Japan Geoscience Union Meeting 2011

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

©2011. Japan Geoscience Union. All Rights Reserved.



PEM032-P08

会場:コンベンションホール

時間:5月27日10:30-13:00

2009年7月の皆既日食時に衛星 DEMETER で観測された電子・イオン密度変動 Variation of Ne and Ni observed by DEMETER during 2009 total solar eclipse

望月香織 ^{1*}, 鴨川 仁 ¹, 柿並 義宏 ², Wang Xiaoni³, Berthelier Jean-Jacques³, 大西 健夫 ³ Kaori Mochizuki^{1*}, Masashi Kamogawa¹, Yoshihiro Kakinami², Wang Xiaoni³, Jean-Jacques Berthelier³, Tatsuo Onishi³

 1 東京学芸大学物理学科, 2 台湾中央大学太空科学研究所, 3 LATMOS, France

We investigate topside ionospheric dynamics of 2009 total solar eclipse in East Asia by using Ne/Te and Ni/Ti data of French satellite DEMETER, of which altitude is around 660 km. On July 22, 2009, one of DEMETER orbits crossed eclipse zone, and the distance closest to the total eclipse area was approximately 200km. Just after the total solar eclipse, Te decreased while Ne did not change. Before the maximum obscuration, Ne decreased and Te increased because production rate of plasma decreased under the F-region. Since strong fountain effect appeared up to +30 degree in latitude, the satellite measured the enhancement of Ne, while Te further decreased due to the eclipse. This feature differs from another eclipse case [Wang et al., JGR, 2010]. In the presentation, we discuss quantitatively ionospheric dynamics during the total solar eclipse.

キーワード: 皆既日食, イオン密度, 電子密度, 大気重力波

Keywords: Total solar eclipse, Ion density, Electron density, Gravity wave

¹Dpt. of Phys., Tokyo Gakugei Univ., ²Inst. Space Sci., National Central Univ., ³LATMOS, France