M03a **Restoration of dirty maps observed with Nobeyama Radioheliograph**

Maimaiti Reziwan and Noriaki Miura (Kitami Institute of Technology)

Images (dirty maps) provided by Nobeyama Radioheliograph show the pattern of a dirty beam due to the insufficiency of antennas in T-shape array of Radioheliograph. As a standard method for restoring such images, CLEAN is used. We have independently developed a non-CLEAN method that is applicable to the restoration of dirty maps. The feature of our method is a few number of parameters to be tuned. This presentation gives the principle of our method and its modification in applying to Radioheliograph data.

In our method, we utilize the nonnegativity of images and define an error metric between an observed and desired images. Using a conjugate gradient procedure to minimize the error metric, we can obtain a diffraction-limited image instead of a dirty map. Modification for Nobeyama Radioheliograph is as follows: we subtract a disk component from a dirty map, conduct restoration to obtain a clean image and then add the disk component on to the image. We investigated the influence of subtraction to a restored image.