

Observation of time and spatial variation of the Io plasma torus

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The satellite, Io, is known to be the main source of plasma in the Jovian magnetosphere. Hence, variabilities in the Io plasma torus give large effects to the plasma environment in the magnetosphere. We carried out a continuous observation of forbidden lines of S⁺ ion (hereafter [SII] ; 673.1nm) to investigate the time variability in the Io plasma torus. Observations have been done from middle of August to the end of September in 1998. In the presentation, we introduce some time variable phenomena of [SII] emissions in the torus.