



# ALMA Science Archive

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# Outline

- Status Update
- Improvements
- Near Future plans



# Status

- the archive runs smoothly, no critical operation issues came up
- total ~3800 ObsUnitSets are in the archive
  - ~2000 ObsUnitSets are in public
- total data size of contents: ~220 TB
  - raw data: ~180 TB
  - grow up rapidly, increases >80 TB in 2016



# Improvements (1)

- Archive Query (submission/result)
  - query by Angular resolution and Largest angular scale
  - publication query/record are available (query by Bibcode will come soon)
  - showing QA2 status in results table
  - many useful features have been implemented

## ALMA Science Archive Query

Query Form

Results Table

## ALMA Science Archive Query

Query Form

Results Table

## Publication list view

Submit download request

[Results Bookmark](#) [Export Tab](#)

Showing 8 of 8 rows.

| <input type="checkbox"/>            | Bibcode                                 | First author         | Journal              | Publication year ▲   | Publication title  |
|-------------------------------------|---|----------------------|----------------------|----------------------|--|
| Filter:                             | <input type="text"/>                    | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/>   |
| <input type="checkbox"/>            | <a href="#">2014A&amp;A...570A..28V</a> | Viti, S.             | A&A                  | 2014                 | Molecular line emission in NGC 1068 imaged with ALMA. II. TH |
| <input type="checkbox"/>            | <a href="#">2014A&amp;A...567A.125G</a> | García-Burillo, S.   | A&A                  | 2014                 | Molecular line emission in NGC 1068 imaged with ALMA. I. An  |
| <input type="checkbox"/>            | <a href="#">2016ApJ...820...83S</a>     | Scoville, N.         | ApJ                  | 2016                 | ISM Masses and the Star formation Law at Z = 1 to 6: ALMA O  |
| <input checked="" type="checkbox"/> | <a href="#">2016MNRAS.459.3629I</a>     | Izumi, Takuma        | MNRAS                | 2016                 | ALMA observations of the submillimetre hydrogen recombina    |
| <input type="checkbox"/>            | <a href="#">2016ApJ...818...42I</a>     | Izumi, Takuma        | ApJ                  | 2016                 | Submillimeter-HCN Diagram for Energy Diagnostics in the Cer  |
| <input type="checkbox"/>            | <a href="#">2016ApJ...829L...7G</a>     | Gallimore, Jack F.   | ApJ                  | 2016                 | High-velocity Bipolar Molecular Emission from an AGN Torus   |
| <input checked="" type="checkbox"/> | <a href="#">2016ApJ...822L..10I</a>     | Imanishi, Masatoshi  | ApJ                  | 2016                 | ALMA 0.1-0.2 arcsec Resolution Imaging of the NGC 1068 Nu    |
| <input type="checkbox"/>            | <a href="#">2016ApJ...823L..12G</a>     | García-Burillo, S.   | ApJ                  | 2016                 | ALMA Resolves the Torus of NGC 1068: Continuum and Mole      |

[2013.1.00188.S](#)

NGC\_1068

b

1451.5Z

[2017-01-04](#)

1106.84

[255.40..2/3.78GHZ](#)

1



# Improvements (2)

- Download section (Request Handler)
  - (present the full data hierarchy)
  - README file is available
  - show individually the QA0 status (pass/semipass) of the raw data files
  - show source name in expansion view



# Improvements (2)

## ALMA Request Handler

Login

Anonymous User: Request #727803217 ✓

Request Title: [Click to edit](#)

Download Selected

**select all raw data by checking**

readme  product  raw  raw (semipass)

| Project / OUS / Science Goal / Group / Member | File  | Size    | Accessible |
|---|---|---------|------------|
| Request 727803217                             |   |         |            |
| Project 2013.1.00001.S                        |   |         |            |
|   | <a href="#">2013.1.00001.S.readme.txt</a>   |         |            |
| Science Goal OUS uid://A001/X13e/X16          |   |         |            |
| Group OUS uid://A001/X13e/X17                 |   |         |            |
| Member OUS uid://A001/X13e/X18                |   |         |            |
| SR-HELMS_65_a_07_1E                           |   |         |            |
|   | Source HELMS_182  |         |            |
|   | Source HELMS_34   |         |            |
|   | Source HELMS_42   |         |            |
|   | Source HELMS_65   |         |            |
|   | Source HELMS_34   |         |            |
|   | Source HELMS_42   |         |            |
|   | Source HELMS_65   |         |            |
|   | <input checked="" type="checkbox"/> 2013.1.00001.S uid A001 X13e X18 001 of 001.tar | 164.9MB | ✓          |
|   | <input type="checkbox"/> 2013.1.00001.S uid A002 Xa5b30a X1bd4.asdm.sdm.tar         | 5.2GB   | ✓          |
|   | <input type="checkbox"/> 2013.1.00001.S uid A002 Xaab3b0 X679.asdm.sdm.tar          | 4.2GB   | ✓          |
| Project 2013.1.00208.S                        |   |         |            |
|   | readme  |         |            |
| Science Goal OUS uid://A001/X12f/X6e          |   |         |            |
| Group OUS uid://A001/X12f/X6f                 |   |         |            |

**readme file**

**source names in expansion view**

**QA0 status**



# The Manual is available

Doc 4.15, ver. 1.0 | March, 2016

## ALMA Science Archive Manual

<https://almascience.nao.ac.jp/documents-and-tools/cycle4/science-archive-manual>

Doc 3.12, ver. 1.0 | November 2015

## ALMA QA2 Data Products for Cycle 3







# Near Future Plans

- Basic layout and online/tooltips improvements are always ongoing
  - Footprints comes soon!
  - enhancing query parameters (Galactic coordinates, FoV, sensitivity, Co-I name)
- Visual preview (quick-look) is still under initial development phase



# Contact

Suggestions, wishes, comments, bugs?

## Helpdesk

<https://help.almascience.org/>