

Pi 2 source region deduced from the CPMN data

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In order to clarify the source region of Pi 2 in the magnetosphere, we investigate propagation characteristics of Pi 2 magnetic energy observed at the CPMN stations.

Magnetic energy of Pi 2 perturbation is defined as $(dH)^2 + (dD)^2$. The times when the amplitude of magnetic energy becomes maximum and the ratio of the maximum amplitude were compared among the stations. Observational results were presented in previous SGEPS meetings.

To explain observational results, we estimate the propagation time of Pi 2 using realistic plasma density and magnetic field models.

From observational results and model estimation, the region of Pi 2 energy source is deduced around 9-10 Re and 22-23 MLT on the equatorial plane in the nightside magnetotail.

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