PEM006-19   Room:101   Time:May 25 17:30-17:45

SuperDARN Hokkaido radar: present status and future perspectives

Nozomu Nishitani[1*], Takashi Kikuchi[1], Tadahiko Ogawa[2]

[1]STEL, Nagoya Univ., [2]NICT

Super Dual Auroral Radar Network (SuperDARN) is a powerful tool for studying magnetosphere-ionosphere-thermosphere coupling with various spatial temporal scales. Recent deployment of mid-latitude SuperDARN radars such as Wallops, Hokkaido, Blackstone, Kansas East / West, Falkland Islands and Oregon East / West has made it possible to study a great variety of processes at subauroral and mid latitudes as well as auroral latitudes. In this paper we will present overview of the SuperDARN Hokkaido radar, which is the 2nd mid-latitude SuperDARN radar and the only one in the Asian region. The SuperDARN Hokkaido radar began operation in November 2006, and has been working for more than 4 years. In the presentation we will show main scientific results using the radar, ranging from the magnetosphere, ionosphere to the thermosphere and upper mesosphere at mid- and subauroral latitudes. We will also present future perspectives, including plans of building a new radar in Hokkaido, covering the region to the west of the present Hokkaido radar FOV and adjacent to FOVs of Russian SuperDARN radars recently funded.

Keywords: SuperDARN, Hokkaido HF radar, mid-latitude ionosphere, inner magnetosphere, international collaboration, dynamics of geospace