

U003-02

Room: Function Room A

Time: May 28 09:15-09:30

Atmospheric Sciences using the PANSY Radar

Kaoru Sato^{1*}

¹U Tokyo/ NIPR

Syowa Station is one of the distinguished stations where various atmospheric observations for research purposes by universities and institutes as well as operational observations by Japan Meteorological Agency and National Institute of Information and Communications Technology are performed continuously. National Institute of Polar Research plays a central part in the operations. The observation of the Antarctic atmosphere is important in two senses. First, it is easy to monitor weak signal of the earth climate change because contamination due to human activity is quite low. Second, there are various unique atmospheric phenomena in the Antarctic having strong signals such as katabatic flows, the ozone hole, noctilucent clouds, and auroras. The middle atmosphere is regarded as an important region to connect the troposphere and ionosphere. However, its observation is sparse and retarded in the Antarctic compared with the lower latitude regions; nevertheless the vertical coupling is especially important in the polar region. In this talk, we will discuss various research topics of the atmospheric sciences that we can do with the PANSY radar.

Keywords: Antarctic Atmosphere, MST/IS radar, katabatic winds, atmospheric gravity waves, Antarctic ozone hole, Polar mesospheric clouds