

[EE] Evening Poster | P (Space and Planetary Sciences) | P-EM Solar-Terrestrial Sciences, Space Electromagnetism & Space Environment

[P-EM15]Dynamics in magnetosphere and ionosphere

convener:Yoshimasa Tanaka(National Institute of Polar Research), Tomoaki Hori(Institute for Space-Earth Environmental Research, Nagoya University), Aoi Nakamizo(情報通信研究機構 電磁波研究所, 共同), Mitsunori Ozaki(Faculty of Electrical and Computer Engineering, Institute of Science and Engineering, Kanazawa University)

Mon. May 21, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

This session provides an opportunity to present recent results from satellite and ground-based observations and theoretical and simulation studies on the magnetosphere, ionosphere, and their coupling system. We invite contributions dealing with various phenomena related to the magnetosphere-ionosphere system: solar wind-magnetosphere interaction, magnetosphere-ionosphere convection, field-aligned current, magnetic storms/substorms, neutral-plasma interaction, ionospheric ion inflow and outflow, aurora phenomena, and so forth. Discussions on planetary and satellite ionosphere and magnetospheres, future missions and instrument developments are also welcome.

[PEM15-P08]The ionospheric characteristics correlated to the geomagnetic Sq fields and neutral winds over Taiwan area

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Keywords:ionospheric dynamic, Sq current, neutral winds

This study is trying to analysis variations of ionospheric characteristics, geomagnetic Sq fields, and the neutral winds at Taiwan. Using hourly data of the H and Z components of the geomagnetic observations and derived from Taiwan observatory in 1999, to calculate the Sq current. The other hand, we calculated the ionospheric total electron content (TEC) by using global positioning satellite system (GPS) data in 1999. Further, we also calculated the thermospheric neutral winds that derived from ionospheric parameters at Taiwan. In this investigation, we show the daily, seasonal and annual variations of geomagnetic Sq fields, NmF2, hmF2, TEC, and neutral winds during the solar quiet period in 1999. Meanwhile, this study also discusses the possible physics processes for the variation of ionosphere corresponding to the geomagnetic Sq fields and neutral winds.