Activity Report of Commission J
March 2009 – July 2009

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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. The first fringe between Japanese and North American telescopes has detected. And a design of the highest frequency reveiver (900GHz), which is responsible for Japan, was accepted and receiver noise temperature is achieved to around 200K, which is a world-record in this frequency band.. NbTiN was used as a super-conductor element.

Activities of meetings

・ Workshop for the Galaxy, Science for out regions

Date: 2-4, March ,2009

Place Kagoshima University

Aims: Review the current research results for the Milkyway galaxy, especially for the outer region of it. And future research plans for theoretical and observational aspects were discussed.

・Millimeter and Submillimeter Astronomy at High Angular Resolution

Date： 8-12, June 2009,

Place： Academia Sinica, Taiwan

Aims： The conference is to review the latest finding, obtained through millimeter and submillimeter observations at high angular resolution, and to outline the road map guiding us towards the ALMA era.

・Workshop of the Galactic center

Date: 26, June, 2009

Place; Nagoya University

Aims: Overview of the structure and dynamic of the Galactic center 1kpc region. Especially

the relation between the turbulence state and magnetic field is a main topic of this meeting. Results of Nanten CO observations and IR telescope magnetic field observation results were reported.

・Nobeyama radio observatory in the past quarter century and future of radio astronomy

Date： 3–4, July, 2009

Place; National Astronomical Observatory of Japan

Aims： Overview of activities of the Nobeyama radio observatory in the past quarter century and review the future radio astronomy research.