

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

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MSD004-05

会場:301A

時間:5月27日 15:15-15:30

小型科学衛星 ERG ミッションについて Small Satellite Program ERG

小野 高幸^{1*}, 三好 由純², 高島 健³, 平原 聖文⁴, 浅村 和史³, 関 華奈子², 小原 隆博⁵, 笠羽 康正¹, 熊本 篤志¹, 松岡 彩子³, 小嶋 浩嗣⁶, 藤本 正樹³, 塩川 和夫², 長妻 努⁷, ERG ワーキンググループ²

Takayuki Ono^{1*}, Yoshizumi Miyoshi², Takeshi Takashima³, Masafumi Hirahara⁴, Kazushi Asamura³, Kanako Seki², Takahiro Obara⁵, Yasumasa Kasaba¹, Atsushi Kumamoto¹, Ayako Matsuoka³, Hirotsugu Kojima⁶, Masaki Fujimoto³, Kazuo Shiokawa², Tsutomu Nagatsuma⁷, ERG working group²

¹ 東北大学大学院理学研究科, ² 名古屋大学太陽地球環境研究所, ³ ISAS/JAXA, ⁴ 東京大学, ⁵ 宇宙航空研究開発機構 研究開発本部, ⁶ 京都大学生存圏研究所, ⁷ 情報通信研究機構

¹Tohoku University, ²STEL, Nagoya University, ³ISAS/JAXA, ⁴University of Tokyo, ⁵Japan Aerospace Exploration Agency, ⁶RISH, Kyoto University, ⁷NICT

In order to investigate acceleration mechanisms of relativistic particles of the radiation belts and dynamics of geospace during space storms, the ERG (Energization and Radiation in Geospace) project has been proposed. The small satellite SPRINT-B/ERG will be launched around 2014-2015 in which many space storms tend to occur. The planned apogee altitude is about 4 Re, which is essential to measure the heart of the outer radiation belt, and the mission life will be longer than 1 year. The SPRINT-B/ERG satellite is currently designed to have a comprehensive set of plasma/particle sensor as well as field and wave instruments. These sensors can cover wide energy ranges of plasma/particles and frequency ranges of waves, which are important to understand the cross-energy coupling to generate relativistic electrons. The project consists of satellite observation team, ground-network observation team, and simulation/integrated studies team. There are also science coordination team and project science center in the ERG project. In this presentation, we will talk about the current status of the project.

キーワード: 小型衛星, ジオスペース

Keywords: small satellite, geospace