

# Observation of the Jovian synchrotron radiation with the Iitate Planetary Radio Telescope(II)

# Fuminori Tsuchiya[1]; Hiroaki Misawa[2]; Takuo Watanabe[2]; Shiho Nomura[3]; Kota Imai[1]; Akira Morioka[4]; Yoshizumi Miyoshi[5]; Tetsuro Kondo[6]

[1] Planet. Plasma Atmos. Res. Cent., Tohoku Univ.; [2] Planet. Plasma and Atmos. Res. Cent., Tohoku Univ.; [3] Planet. Plasma Atmos. Res. Cent., Tohoku Univ.; [4] Planet. Plasma and Atmos. Res. Cent., Tohoku Univ.; [5] STEL, Nagoya Univ.; [6] KSRC, NICT

<http://pparc.geophys.tohoku.ac.jp/>

We observed Jovian synchrotron radiation (JSR) by the Iitate Planetary Radio Telescope (IPRT) at a frequency of 325 MHz from Oct. 2003 to Jan. 2004. The observations of JSR and some standard calibration stars were made by a drift scan method. The calibration stars were also measured by a cross scan method in order to evaluate a pointing accuracy of IPRT. After a correction of the receiver gain and the noise level, we derived antenna temperature during the observations of JSR. From the observations, we confirmed the 'beaming curve' of JSR which indicated the dependence of JSR intensity on the magnetic longitude of Jupiter and reflects pitch angle distribution of trapped relativistic electron in Jupiter's radiation belt. We plan to observe back ground radiation from the galaxy, subtract them from the observation data of JSR, and derive the absolute intensity of JSR.