木星磁気圏プラズマ変動期における準周期的オーロラ電波の出現特性

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Occurrence characteristics of Jupiter's quasi-periodic auroral radio emission in the megnetospheric plasma enhancement period

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Around Jupiter's oppositions to the earth in 2014 and 2015, remote observations for Jupiter had been made continuously by the HISAKI satellite. In particular in the 2015 campaign period, sudden enhancement of Iogenic plasma emissions occurred in the middle of Jan. and the enhancement had lasted for more than two months. This phenomena would give a valuable opportunity to investigate what parameters and/or processes control magnetosphere's variations.

In the last SGEPSS meeitng, we showed some occurrence features of Jupiter's auroral radiations in hectometric wave range (HOM) for the Iogenic plasma enhancement period, particularly for their occurrence probability/intensity. In this presentation, we will introduce occurrence timing and/or spectral features of Jupiter's auroral radio emission in the decametric wave range (DAM) in particular non Io-DAM's "QP burst" (see Panchenko et al., 2010, 2013) for the particular period based on the analyses of the WIND spacecraft data. A preliminary analysis shows that the recurrence period of the QP bursts was shorter during the Iogenic plasma enhance period, which seems to be different from that of the known recurrence feature of the Iogenic plasma (i.e. System-IV). We will introduce the preliminary results and discuss effects of the plasma enhancement on the auroral radio activities.

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