サブオーロラ帯でULF/ELF/VLF 波動とプラズマ変動を観測する PWING プロジェ クトの現状と2018年9月のキャンペーン観測初期結果

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Current status and Sept 2018 campaign results of the PWING project for wave and plasma characteristics at subauroral latitudes

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The PWING project (study of dynamical variation of Particles and Waves in the INner magnetosphere using Ground-based network observations) has been carried out since March 2017. All-sky airglow imagers, broadbeam riometers, ELF/VLF receivers, and induction magnetometers are operated at eight stations which are distributed longitudinally around the north geomagnetic pole at subauroral latitudes (magnetic latitudes of ~60 degree), together with three high-sampling rate (~100 Hz) EMCCD cameras. Among these eight stations, only the instruments at Nain, Canada, has not been in operation so far due to a difficulty of constructing power lines at the site, though the field instruments has already been installed in September 2017. In September 9-16, 2018 associated with a new moon (Sept. 10) period, we will conduct a campaign observation at Nain using a 900W power generator at the field site, in order to conduct simultaneous conjugate radio and optical measurements with the ERG (Arase) satellite which comes up on the same field line near Nain on September 11, 13, and 15. Associated with this new moon period, we will also conduct field trips to Poker Flat in Alaska to install the fourth EMCCD camera and to Husafell, Iceland, to install a new induction magnetometer. In this presentation, we will show preliminary results obtained from this campaign observation of September 2018. We will also briefly review some recent results obtained by the PWING network observations since March 2017.