

X線衛星によるジオスペース撮像計画：GEO-X

Geospace Imaging via the soft X-ray imager: GEO-X mission

*三好 由純¹、江副 祐一郎²、笠原 慧³、松本 洋介⁴、石川 久美⁵、片岡 龍峰⁶、伊藤 大輝¹、伊師 大貴²、沼澤 正樹²、山崎 敦⁵、長谷川 洋⁵、藤本 正樹⁵、満田 和久⁵

*Yoshizumi Miyoshi¹, Yuichiro Ezoe², Satoshi Kasahara³, Yosuke Matsumoto⁴, Kumi Ishikawa⁵, Ryuho Kataoka⁶, Hiroki Ito¹, Daiki Ishi², Masaki Numazawa², Atsushi Yamazaki⁵, Hiroshi Hasegawa⁵, Masaki Fujimoto⁵, Kazuhisa Mitsuda⁵

1. 名古屋大学宇宙地球環境研究所、2. 首都大学東京、3. 東京大学、4. 千葉大学、5. 宇宙航空研究開発機構宇宙科学研究所、6. 国立極地研究所

1. Institute for Space-Earth Environmental Research, Nagoya University, 2. Tokyo Metropolitan University, 3. University of Tokyo, 4. Chiba University, 5. ISAS/JAXA, 6. NIPR

Global scale imaging of the dayside magnetosphere is an important observation subjects to understand the solar wind-magnetosphere coupling processes. Recent studies suggest that solar wind charge exchange soft X-ray (SWCX) emission from the dayside magnetosheath can be observed by the spacecraft, and several low-altitude satellites, for example, the Suzaku and XMM-Newton satellites, detected the SWCX emissions from the cusp regions. The SWCX emissions will be a diagnostic tool to understand the dynamic response of the terrestrial magnetosphere to the solar wind impact in a unique manner. In order to realize global scale imaging of the magnetosphere using the SWCX emissions, we are now planning the new satellite mission GEO-X that will be launched in early 2020s. In this presentation, we will present possible science subjects of the GEO-X mission with possible images of SWCX emissions estimated from the global-MHD simulation.

キーワード：ジオスペース撮像、将来衛星計画

Keywords: Imaging of Geospace, Future Satellite Mission