

PEM025-16

会場:ファンクショナルルームA

時間: 5月27日16:15-16:30

ひのとり衛星とDEMETER衛星で観測された電子温度・密度の経度構造

Longitudinal structure of electron temperature and density obtained by Hinotori and Demeter satellite

柿並 義宏^{1*}, 林 建宏¹, 劉 正彦², 渡部 重十³, 鴨川 仁⁴, Parrot Michel⁵

Yoshihiro Kakinami^{1*}, Chien-Hung Lin¹, Jann-Yenq Liu², Shigeto Watanabe³,
Masashi Kamogawa⁴, Michel Parrot⁵

¹台湾国立成功大学, ²台湾国立中央大学, ³北海道大学, ⁴東京学芸大学, ⁵LPCE/CNRS, France

¹National Cheng-Kung University, Taiwan, ²National Central University, Taiwan, ³Hokkaido University,
⁴Tokyo Gakugei University, ⁵LPCE/CNRS, France

Longitudinal structure of electron density (Ne) and temperature (Te) observed by the Hinotori satellite and the DEMETER satellite was examined in this paper. Longitudinal structure of Ne and Te show a unit-correlation pattern during morning, which Local maximums of Ne and local minimums of Te appear around 90, 190, 250 and 330E except during May-September. Ne and Te observed by both satellites show a good agreement during morning from July to October nonetheless the solar activity is different. Meanwhile, longitudinal structure of Ne and Te display a positive correlation pattern during daytime in high solar activity. Fast Fourier transform analysis reveals that wave number 3 and 4 of Ne are pronounced during November-April and May-October, respectively, On the other hand, wave number 3 and 4 of Te are pronounced during October-May and July-September, respectively. These discrepancies indicate the altitude difference of wave structure.

キーワード:電離圏, 4波, 電子温度, 電子密度, ひのとり, デミータ

Keywords: ionosphere, 4 wave, electron temperature, electron density, Hinotori, DEMETER