

**V114a      The ALMA Science Archive: Functions and Applications**

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Astronomical science archives have a demonstrated history for substantially expanding and deepening the scope of science data far beyond the original initial science goals. In time, the publication rates for archive data from major facilities can easily exceed that from proposal-only data, within a few years. The Atacama Large Millimeter/Sub-millimetre Array (ALMA) Science Archive (ASA) will enable free and anonymous access to all approved science-verification data, non-proprietary scientific and calibrator data taken with the ALMA observatory. Data for all frequency bands: 3, 6, 7 and 9, a wide range of frequency configurations and an broadening number of astronomical targets can be accessed by a simple online web interface. ALMA data are archived and access-enabled depending on the type of data and proposal: Principle investigator data, Science Verification data are currently accessible, with future extensions to enable Director discretionary time data, as well as calibrator data; all of which have slightly different levels of access control. Existing archive-query infrastructure enables access to already-processed as well as raw data, using a simple web interface which can be further evolved by the PI or Archive researcher on local machines, using CASA software. The future design of the archive interface and delivered-data format will include a substantially more evolved and sophisticated online data-processing control.