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Room:Convention Hall

Time:May 26 10:30-13:00

Radiation Measurement by the Light Particle Telescope for the Jason-2 Satellite

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An ocean observation satellite Jason-2 by CNES (France) was launched in June 2008 and carried JAXA's radiation environment monitor called Light Particle Telescope (LPT). The LPT consists of four sensors which can measure electrons with energy from 25keV to 20MeV, protons from 0.3MeV to 230MeV and 4He particles from 0.8MeV/n to 80MeV/n totally. The altitude of Jason-2 orbit is 1,336 km and its inclination is 66 degree. Radiation environment at that altitude was measured for the first time. In addition, another LPT will be onboard a successive satellite Jason-3, which has the same orbit and mission period of 5 years. With Jason-2 and Jason-3, we are able to observe a radiation environment at an altitude of 1336 km through a solar cycle of 11 years. The measurement data are expected to contribute to getting a new knowledge of the radiation belt and to making a new model of the radiation belt.

Analysis of Jason-2 data is in progress. And we are developing the LPT for Jason-3; one of the sensors in the LPT will be improved to be able to count electrons at a high rate environment.

In our presentation, we will introduce the Jason-2 measurement data and the current status of Jason-3 LPT.

Keywords: radiation environment, radiation belt, light particle telescope, Jason-2