



## **The magnetotail plasma sheet asymmetry of the terrestrial planets**

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In this presentation, based on the magnetic field data analysis of Cluster, Venus Express and MESSENGER on the magnetotail of Earth, Venus and Mercury respectively, we summarized our recent series studies on the magnetic field structure of terrestrial planets' magnetotail. We placed the focus on the comparison of the asymmetry characteristics of the planetary magnetotail plasma sheet. The possible reasons for governing the plasma sheet asymmetry of different planetary magnetotail are discussed in a comparative way. Consequently, an evolution scenario of the plasma sheet structure is suggested as the planetary dipole moment decreases from the case of Earth to the case of Venus.