

# **THE ROLE OF ENTROPY IN PLASMA SHEET TRANSPORT**

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The role of entropy conservation and loss in plasma transport in the inner plasma sheet is discussed on the basis of MHD theory and simulations. Entropy loss, for instance by ejection of plasmoids, is essential in the earthward transport of flux tubes (bubbles, bursty bulk flows). Entropy loss also changes the tail stability properties and may render ballooning modes unstable and thus contribute to cross-tail variability. We illustrate these effects through results from theory and simulations.

Entropy, transport

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