

## Activity Report of Commission J March 2010– July 2010

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### ALMA project

One of major radio astronomy project in the world is ALMA (Atacama Large Millimeter and sub-millimeter Array), which will be 66-element radio interferometer at Atacama Desert in Chile. It uses millimeter and sub-millimeter bands at 5000 meter high site. It is an ambitious system under international collaboration project with North America, Europe and East Asia. Three antennas and other instruments were installed on the site of ALMA and interferometer test was started. The fundamental functions as a radio interferometer were checked. And good performance of so-called closure phase was demonstrated.

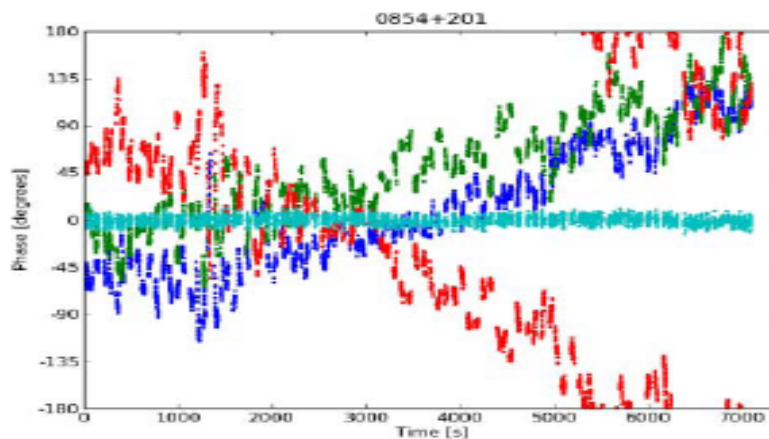


Figure: Plot of closure phase

Red, blue, and green dots show the phase of three element interferometer. And central dots show the closure phase, which are combined with phases of three pairs. It must be zero for a point source. This results show the good stability as a radio interferometer.

## Activities of meetings

- NRO users meeting

Date: July, 21-22, 2010

Place: Nobeyama Radio Observatory

Aims: Business report of common use of Nobeyama Radio Observatory  
Future plan of NRO 45-m radio telescope and related instruments  
Collaborations between NRO and ALMA

- Workshop of Cosmic Microwave Background

Date: June, 7-9, 2010

Place: National Astronomical Observatory

Aims: Polarization of CMB becomes important as a probe to verify the inflation model of the birth of Universe. This workshop aims to discuss the CMB polarization observations and related topics.

- East Asian VLBI Network Worksop

Date: April, 22-24, 2010

Place: Kagoshima University

Aims: In the workshop, technical progress and recent VLBI results will be reported. Collaborations and exchange of knowledge will be issued. An important purpose of the workshop is to establish the operation policy of the EAVN. Roadmap to science operations, time allocations, operation management, and ground support for the VSOP-2 will be discussed.

- The third Summer school in Spectrum management for Radio Astronomy

Date: May31-June 4,2010

Place: National Astronomical Observatory of Japan

Aims: The purpose of the 3rd IUCAF Summer School is to offer a comprehensive view of both technical and regulatory issues related to radio astronomers' use of the spectrum. Spectrum management is a task of rapidly growing importance, for radio astronomy as well as for other radio services. The IUCAF Summer School will be an opportunity to profit from the experience of colleagues, who gave doing it for some years.

• 10<sup>th</sup> Radio astronomy receiver workshop

Date: March 5, 2010

Place: Astronomy education and research center, University of Tokyo

Aims: This workshop aims to discuss future development of millimeter and sub-millimeter wavelength receive technology and related field.