

R008-15

Zoom meeting D : 11/4 AM2 (10:45-12:30)

11:30~11:45

昼側磁気圏境界環境と磁気リコネクション構造

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Relationship between the circumstances of the dayside magnetopause and magnetic reconnection

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Magnetic reconnection affects the macro-scale evolution of the surrounding system. On the other hand, the surrounding system also affects the magnetic reconnection. In particular, asymmetric reconnection in the dayside magnetopause is significantly affected by the surrounding system. In this paper, we focus on how these circumstance affect to the magnetic reconnections. Even small asymmetry of the magnetic field strength in the both sides of the current sheet significantly affect to the reconnection structure. For example, the produced plasmoid has also asymmetric structure and high beta plasma flow into the plasmoid in the low beta side, results in the formation of the contact discontinuity in the low beta side plasmoid. These asymmetric reconnection also change the output flow structures. In these asymmetric reconnection, the comparable fast outflow in the low beta side plasmoid with that in the reconnection fan is observed. That is, the fast reconnection jet is not always observed in the reconnection fan in the case of the asymmetric reconnection.