

PCG040-P12

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## Polarization analysis of Jupiter's hectometric radio emissions from Cassini RPWS data

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We have investigated the radiation characteristics of Jupiter's hectometric radio emissions (HOM) by using the Cassini Radio and Plasma Wave Science (RPWS) data during Oct. 2, 2000 to Mar. 22, 2001. We have analyzed occurrence and intensity dependence from 0.3 MHz to 4 MHz based on the magnetic latitude and also made the occurrence probability and the average intensity maps for each frequency. As a result of this analysis, we found the amplified HOM radiation in the attenuation band. In addition, it is found that the normal HOM intensity is 5-8 dB lower than the amplified HOM intensity. This is very important information to reveal the origin of HOM. In this presentation we propose a model to explain the amplified HOM radiation.

Keywords: Jupiter's Hectometric Radio Emissions, Attenuation Band, Cassini Spacecraft, Jupiter's Radio Occurrence Probability Map, Jupiter's Radio Average Intensity Map, Jupiter's Magnetic Field