



Magnetopause crossings over eight years of THEMIS observations - spatial analysis

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The magnetopause is a boundary on which the pressure of the solar wind is balanced with the of Earth's magnetic field pressure. Various empirical magnetopause models parameterized by the solar wind dynamic pressure and, alternatively, with the interplanetary magnetic field components have been developed in the past decades.

We used thousands of the dayside low-latitude magnetopause observations over eight years of THEMIS to determine a dependence of the boundary shape and location with accent on unusual magnetopause locations. We discuss the influence of orbital limitations and observation density on model parameters.