

MIS014-P06

会場:コンベンションホール

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2009年7月の皆既日食中にDEMETERで観測されたプラズマ・イオン密度変動

Variation of Te and Ti observed by DEMETER during 2009 total solar eclipse

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We investigate 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 before the total solar eclipse, middle-scale traveling ionospheric disturbance (MSTID) over Japan occurred from GPS-TEC data. At the same time, DEMETER also recorded decrease of Ne and Ni associated with MSTID. After MSTID, however, Te and Ti decreased due to a shadow of the moon when the satellite entered eclipse zone. After that, Ne and Ni enhanced possibly associated with eclipse-origin gravity waves traveling along the magnetic field line. 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