



The CCAT News

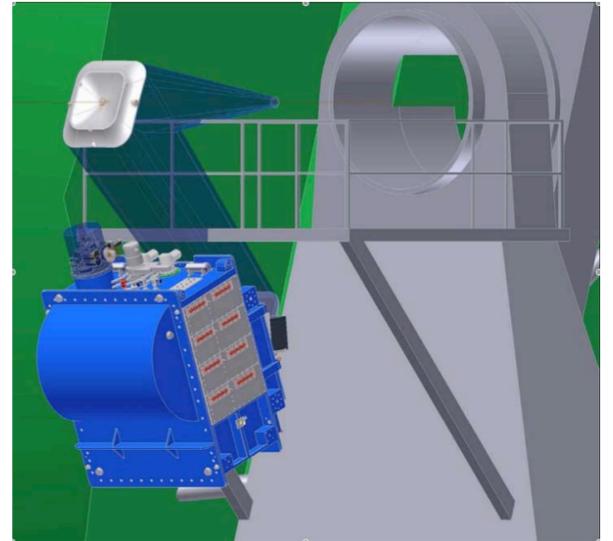
The Cornell Caltech Atacama Telescope

Issue 3 January 2007

CCAT Instrument Workshop at Caltech Draws Dozens

Advanced instrumentation for CCAT was the subject of a workshop held at Caltech on December 13, 2006, and attended by over forty researchers from ten astronomical institutions. Participants included all current and prospective CCAT consortium members as well as several other interested parties. The meeting participants enjoyed lively discussions of submm science objectives, existing and future large format bolometer cameras, heterodyne receiver arrays, direct detection spectrographs, polarimeters, and the interface between the telescope and the instruments. There was particular interest in opportunities presented by the possibility of bringing the SCUBA2 camera to CCAT as a first light instrument. Presentations may be found at:

<http://wiki.astro.cornell.edu/twiki/bin/view.pl/CCAT/2006-12-13>



United Kingdom Astronomy Technology Centre's concept of the SCUBA2 camera mounted at a Nasmyth focus on the CCAT.



Institute for Astronomy at U. Chile

R. Giovanelli and J. Zmuidzinas Visit Chile

In December 2006, R. Giovanelli and J. Zmuidzinas traveled to Chile and met with members of the Chilean and international scientific community, representatives of the National research Council of Chile (CONICYT) and the lawyer that represents Associated Universities, Inc., in that country. Progress was made in the understanding of legal issues associated with establishing a presence in Chile, as well as in the definition of an academic agreement between CCAT and Chilean academic institutions. The possibility of establishing a program of outreach in the community of San Pedro de Atacama was also ventilated.



Vertex RSI ALMA Prototype

ALMA Antenna Review

The recent release of a report detailing performance of the ALMA prototype antennas (astro-ph/0609329) prompted a visit by T. Sebring and S. Radford to NRAO, Socorro. P. Napier provided a detailed review and many aspects of designs and performance were discussed. Both the EIE/Alcatel and Vertex designs were reviewed. The possibility of adding CCAT to the ALMA array was raised and S. Radford is leading an investigation of the likely configuration and effectiveness of such an arrangement. CCAT is specified to be more than twice the diameter and about two times better surface quality than the ALMA antennas. A visit was also made to the H. Hertz/Submillimeter Telescope on Mt. Graham, AZ. Several areas of technology of interest to CCAT were identified.

Interim Consortium Agreement Imminent

An Interim Consortium Agreement which will govern the development of CCAT over the next year is nearing completion. Final negotiations are scheduled for January and the objective is for all the current partners to have signed by mid February. This agreement establishes an Interim Board of Directors and the first joint Project budget. Cornell expects a letter from the Provost's office early in January expressing Cornell's support for the Project. Canada has found funding for their first work on CCAT and the UK ATC has drafted an Statement of Intent for PPARC.

Composite Mirror Investigations

CCAT has initiated an investigation into contractors and technologies for CFRP mirrors for CCAT. Several companies in CA with relevant experience have been contacted and during the next several months approaches to design, technology validation, and prototyping will be developed. CCAT's M2 is 2.7 meters in diameter.



3.0-meter High Gain Antenna with 0.5-meter Sub Reflector

Applied Aerospace Structure's 400 GHz 3 meter Diameter Mirror