

## Recent activity report on solar radio spectrographs of NICT

# Hiromitsu Ishibashi[1]; Kazumasa Iwai[1]; Takahiro Naoi[1]; Yuki Kubo[1]  
[1] NICT

In National Institute of Information and Communications Technology (NICT), the daily observation of solar activities by solar radio telescope system has been in operation since early 1950's. In the mid-1990s, we developed the solar radio spectrograph in Hiraiso Solar Observatory (HiRAS), which has played as an important part of NICT's space weather forecast for over twenty years. Its main purpose is to monitor various types of solar radio bursts and diagnose geo-effectiveness of relevant solar phenomena such as solar flares, coronal mass ejection. Actually, from a viewpoint of space weather forecast operation on a real-time basis, wide frequency range (MHz to GHz) radio wave observations by HiRAS is very suitable for us to get a full view of various solar activities from the lower corona to the interplanetary space. On the other hand, chronic deterioration in a radio wave environment has become increasingly apparent, which is out of our control any more. In addition, Hiraiso Solar Observatory has been desolate since FY 2009 according to a kind of administrative decision. Therefore, we decide to abandon Hiraiso Solar Observatory and terminate the HiRAS system at this fall.

Our new solar radio spectrograph in Yamagawa inherits the properties of the HiRAS and its detection accuracy of the solar radio phenomena improves a whole lot: its high time resolution (8ms) and high frequency resolutions (31.25kHz for MHz band and 1MHz for GHz band) especially has a significant benefit to detect the various fine spectral structures of the solar radio bursts that should be the key to find out their generation mechanism in the corona. Antenna installation works has been already completed, and we are now in the period of the system shakedown through various test observations.

In this presentaion, we will report the current status focused on some topics such as investigation of various exogenous noises. In addition, our works on digital archives of the HiRAS data will be presented schematically.