible mechanisms discussed so far are the K-H instability (plus some sort of diffusion processes) and magnetic reconnection. We report here the characteristics of the LLBL observed with GEOTAIL at $0 < x < 30$ Re during periods of northward IMF. It is suggested that, in several cases, the K-H instability is locally occurring at the low-latitude boundary, but the magnetosheath field lines involved in the K-H instability have already been reconnected at the high-latitude magnetospheric boundary.