

The ALMA Science Archive

George Bendo

UK ALMA Regional Centre Node
Jodrell Bank Centre for Astrophysics
The University of Manchester



The ALMA Science Archive was updated within the past year. The website is <https://almascience.eso.org/asax/>. The default view shows the entire contents of the archive.

The screenshot displays the ALMA Science Archive interface in Mozilla Firefox. The browser address bar shows <https://almascience.eso.org/asax/>. The main content area features a large astronomical image of a galaxy field on the left, with a field of view (FoV) of 176.61". On the right, a spectral plot shows intensity versus frequency from 100 GHz to 900 GHz. The plot is divided into sections labeled 3 through 10, with various molecular and atomic lines identified. Below the plot, a navigation bar shows 'Observations (44036)', 'Projects (3348)', and 'Publications (1957)'. The bottom section contains a detailed table of observations.

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. fre.
2011.0.00191.S	Fomalhaut b	22:57:38.685	-29:37:12.616	7	0.118	343.08..358.84GHz	2012-12-06	2	1.015	0.816	12m		8.816	16.592	Disks and planet format...	Debris disks, Exoplanets	8709.120	20.493	-64.908	976.6
2011.0.00131.S	R Scl	01:26:58.079	-32:32:36.424	7	0.912	330.25..346.11GHz	2012-12-06	5	1.025	0.846	12m	mosaic	8.838	62.007	Stars and stellar evolut...	Asymptotic Giant Branc...	661.617	250.183	-80.589	976.6
2011.0.00101.S	GRB021004	00:26:54.680	+18:55:41.600	7	0.114	337.01..353.00GHz	2012-12-06	2	0.981	26.541	12m		7.876	16.878	Active galaxies	Starburst galaxies, Ga...	3749.760	114.917	-43.561	3125
2011.0.00397.S	J063027.81-21205...	06:30:27.810	-21:20:58.600	7	0.535	337.01..352.99GHz	2012-12-20	3	1.114	26.541	12m		7.804	16.878	Active galaxies	Active Galactic Nuclei (...)	90.720	230.024	-13.990	3125
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The interface has three sections:

- The sky viewer
- The spectral viewer
- The results table

The screenshot displays the ALMA Science Archive interface in a Mozilla Firefox browser window. The interface is divided into three main sections:

- Sky Viewer:** On the left, a mosaic of astronomical images shows a galaxy field. The field of view (FoV) is indicated as 176.61".
- Spectral Viewer:** On the right, a spectral plot shows intensity versus frequency (100 GHz to 900 GHz). The plot is divided into three sections: Molecules, Lines, and Redshift. Ten peaks are labeled with their corresponding chemical species and quantum numbers, such as HCO, CS, SiO, and HNC.
- Results Table:** At the bottom, a table lists observations with columns for Project code, ALMA source name, Ra, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, Scientific category, Science keyword, Int. Time, Gal. lon., Gal. lat., and Min. fre.

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The results table actually has three tabs:

- Observation
- Project
- Publication

ALMA Science Archive - Mozilla Firefox

File Edit View History Bookmarks Tools Help

ALMA Science Archive x +

https://almascience.eso.org/asax/

17:45 40.041 -29 00 28.12
FoV: 176.61"

Molecules Lines Redshift

Observations (44036) Projects (3348) Publications (1957)

Project Code	Project Title	Type	PI Name	↑Max. Release Date	Publications	Observations	SB names
2011.0.00236.S	The Dynamics of Massive Starless Cores	S	Tan, Jonathan	2013-01-23	4	4	Project236_ES_v2_ks
2011.0.00268.S	Metallicity of a Submillimeter Galaxy at z=5	S	Nagao, Tohru	2013-02-09	3	1	LESS J0332-2756
2011.0.00454.S	(Why) Is CenA a source of Ultra High Energy Cosmic Rays: Shock acceleration, jet and UHECR composition	S	Nagar, Neil	2013-02-14	1	6	Band 6 CenA - CO knot S1
2011.0.00851.S	The Origin of the Destroyed Minor Planet at G29-38: a Main Belt or Kuiper Belt Analog?	S	Farihi, Jay	2013-02-14	1	2	G29-38 Band 6 RA=23: Run x2, G29-38 Band 7 RA=23: Run x5
2011.0.00294.S	More than LESS: The first fully-identified submillimetre survey	S	Smail, Ian	2013-02-15	19	122	Targets1-16, Targets112-126, Targets17-32, Targets33-48, Targets49-...
2011.0.00510.S	Probing the Molecular Outflows of the Coldest Known Object in the Universe: The Boomerang Nebula	S	Sahai, Raghvendra	2013-03-13	2	2	B3 1 SB of 1 - Boomerang Nebula CO 1-0, B6 1 SB of 1 Boomerang N...
2011.0.00131.S	Piecing the shell together: ALMA and the detached shell around R Scl	S	Maercker, Matthias	2013-03-29	5	3	R Scl B3 Spec 1: Run x2, R Scl B6: Run x3, R Scl B7: Run x4
2011.0.00367.S	Outflow Entrainment in HH 46/47 v0.6	S	Mardones, Diego	2013-03-30	1	1	HH46/47 12CO HH46/47 C17O
2011.0.00808.S	Probing the vertical structure of Saturn's storm with ALMA	S	Cavalle, Thibault	2013-04-23	0	1	GROUP_1_SB: Run directly after GROUP_2_SB GROUP_2_SB: Run...
2011.0.00101.S	Shedding Light on Distant Starburst Galaxies Hosting Gamma-ray Bursts v9	S	Wang, Wei-Hao	2013-05-01	2	2	GRB021004, GRB080607

The results table actually has three tabs:

- Observation
- Project
- Publication

The screenshot shows the ALMA Science Archive interface. On the left, there is a spectral plot of a galaxy with a field of view (FoV) of 176.61". The plot shows intensity versus frequency from 100 GHz to 800 GHz. Ten specific spectral lines are labeled with their corresponding molecules and transitions: 1. CO- $v=0-1$, 2. CS- $v=0-1$, 3. HNC- $v=0-1$, 4. CO- $v=0-1$, 5. CS- $v=0-1$, 6. HCO- $v=0-1$, 7. CO- $v=0-1$, 8. CO- $v=0-1$, 9. CO- $v=0-1$, 10. CH_{3OH}- $v=0-1$. On the right, there are tabs for 'Molecules', 'Lines', and 'Redshift'. Below the plot, there are three tabs: 'Observations (44036)', 'Projects (3348)', and 'Publications (1957)'. The 'Publications' tab is active, displaying a table of publications.

BibCode	First Author	Journal	Year	Publication Title	Max. Release Date	Projects	Observations	Authors
2013ApJ...779...96T	Tan, Jonathan C.	ApJ	2013	The Dynamics of Massive Starless Cores with ALMA	2013-01-23	1	4	Tan, Jonathan C.; Kong, Shuo; Butler, Michael J.; Caselli, Paola; Font...
2016ApJ...828..100F	Feng, Siyi	ApJ	2016	Outflow Detection in a 70 μ m Dark High-Mass Core	2013-01-23	1	4	Feng, Siyi; Beuther, Henrik; Zhang, Qizhou; Liu, Haoyu Baobab; Zh...
2016ApJ...821..94K	Kong, Shuo	ApJ	2016	The Deuterium Fraction in Massive Starless Cores and Dynamical Implications	2013-01-23	1	4	Kong, Shuo; Tan, Jonathan C.; Caselli, Paola; Fontani, Francesco; Pill...
2012A&A...542L..34N	Nagao, T.	A&A	2012	ALMA reveals a chemically evolved submillimeter galaxy at $z = 4.76$	2013-02-09	1	1	Nagao, T.; Maiolino, R.; De Breuck, C.; Caselli, P.; Hatsukade, B.; Saig...
2014MNRAS.444.1821F	Farihi, J.	MNRAS	2014	ALMA and Herschel observations of the prototype dusty and polluted white dwarf G29-38	2013-02-14	1	2	Farihi, J.; Wyatt, M. C.; Greaves, J. S.; Bonsor, A.; Sibthorpe, B.; Panić, O.
2016A&A...586A..45S	Salomé, Q.	A&A	2016	Star formation efficiency along the radio jet in Centaurus A	2013-02-14	1	6	Salomé, Q.; Salomé, P.; Combes, F.; Hamer, S.; Heywood, I.
2017ApJ...840..78D	Danielson, A. L. R.	ApJ	2017	An ALMA Survey of Submillimeter Galaxies in the Extended Chandra Deep Field South: Spectroscopic Redshifts	2013-02-15	1	122	Danielson, A. L. R.; Swinbank, A. M.; Small, Ian; Simpson, J. M.; Case...
2016MNRAS.463..10M	Mackenzie, Todd P.	MNRAS	2016	SEDEBLEND: a new method for deblending spectral energy distributions in confused imaging	2013-02-15	1	122	Mackenzie, Todd P.; Scott, Douglas; Swinbank, Mark
2014ApJ...788..125S	Simpson, J. M.	ApJ	2014	An ALMA Survey of Submillimeter Galaxies in the Extended Chandra Deep Field South: The Redshift Distribution and Evolu...	2013-02-15	1	122	Simpson, J. M.; Swinbank, A. M.; Small, Ian; Alexander, D. M.; Brandt, ...
2016MNRAS.462.1192L	Lindroos, L.	MNRAS	2016	Estimating sizes of faint, distant galaxies in the submillimetre regime	2013-02-15	1	122	Lindroos, L.; Knudsen, K. K.; Fan, L.; Conway, J.; Coppin, K.; Decarli, ...
2014MNRAS.442..577T	Thomson, A. P.	MNRAS	2014	An ALMA survey of submillimetre galaxies in the Extended Chandra Deep Field South: radio properties and the far-infrared/r...	2013-02-15	1	122	Thomson, A. P.; Ivison, R. J.; Simpson, J. M.; Swinbank, A. M.; Small, I...

Searches can be done in one of two ways. The best way to start a search, especially for a single object, is to use the search menu that is displayed when hovering over the rectangle with the magnifying glass.

The screenshot displays the ALMA Science Archive interface in Mozilla Firefox. A yellow arrow points to the search menu icon in the top left corner. The interface is divided into several sections:

- Search Filters:** A grid of input fields for Position, Energy, Project, Publication, and Observation. Fields include Source name, Frequency, Project code, Publication Title, Observation Date, ALMA source name, Band, Project Title, Abstract, Polarisation Type, RA Dec, Spectral resolution, Project abstract, First Author, Member ous id, Galactic, Continuum sensitivity, PI Full Name, Authors, Target List, Line sensitivity (10 km/s), Proposal authors, Angular Resolution, Science keyword, and Maximum Recoverable Scale. An 'Options' section includes checkboxes for 'Public data only' and 'Calibration observations'.
- Spectral Plot:** A plot showing intensity versus frequency (100 GHz to 900 GHz). It features 10 numbered peaks with labels for molecules and lines, such as HCO, CS, SiO, and HCN. A redshift value of 0 (estimated) is shown at the top right.
- Observations Table:** A table listing 44036 observations. The table has columns for Project code, ALMA source name, Ra, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, Scientific category, Science keyword, Int. Time, Gal. lon., Gal. lat., and Min. fre.

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. fre.
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The other method is to type in search criteria in the entry fields above each column in the results table. This can also be done after initially setting up a search using the search menu.

The screenshot displays the ALMA Science Archive interface. On the left, a mosaic image of a galaxy is shown with coordinates 17:45 40.041 -29 00 28.12 and a field of view (FoV) of 176.61". On the right, a spectral plot shows intensity versus frequency from 100 GHz to 900 GHz. The plot is divided into sections labeled 3 through 10, with various molecular lines identified, such as HCO+, CS, SiO, and HCN. Below the plot, a table of observations is displayed. A yellow arrow points to the search criteria input fields above the table.

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When the number of results in the results table changes, the map and spectrum panels will automatically adjust to show the observed fields and spectra in more detail.

ALMA Science Archive - Mozilla Firefox

ALMA Science Archive x +

Source name: Z CMa

07 03 43.158 -11 33 6.19
FoV: 2.87'

Molecules Lines Redshift (estimated)

220 GHz 225 GHz 230 GHz 235 GHz 240 GHz 245 GHz 250 GHz 255 GHz 260 GHz 265 GHz

Observations (9) Projects (4) Publications (0)

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. freq.
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m		1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067
2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m		28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m		1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m		29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m		25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m		9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.377	250.91_268.10GHz	2020-08-24	1	20.255	0.634	TP		359.023	22.439	ISM and star formation	Outflows, jets and ioniz...	4380.672	224.606	-2.557	564.527
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m		5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533
2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m		1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.066

The map display can be adjusted to display different wavebands. The spectrum can be adjusted to show broader or narrower frequency ranges, to show different spectral lines, and to show those lines at different redshifts.

ALMA Science Archive - Mozilla Firefox

Source name: Z CMa

07 03 43.158 -11 33 6.19
FoV: 2.87'

Molecules | **Lines** | **Redshift**

Redshift: -0.00009 (estimated)

Observations (9) | **Projects (4)** | **Publications (0)**

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. freq.
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec			s			kHz
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m		1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067
2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m		28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m		1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m		29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m		25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m		9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.377	250.91_268.10GHz	2020-08-24	1	20.255	0.634	TP		359.023	22.439	ISM and star formation	Outflows, jets and ioniz...	4380.672	224.606	-2.557	564.527
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2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m		1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.066

The map display can be adjusted to display different wavebands. The spectrum can be adjusted to show broader or narrower frequency ranges, to show different spectral lines, and to show those lines at different redshifts.

ALMA Science Archive - Mozilla Firefox

Source name: Z CMa

07 03 43.158 -11 33 6.19
FoV: 2.87'

Observations (9) | Projects (4) | Publications (0)

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. fre.
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec			s			kHz
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m		1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067
2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m		28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m		1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m		29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m		25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m		9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.377	250.91_268.10GHz	2020-08-24	1	20.255	0.634	TP		359.023	22.439	ISM and star formation	Outflows, jets and ioniz...	4380.672	224.606	-2.557	564.527
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m		5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533
2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m		1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.066

Hovering over an entry in the results table will highlight the row, the field in the map panel, and the frequency ranges in the spectrum panel.

ALMA Science Archive - Mozilla Firefox

Source name: Z CMa

07 03 43.158 -11 33 6.19
FoV: 2.87'

Molecules Lines Redshift

220 GHz 225 GHz 230 GHz 235 GHz 240 GHz 245 GHz 250 GHz 255 GHz 260 GHz 265 GHz

Observations (9) Projects (4) Publications (0)

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. freq.
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m	1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067	
2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m	28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078	
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m	1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066	
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m	29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110	
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m	25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495	
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.377	250.91_268.10GHz	2020-08-24	1	20.255	0.634	TP	359.023	22.439	ISM and star formation	Outflows, jets and ioniz...	4380.672	224.606	-2.557	564.527	
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m	5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533	
2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m	1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.066	

The results from a search can be sorted by any column. The results can also be further filtered.

ALMA Science Archive - Mozilla Firefox

Source name: Z CMa

07 03 43.158 -11 33 6.19
FoV: 2.87'

The interface displays a spectral plot on the right with various molecular lines identified, including CH₂OH, CH₃OH, and H₂O. The plot shows intensity versus frequency from 220 GHz to 265 GHz. The left side shows a zoomed-in view of the source with concentric yellow circles representing the field of view.

Observations (9)

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	↑ Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. freq.
		h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec			s			kHz
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m	9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132	
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m	1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.065	
2018.1.00814.S	Z_CMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m	1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.068	
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m	5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533	
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m	1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067	
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m	25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495	
2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m	28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078	
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m	29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110	
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.377	250.91_268.10GHz	2020-08-24	1	20.255	0.634	TP	359.023	22.439	ISM and star formation	Outflows, jets and ioniz...	4380.672	224.606	-2.557	564.527	

The results from a search can be sorted by any column. The results can also be further filtered.

ALMA Science Archive - Mozilla Firefox

Source name: Z CMa + 1 tab-subfilter

The interface displays a spectral plot on the right and a table of observations on the left. The spectral plot shows intensity versus frequency (GHz) with various molecular lines labeled. The table below lists the observations, sorted by release date.

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. fre.
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m		1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m		1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m		9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m		5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533
2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m		1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.066

Proprietary data can be selected but cannot be downloaded. The checkbox will appear red when these data are selected. Other data (such as for programs where the observations are not yet complete or where the data are in QA3) cannot be selected.

ALMA Science Archive - Mozilla Firefox

Source name: Z CMa

07 03 43.158 -11 33 6.19
FoV: 2.87'

Molecules Lines Redshift

Redshift: -0.00009 (estimated)

Observations (9) Projects (4) Publications (0)

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. freq.
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m	1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067	
2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m	28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078	
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m	1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066	
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m	29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110	
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m	25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495	
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m	9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132	
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2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m	5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533	
2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m	1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.068	

The interface has several other options as well. These include saving the search results (or a link to those results), accessing documentation, and adjusting the display.

ALMA Science Archive - Mozilla Firefox

ALMA Science Archive x +

https://almascience.eso.org/asax/

Source name: Z CMa

07 03 43.158 -11 33 6.19
FoV: 2.87'

Molecules Lines Redshift (estimated)

220 GHz 225 GHz 230 GHz 235 GHz 240 GHz 245 GHz 250 GHz 255 GHz 260 GHz

3 4 5 6 7 8 9 10

Observations (9) Projects (4) Publications (0)

	Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	↑Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. fre.
			h:m:s	d:m:s		mJy/beam				arcsec	km/s			arcsec	arcsec			s			kHz
<input type="checkbox"/>	2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m	1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067	
<input type="checkbox"/>	2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m	28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078	
<input type="checkbox"/>	2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m	1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066	
<input type="checkbox"/>	2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m	29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110	
<input type="checkbox"/>	2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m	25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495	
<input checked="" type="checkbox"/>	2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m	9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132	
<input type="checkbox"/>	2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.377	250.91_268.10GHz	2020-08-24	1	20.255	0.634	TP	359.023	22.439	ISM and star formation	Outflows, jets and ioniz...	4380.672	224.606	-2.557	564.527	
<input type="checkbox"/>	2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m	5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533	
<input type="checkbox"/>	2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m	1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.066	

Selected data can be downloaded by clicking on the download icon at the top right. When request download is selected, this will open a new browser window or tab. If proprietary data were selected, a login screen will appear first.

The screenshot shows the ALMA Science Archive interface in Mozilla Firefox. The browser address bar shows <https://almascience.eso.org/asax/>. The search bar contains "Source name: Z CMa". The main view displays a spectral plot with a central image of the source and a list of molecules and lines. A yellow arrow points to the download icon in the top right corner of the plot area.

Below the plot, there is a table of observations. The table has the following columns: Project code, ALMA source name, Ra, Dec, Band, Cont. sens., Frequency support, Release date, Publications, Ang. res., Min. vel. res., Array, Mosaic, Max. reco. scale, FOV, Scientific category, Science keyword, Int. Time, Gal. lon., Gal. lat., and Min. freq.

Project code	ALMA source name	Ra	Dec	Band	Cont. sens.	Frequency support	Release date	Publications	Ang. res.	Min. vel. res.	Array	Mosaic	Max. reco. scale	FOV	Scientific category	Science keyword	Int. Time	Gal. lon.	Gal. lat.	Min. freq.
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.188	6	0.036	215.87_232.63GHz	2018-02-04	0	0.177	0.159	12m		1.752	25.966	Disks and planet format...	Exo-planets	635.040	224.606	-2.557	122.067
2016.2.00168.S	z_cma	07:03:43.159	-11:33:06.185	6	0.234	215.81_232.69GHz	2018-10-09	0	4.725	0.159	7m		28.085	44.514	Disks and planet format...	Disks around low-mass...	1572.480	224.606	-2.557	122.078
2016.1.00110.S	Z_CMa	07:03:43.159	-11:33:06.185	6	0.020	215.87_232.62GHz	2018-11-10	0	0.050	0.159	12m		1.130	25.967	Disks and planet format...	Exo-planets	2068.416	224.606	-2.557	122.066
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.184	6	0.833	217.11_233.54GHz	2020-01-04	1	5.065	0.183	7m		29.811	44.302	ISM and star formation	Outflows, jets and ioniz...	393.120	224.606	-2.557	141.110
2018.1.01131.S	Z_CMa	07:03:43.159	-11:33:06.183	6	0.915	250.91_268.10GHz	2020-02-21	1	4.346	0.634	7m		25.668	38.467	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.495
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.073	217.11_233.47GHz	2020-08-24	1	0.968	0.183	12m		9.345	25.846	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	141.132
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.183	6	0.377	250.91_268.10GHz	2020-08-24	1	20.255	0.634	TP		359.023	22.439	ISM and star formation	Outflows, jets and ioniz...	4380.672	224.606	-2.557	564.527
2018.1.01131.S	Z_CMa	07:03:43.158	-11:33:06.182	6	0.074	250.97_268.07GHz	2020-08-26	1	0.394	0.634	12m		5.227	22.438	ISM and star formation	Outflows, jets and ioniz...	302.400	224.606	-2.557	564.533
2018.1.00814.S	ZCMA	07:03:43.200	-11:33:06.700	6	0.037	216.58_234.44GHz	2020-12-27	1	0.114	0.159	12m		1.840	25.822	Disks and planet format...	Disks around low-mass...	604.800	224.607	-2.557	122.066

The new page displays the data associated with the entries selected in the search interface. Data are sorted by Science Goal, Group OUS, and Member OUS. (A Member OUS is a unit of data containing one SB.)

Alma Request Handler - Request Details - Mozilla Firefox

ALMA Science Archive x Alma Request Handler - ... x +

https://almascience.eso.org/rh/submission

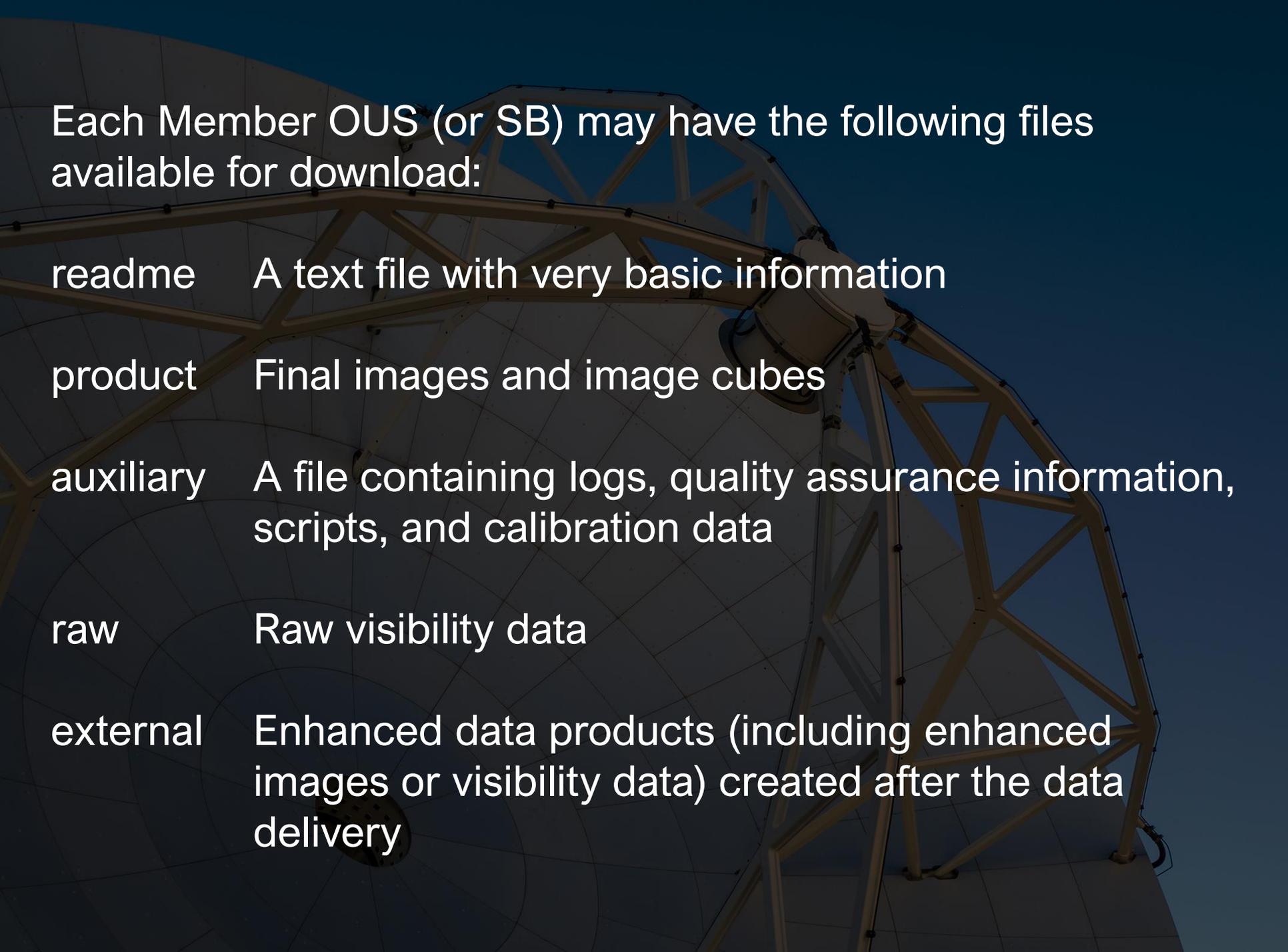
ALMA Request Handler

Anonymous User: Request #215489553204 ✓
 Request Title: [click to edit](#)

Download Selected

readme product auxiliary raw raw (semipass) external

Project / OUSet / Executionblock	File	Size	Accessible
Request 215489553204		5 GiB	
Project 2018.1.01131.S			
Science Goal OUS uid://A001/X135b/X60			
Group OUS uid://A001/X135b/X61			
Member OUS uid://A001/X135b/X64			
SB V1647_Or_a_06_TM2			
<input checked="" type="checkbox"/> readme	member.uid_A001_X135b_X64_README.txt	258 B	✓
<input checked="" type="checkbox"/> product	2018.1.01131.S_uid_A001_X135b_X64_001_of_001.tar	2 GiB	✓
<input checked="" type="checkbox"/> auxiliary	2018.1.01131.S_uid_A001_X135b_X64_auxiliary.tar	338 MiB	✓
<input type="checkbox"/> raw	2018.1.01131.S_uid_A002_Xd9668b_Xa8e1.asdm.sdm.tar	6 GiB	✓
Member OUS uid://A001/X135b/X66			
SB V1647_Or_a_06_7M			
<input checked="" type="checkbox"/> readme	member.uid_A001_X135b_X66_README.txt	3 KiB	✓
<input checked="" type="checkbox"/> product	2018.1.01131.S_uid_A001_X135b_X66_001_of_001.tar	222 MiB	✓
<input checked="" type="checkbox"/> auxiliary	2018.1.01131.S_uid_A001_X135b_X66_auxiliary.tar	177 MiB	✓
<input type="checkbox"/> raw	2018.1.01131.S_uid_A002_Xd8fc22_X5da.asdm.sdm.tar	777 MiB	✓
Group OUS uid://A001/X135b/X68			
Member OUS uid://A001/X135b/X6b			
SB Z_CMa_a_06_TM2			
<input checked="" type="checkbox"/> readme	member.uid_A001_X135b_X6b_README.txt	258 B	✓
<input checked="" type="checkbox"/> product	2018.1.01131.S_uid_A001_X135b_X6b_001_of_001.tar	2 GiB	✓
<input checked="" type="checkbox"/> auxiliary	2018.1.01131.S_uid_A001_X135b_X6b_auxiliary.tar	347 MiB	✓
<input type="checkbox"/> raw	2018.1.01131.S_uid_A002_Xd98580_X354.asdm.sdm.tar	7 GiB	✓
Member OUS uid://A001/X135b/X6d			
SB Z_CMa_b_06_7M			
<input checked="" type="checkbox"/> readme	member.uid_A001_X135b_X6d_README.txt	258 B	✓
<input checked="" type="checkbox"/> product	2018.1.01131.S_uid_A001_X135b_X6d_001_of_001.tar	209 MiB	✓
<input checked="" type="checkbox"/> auxiliary	2018.1.01131.S_uid_A001_X135b_X6d_auxiliary.tar	147 MiB	✓
<input type="checkbox"/> raw	2018.1.01131.S_uid_A002_Xd3c7c2_X5388.asdm.sdm.tar	677 MiB	✓



Each Member OUS (or SB) may have the following files available for download:

readme A text file with very basic information

product Final images and image cubes

auxiliary A file containing logs, quality assurance information, scripts, and calibration data

raw Raw visibility data

external Enhanced data products (including enhanced images or visibility data) created after the data delivery

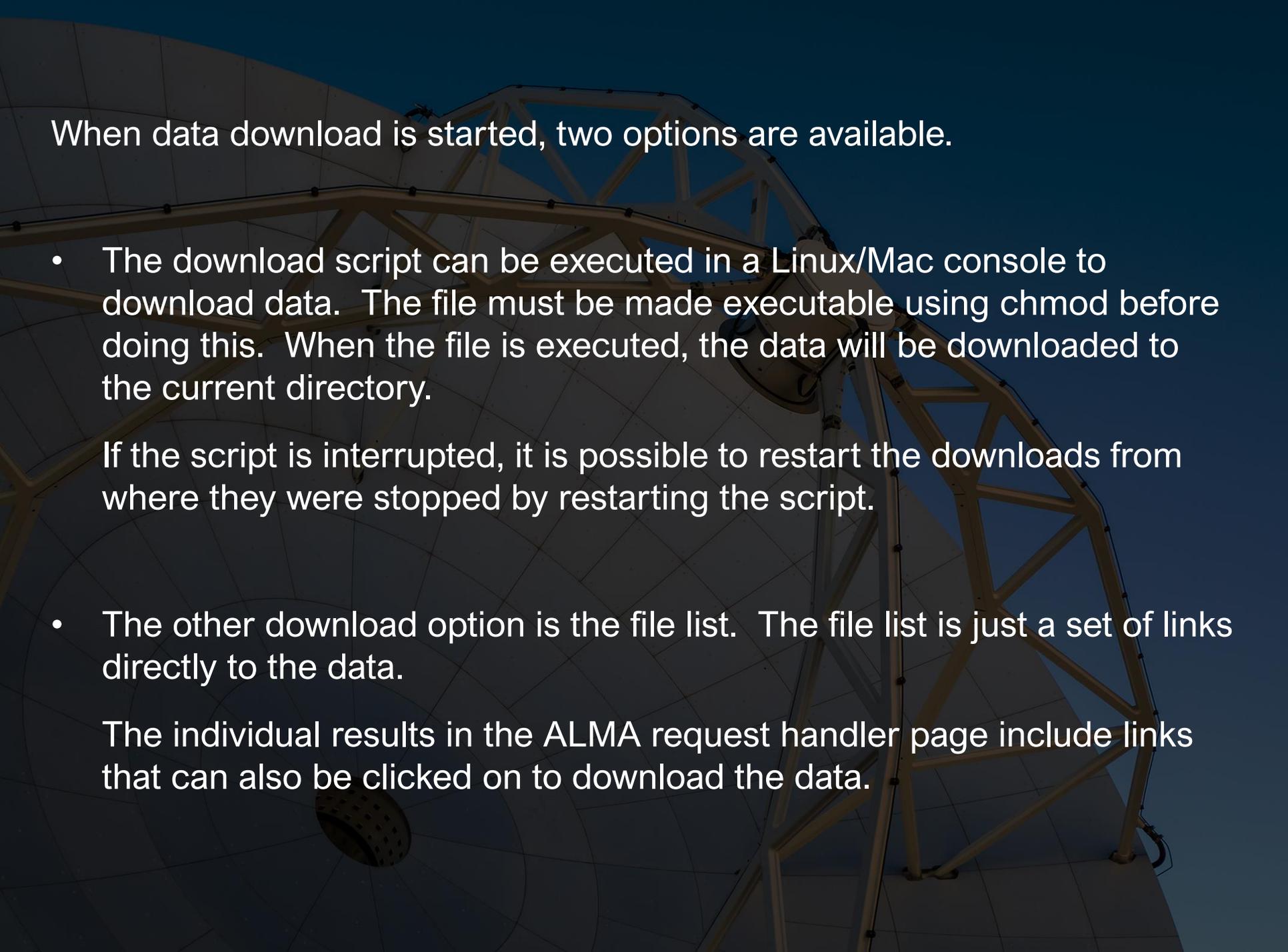
Each file can be individually selected for download, or subsets of data can be selected for download. Proprietary data cannot be downloaded without logging in and without being delegate access to the data.

The screenshot shows the ALMA Request Handler interface in a Mozilla Firefox browser. The page title is "ALMA Request Handler" and the URL is "https://almascience.eso.org/rh/submission". The user is identified as "Anonymous User: Request #215489553204".

Below the user information, there is a "Download Selected" button and a set of checkboxes for file types: readme, product, auxiliary, raw, raw (semipass), and external.

The main content is a table with columns for "Project / OUSet / Executionblock", "File", "Size", and "Accessible". The table is expanded to show a tree structure of files under "Request 215489553204" and "Project 2018.1.01131.S".

Project / OUSet / Executionblock	File	Size	Accessible
Request 215489553204		9 GiB	
Project 2018.1.01131.S			
Science Goal OUS uid://A001/X135b/X60			
Group OUS uid://A001/X135b/X61			
Member OUS uid://A001/X135b/X64			
SB V1647_Or_a_06_TM2			
readme	member.uid_A001_X135b_X64_README.txt	258 B	✓
product	2018.1.01131.S_uid_A001_X135b_X64_001_of_001.tar	2 GiB	✓
auxiliary	2018.1.01131.S_uid_A001_X135b_X64_auxiliary.tar	338 MiB	✓
raw	2018.1.01131.S_uid_A002_Xd9668b_Xa8e1.asdm.sdm.tar	6 GiB	✓
Member OUS uid://A001/X135b/X66			
SB V1647_Or_a_06_7M			
readme	member.uid_A001_X135b_X66_README.txt	3 KiB	✓
product	2018.1.01131.S_uid_A001_X135b_X66_001_of_001.tar	222 MiB	✓
auxiliary	2018.1.01131.S_uid_A001_X135b_X66_auxiliary.tar	177 MiB	✓
raw	2018.1.01131.S_uid_A002_Xd8fc22_X5da.asdm.sdm.tar	777 MiB	✓
Group OUS uid://A001/X135b/X68			
Member OUS uid://A001/X135b/X6b			
SB Z_CMa_a_06_TM2			
readme	member.uid_A001_X135b_X6b_README.txt	258 B	✓
product	2018.1.01131.S_uid_A001_X135b_X6b_001_of_001.tar	2 GiB	✓
auxiliary	2018.1.01131.S_uid_A001_X135b_X6b_auxiliary.tar	347 MiB	✓
raw	2018.1.01131.S_uid_A002_Xd98580_X354.asdm.sdm.tar	7 GiB	✓
Member OUS uid://A001/X135b/X6d			
SB Z_CMa_b_06_7M			
readme	member.uid_A001_X135b_X6d_README.txt	258 B	✓
product	2018.1.01131.S_uid_A001_X135b_X6d_001_of_001.tar	209 MiB	✓
auxiliary	2018.1.01131.S_uid_A001_X135b_X6d_auxiliary.tar	147 MiB	✓
raw	2018.1.01131.S_uid_A002_Xd3c7c2_X5388.asdm.sdm.tar	677 MiB	✓



When data download is started, two options are available.

- The download script can be executed in a Linux/Mac console to download data. The file must be made executable using `chmod` before doing this. When the file is executed, the data will be downloaded to the current directory.

If the script is interrupted, it is possible to restart the downloads from where they were stopped by restarting the script.

- The other download option is the file list. The file list is just a set of links directly to the data.

The individual results in the ALMA request handler page include links that can also be clicked on to download the data.