

Study of Jovian magnetosphere using auroral observations

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In recent years, significant progress has been made to the study of the Jovian magnetosphere, based on observations of the auroral infrared emissions from H_3^+ ions produced by particle precipitation to the atmosphere.

Discovery of Io Flux Tube footprint gave constraints to the latest Jovimagnetic field model, in addition to the spacecraft in-situ observations.

The auroral imaging observations also provide useful information regarding the relationship with the solar wind activity and origins of the auroral particles in the magnetosphere.

It is expected that the observations of Jovian infrared aurora, together with the ultraviolet observations and radio observations, further the study of the Jovian magnetosphere.