

**Activity Report of Commission J**  
**August 2009 – October 2009**

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Hideyuki Kobayashi (NAOJ)

**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. On September 17, the first ALMA antenna, which was constructed by Japan, was brought to the Array Operations Site (AOS) at 5000m. This important milestone clearly marks the beginning of a new era of the life of ALMA, since the first elements of our revolutionary telescope are now located at their definitive location.

**Activities of meetings**

- Planet system formation –ALMA science workshop-  
Date : 6, August 2009,  
Place : National Astronomical Observatory of Japan  
Aims : The meeting is to review the science progress of planet system formations and the feasibility of ALMA. The strategy of the research in this field was discussed.
  
- Workshop of VSOP-2 key science  
Date: 2-3, September ,2009  
Place National Astronomical Observatory of Japan  
Aims: Next space VLBI satellite will be launched in 2013. This workshop aims to review the possible key science themes. These subjects; Active Galactic nuclei, extragalactic mega masers, and astrometry, were discussed.
  
- Symposium of Radio-astronomy conference  
Date: 25, September, 2009  
Place; University of Tokyo  
Aims: This meeting is to review the possible future plan in the field of radio-astronomy. And the possibility of Japanese contributions were discussed.

Mainly below projects were discussed.

- Square Kilometer Array
- Very Large Millimeter and Sub-millimeter Array
- Far-infrared array in space
- Tera-hertz interferometer in Antarctica
- Satellite for polarization emission from the cosmic background emissions
- Sub-millimeter space VLBI