### Proposal Preparation and Project life-cycle

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**PA QA2** 

- Cycle 12 timeline
- User Portal and user account
- Documentation
- Tools
- Proposal Types
- Scientific Justification
- Proposal lifecycle





# **Cycle 12 timeline**

Oth March	Start Date	Configuration
	1-Oct-2025	C-8
<sup>1th</sup> April	20-Oct-2025	C-7
Julv/August	10-Nov-2025	C-6
	1-Dec-2025	C-5
is start: 1 <sup>st</sup> October	20-Dec-2025	C-4
<u>on timeline</u> ——→	10-Jan-2026	C-3
	1-Feb-2026	No observations due to maintenance
	1-Mar-2026	C-1
	26-Mar-2026	C-2
	20-Apr-2026	C-3
	10-May-2026	C-4
	31-May-2026	C-5
	23-Jun-2026	C-6
	28-Jul-2026	C-5
	18-Aug-2026	C-4
	10-Sep-2026	C-3

- Call open: 2
- Deadline: 24 lacksquare
- **Results out:** lacksquare
- Observation
- **Configuratio** ullet





## **User Portal and user account**

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## www.almascience.org



The ALMA Science Portal is a one-stop source for information and tools aimed at the scientific community as a whole, including proposers, archive researchers, ALMA staff, journalists, and funding agencies.

Quick Links



galaxy at z=0.89 (optical image from HST).

The line of sight to the lensed blazar PKS1830-211 intercepts



## **User Portal and user account**

**PA QA2** 

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## www.almascience.org

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ALMA	Account info Demogra	raphics Expertise Conflicts of interest Confirm	A DE LA DE
About Science	New Accour	nt Registration	
Science Highlight	First name		
Protonated acetylene in the z=0 PKS1830-211	Middle initials		bedula
	Surname		
	Gender		ations: 3647
	E-mail		57-322058.7
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arthurstar Jas Marinature	Receive optional emails		
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View of the molecule (created with	Re-type password		
PKS1830-211. The quasar (here ob interferometer at radio wavelegate	Institution	<ul> <li>Choose country</li> <li>Choose Institution</li> </ul>	▼ pposers, archive
galaxy at z=0.89 (optical image from	n HST).	researchers, ALMA staff, journalists, and funding agencies.	
The line of sight to the lensed l	blazar PKS1830-211 intercepts	Quick Links	





AtacamaLarge Millimeter/submillimeterArray

In search of our Cosmic Origins

Proposing Observing Processing Documentation About Science Tools Help Data The second and a second the second second Documentation Table of Contents Purpose of this Document Some Acronyms Used in this Document Proposer's Guide What is ALMA? ALMA Regional Centers (ARCs) What is Interferometry? **ALMA Technical Book** Science with ALMA **ALMA Full Operations Specifications** ALMA Cycle 11 Capabilities **ALMA Science Primer** Receivers and Sensitivities This Cycle **ALMA** Correlators Did You Know? In Cycle 11 ALMA can... Science During Cycle 11 10 Before You Propose 10 Examples of Cycle 11 Observing With ALMA 12 Molecular Absorption Lines at z=0.9 — Spectral Scan 12 Mapping a Lensed, High Redshift, Gas-Rich Galaxy 13 A Survey of Submillimeter Galaxies 14 Observing a GRB Afterglow (A Target of Opportunity) 15 Properties of Central Black Holes and their Hosts 16 17 Mosaicing the Nearby Spiral Galaxy M100 Multi-wavelength Continuum Survey of Protostellar Disks in Ophiuchus 18 19 Dust Polarization and Magnetic Fields in Star Forming Clouds 20 Observing Molecular Gas in a Planetary Nebula 21 Solar Systems Near and Far 22 Continuum High Resolution Imaging of the Asteroid 3 Juno Continuum Mapping of the Sun at Millimeter Wavelengths 23 Proposals, Observations and Data Reduction 24 Proposal Submission and Observing Process 24 26 **Observing Considerations** Simulating ALMA Data 29 Using Single-Dish Data to Estimate ALMA Sensitivity Requirements 30 Creating Images From Your Data 31 33 Interferometry Concepts for ALMA: A Glossary of Terms A Few Useful Equations 38 39 A Summary of "Quick Links" 

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- Documentation
  - Proposer's Guide
  - <u>ALMA Technical Book</u>
  - <u>ALMA Science Primer</u>
  - Known issues (this link when call is open)
  - Knowledge base / FAQs
  - <u>Helpdesk</u>







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  - <u>Helpdesk</u>
- Videos
  - <u>ALMA Primer Instructional Videos</u>
  - <u>I-TRAIN</u>





- ALMA Observing Tool (Edwige presentation)
- Sensitivity calculator

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	Polarisation	Dual ~							
Obse	rving Frequency	345					GHz 🔻		
and the	Observing Band	ALMA_RE	3_07 ∨						
Bandwidth per Polarization Water Vapour		7.500000					iHz 🔻		
		Autom	Automatic Choice     Manual Choice						
	Column Density	0.913mm	(3rd Octile)	~					
	Trx, tau, Tsky	72 K, 0.1	58, 39.538	к					
	Tsys	153.278	к					Î	
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Individual Parameters Number of Antennas	<b>12 m Array</b>	,	~	<b>7 m Array</b>	~	Total Powe	er Array		•
Individual Parameters Number of Antennas Resolution	<b>12 m Array</b> 43 0	~	✓ arcsec ▼	7 m Array 10 0 ✔ a	✓ arcsec ▼	Total Powe	er Array ✔	arcs	Sec T
Individual Parameters Number of Antennas Resolution Sensitivity (rms)	<b>12 m Array</b> 43 0 197.67559	•	arcsec V uJy V	7 m Array 10 0 ✔ 2.48268526533€ ✔	arcsec ▼ mJy ▼	<b>Total Powe</b> 3 9.5 4.8501066	er Array	arcs	sec T
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Individual Parameters Number of Antennas Resolution Sensitivity (rms) Equivalent to Integration Time	<b>12 m Array</b> 43 0 197.67559 Unknown 60	09247 🗸	arcsec ▼ uJy ▼ K ▼ s ▼ Integra	7 m Array 10 0 ✔ a 2.48268526533€ ✔ Unknown 60 ✔ ation Time Unit Option	arcsec V mJy V K V s V	Total Powe           3           9.5           4.8501066           0.174           60           tic	er Array ✓	arcs m r	oec ∎ nJy ∎ s ∎





Array Setup

- ALMA Observing Tool (Edwige presentation)
- Sensitivity calculator
- Observation Support Tool

Instrument: ALMA v	Select the desired ALMA antenna configuration. Full ALMA means the simulations will be done with the full capabilities ALMA will achive in the future (e.g. observing with 50 antennas, or Band 10 Configuration 10 observations); some of these may not yet be offered in the current cycle. Selecting cycle-specific configurations will simulate the capabilities of ALMA in that wells and therefore some observations might be contained (you will be
	notified if this is the case). Please, refer to the ALMA documentation for each cycle capabilities.
Sky Setup:	
Source model: OST Library: Central point source  Vpload: Choose File No file chosen	Choose a library source model or supply your own. You may upload your own model here (max 10MB). This must be a FITS file with the extension .fits included in the name of the file, e.g. model.fits.
Declination:         -35d00m00.0s           Image peak / point flux in mJy          0.0	Ensure correct formatting of this string (+/-00d00m00.0s). Rescale the image data with respect to new peak value. Set to 0.0 for no rescaling of source model.
Observation Setup:	
Observing mode: O Spectral Continuum Central frequency in GHz: 93.7 Bandwidth in MHz V: 32	Spectral or continuum observations? The value entered must be within an ALMA band. Select the total bandwidth for continuum observations. Enter 7.5 GHz to select ALMA recommend full continuum setup.
Use full Stokes parameters: O Yes No Number of polarizations: 2 -	If your input image contains more than one Stokes plane use them all (Yes), or just Stokes I (no/default). This affects the noise in the final map. Ignored in continuum mode if "Use full Stokes parameters" is set to yes.
Required resolution in arcseconds:       1.0         Pointing strategy:       Mosaic         On-source time in       hours         V       3	OST will choose array config based on this value if <i>instrument</i> is set to ALMA. Selecting single will apply primary beam attenuation. Per pointing for Pointing Strategy = 'mosaic'. Total time over all pointings Pointing Strategy = 'single' and 'User pointing'





- <u>ALMA Observing Tool</u> (Edwige presentation)
- <u>Sensitivity calculator</u>
- Observation Support Tool
- <u>Splatalogue</u>
- Solar ephemeris
- <u>Multiple other tools</u> developed by the EU ARC nodes
- <u>CASA</u> and <u>simulation tasks</u>





## **Proposal Types**

Regular	Target Of Opportunity	
Large Program	O Phased Array	
	) Regular ) Large Program	Regular  Target Of Opportunity    Large Program  Phased Array

Joint Proposals			
	Is this a Joint Proposal?	🖲 Yes 🔾 No	
	Type of Joint Proposal	● Main ○ Partner	
	Observatory	Project Code	Requested Time
	Add Partner Obser	VLA, V	<b>LT, JWST</b> Partner Observatory

Gergö's presentation





## **Scientific Justification**

PA Qa2

- Must be:
  - 4 pages (7 for Large Programs) PDF document (20MB max file size).
  - 12+ font written in English (OT will check the font size). This includes figure captions, tables and references!
  - Prepared in accordance with the dual-anonymous guidelines.
- Should:
  - Be written for a knowledgeable, but broad audience.
  - Provide a clear statement of the immediate scientific goals.
  - Demonstrate the suitability of the observations to achieve the scientific goals.
- May:
  - Embed tables and figures within the text.
  - Briefly justify the requested sensitivity and angular resolution and refer to the Technical Justification for a full justification.
  - Include simulations to justify aspects of an observation.





PA Qa2

- 1. Submission (via OT; see Edwige presentation)
- 2. <u>Review</u> (Evanthia presentation)
- 3. Life and Proprietary Time (Regular vs LPs vs DDT vs JPs)
  - 1. Regular:
    - 1. grade-A/LPs: 2 cycles, 1yr Proprietary Time
    - 2. B/C: 1 cyc, 1yr Proprietary Time
  - 2. DDTs: 2 cycles, no Proprietary Time (unless justified)
  - 3. JPs (as partner): 2 cycles, 1yr Proprietary Time





#### SnooPI (manual) and proposal structure





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OA2



#### SnooPI (manual) and proposal structure

SnooPl 😅	SnooPI John Smith Executive: EU; ARC: EU	Help	]
NAVIGATION	PI Co-I Delegee		
My Projects	All projects Sear	ch	٩
My SBs 🛛 <table-cell></table-cell>	Project code A Project Title	Status	Grade
QUICK LINKS	2019.1.01212.S The Amost inspired project title		C
User Manual	2019.1.01234.S S Observing the Oniverse with ALMA		в
Science Portal	galaxy clusters with ALMA J0305-SM_a_06_TM1	Landaranas	
Archive Query 📑	PJ231-SM_a_06_TM1    All data taken		
Helpdesk	PJ308-SM_a_06_TM1		

- a white "thumbs up" symbols marks a project that has been submitted (Phase 1);
- \* a red cross marks a project rejected at the proposal review stage (after the results of the proposal review become public). Such projects only appear in the list if "All projects" is selected;
- an asterisk indicates an approved project (priority grades A, B or C) for which the Phase 2 material has not yet been submitted;
- A light blue "thumbs up" symbol indicated that the Phase 2 material has been submitted, but the SBs have not been generated yet;





#### SnooPI (manual) and proposal structure

SnooPl	John Smith Executive: EU; ARC: EU	Version: v2020.1	10.01 Help 🚨
Project Code: 2019.1.0123	34.S ARC node: Italian. Contact scientis	t: Jack Brown Download Pro	pposal [pdf] Project report
J0305-SM_a			
	ets, nebulae, open clusters, globular gala	xies and galaxy clusters with ALMA	Progress
<ul> <li>SG OUS (PJ308 - e</li> <li>Group OUS</li> <li>Member OUS (I</li> <li>PJ308-SM a</li> </ul>	nvironment) PJ308-SMC1) Science (	Goal 🛛	141%
<ul> <li>SG OUS (PJ231 - er</li> <li>Group OUS</li> <li>Member OUS (</li> <li>PJ231-SM_a_</li> </ul>	Dyironment) PJ231-SMG1) Group of D6_TM1	f sources 🛛 🗖	164%
<ul> <li>SG OUS (J0305 - e</li> <li>Group OUS</li> <li>Member OUS (</li> <li>J0305-SM_a_</li> </ul>	nvironment) D0305-SMC2) Data del	ivery	150%





### Resubmissions

**PA** QA2

- 1. Even grade A projects may not finish within a single cycle
- 2. ALMA checks for duplications and resubmissions
- 3. Consider resubmitting if nothing happened until March
- 4. Project will continue in previous project version if observations have started already (per SG approach)
- 5. Prior to cycle start, you will be contacted by the contact scientist to confirm resubmission or justify against
- Newly added sources will be "transferred" to independent SGs
- 7. Project will have its grade updated accordingly

Note: check against duplications in the archive and the observing queue by following instructions/tools in this link.

