

Atacama Large Millimeter/submillimeter Array (ALMA): Status and Development

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The Atacama Large Millimeter/submillimeter Array (ALMA) is an aperture synthesis interferometer that currently operates from wavelengths of 3 mm to 350 microns with up to sixty six (66) array elements, fifty four (54) of 12-m diameter and twelve (12) of 7-m diameter. The array is located at the ALMA Array Operations Site (AOS) on the Chajnator plateau (at an altitude of about 5000 meters) in the Atacama desert in northern Chile.

While the antennas and most of the hardware for the receivers are on site, array capabilities are still expanding and the observatory is ramping up towards full operations. Early science observations have been ongoing since October 2011. At the time of the meeting, ALMA will have started the fourth cycle of Early Science observations. Many exciting, fundamental results have already been obtained. We will review the current status of the project, the array performance, testing, and development projects. In short, we will present ALMA: past, present and future.

The ALMA project is a collaboration between North America, Europe and East Asia in cooperation with the Republic of Chile. ALMA operations are led on behalf of Europe by the European Organization for Astronomical Research in the Southern Hemisphere (ESO), on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc. (AUI), and on behalf of East Asia by the National Astronomical Observatory of Japan (NAOJ). The Joint ALMA Observatory (JAO), located in Santiago, Chile, provides leadership and management of the construction, commissioning and operation of ALMA.