

A Study on the Mission Display for the Lunar Low Frequency Astronomical Observatory

Takahiro Iwata[1]; Akira Miyahara[2]; Kawano Nobuyuki Lunar Low Frequency Astronomy Study Team[3]

[1] ISAS/JAXA; [2] JAXA; [3] -

Low frequency radio wave of below 30 MHz is one of the last frontiers for astronomical observation because of the interference by the terrestrial ionosphere and the lower angular resolution of a single element antenna. We propose the first-step observation system to display the technical and astronomical properties by a 30MHz-band radio interferometry composed by the antenna on the moon surface and terrestrial observatory. 5-m cross dipole antenna will be settled on the lunar low-latitudes and extended by an inflatable system. The design of data acquisition and handling system and subjects for over-night survival techniques are also argued.