

Observation of the sodium atoms distribution in the Io's corona

Masaru Suzuki[1], Hiroaki Misawa[1], Shin Takahashi[1], Hiromasa Nozawa[1], Akira Morioka[2], Shoichi Okano[3]

[1] Planet. Plasma and Atmos. Res. Cent., Tohoku Univ., [2] Planet. Plasma and Atmos. Res. Cent., Tohoku Univ., [3] PPARC, Tohoku Univ.

The volcanic gas escaping from Io is known to be the main source of plasma in the Jovian magnetosphere, and its time variation is thought to give large effects to the Jovian electromagnetic phenomena. The sodium atoms distribution outside the Io's corona has been observed to trace the escaped gas from Io. However, few observations inside the Io's corona have been carried out to derive the escaping process. We have observed the sodium atoms distribution inside of the Io's corona by the OOPS at the Okayama Astrophysical Observatory from the end of October to beginning of November in 1999. In this presentation, we report the data analysis and sodium atoms distribution inside of the Io's corona.

The volcanic gas escaping from Io is known to be the main source of plasma in the Jovian magnetosphere, and its time variation is thought to give large effects to the Jovian electromagnetic phenomena. The sodium atoms distribution outside the Io's corona has been observed to trace the escaped gas from Io. However, few observations inside the Io's corona have been carried out to derive the escaping process. We have observed the sodium atoms distribution inside of the Io's corona by the OOPS at the Okayama Astrophysical Observatory from the end of October to beginning of November in 1999. In this presentation, we report the data analysis and sodium atoms distribution inside of the Io's corona.