

R010-P11

ポスター 3 : 9/26 AM1/AM2 (9:00-12:30)

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Ionospheric Space Weather Informatics

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Dynamic changes in the environment caused by the sun and solar wind often also affect telecommunication networks, power grids, and other infrastructure. One significant influence of solar activity is seen in disturbances in satellite navigation services, GPS/GNSS, due to space weather impacts on the upper atmosphere, known as the ionosphere. We operate ground-based FM-CW radars to observe the ionosphere at four sites in Japan and overseas. Also we have developed the SDR (Software-Defined Radio) -based scintillation detector system and examine the GPS scintillation. These remote sensing have generated big data of ionospheric environment observation. In order to understand the ionospheric environment in real time and to infer future space weather, we have developed a technique to obtain useful information from past cases that occurred under similar space weather conditions by high-speed computation and processing of observation data. We will present examples of our current research efforts in Ionospheric Space Weather Informatics.