

Comparison of Maxwell stresses between the cusp and the plasma sheet and its north-south asymmetry

Takesi Iijima[1]

[1] Earth & Planetary Sci.,Kyushu Univ

In both the cusp and the plasma sheet regions,FAC(field-aligned current)system transmit the Maxwell stress(tangential stress that is same the transverse momentum flux)from the source region to the ionosphere and the plasma population in a flux tube convects as a whole along with the magnetic flux.We can learn these stresses from the magnetic field measurements with the low-altitude satellite.This study is devoted to investigate the Maxwell stresses that were observed on a same orbit and were applied to the cusp and the plasma sheet flux tubes both in the northern and the southern hemispheres.Characteristics determined include the possible decoupling between the dayside cusp convection and the nightside plasma sheet convection and its hemispheric asymmetry.

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