

Proposing your observations for ALMA Cycle 9

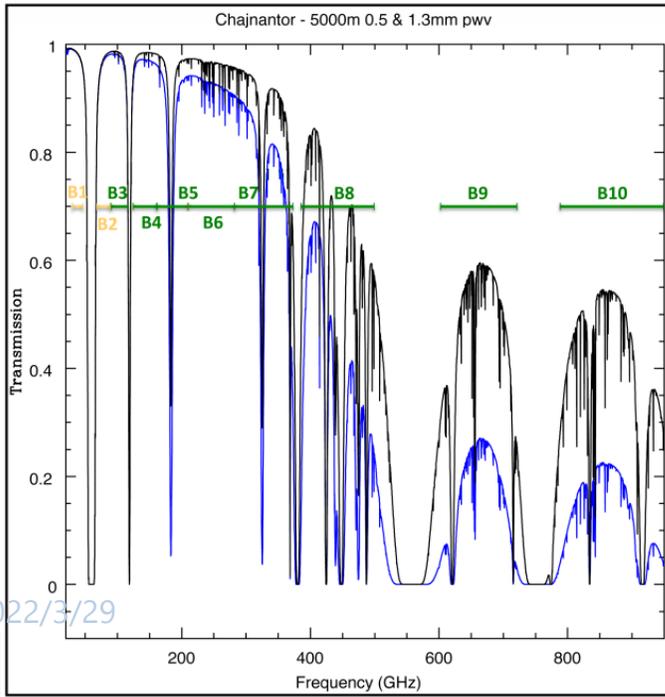
Misato Fukagawa
East Asia ALMA Regional Center

29st March 2022



ALMA

- Interferometer consisting of 66 antennas
- Fifty 12-m antennas → 12-m Array
- Atacama Compact Array (ACA; Morita Array)
 - Twelve 7-m (7-m Array), Four 12-m (Total Power, TP)
- From 0.32 mm to 3.6 mm (Band 3 to 10) for Cycle 9



© Credit: ALMA (ESO/NAOJ/NRAO), A. Marinkovic/X-Cam



ALMA Regional Center: Interface for users



Joint ALMA Observatory
Effective array operations: Execution of programs under suitable conditions
High availability of the array for science : Repairs, Preventive maintenance

Science operations in regional centers with **functions agreed in EA, EU, and NA, in close coordination with JAO**

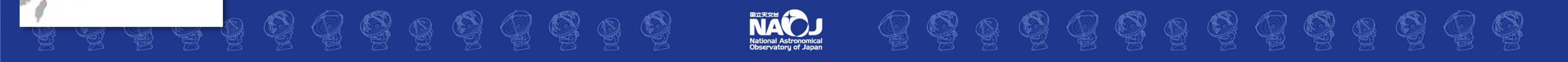
EA ARC
EA ALMA users

EU ARC
EU ALMA users

NA ARC
NA ALMA users



- ARC provide support for users in the respective regions so that users can concentrate on proposing observations, data analysis, and science discussion.
- Support can be optimized to the regional situation (e.g., native language, specific demands from users).





Proposing observations in ALMA

- “Cycle” in ALMA: One year period, starting from October every year
 - Cycle 9: From October 2022 to September 2023
- Calls every year
 - **Main Call**
 - 12-m Array, 7-m Array, TP
 - Call for Proposals in March
 - Observations from October 2022 to September 2023
 - 4300 hours each for 12-m, 7-m, and TP Arrays
 - Supplemental Call ... **No Supplemental Call for Cycle 9**
- DDT
 - Users can propose anytime in the on-going cycle
 - DDT projects will stay in the queue for 12 months





Proposing observations in ALMA

- Science observations will be scheduled and executed taking into account multiple factors including, for example, weather, proposal grade and executive balance
- Priorities
 - Grade A
 - Highest grade, carried over to the next Cycle
(Long baseline SBs are not carried over to the next Cycle without LB)
 - Grade B
 - No carry over
 - Grade C
 - Filler
- After observations...
 - Quality assurance (meet the PI's request?) per MOUS → delivered to the PI
 - Data become public after 12 months (6 months for DDT)

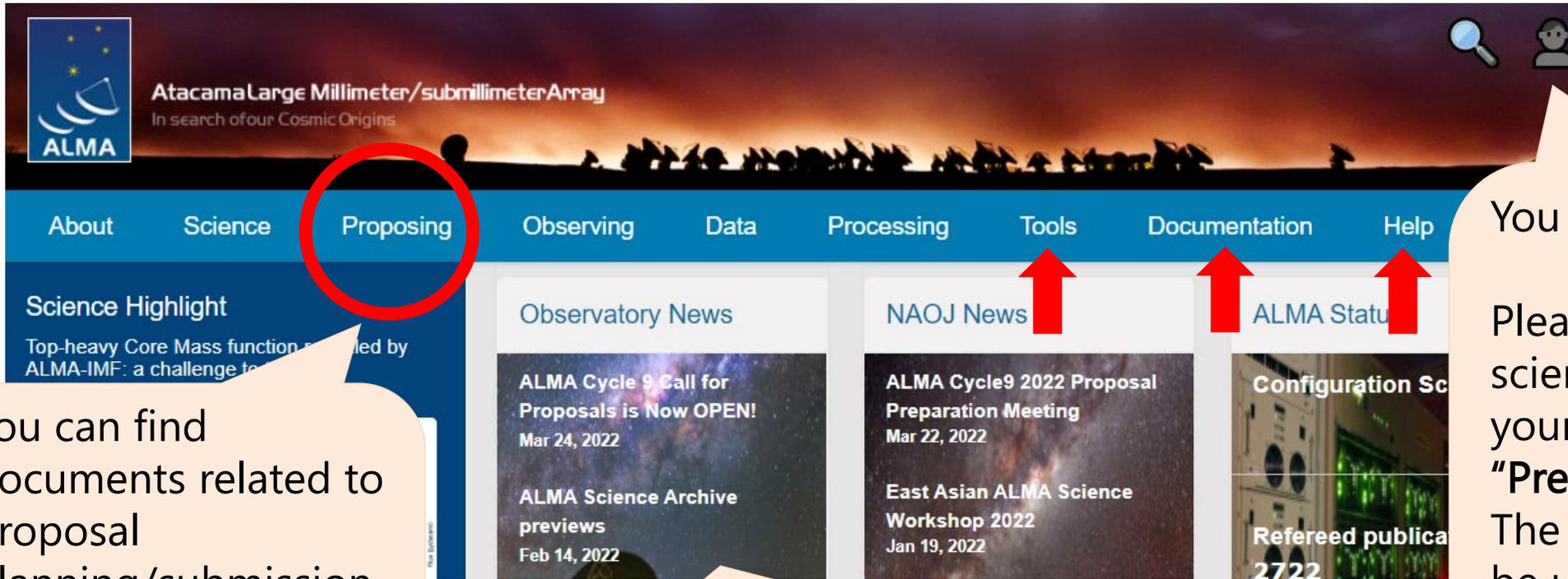
"Users Policies"
<https://almascience.nao.ac.jp/documents-and-tools/cycle9/alma-user-policies>





Information is in the Science Portal

<https://almascience.nao.ac.jp/>



You can find documents related to proposal planning/submission. Please check "Proposer's Guide" in particular.

You can check any news here.

You can login here.
Please register your science expertise in your Profile (click "Preferences" menu). The information will be used in the assignment of proposals that you will review (distributed peer review)





... and ask us via the Helpdesk

<https://help.almascience.org>

- We can accept Japanese questions although **you may need to wait until the Japanese staff are available** (be careful, in particular just before the deadline)

ALMA Science

Submit Helpdesk Ticket | Log in

How can we help

Help Center | TOO

Knowledgebase
View all articles >

News
View all news posts >

Submit Helpdesk Ticket
Get in touch for help >

My Tickets
View your submitted tickets >

You will be asked to login when you try to submit a ticket. Please register in the Science Portal first if you do not have an account.
Please use your registered **email address** for the login name in the Helpdesk (please use the same password as the Science Portal when you login for the first time)



... and ask us via the Helpdesk

<https://help.almascience.org>

- Any changes, clarifications, or bugs that are discovered after the publication of the Proposer's Guide will be documented in the Knowledgebase article.

<https://help.almascience.org/kb/articles/what-cycle-9-proposal-issues-and-clarifications-should-i-be-aware-of-before-submitting-my-prop>

Help Center > Knowledgebase > General > What Cycle 9 proposal issues and clarifications should I be aware of before submitting my prop

What Cycle 9 proposal issues and clarifications should I be aware of before submitting my proposal?

SW

Last updated: Mar 24, 2022 by Sarah Wood




This Knowledgebase article is a repository for information relevant to submission of Cycle 9 proposals. These items may affect how users write their proposals or set up their observations in the OT. The content may evolve rapidly as the 21 April 2022 proposal deadline approaches. Items added to this list after its initial deployment will include the date they were added. We encourage all PIs to check back here regularly prior to proposal submission.

ALMA Cycle 9 Announcement

Date	Milestone
24 Mar 2022	Release of the ALMA Cycle 9 CfP and Observing Tool, and opening of the archive for proposal submission
21 April 2022 (15:00 UT)	Proposal submission deadline
August 2022	Announcement of the outcome of the proposal review process process
October 2022	Start of Cycle 9 observations
October 2022	Start of Cycle 9 observations



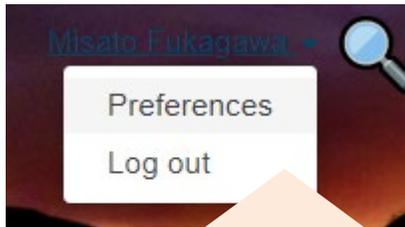


Register/update your “Expertise” in your profile

- Please register/update your “Expertise” in your user profile. This is **extremely important for the proposal assignments in the distributed peer review system.**



Login or newly register



Updating the profile in “Preferences”

Please select **one to as many keywords as your expertise requires.**

Account info | Project delegation | Demographics | **Expertise** | Conflicts of interest | Confirm

Expertise ← Previous → Next

Please select the category/keyword pair/s that best match your scientific expertise. You may select keywords in more than one category. If you are a reviewer for Distributed Peer Review (DPR) you will preferentially be assigned proposals that match your selected keywords.

- > Cosmology and the High Redshift Universe
- > Galaxies and Galactic Nuclei
- > ISM, star formation and astrochemistry
- > Circumstellar disks, exoplanets and the solar system
 - Debris disks
 - Disks around low-mass stars
 - Disks around high-mass stars

Click “Next” button to move to the “Expertise” tab. After updating the keywords, go to the final “Confirm” tab, then submit.





Schedule

Date	Milestone
24 March 2022 (15:00 UT)	Release of Cycle 9 CfP, Observing Tool, and supporting documents, and opening of the Archive for proposal submission
21 April 2022 (15:00 UT)	Proposal submission deadline for Cycle 9 proposals
August 2022	Announcement of the outcome of the proposal review process
October 2022	Start of ALMA Cycle 9 science observations
September 2023	End of ALMA Cycle 9

Emergency Department in the Helpdesk: from 8:00JST on April 19

Helpdesk tickets will be taken care of by ARC staff globally, urgently, depending on the time of ticket submission. If you need an urgent reply, please use English.

(You can submit tickets to the usual department if the topic is not related to the proposal submission. Those will be handled as usual.)





What should proposers know, what's new...

Observing capabilities → Nagai-san's talk

Observing Tool → Jorge's talk

Scheduling and Phase 2 generation viewpoints → Yu-Ting's talk





Proposal types

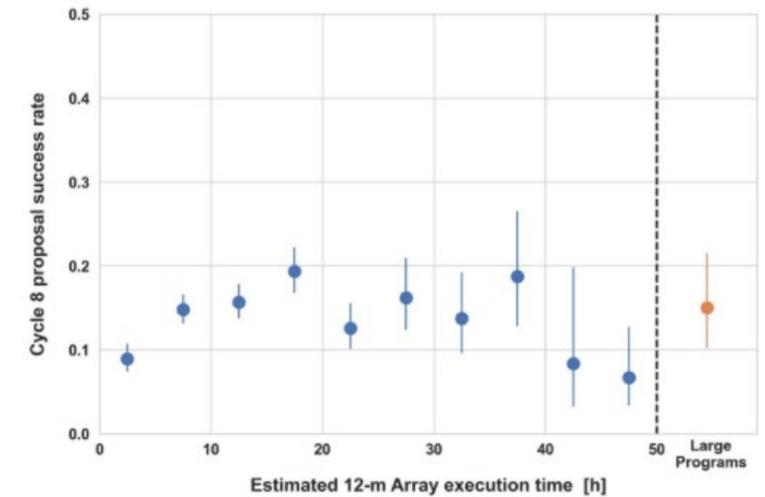
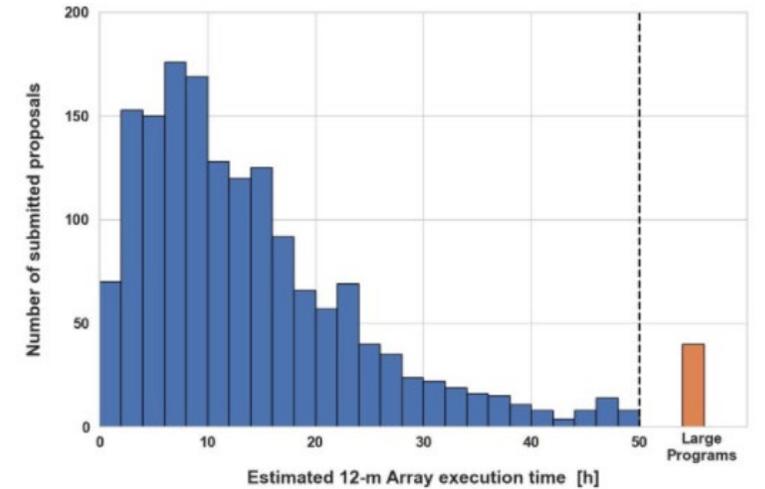
- Regular, Large Program, Target of Opportunity, VLBI and phased-array (, DDT)
 - Regular
 - Estimated execution time does not exceed 50 hours on the 12-m Array or 150 hours on the 7-m Array in stand-alone mode.
 - Large Program
 - Estimated execution time **>50 hours on the 12-m Array (with or without accompanying ACA time)** or **150 hours on the 7-m Array in stand-alone** mode.
 - Large Programs should not involve time-critical or ToO observations, and may not include full polarization measurements, solar observations, VLBI, Phased Array mode, Astrometric observations or observations requiring band-to-band calibration or bandwidth switching calibration.
 - Large Programs may fill up to 33% of the available time for a given LST range in the 12-m Array configurations C-9 and C-10 and up to 50% of the time in the remaining Cycle 9 configurations (i.e., the ACA and C-1 through C-8).





Large Programs

- Please do not hesitate to propose large scale proposals.
- Planning of Large Programs
 - A LP proposal should address strategic scientific issues that will lead to a major advance or breakthrough in the field, be a coherent science project and not reproducible by a combination of Regular proposals, **lead to value-added data products (to ALMA within one year of the final calibrated products), and contain a solid management plan (one page) ensuring an efficient utilization of the data.**
 - ARCs can provide assistance to the LP teams for observing strategy, and preparation of the management plans. PIs are encouraged to contact the ARC early in the proposal process.
 - Computing and storage, estimates of available observing hours in each LST, observing settings etc.





Proposal format

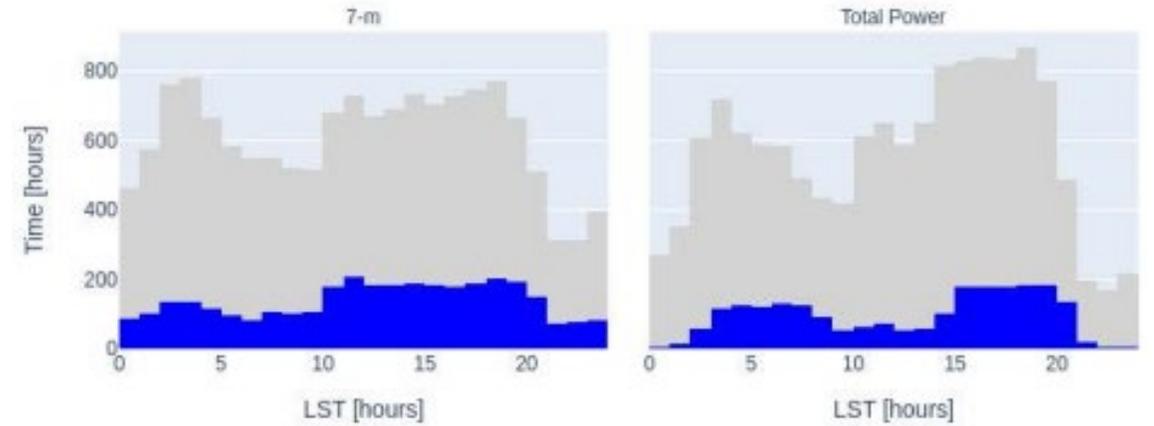
- Page limits
 - Total length: 4 pages for Regular, ToO, mm-VLBI and DDT proposals, 6 pages for Large Programmes (A4 or US Letter format)
- Font size: no smaller than 12 points including figure captions, tables and references
 - FAQ: <https://help.almascience.org/kb/articles/why-is-the-ot-is-complaining-that-the-text-in-my-pdf-is-too-small>
- Latex template is in the Science Portal and users can use it.





No Supplemental Call

- Cycle 9 will NOT include a Supplemental CfP for stand-alone ACA observations. The community is encouraged to submit ACA stand alone projects, **especially in the LST range of 20h to 10h**, for the April 2022 deadline.



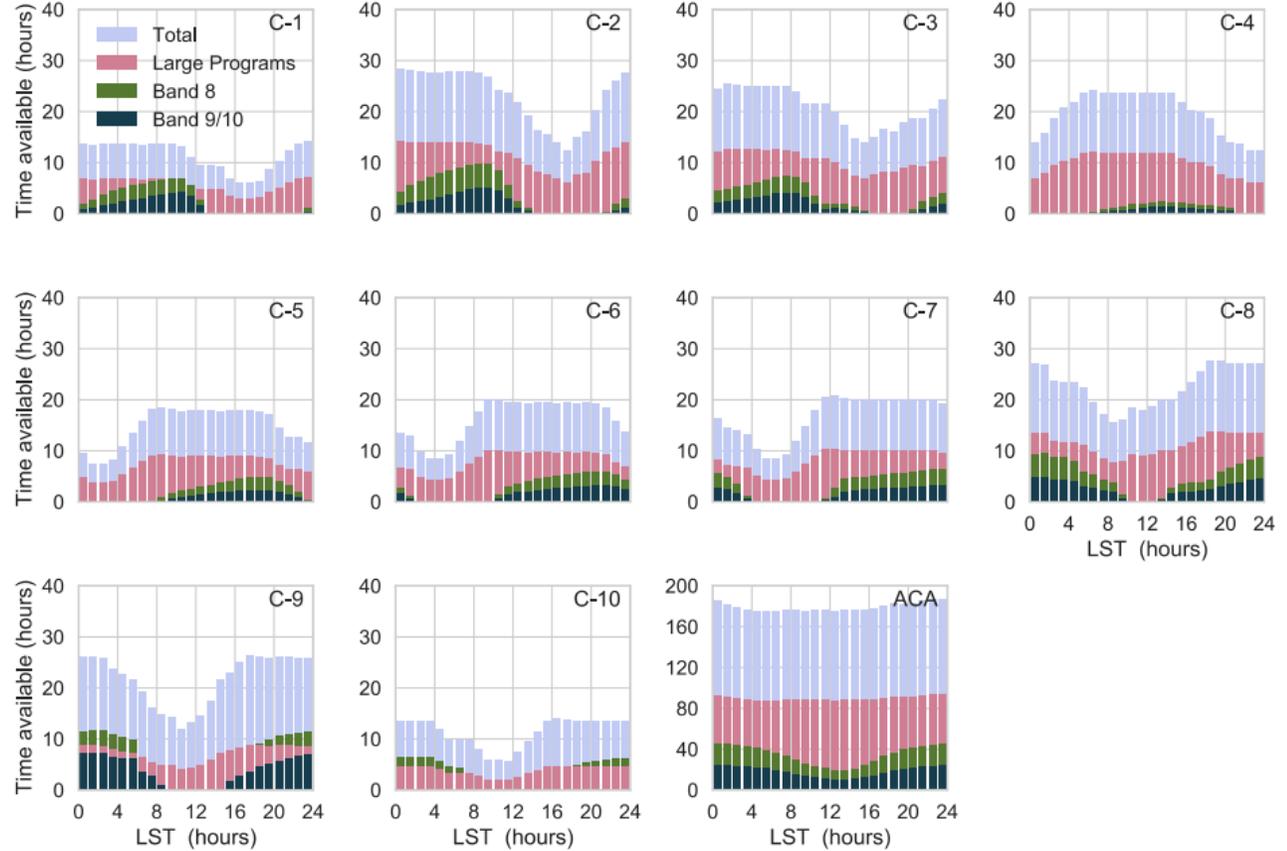
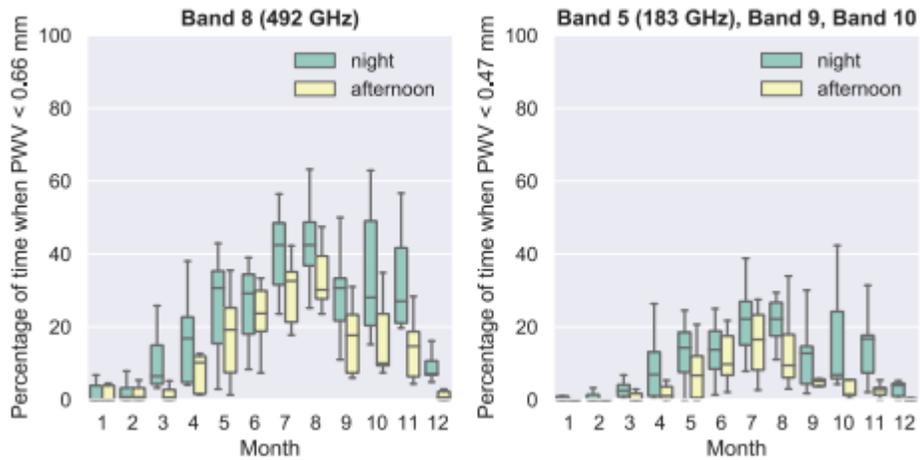
Estimated execution time in Cycle 8 2021 for submitted (gray) and Grade A/B/C (blue) projects.





Planning high-frequency projects

- Projects with observations in the highest-frequency Bands 8, 9, and 10 are strongly encouraged.
- Please be aware about the estimated available time for those bands when you plan observations.



“I hesitated to propose when I saw how little time ALMA has spent for HF bands.” ...but this also comes from few proposals.





What's new: Review process

(Details will be provided in tomorrow's session)

- Panel review for Large programs, distributed peer review for others
- Distributed Peer Review: For each proposal submitted, the PI or a designee from the list of investigators will review and rank 10 submitted proposals from this Call.
- All proposals will be reviewed in dual-anonymous
 - Exception: one-page management plan for Large Programmes
- There are other new things in the review process → Andrea's talk tomorrow
 - If you cannot attend, the recording is available on request by the proposal deadline. Please ask us. The contact information is in the meeting webpage:
<https://www2.nao.ac.jp/~eaarc/PPM2021/>





Keeping the anonymity in your proposal writing

- Goal: To have reviewers **focus on the scientific merit of the proposal rather than the proposal team**
- It is **the responsibility of the proposers to ensure anonymity is preserved** in the information provided in the cover sheet, and when preparing the Scientific Justification and Technical Justification.
- You do not have to be too worried about possible rejections as long as you are trying to follow the guideline. But, please do not ignore the guideline, and please do not clearly specify who is the PI in the proposal text, e.g., please do not say "We showed in **Smith et al. (2019)** that ...".

Navigation: About | Science | **Proposing** | Observing | Data | Processing | Tools | Documentation

Dual-Anonymous Guidelines

ALMA is strongly committed to ensuring that the proposal review process is as fair and impartial as possible. Analysis of the proposal rankings in Cycle 0 to Cycle 6 identified systematics that may signify the presence of biases in the review process (see [Systematics in the ALMA Proposal Review Rankings](#)). To reduce any biases as much as possible, ALMA requires proposals to be written in an anonymous fashion. In a dual-anonymous review, the proposal team does not know the identity of the reviewers, and the reviewers do not know the identity of the proposal team. The primary goal of dual anonymous review is to have reviewers focus on the scientific

- [General Guidelines pertaining to all Programs](#)
- [Example text](#)
- [Guidelines pertaining only to Large Programs](#)
- [Compliance](#)
- [Guidelines for Reviewers](#)
- [Frequently Asked Questions](#)

FAQ in EA: Resubmission, Project code/ID of previous/ongoing observations
 → Examples in the Science Portal

<https://almascience.nao.ac.jp/proposing/alma-proposal-review/dual-anonymous>





Other notes

- No Phase 2 deadline for PIs
 - Please carefully check that your observing setting at Phase 1 (proposal submission) is correct.
- Upper cap for a few observing modes
 - As Nagai-san will present, there will be a time cap in the total hours for a few modes, but please do not hesitate to propose. Users seemed to have over-reacted to this type of cap.
- Source coordinates (stated in the Users Policies)
 - Please do not intentionally hide the true coordinates.





Archive updates/features

ALMA Science Archive in the Request Handler page

① Search the data as usual

② After choosing the data, click this for data request.

③ Click "Request download"

Source name: hd 142527

Molecules Lines Shift (estimated)

FoV: 2.66'

330 GHz 335 GHz 340 GHz

3 4 5 6 8 9 10

Explore and download

Observations

Explore and download

Reset extremes

Automatic search for similar proposals with a mouse over of "..."

Observations (26)	Projects (15)	Publications (26)	Frequency support	Release date
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		





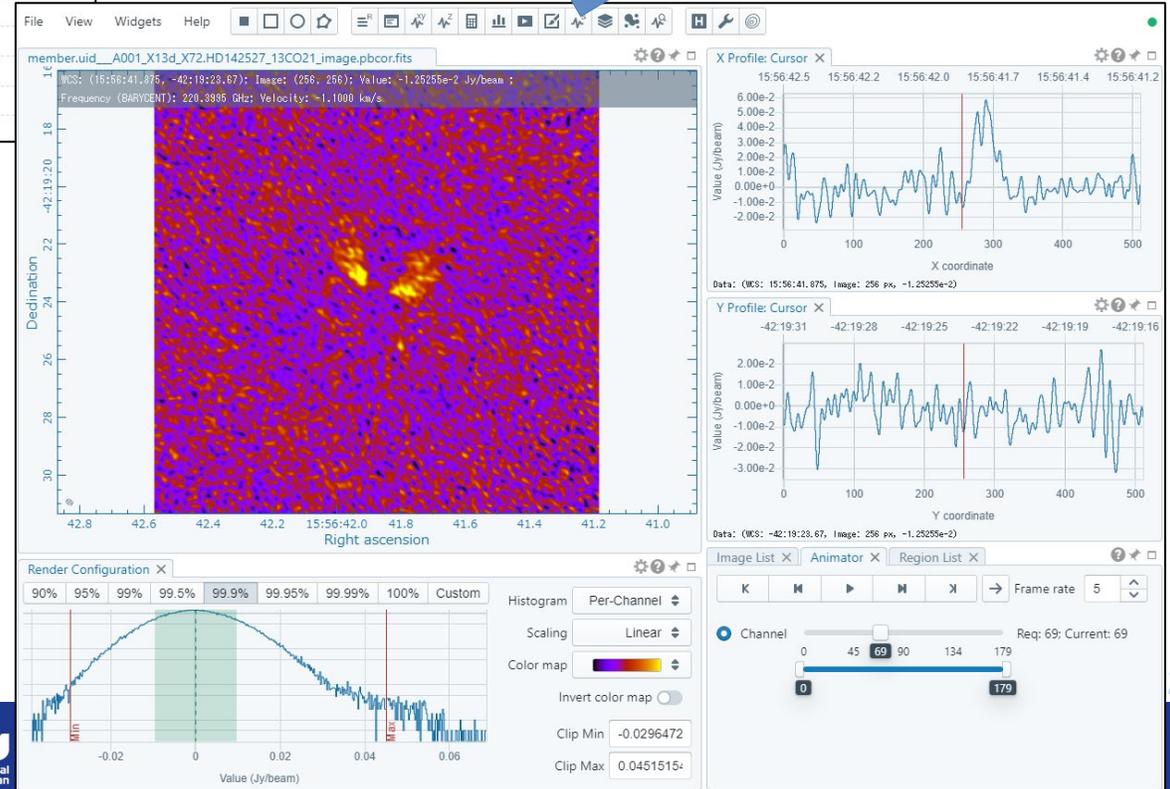
Archive updates/features

ALMA Science Archive in the Request Handler page

⑤ Click the link icon to CARTA as a viewer

④ Open the file tree by clicking ▶

Group OUS uid://A001/X13d/X71		
Member OUS uid://A001/X13d/X72		
SB HD_14252_a_06_TE		
readme	member.uid_A001_X13d_X72.README.txt	11 KiB
product	2013.1.00305.S_uid_A001_X13d_X72_001_of_001.tar	1 GiB
product	member.uid_A001_X13d_X72.HD142527_13CO21_image.flux.fits.gz	52 MiB
product	member.uid_A001_X13d_X72.HD142527_13CO21_image.image.fits	180 MiB
product	member.uid_A001_X13d_X72.HD142527_13CO21_image.pbcor.fits	180 MiB
product	member.uid_A001_X13d_X72.HD142527_C18O21_image.flux.fits.gz	52 MiB
product	member.uid_A001_X13d_X72.HD142527_C18O21_image.image.fits	180 MiB
product	member.uid_A001_X13d_X72.HD142527_C18O21_image.pbcor.fits	180 MiB
product	member.uid_A001_X13d_X72.HD142527_CO21_image.flux.fits.gz	55 MiB
product	member.uid_A001_X13d_X72.HD142527_CO21_image.image.fits	180 MiB



A new webpage automatically opens in your browser! (You do not have to install CARTA desktop version).

You can check and analyze the images/cubes without downloading the data to your local disk. (e.g., you can generate and immediately check moment maps in CARTA)

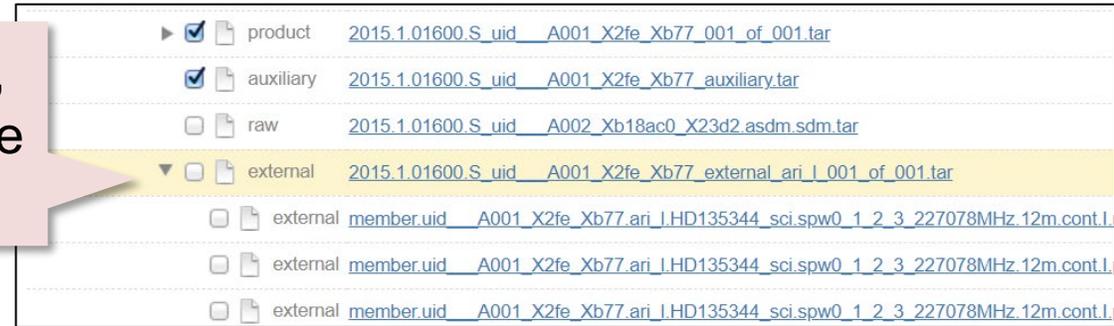




Archive features: ARI-L

Additional Representative Images for Legacy (ARI-L):
A uniform set of **full data cubes and continuum images** of the data from Cycles 2-4.

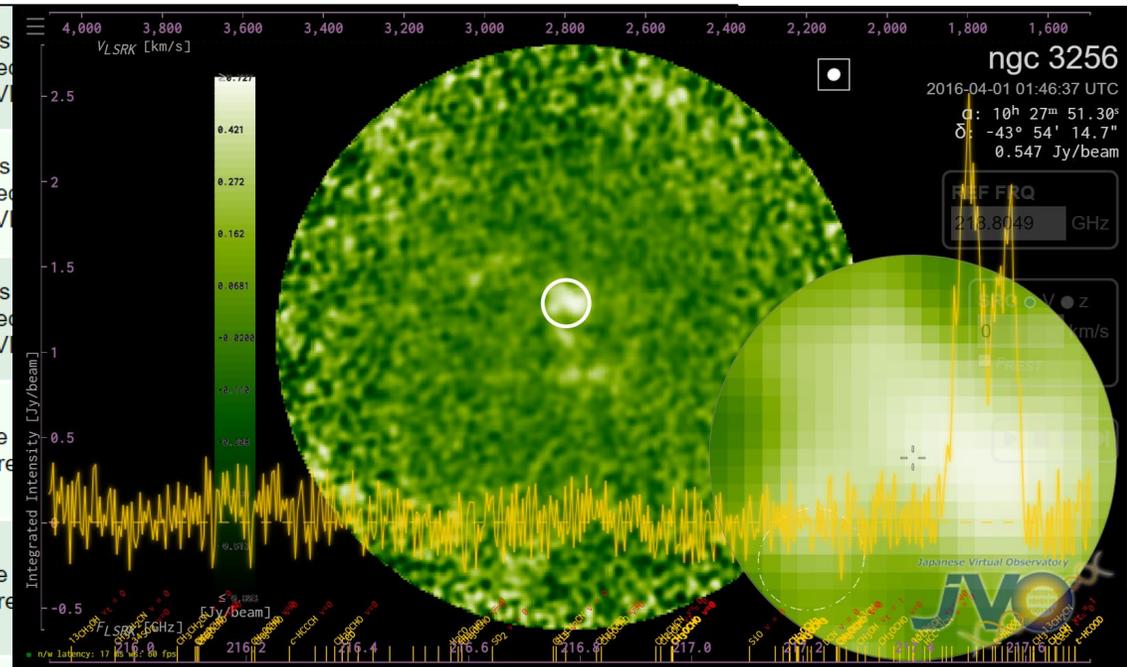
In the Request Handler page, you will see “external” with the package name “ari_l”.



ARI-L images are also in the JVO archive in NAOJ

In the search results page, it says “ARI-L”

.T	<input type="checkbox"/>	Download WebQLv4 VO Search	ALMA official	The properties mergers detected
.T	<input type="checkbox"/>	Download WebQLv4 VO Search	ALMA official	The properties mergers detected
.S	<input type="checkbox"/>	Download WebQLv4 VO Search	ARI-L	Chemistry in the Infrared
.S	<input type="checkbox"/>	Download WebQLv4 VO Search	ARI-L	Chemistry in the Infrared





ALMA-J support

- Support for the English editing service in April
 - Deadline of application to us: April 14, 17:00JST (planned)

- ALMA-J Users Email List

https://www2.nao.ac.jp/~eaarc/DATARED/alma_users_email_list.html

