Welcome!

09:15 - 09:50 -- ALMA Overview talk, ALMA Cycle 5 proposals

09:50 - 10:40 -- Local ALMA Science Highlights:
Brendan Bowler, Yao-Lun Yang,
Jackie Champagne, Sam Factor

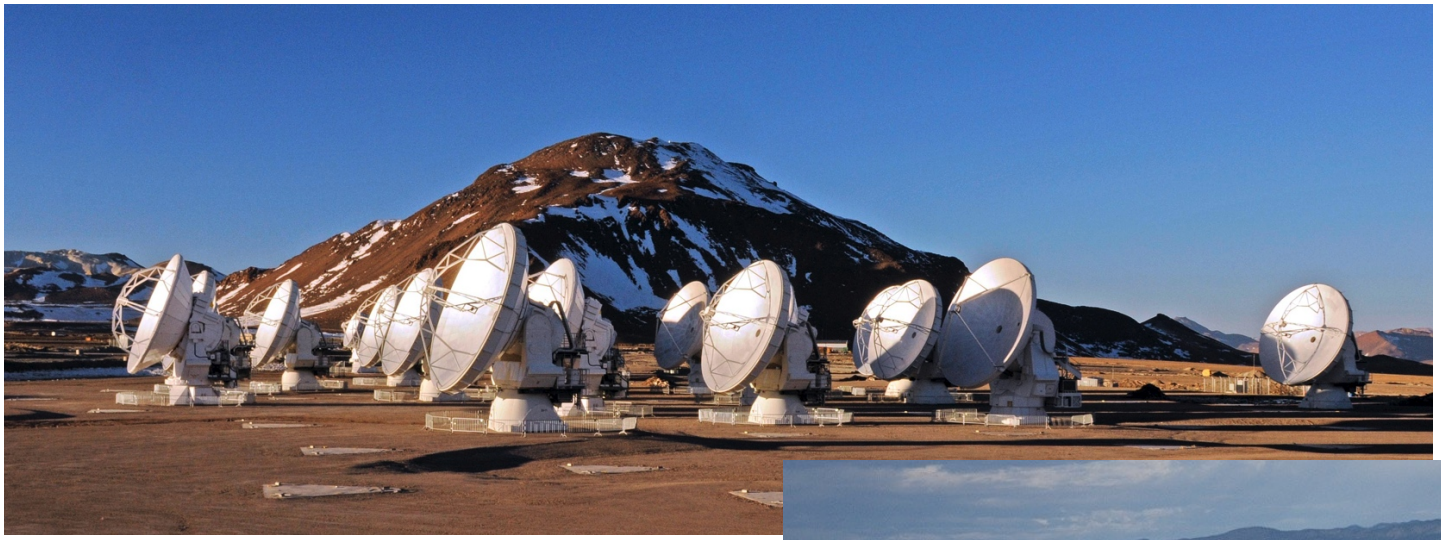
10:40 - 11:00 -- Break

11:00 - 11:20 -- ALMA Observing Tool and ALMA data archive
11:20 - 12:30 -- Small group work on ALMA OT and/or archive

12:30 - 13:40 -- Lunch (provided for registered participants)

13:40 - 14:10 -- Introduction to data imaging and ALMA simulations
14:10 - 16:30 -- Small group work on Data Imaging or Simulations

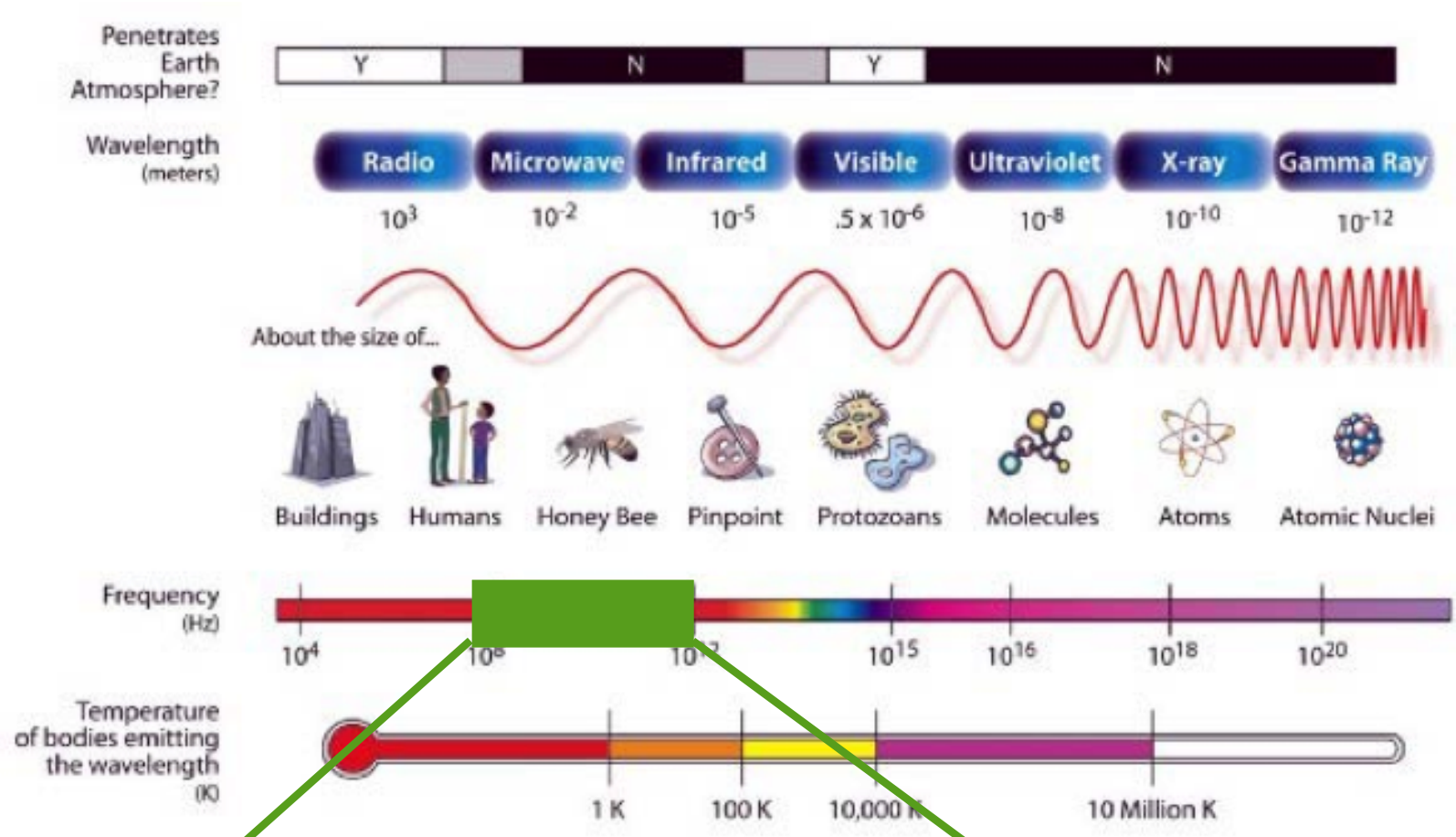
NRAO Overview & ALMA Proposal Preparation



Atacama Large Millimeter/submillimeter Array
Expanded Very Large Array

NRAO: One Observatory, Two World Class Facilities

Atacama Large Millimeter/submillimeter Array:
a 66-antenna array in Chile


Penetrates Earth Atmosphere?
Y
N
Y
N
Wavelength (meters)
Radio
Microwave
Infrared
Visible
Ultraviolet
X-ray
Gamma Ray
10^3
10^-2
10^-5
.5 x 10^-6
10^-8
10^-10
10^-12
About the size of...
Buildings
Humans
Honey Bee
Pinpoint
Protozoans
Molecules
Atoms
Atomic Nuclei
Frequency (Hz)
10^4
10^15
10^16
10^18
10^20
Temperature of bodies emitting the wavelength (K)
1 K
100 K
10,000 K
10 Million K


VLA
1 - 50 GHz
300 - 6 mm


ALMA
80 - 950 GHz
3 - 0.3 mm

What is ALMA?

A global partnership to deliver a revolutionary millimeter/submillimeter telescope array (in collaboration with Chile)

- North America
- Europe
- East Asia

66 reconfigurable, high precision antennas

λ ~ 0.3 – 8.6mm. Array configurations between 150 meters and >16 kilometers: 192 possible antenna locations:

- Main Array: 50 x 12m antennas
- Total Power Array: 4 x 12m antennas
- Atacama Compact Array (ACA): 12 x 7m antennas

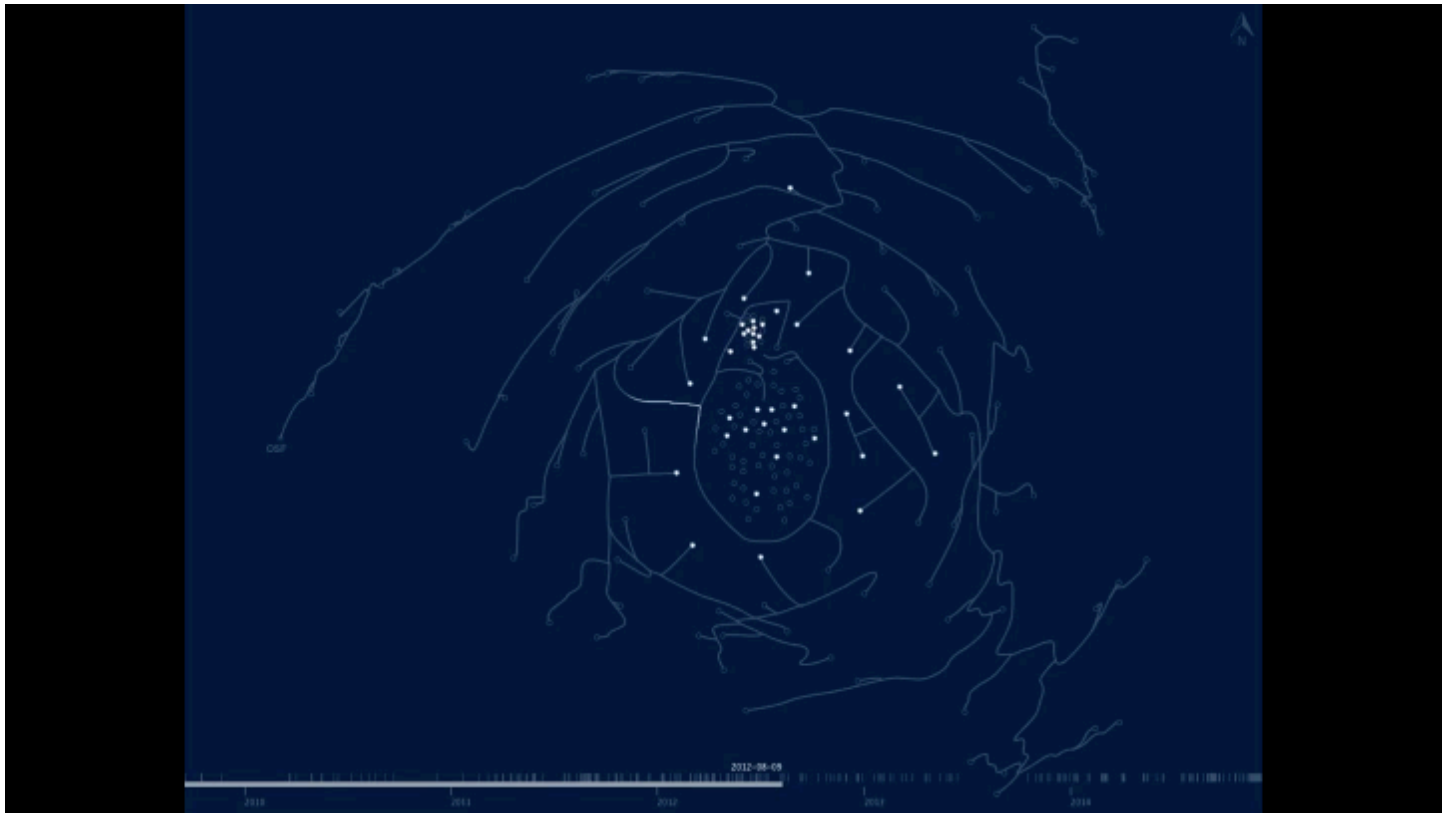
Array Operations Site is located at 5000m elevation in the Chilean Andes

Provides unprecedented imaging & spectroscopic capabilities at mm/submm λ

NRAO

What is ALMA?

Array configurations between 150 meters and >16 kilometers:
192 possible antenna locations:



http://youtu.be/YMISe-C8GUs

ALMA in a Nutshell...

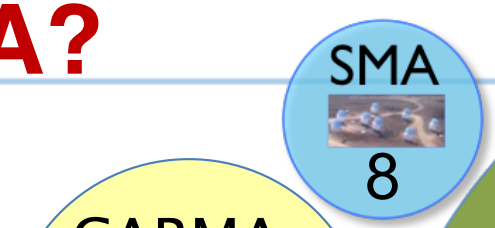
- Angular resolution down to 0.015” (at 300 GHz)
- Sensitive, precision imaging 84 to 950 GHz (3 mm to 315 μm)
- State-of-the-art low-noise, wide-band receivers (8 GHz bandwidth)
- Flexible correlator with high spectral resolution at wide bandwidth
- Full polarization capabilities

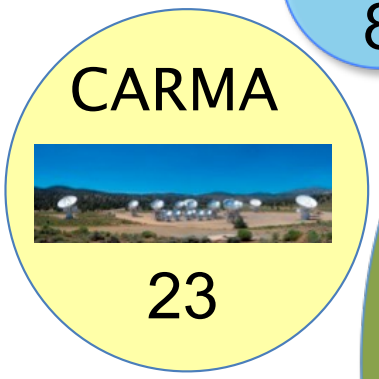
ALMA will be 10-100 times more sensitive and have 10-100 times better angular resolution than current mm interferometers

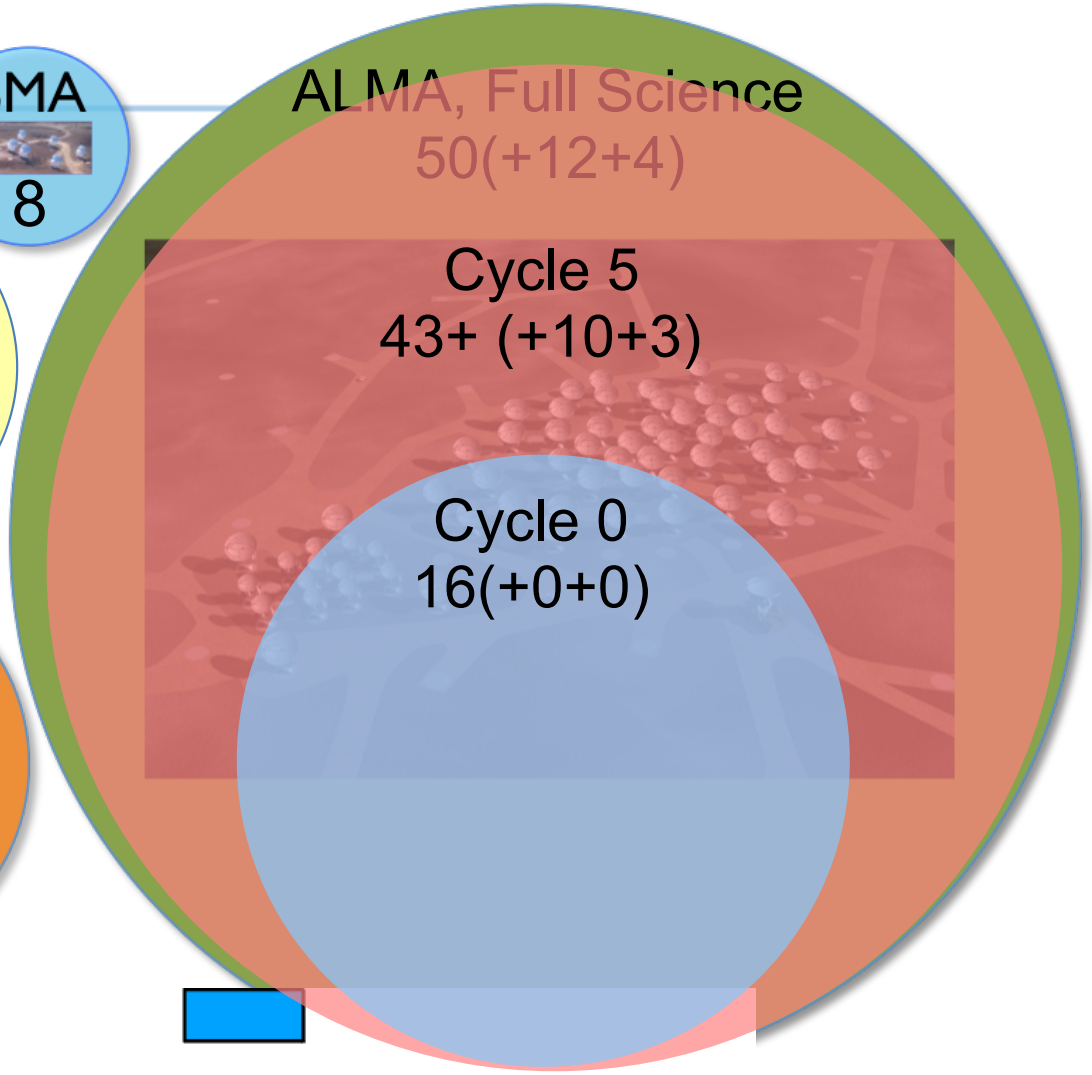
What is ALMA?

Collecting Area

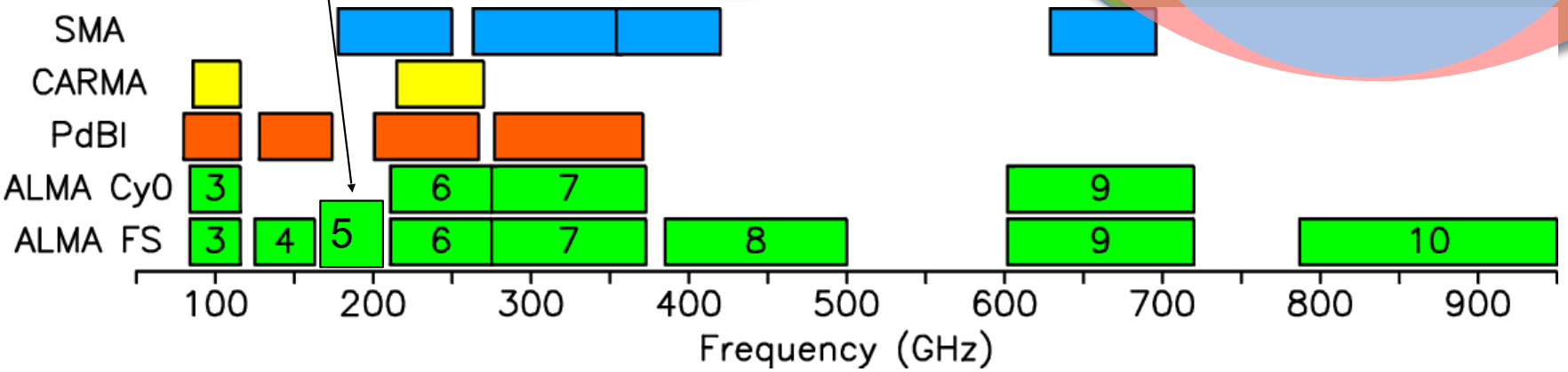
Not only sensitivity but the collecting area (1.6 acres or 6600+ m2) + huge number of baselines provides image fidelity







New for Cycle 5 – Band 5!



Spectral Coverage - Covers ten atmospheric windows with 50% or more transmission above 35 GHz

ALMA in a Nutshell...

- Angular resolution down to 0.015” (at 300 GHz)
- Sensitive, precision imaging 84 to 950 GHz (3 mm to 315 μm)
- State-of-the-art low-noise, wide-band receivers (8 GHz bandwidth)
- Flexible correlator with high spectral resolution at wide bandwidth
- Full polarization capabilities
- Estimated 1 TB/day data rate
- All science data archived
- Pipeline processing
- **Lots of user support!!**

ALMA will be 10-100 times more sensitive and have 10-100 times better angular resolution than current mm interferometers

ALMA Sources of Support

- **ALMA Helpdesk:** User support is a priority so questions are usually answered within 48 hours (with around the clock staffing in the week leading up to the proposal deadline)

  https://help.almascience.org

- **Student Observing Support:** Successful ALMA proposals will be invited to apply for up to $35k to support undergraduate or graduate student involvement

  https://science.nrao.edu/opportunities/student-programs/sos

- **Page Charges:** Upon request NRAO covers page charges for authors at US institutions when reporting results from ALMA/VLA

  https://library.nrao.edu/pubsup.shtml

ALMA Science Highlight

NRAO NSF Associated Universities, Inc.

Broad Science Topics with NRAO Telescopes

- Sun – coronal mass ejections, magnetic field activity
- Solar system, KBOs – atmospheres, astrometry, composition
- Star-forming regions – dust and gas environment, kinematics (infall, outflows, jets), proto-planetary disks, cores, chemistry, feedback, and natal cloud / star interactions
- Exoplanets – direct imaging, gaps in disks, kinematics
- Pulsars – neutron star physics, pulse morphology, gravity, ISM probe
- Galactic structure – spiral arms, bars, global atomic and molecular gas properties
- Nearby galaxies – molecular / atomic gas content and kinematics, dynamics of galaxies at high resolution, star formation, obscured SF, gas flow
- Galaxy groups and clusters – atomic and molecular gas across systems, star formation efficiency, kinematics, dynamical mass measurements
- Black holes – mass measurements, kinematics
- High redshift galaxies – extragalactic background light, source counts, star formation history and efficiency, evolution of gas content (atomic and molecular)
- Cosmology – H_0 measurement, SZE

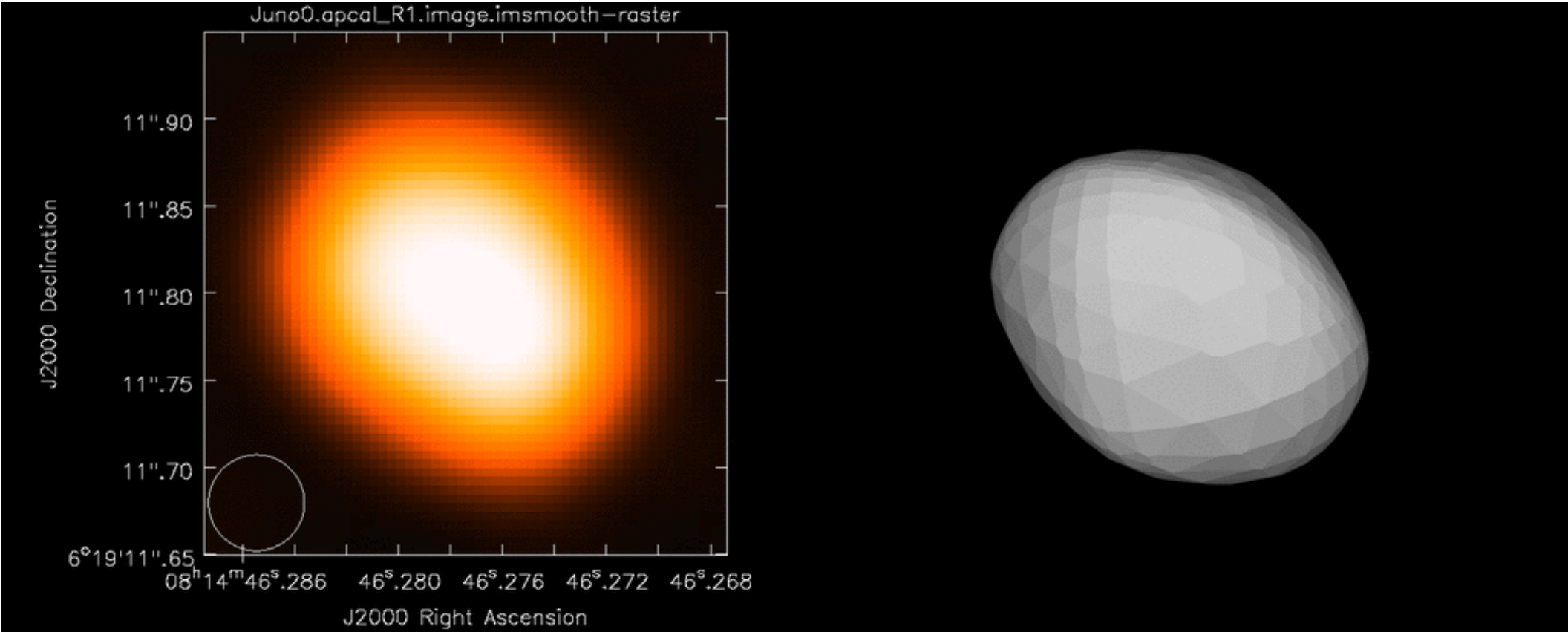
ALMA Science Highlights: Solar System

Band 6 Observations of Juno: Frequency = 233 GHz (Science Verification)

Five consecutive executions over 4.4 hours

Beamsize ~ 0.04”x0.03” (~60x45 km)

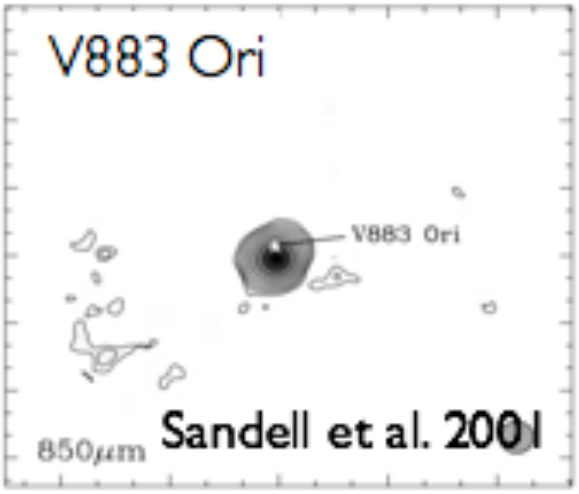
Model: Durech et al. 2010: **Database of Asteroid Models from Inversion Techniques**

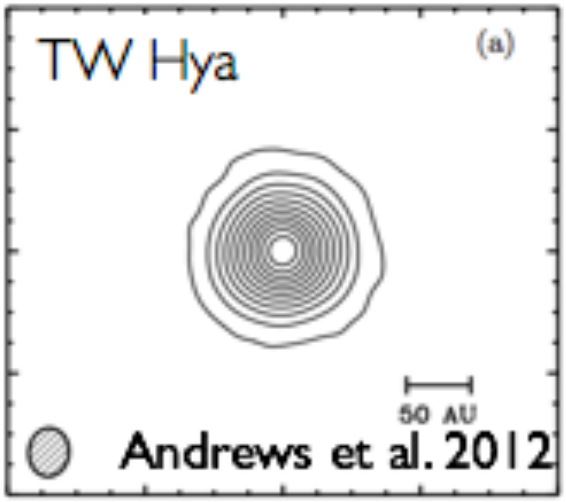


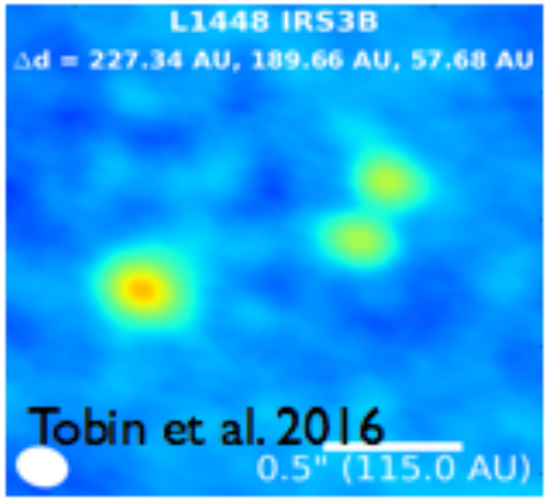
ALMA Image of Juno (ALMA Partnership, Hunter et al. 2015)

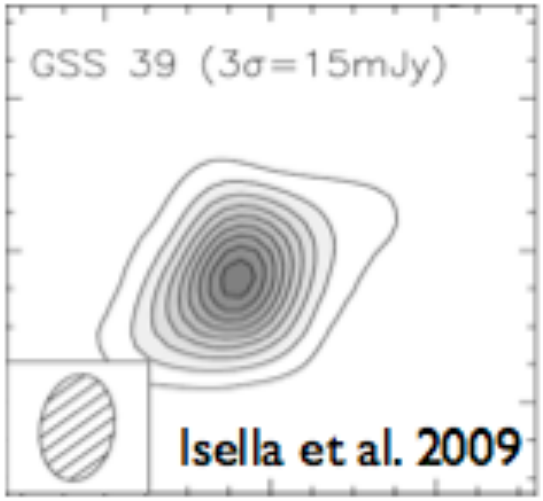
ALMA Science Highlights: Protoplanetary Disks

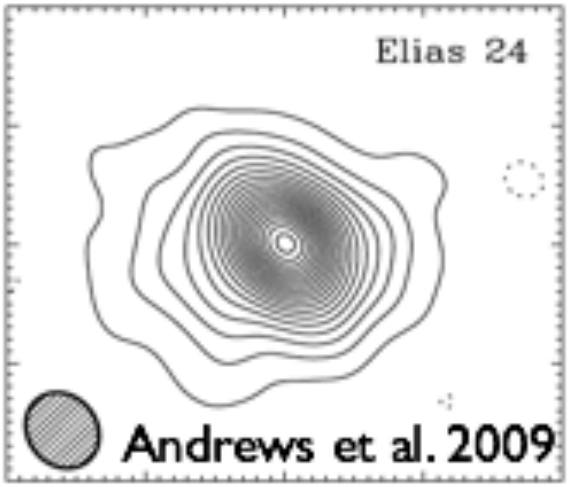
Protoplanetary Disks: Pre- ALMA







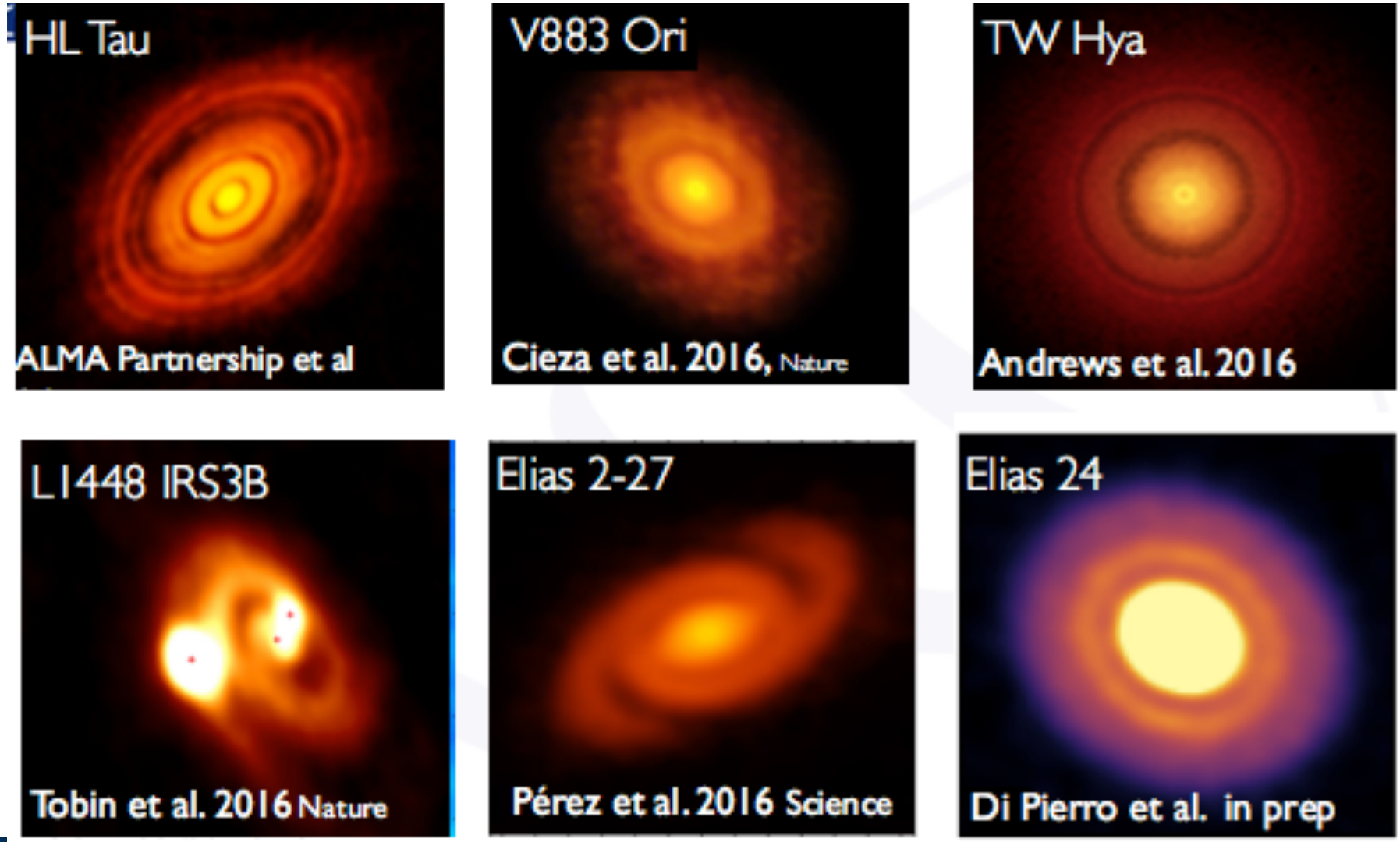




NRAO

ALMA Science Highlights: Protoplanetary Disks

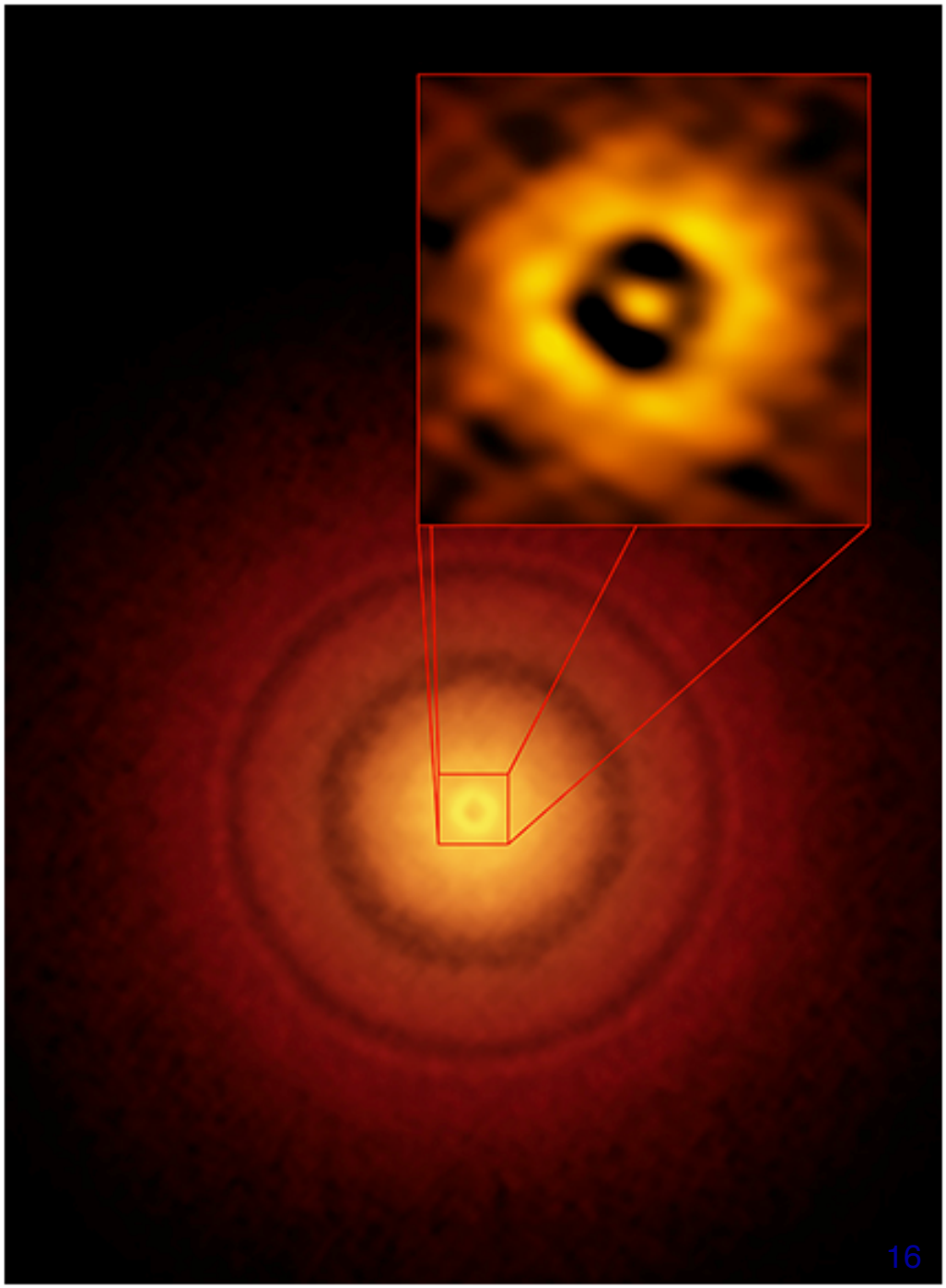
Protoplanetary Disks: With ALMA



ALMA Science Highlights: Protoplanetary Disks

TW Hydrae

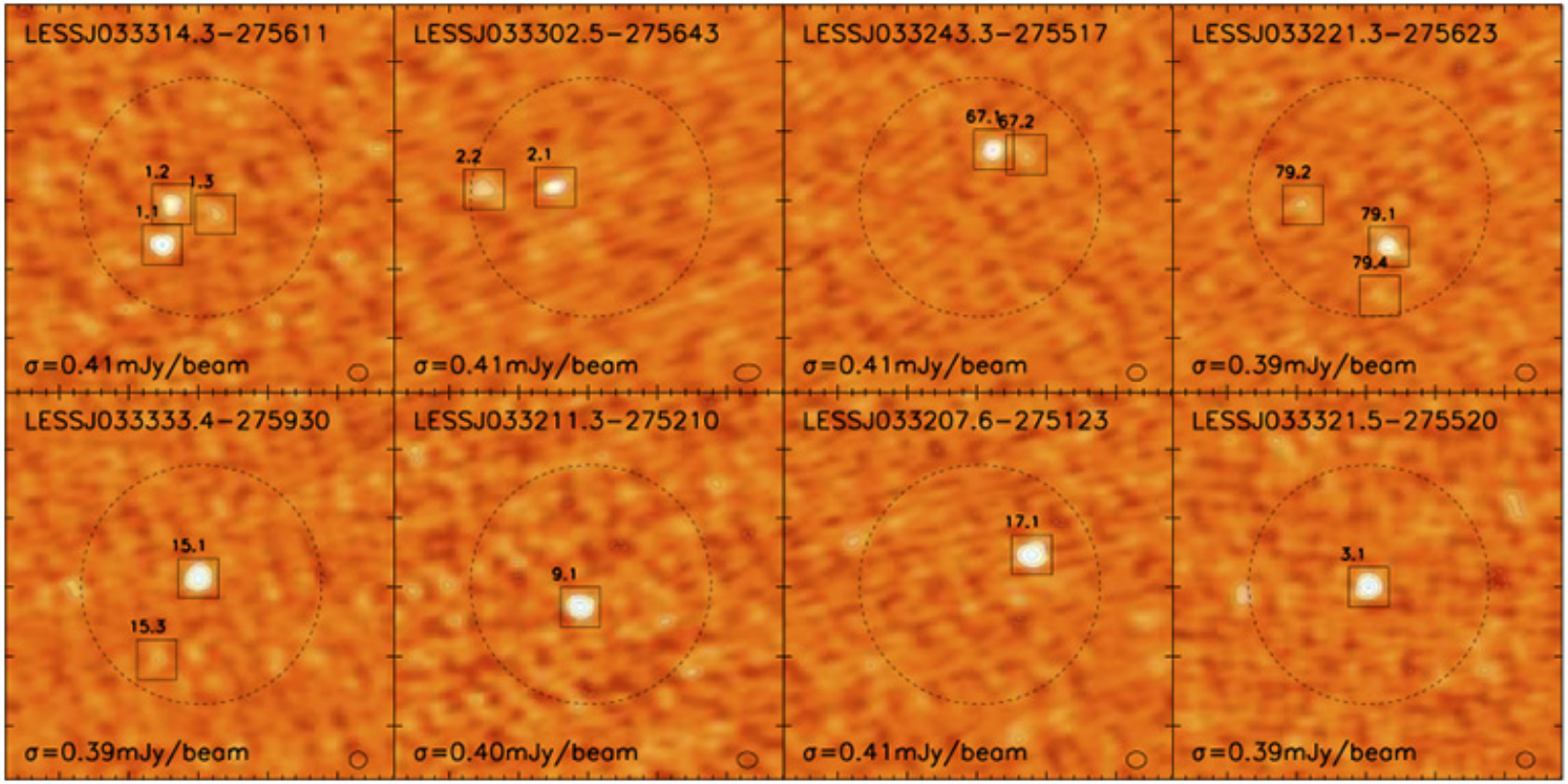
ALMA's better-than Hubble resolution details as small as the Earth's distance from the Sun may be discerned in this young (10Myr) nearby (175 light years) planet forming Sun-like star



Andrews et al. 2016

ALMA Science Highlights: the Distant Universe

Resolving High-*z* Submm Galaxies



Hodge et al. 2013

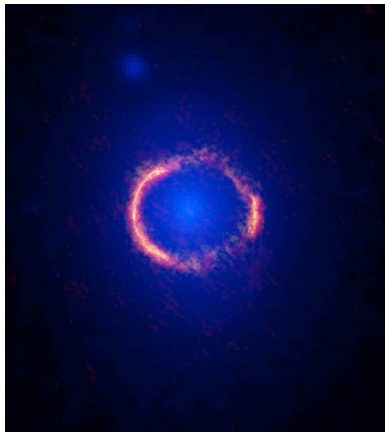
- 126 submm sources observed with ALMA at 870 μm
- 2x deeper, 10x higher angular resolution than previous surveys
- **99 sources detected in 88 fields, integration time ~120 sec (!!)**
- Significant multiplicity (35-50%) found at 0.2” resolution

ALMA Science Highlights: the Distant Universe

Hezaveh et al (2016) show ALMA's potential to advance understanding of dark matter substructures

ALMA's SDP.81 observations are analyzed to detect a subhalo with a mass of $10^{8.96\pm0.12}$ M_{sun}

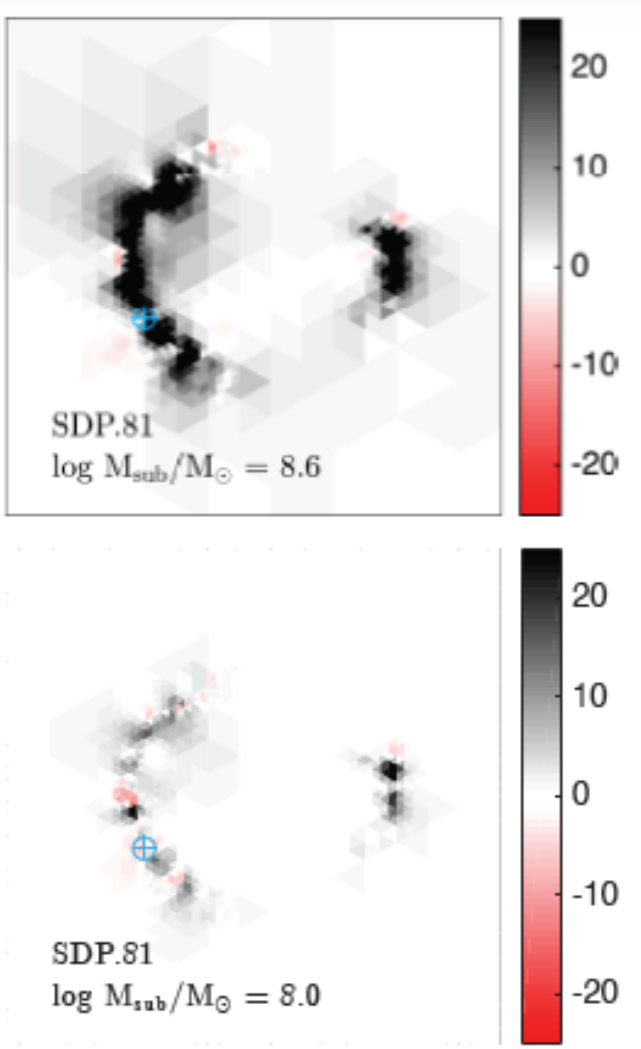
Consistent with theoretical expectations



The SDP.81 system.

Blue: HST/WFC3 F160W data shows lensing elliptical at z~0.3

Red: ALMA Bands 4/6/7 combined emission.



(Right Top) a map of parameter for a second subhalo of mass $10^{8.6}$ M_{sun} after inclusion of one subhalo of mass 10^{9} M_{sun} at the location of the blue symbol.
(Bottom) results from similar analysis for a lower mass subhalo, showing marginal improvement at another point near the first detection.

NRAO

Proposal Preparation & ALMA Cycle 5 Capabilities

NRAO NSF Associated Universities, Inc.

ALMA Timelines and Milestones

The ALMA Cycle 5 Timeline

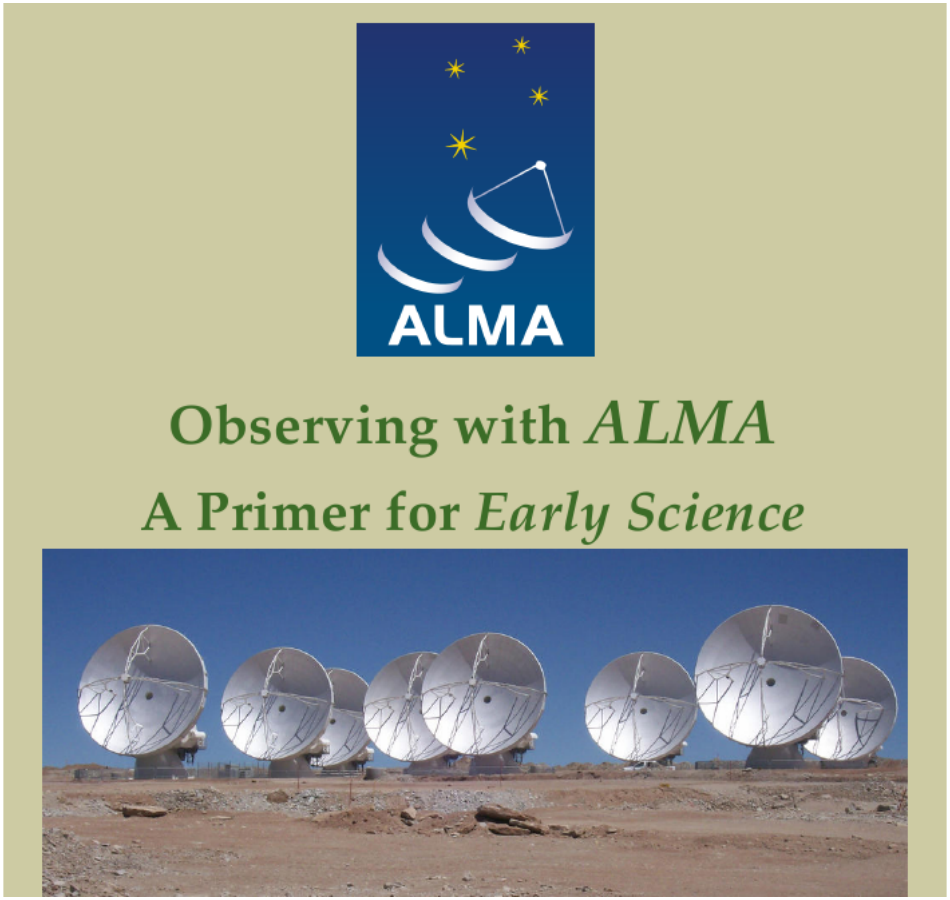
Date	Milestone
21 March 2017 (15:00UT)	Release of Cycle 5 Call for Proposals, Observing Tool & supporting documents and Opening of the Archive for proposal submission
20 April 2017 (15:00 UT)	Proposal submission deadline
End of July 2017	Announcement of the outcome of the Proposal Review Process
15 September 2017	Submission of Phase 2 by PIs
October 2017	Start of ALMA Cycle 5 Science Observations
September 2018	End of ALMA Cycle 5

Proposal Checklist

- Read relevant documentation (CfP Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal (almascience.org)
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 5!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

Cycle 5 Documentation

- Call for Proposals
- Proposer's Guide
- ALMA Primer
- OT Guide
- ALMA Tech Handbook



Proposal Checklist

- Read relevant documentation (CfP Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal (almascience.org)
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 5!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

ALMA

Log in
Register
Reset Password
Forgot Account

About | Science | Proposing | Observing | Data | Processing | Tools | Documentation | Help

Search Site

Observatory News

Additional Information for Cycle 5 Proposals
Feb 01, 2017

Release of a New Installment of Science Verification Data
Jan 18, 2017

RadioNet: Calls for financial support - OPEN
Jan 16, 2017

More news...

NRAO News

American Astronomical Society Meeting
Jun 04, 2017

2017 Astrobiology Graduate Conference
Jun 05, 2017

Women in Astronomy IV: The Many Faces of Women Astronomers
Jun 09, 2017

More...

Status

ALMA Cycle 5 Pre-Announcement

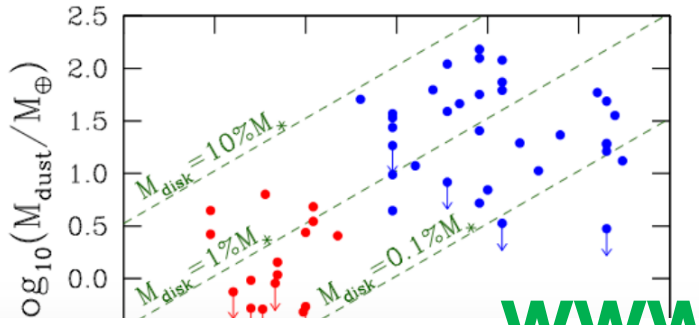
Refereed publications:

Last observed source:

Current configuration: C40-2

More...

Science Highlights - Possible Disk Truncation in Ophiuchus Brown Dwarfs



The sensitivity, resolution and the wavelength coverage of ALMA makes it an ideal tool for studying the properties of the cold outer disks of young stars and low mass objects. Such observations can aid us in understanding the formation of their central objects and their likelihood of ultimately hosting planets. In a recent Astronomy & Astrophysics paper, Dr. Testi and his collaborators made use of ALMA Band 7 to observe an unbiased sample of spectroscopically confirmed Ophiuchus brown dwarfs with infrared excesses.

www.almascience.org

ALMA Science Portal @ NRAO

NRAO

Proposal Checklist

- Read relevant documentation (CfP Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal (almascience.org)
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 5!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

Downloading the ALMA OT

About | Science | Proposing | Observing | Data | Processing | Tools | Documentation | Help

Search Site

Observing Tool

The ALMA Observing Tool (OT) is a Java application used for the preparation and submission of ALMA Phase 1 (observing proposal) and Phase 2 (telescope runfiles for accepted proposals) materials. It is also used for preparing and submitting Director's Discretionary Time (DDT) proposals. The current *Cycle 4* release of the OT is configured for the present capabilities of ALMA as described in the Cycle 4 Call For Proposals. Note that in order to submit proposals you will have to register with the ALMA Science Portal beforehand.

Note that preparation of Cycle 3 Phase 1 and DDT proposals needs to be done using the Cycle 3 version of the Observing Tool. This version of the OT can be found in the DDT page, or the Phase 2 menu.

Download & Installation

The OT will run on most common operating systems, as long as you have **Java 8** installed (see the troubleshooting page if you are experiencing Java problems). The ALMA OT is available in two flavours: Web Start and tarball.

The **Web Start** application is the recommended way of using the OT. It has the advantage that the OT is automatically downloaded and installed on your computer and it will also automatically detect and install updates. There are some issues with Web Start, particularly that it does not work with the Open JDK versions of Java such as the "Iced Tea" flavour common on many modern Linux installations. The Sun/Oracle variant of Java should therefore be installed instead. If this is not possible, then the tarball installation of the OT is available.

The **tarball** version must be installed manually and will not automatically update itself, however there should be no installation issues. For Linux users, we also provide a download complete with a recommended version of the Java Runtime Environment. Please use this if you have any problems running the OT tarball install with your default Java.

Webstart Tarball

NRAO

OT Video Tutorials

OT Video Tutorials

The OT video tutorials provide an audio-visual demonstration of different aspects of proposal preparation in the OT. Novice users should start with the first video and work their way down, while more experienced users may want to jump straight to one of the specialised videos.

OT Video Tutorial 1: Useful to Know

This video will help you get started with the OT and introduce you to some handy tips and tricks. Topics covered include navigating the OT, using the help function, the template library, time estimation, validation, opening & submitting projects including re-submissions, and the concept of non-standard modes.

Proposal Checklist

- Read relevant documentation (CfP Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal (almascience.org)
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 5!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

Science Case

- Must include:
  - Astronomical Importance
  - Estimated intensity, S/N
- May include:
  - Figures
  - Tables
  - References

- Free-form PDF document
  - 12+ font, English only
  - 20 MB file size
  - 4 pages (6 for Large Projects)

Table 1: Cycle 5 Configuration Schedule

Start date	Configuration	Longest baseline	LST for best observing conditions
2017 October 1	C43-7	3.7 km	~ 21h - 10h
2017 October 5	C43-8	6.8 km	~ 22h - 11h
2017 October 25	C43-9	12.8 km	~ 23h - 12h
2017 November 10	C43-10	16.5 km	~ 1h - 13h
2017 December 1-18	No observations due to large antenna reconfiguration		
2017 December 19	C43-6	1.8 km	~ 4h - 15h
2018 January 10	C43-5	1.1 km	~ 5h - 17h
2018 February 1-28	No observations due to February shutdown		
2018 March 1	C43-4	0.7 km	~ 8h - 21h
2018 March 30	C43-3	0.46 km	~ 10h - 0h
2018 May 15	C43-2	0.27 km	~ 12h - 3h
2018 June 15	C43-1	0.15 km	~ 14h - 5h
2018 July 15	C43-2	0.27 km	~ 17h - 7h
2018 August 15	C43-3	0.46 km	~ 18h - 8h
2018 August 30	C43-4	0.7 km	~ 19h - 9h
2018 September 15	C43-5	1.1 km	~ 20h - 10h

ALMA Array Configuration Schedule (Cycle 5)

For Cycle 5, the compact array configurations will be in the southern hemisphere winter in order to accommodate more high frequency observations. The array configuration schedule will cycle every 3-5 years to accommodate the range of LST.

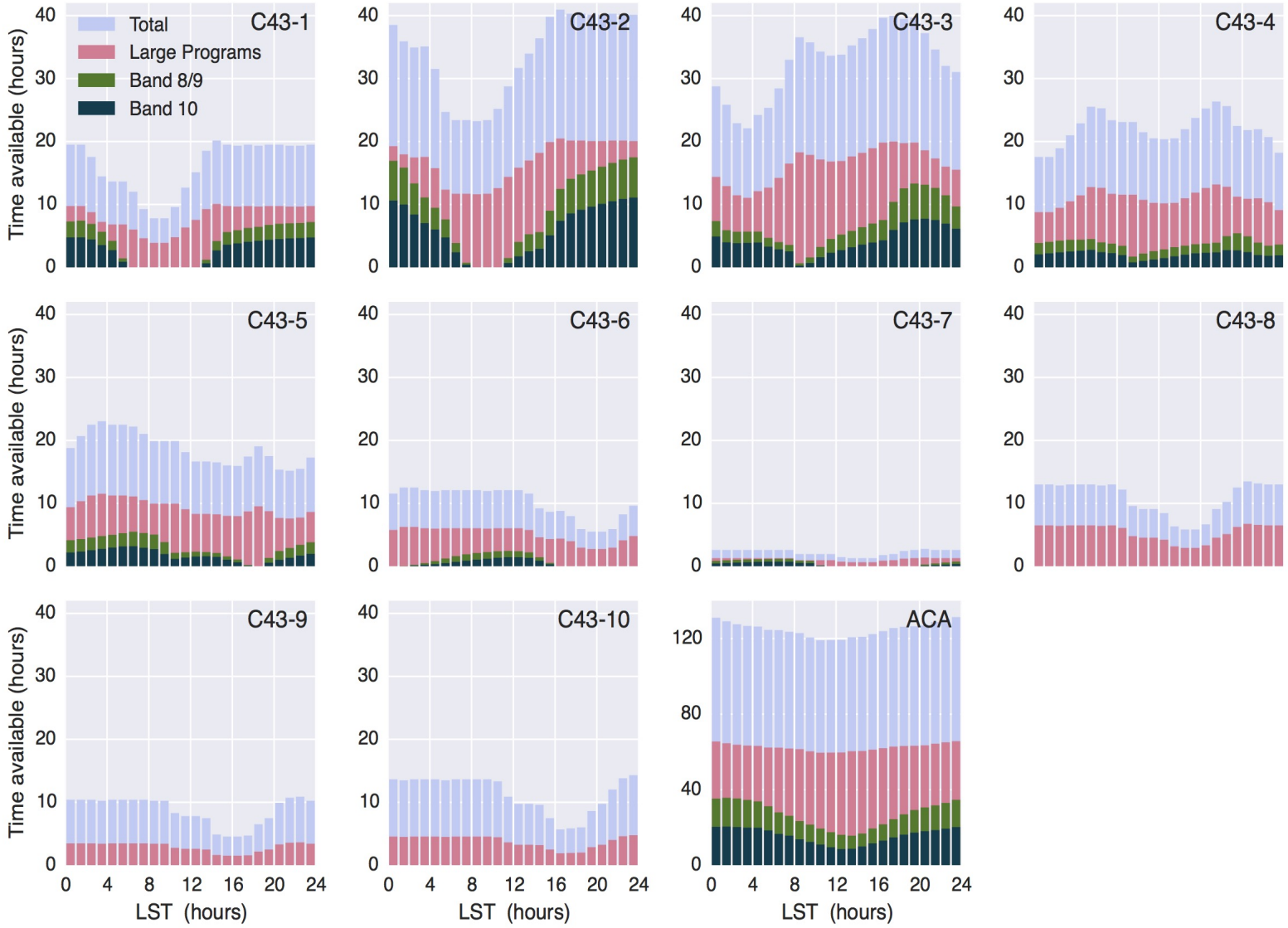
NOTE: No observing takes place in Feb!

Table 1: Cycle 5 Configuration Schedule

Start date	Configuration	Longest baseline	LST for best observing conditions
2017 October 1	C43-7	3.7 km	~ 21h - 10h
2017 October 5	C43-8	6.8 km	~ 22h - 11h
2017 October 25	C43-9	12.8 km	~ 23h - 12h
2017 November 10	C43-10	16.5 km	~ 1h - 13h
2017 December 1-18	No observations due to large antenna reconfiguration		
2017 December 19	C43-6	1.8 km	~ 4h - 15h
2018 January 10	C43-5	1.1 km	~ 5h - 17h
2018 February 1-28	No observations due to February shutdown		
2018 March 1	C43-4	0.7 km	~ 8h - 21h
2018 March 30	C43-3	0.46 km	~ 10h - 0h
2018 May 15	C43-2	0.27 km	~ 12h - 3h
2018 June 15	C43-1	0.15 km	~ 14h - 5h
2018 July 15	C43-2	0.27 km	~ 17h - 7h
2018 August 15	C43-3	0.46 km	~ 18h - 8h
2018 August 30	C43-4	0.7 km	~ 19h - 9h
2018 September 15	C43-5	1.1 km	~ 20h - 10h

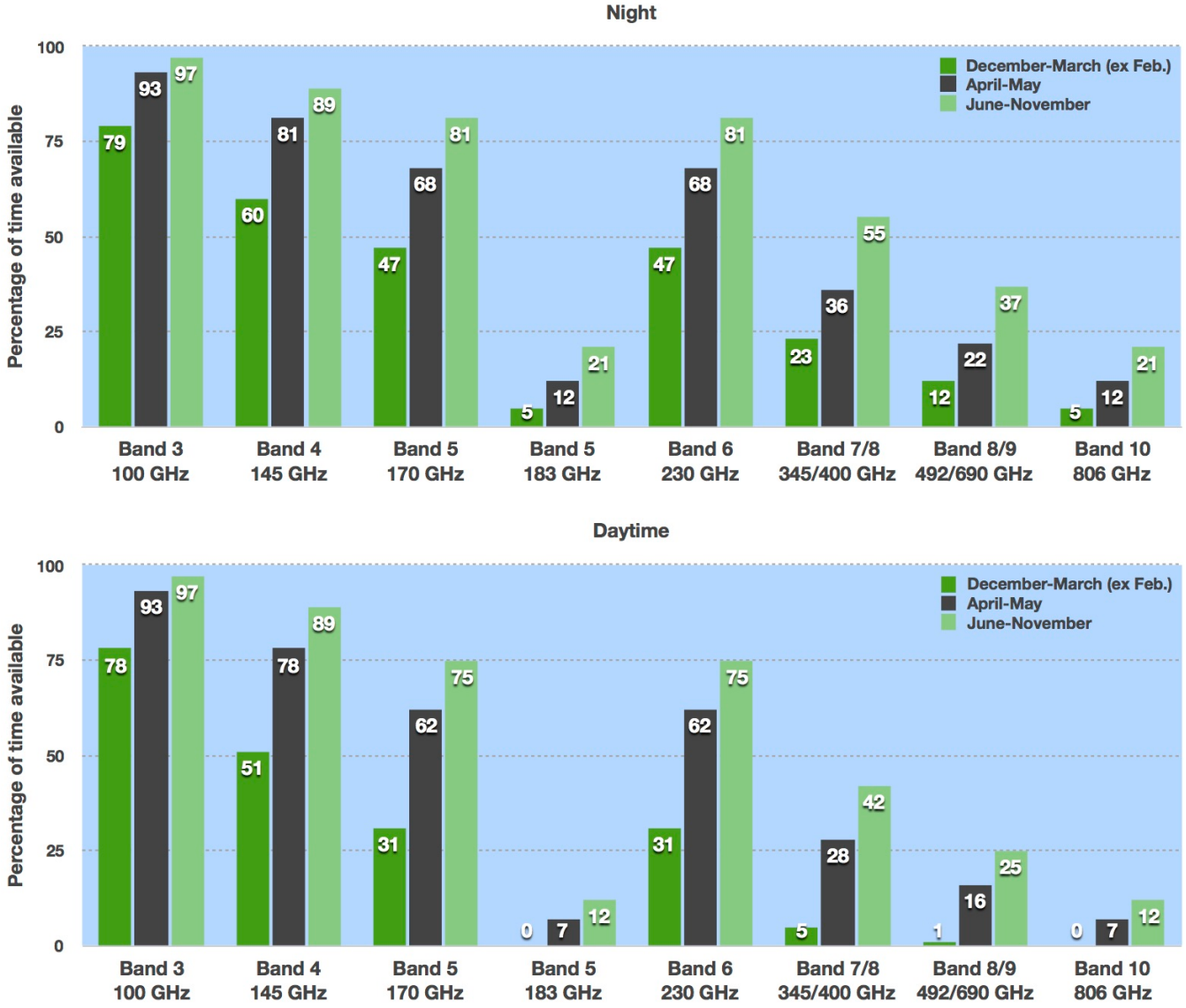
NRAO

ALMA Observing Strategies (Cycle 5)



Histograms of the anticipated amount of observing time available versus LST for the antenna configurations in Cycle 5. Also shown are histograms of the time available for Large Programs, as well as high frequency observations (Bands 8, 9, and 10) based on historical PWV data

ALMA Observing Strategies (Cycle 5)



Histograms of the percentage of time when the precipitable water vapor is below the observing thresholds adopted for the various ALMA bands. The PWV measurements were obtained by the APEX weather station between 2007 and 2016. Results are shown for nighttime (top) and daytime (bottom) observations assuming a source elevation of 60 deg.

Proposal Checklist

- Read relevant documentation (CfP Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal (almascience.org)
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 5!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

New Capabilities

- Band 5
- Improved spectral scan mode
- 90 Degree Walsh switching at Band 9 and 10
- Solar Observations (Bands 3 + 6)
- VLBI full polarization continuum (Bands 3, 6 + 7)

Large Program (started in Cycle 4)

- Any project >50 hours
- Standard observing modes
- Automatic ‘A’ grade
- +2 pages for Science Case
  - Data/Project Mgmt. Plans
  - Enhanced Data Products

ALMA Performance

Towards Steady State (Cycle 5) and Full Operations (Cycle 7)

Antennas:

At least 43,12-m antennas in the main array

Full operations will target 45

ten 7-m antennas and three12-m antennas (for single-dish maps) in the ACA.

Receiver bands:

3, 4, 5, 6, 7, 8, 9, & 10 (wavelengths of about 3.1, 2.1, 1.5, 1.3, 0.87, 0.74, 0.44, and 0.35 mm, respectively).

Full operations will include Band 1 and 2 (Cy 7+).

Baselines:

up to 3.7 km for Bands 8, 9 and 10 / up to 6.8 km for Band 7 / and >15 km for Bands 3, 4, 5 & 6.

Full operations will have all baselines available for all observing bands. Some long baseline observations may never be considered “standard” observing modes.

ALMA Performance

Towards Steady State (Cycle 5)

Standard vs Non-Standard modes:

Cycle 5 should still be around 20% of the time going to non-standard modes.

This fraction will get smaller as we go into Full Operation and the amount of new capabilities decreases.

The fraction of time available for testing of new capabilities in Cycle 5 drops to ~15%

and continues to drop to a steady state of ~10% in Full Operations.

Non-Standard Observing Modes include:

- Bands 8, 9 and 10 observations
- Band 7 observations with maximum baselines > 5 km
- All full polarization observations
- Spectral scans
- Bandwidth switching projects (having less than 1 GHz aggregate bandwidths over all spectral windows)
- Solar observations
- VLBI observations
- Non-standard calibrations (user-defined calibrations selected in the OT)

ALMA Performance

Towards Steady State (Cycle 5) and Full Operations (Cycle 7)

Observing Time:

- 4000 hours for successful proposals of PI programs expected on the 12m Array (includes DDT, Cycle 4 Carryover and resubmissions)
- 3000 hours available on the ACA
- 3000 hours available on the Total Power Array

Observing Modes (All Cycle 4 Modes plus…):

- Band 5
  - Full Operations include Bands 1 and 2
  - Wide field polarization capabilities (12m + 7m arrays) including Band 5
  - Full operations include full Stoke plus circular polarization at all observing bands including mosaics and Total Power
- Improved spectral scan mode using differential gain calibration and more efficient calibration strategies including the use of sessions (sessions -> using already observed calibrators between science goals)

ALMA Performance

Towards Steady State (Cycle 5) and Full Operations (Cycle 7)

New Observing Modes for Cycle 5:

- 90 Degree Walsh switching at Band 9 and 10 for both the 12m and ACA
  - Full operations including Total Power observations at all observing bands including continuum with either fast scanning techniques or nutator
  - Mixed correlator modes (both high and low frequency resolution in the same observation).
- Solar Observations (Interferometry + Total Power continuum) at selected frequencies in Bands 3 and 6.
  - Full operations include full spectral line and continuum, full polarization observations at all frequency bands
- VLBI full polarization continuum observations at selected frequencies in Bands 3, 6 and 7.
  - Full operations include full spectral line and continuum, full polarization observations at arbitrary frequencies (in Band 3, 6 and 7)
  - Full operations include the high sensitivity array – cross correlation observations between all antenna (12m + 7m)

Proposal Checklist

- Read relevant documentation (CfP Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal (almascience.org)
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 5!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

Proposal Checklist

- Read relevant documentation (CfP Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal (almascience.org)
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 5!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

ALMA

Atacama Large Millimeter/submillimeter Array
In search of our Cosmic Origins

Log in
Register
Reset Password
Forgot Account

About | Science | Proposing | Observing | Data | Processing | Tools | Documentation | Help | Search Site

Observatory News

Additional Information for Cycle 5 Proposals
Feb 01, 2017

Release of a New Installment of Science Verification Data
Jan 18, 2017

RadioNet: Calls for financial support - OPEN
Jan 16, 2017

More news...

NRAO News

American Astronomical Society Meeting
Jun 04, 2017

2017 Astrobiology Graduate Conference
Jun 05, 2017

Women in Astronomy IV: The Many Faces of Women Astronomers
Jun 09, 2017

More...

Status

ALMA Cycle 5 Pre-Announcement

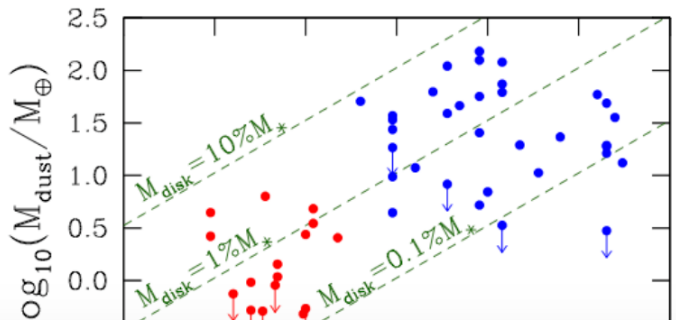
Refereed publications:

Last observed source:

Current configuration: C40-2

More...

Science Highlights - Possible Disk Truncation in Ophiuchus Brown Dwarfs



The sensitivity, resolution and the wavelength coverage of ALMA makes it an ideal tool for studying the properties of the cold outer disks of young stars and low mass objects. Such observations can aid us in understanding the formation of their central objects and their likelihood of ultimately hosting planets. In a recent Astronomy & Astrophysics paper, Dr. Testi and his collaborators made use of ALMA Band 7 to observe an unbiased sample of spectroscopically confirmed Ophiuchus brown dwarfs with infrared excesses.

NRAO

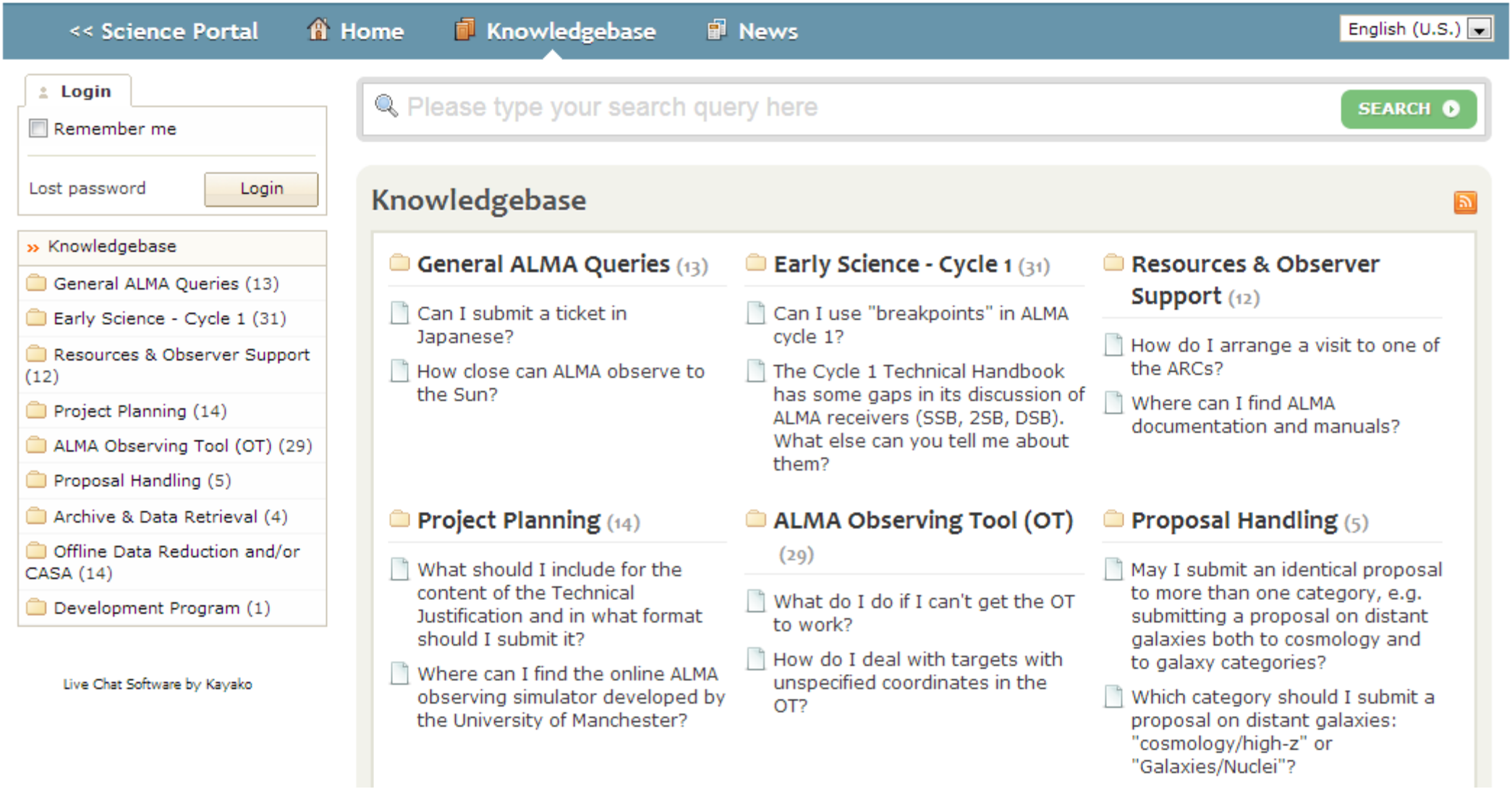
www.almascience.org

ALMA Science Portal @ NRAO

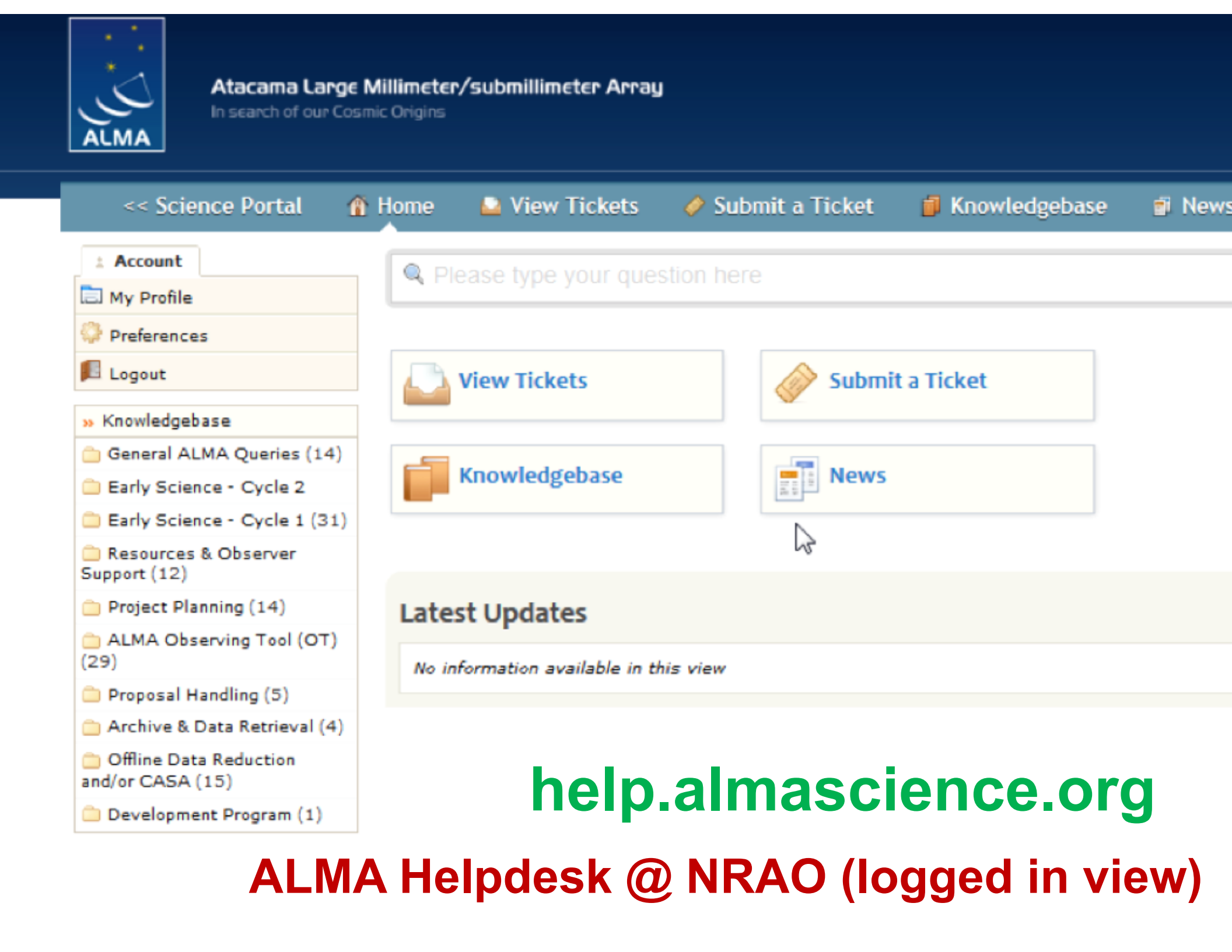
I could use a hand...

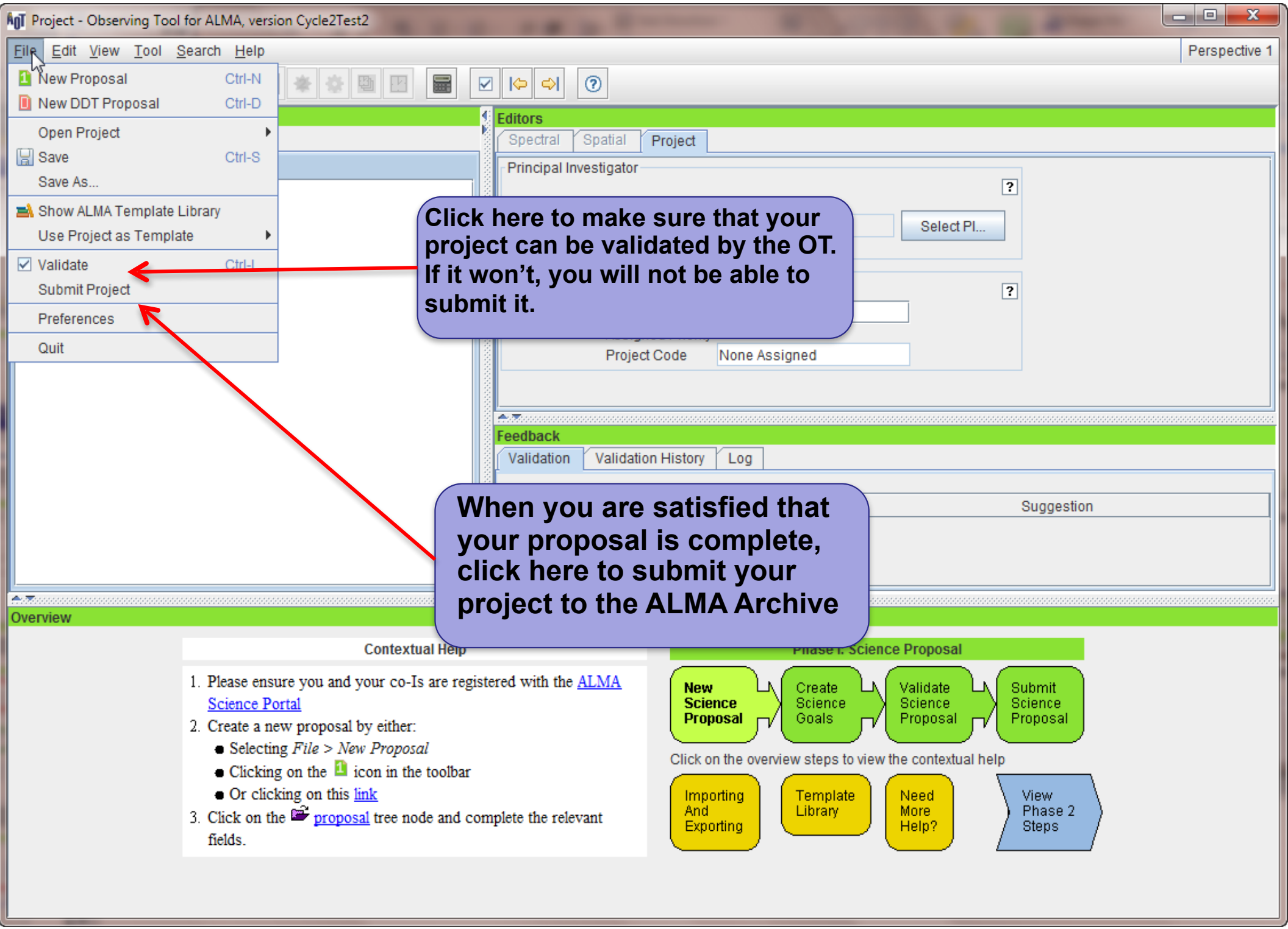
ALMA

Have no fear, the ALMA Helpdesk is here...



NRAO


Atacama Large Millimeter/submillimeter Array
In search of our Cosmic Origins
ALMA
<< Science Portal
Home
View Tickets
Submit a Ticket
Knowledgebase
News
Account
My Profile
Preferences
Logout
» Knowledgebase
General ALMA Queries (14)
Early Science - Cycle 2
Early Science - Cycle 1 (31)
Resources & Observer Support (12)
Project Planning (14)
ALMA Observing Tool (OT) (29)
Proposal Handling (5)
Archive & Data Retrieval (4)
Offline Data Reduction and/or CASA (15)
Development Program (1)
Please type your question here
View Tickets
Submit a Ticket
Knowledgebase
News
Latest Updates
No information available in this view
help.almascience.org
ALMA Helpdesk @ NRAO (logged in view)


Project - Observing Tool for ALMA, version Cycle2Test2
File Edit View Tool Search Help
Perspective 1
New Proposal Ctrl-N
New DDT Proposal Ctrl-D
Open Project
Save Ctrl-S
Save As...
Show ALMA Template Library
Use Project as Template
Validate Ctrl-I
Submit Project
Preferences
Quit
Editors
Spectral Spatial Project
Principal Investigator
Select PI...
Project Code None Assigned
Feedback
Validation Validation History Log
Suggestion
Click here to make sure that your project can be validated by the OT. If it won't, you will not be able to submit it.
When you are satisfied that your proposal is complete, click here to submit your project to the ALMA Archive
Overview
Contextual Help
1. Please ensure you and your co-Is are registered with the ALMA Science Portal
2. Create a new proposal by either:
Selecting File > New Proposal
Clicking on the icon in the toolbar
Or clicking on this link
3. Click on the proposal tree node and complete the relevant fields.
Phase I: Science Proposal
New Science Proposal
Create Science Goals
Validate Science Proposal
Submit Science Proposal
Click on the overview steps to view the contextual help
Importing And Exporting
Template Library
Need More Help?
View Phase 2 Steps

After submission

- Remember, you can resubmit as often as needed, but keep in mind that the server is quite busy right before the deadline
- Standard and ToO proposals will be reviewed by the ALMA Proposal Review Committee (APRC) and the ALMA Review Panels (ARP).
- All proposals will be subject to Technical Assessment by a selected group of JAO and ARC experts.
- Proposals will be assessed on the basis of the overall scientific merit of the proposed investigation and its potential contribution to the advancement of scientific knowledge.
- Following approval by the Directors Council, the outcome of the Proposal Review Process will be communicated to the PIs of all valid submitted proposals, expected in August 2017.

After submission

- Phase II (Creating and Queuing Scheduling Blocks)
  - PIs create their own scheduling blocks (with guidance from NAASC staff)
  - Being prompt helps ensure your project can be observed!

- Then wait – dynamic scheduling means your Contact Scientist doesn't know when your project will run. As observations are made, updates are shown in the SnooPI tool on the Science Portal:

  https://almascience.nrao.edu/observing/snoopi

Local ALMA Science Highlights!

09:15 - 09:50 -- ALMA Overview talk, ALMA Cycle 5 proposals

09:50 - 10:40 -- Local ALMA Science Highlights:
Brendan Bowler, Yao-Lun Yang,
Jackie Champagne, Sam Factor

10:40 - 11:00 -- Break

11:00 - 11:20 -- ALMA Observing Tool and ALMA data archive
11:20 - 12:30 -- Small group work on ALMA OT and/or archive

12:30 - 13:40 -- Lunch (provided for registered participants)

13:40 - 14:10 -- Introduction to data imaging and ALMA simulations
14:10 - 16:30 -- Small group work on Data Imaging or Simulations

www.nrao.edu
science.nrao.edu