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

[P-EM10]Coupling Processes in the Atmosphere-Ionosphere System

convener:Huixin Liu(Earth and Planetary Science Division, Kyushu University SERC, Kyushu University), Loren Chang(Institute of Space Science, National Central University), Yuichi Otsuka(名古屋大学宇宙地球環 境研究所)

Tue. May 22, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe) Vertical coupling mechanisms throughout the whole atmosphere are critical to understanding the near Earth space environment, as well as its sensitivity to the solar, geomagnetic, and atmospheric drivers. This international session focuses on physical/chemical processes occurring in the mesosphere, thermosphere, and ionosphere (MTI) from both the poles to the equatorial region. Both quiet and disturbed states in response to lower atmospheric forcing or solar forcing are important for understanding the MTI system and its coupling to other regions. We invite presentations of observations and observational concepts with ground-based and/or space-borne instruments, theoretical studies, numerical simulations, and development of data analysis systems for various kinds of temporal and spatial variations in MTI system.

[PEM10-P05]Seasonal variation of the plasma bubble occurrence rate

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We investigate the seasonal variation and the azimuthal distribution of the amplitude scintillation occurrence rate with the data observed by GPS ground receiver at Kototabang from 2010 to 2015. Its year-to-year variation shows the well-known solar activity. It also confirms the known seasonal variation, with local maxima in equinoxes and the local maximum in March is larger than that in September as reported in previous work. Furthermore, it also shows an azimuth preference, with stronger occurrence rate in the south. This feature is similar to that obtained by [Abadi et al., 2017] at Pontianak and Bandung. This is mainly because the equatorial ionization ionization anomaly (EIA) crest locates in this direction.