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

[P-EM12]Space Weather, Space Climate, and VarSITI

convener:Ryuhō Kataoka(National Institute of Polar Research), Antti A Pulkkinen (NASA Goddard Space Flight Center), Kanya Kusano(名古屋大学宇宙地球環境研究所, 共同), Kazuo Shiokawa(Institute for Space-Earth Environmental Research, Nagoya University)

Thu. May 24, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

Past, Present, and Future of Solar-Terrestrial Environment is the keynote of this session. We share the latest scientific papers to understand how the solar-terrestrial environment changes in various time scales, and discuss the necessary international collaboration projects associated with VarSITI. More specifically, welcomed papers include space climate studies using tree rings and ice cores; cutting-edge observational and modeling studies of geospace, heliosphere and the sun; simulation and statistical studies to predict the future space weather and space climate.

[PEM12-P19]Modeling of the thermospheric density variations at around 200 km altitude

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Thermospheric density is one of the parameters which have many uncertainty. In particular, during/after geomagnetic storms, the thermospheric density variations are too complex to predict although many researchers have made significant efforts for modeling the density based on satellite observations and numerical simulations. In addition, there are few observations of the thermospheric density in the altitude range of 150-250 km. We should understand the thermospheric density variations for the safety operation of the Low Earth Orbit (LOE) satellites in addition to the scientific purposes. We introduce our research project to develop a method for modeling the thermospheric density variations using low-altitude satellite data and GCM simulations.