Japan Geoscience Union Meeting 2010
(May 23-28 2010 at Makuhari, Chiba, Japan)

PEM036-10 Room: Function Room A Time: May 25 14:30-14:45

Japan's Contribution during the Next Solar Max through the In-situ Geospace Exploration

Masafumi Hirahara[1*]

[1]Dept. Earth & Planet. Sci., Univ. Tokyo

Geospace stands for the space environment constituted by the plasma particles and waves, the electric field and current, and the geomagnetic field, entirely surrounding the Earth. This region distributed widely beyond the geosynchronous orbit is quite influential for the space infrastructure like applications (weather/broadcasting/telecommunications) satellites, and also crucial for the space physics because a variety of particle acceleration/transport/loss processes occur and numerous high-energy/radiative particles are produced. Our Japanese research community of the solar-terrestrial physics (STP) is starting up a new mission for the Gesopace exploration. This mission is called "ERG (Energization and Radiation in Geospace)," and we aim to establish a new paradigm on the STP research on the basis of newly integrated observations using several exploration satellites, the ground-based instruments, and the modeling/simulation schemes. In this talk, we present the current plan and status of the Japan's Geospace exploration and the contribution during the next maximum solar activity period.

Keywords: Geospace, Space Storm, Radiation Belt, Space Plasma, In-situ Observation, Solar Activity