

Variation characteristics of Jupiter's hectometric radiation during the Jupiter observation campaign with HISAKI

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In the last winter around Jupiter's opposition to the earth, an intensive remote observations for Jupiter had been held by using the HISAKI (SPRINT-A) satellite and the other many optical and radio wave instruments. This observation campaign gave an important opportunity for the investigation of drivers of Jupiter's magnetospheric activities. We have analyzed Jupiter's hectometric radiations (HOM) by using the WIND spacecraft data for the period. HOM is known to be a counterpart of the auroral kilometric radiation (AKR) of the earth and one of indicators which reflect Jupiter's global magnetospheric activities (Louarn et al., 1998; 2014 etc.), and is implied to have some correlation with solar wind variations (Nakagawa et al., 2000 etc.). The campaign was held around the maximum of the current solar cycle and many intensive solar bursts were included in the radio data, however a preliminary analysis indicates some correlative radio intensity enhancements with those of auroral UV emissions detected with HISAKI/EXCEED. In the presentation, we will introduce results of comparison analyses among auroral radio and optical intensities, and plasma properties relating to Jupiter's magnetospheric activities such as expected solar wind characteristics and torus plasma.

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