**R006-35**
**A 会場 ：11/7　PM1 （13:45-15:30）**
**14:00〜14:15**

## ３年間の地上多点観測データを用いたサブオーロラ帯の銀河電波吸収の増強の統計解析

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## Study of steep increases of cosmic noise absorption at subauroral latitudes using 3-year multipoint ground-based observations

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Electron density enhancements in the ionospheric D-region due to the precipitation of high-energy electrons (>30 keV), have been measured as increasing in cosmic radio noise absorption (CNA) using ground-based riometers. However, there have been few studies of CNA observations at multi-point stations distributed in longitudes at subauroral latitudes. Thus, the spatio-temporal development of the global distribution of CNA at subauroral latitudes is not well understood. In this study, we analyzed the longitudinal development of CNA using simultaneous riometer observations at six stations at subauroral latitudes in Canada, Alaska, Russia, and Iceland over 3 years from 2017 to 2020. These stations are located encircling the earth at ˜60 degree magnetic latitudes. In order to study CNA produced by the substorm particle injection, we focused on the steep enhancements of CNA that is defined as dCNA/dt larger than 0.04 dB/min at the CNA onset with maximum amplitudes larger than 0.4 dB within 30 min. The occurrence rate of these CNA enhancements tends to be larger at nightside to the morning (˜0.02-0.05 events per hour), suggesting that the CNA enhancements are associated with substorm electron injections and eastward electron drift. In the presentation we will also discuss the expansion velocity of CNA, associated electron energy ranges, based on the timing difference of the CNA onsets between two neighboring stations, their dependence on solar wind and substorm indices, and magnetospheric ELF/VLF waves through superposed epoch analysis.