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SGD021-P07

Room:Convention Hall

Time:May 23 14:00-16:30

Ka-band Data Analysis of Phase Variation from WINDS Satellite Signals Interferometer System

Tetsuya Katayama^{1*}, Takuya Shinno¹, Fujinobu Takahashi²

¹Yokohama National University, ²Yokohama National University

Japanese Super Internet Satellite WINDS sends Ka-band signals. Ka-band is influenced by rainfall and meteorological phenomenon because its wavelength is very short. We constructed the interferometer system that receives signals and thermal noise from the WINDS and measure and research the influence of rainfall and meteorological phenomenon on WINDS signals. The interferometer system receives the radio wave from the WINDS with two antennas and performs the correlation processing. Using the VLBI-type fringe stopping method to practical use, we got the amount of phase variation of the correlation. We analyzed the phase variation by comparing that to meteorological variation such as temperature and atmospheric pressure and discussed the influence of meteorological phenomenon on WINDS signals and tropospheric propagation.

Keywords: WINDS, Ka-band, interferometer, correlation processing, phase, meteorological phenomenon