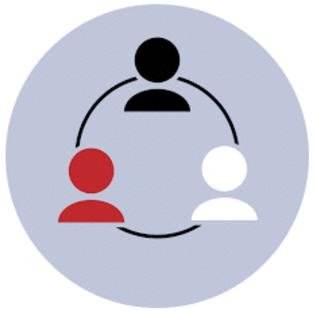
Cycle 11
Distributed peer review

Proposal Handling Team
May, 2024

Goal of presentation



Logistics of distributed peer review

Guidelines to reviewing proposals

Logistics of distributed peer review

- Code of conduct
- Timeline of the process
- The Reviewer Tool
- Where do I find relevant information?

Code of conduct

Reviewers and mentors are expected to behave in an ethical manner

- Will judge the proposals solely on their scientific merit
- Will be mindful of bias in all contexts
- Will declare major conflicts of interest
- The proposal reviews will be constructive and avoid any inappropriate language

All proposal materials related to the review process are strictly confidential

- The assigned proposals may not be distributed or used in any manner not directly related to the review process
- Any data, intellectual property, and non-public information shown in the proposals may be used only for the purpose of carrying out the requested proposal review
- The assigned proposals and the reviews may not be discussed with anyone other than the Proposal Handling Team, or the assigned mentor when applicable
- All electronic and paper copies of the proposal materials must be destroyed as soon as a reviewer completes the proposal review process

Basics of distributed peer review

Every* proposal team nominates one person to be a reviewer

Proposal Handling Team (PHT) assigns 10 proposals to the reviewer

Reviewer ranks and write comments for each proposal

* Excluding Large Programs

Reviewer timeline for Cycle 11

April 25
Proposal deadline

1) Proposal PI designates the reviewer in Observing Tool (OT)

April 30
Expertise & conflicts

1) Reviewer specify scientific expertise in Preferences
2) Reviewer provide list of conflicts of interest in Preferences
3) Deadline to provide alternative reviewer, if necessary

May 8 - June 5
Stage 1

1) Plenary sessions May 9-14 (optional, and highly recommended)
2) Declare any conflicts of interest in assigned proposals by May 15
3) Complete reviews by June 5 @ 15 UT **(MANDATORY!)**

June 6 - June 20
Stage 2

1) Read reviews from other reviewers
2) Modify your ranks and comments as needed

Stage 1: Review assigned proposals

May 8 - June 5
Stage 1

1) Declare any conflicts of interest in assigned proposals by May 15
2) Complete reviews by June 5 @ 15 UT **(MANDATORY!)**

Proposal set

- Group of 10 proposals to review
- Assigned to the reviewer based on the reviewer selected expertise or the keywords of the reviewer's submitted proposal
- One Proposal Set is assigned for each submitted proposal on which someone was selected as the reviewer
- When the Proposal Sets are available to start the review process, all reviewers will be informed by email.

Stage 1: Review assigned proposals

May 8 - June 5
Stage 1

1) Declare any conflicts of interest in assigned proposals by May 15
2) Complete reviews by June 5 @ 15 UT **(MANDATORY!)**

Declare any additional conflicts in your assigned proposals

- *For example:* You are the PI on a proposal that is observing the same object(s) with the same goals as one of your assigned proposals

What is considered a conflict of interest?

- In general, a reviewer has a major conflict of interest when their personal or work interests would benefit if the proposal under review is accepted or rejected.

Before assigning the proposals, the PHT will identify major conflicts of interest based on:

- The PI, reviewer, or mentor of the submitted proposal is a PI or co-I of the proposal to be reviewed
- The PI, one of the co-PIs, or one of the co-Is of the proposal to be reviewed is in the conflicts-of-interest list provided by the reviewer or mentor of the submitted proposal
- If the list is not provided by the reviewer, or mentor, then the assignment algorithm constructs a list of conflicts based on the submission history of the reviewer, or the mentor.

What is considered a conflict of interest?

- In general, a reviewer has a major conflict of interest when their personal or work interests would benefit if the proposal under review is accepted or rejected.

Potential conflicts that are not identified automatically by the PHT:

- The reviewer is proposing to observe the same object with similar science objective.
- The reviewer had provided significant advice to the proposal team on the proposal even through they are not listed as and investigator
- Other reasons the reviewer believes there is a strong conflict of interest

Lack of perceived expertise is not a reason to declare a conflict of interest.

Stage 1: Review assigned proposals

May 8 - June 5
Stage 1

1) Declare any conflicts of interest in assigned proposals by May 15
2) Complete reviews by June 5 @ 15 UT **(MANDATORY!)**

Declare any additional conflicts in your assigned proposals

- *For example:* You are the PI on a proposal that is observing the same object(s) with the same goals as one of your assigned proposals

If you identify an additional conflict *after* you submitted your conflicts in Reviewer Tool, submit a Helpdesk ticket (“Proposal Review” department) to be assigned another proposal.

Stage 1: Review assigned proposals

May 8 - June 5
Stage 1

1) Declare any conflicts of interest in assigned proposals by May 15
2) Complete reviews by June 5 @ 15 UT **(MANDATORY!)**

- Rank the proposals from 1 (strongest) to 10 (weakest) based on scientific merit.

- Write comments that summarize the strengths and weaknesses of the proposal
- Comments will be sent to the PI verbatim.

- **Proposal associated with the Designated Reviewer will be canceled if the reviews are not submitted on time!**
- Extensions will not be granted since Stage 2 starts on June 6.

The reviewer can be changed after the proposal deadline in exceptional circumstances by having the proposal PI contact the PHT via Helpdesk. The Stage 1 deadline remains the same.

Stage 2: Finalize the ranks and reviews

June 6 - June 20
Stage 2

1) Read reviews from other reviewers
2) Modify your ranks and comments as needed

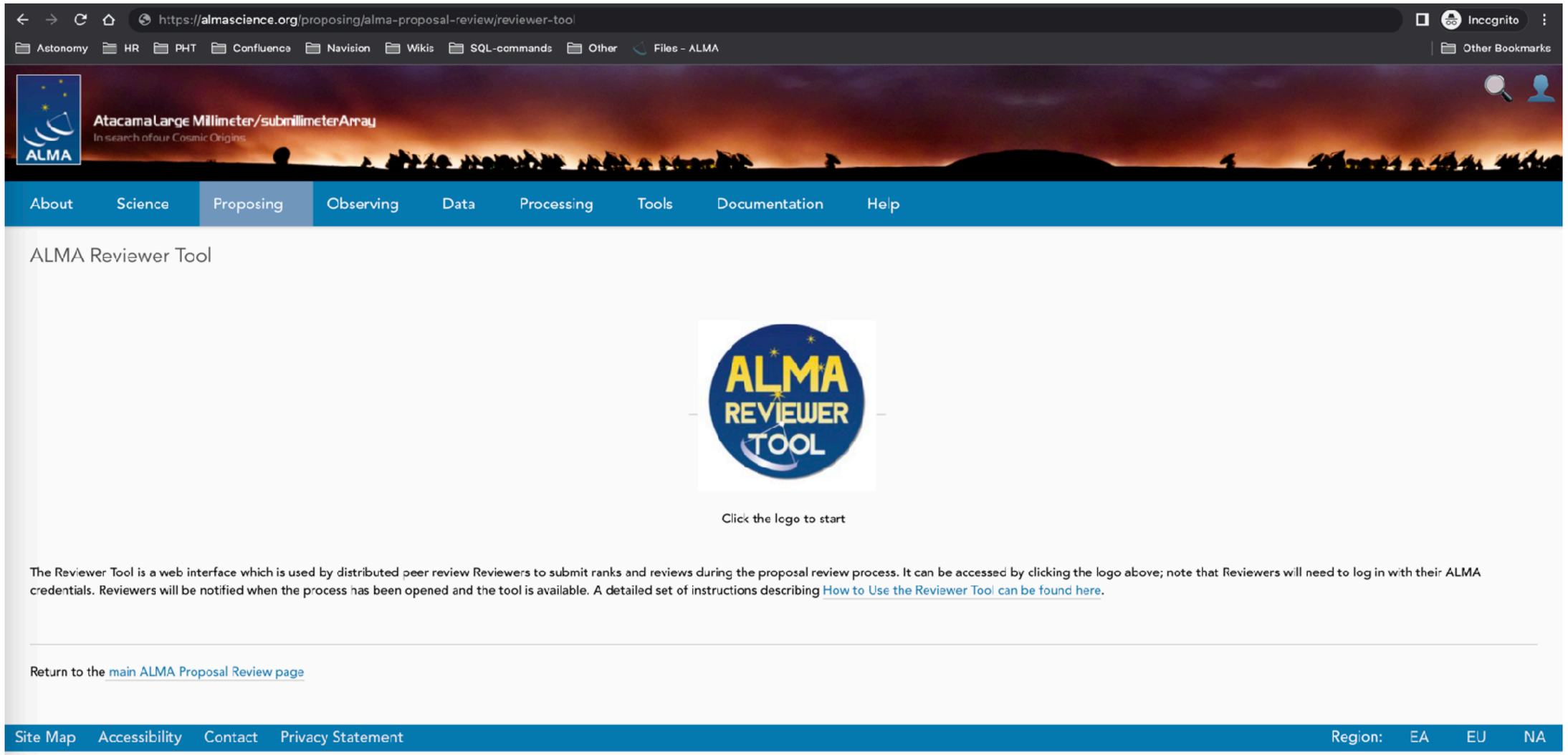
Read comments from the other reviewers to see if you overlooked any critical strengths or weaknesses.

Update your ranks and comments as needed.

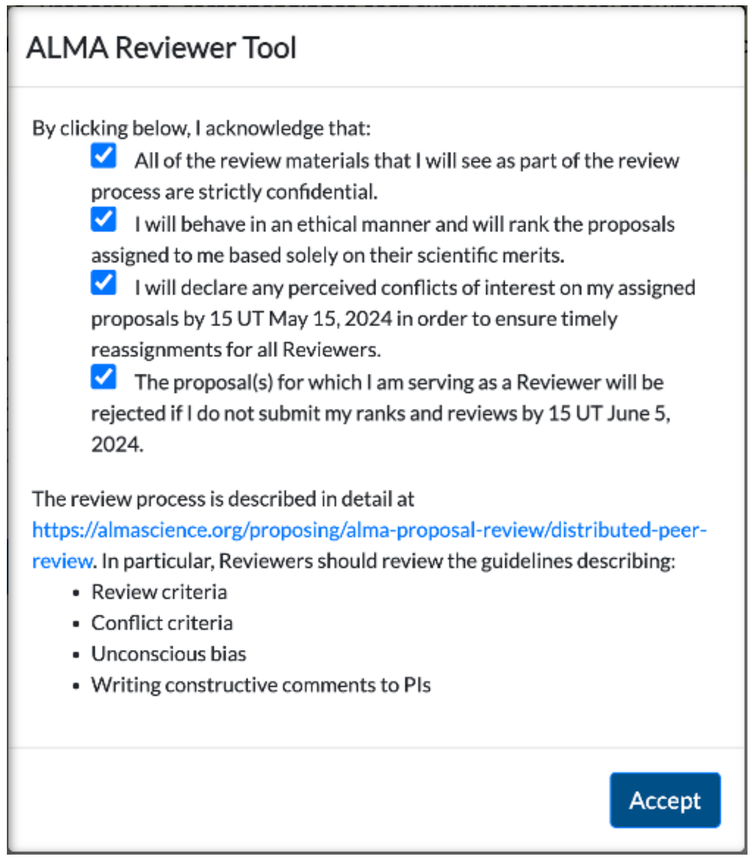
Take advantage of Stage 2, and learn from other reviewers!
If a reviewer does not complete Stage 2, the Stage 1 ranks/comments are considered final.

The Reviewer Tool

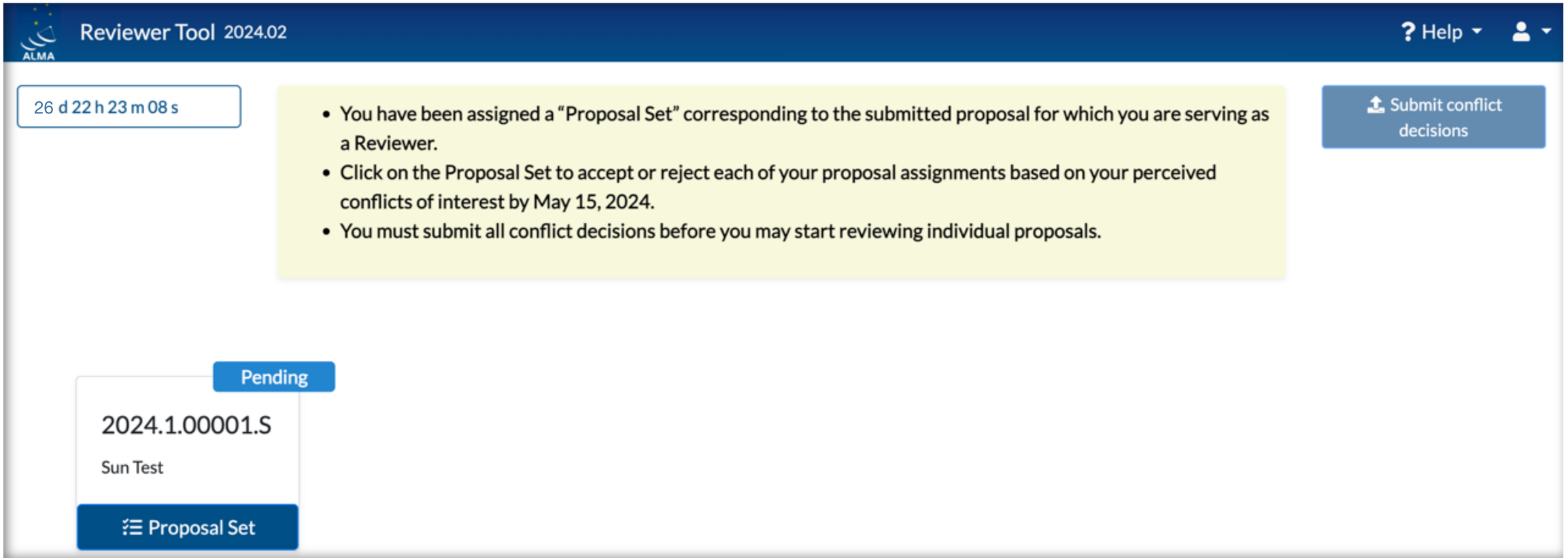
https://almascience.org/proposing/alma-proposal-review/reviewer-tool



The Reviewer Tool
Confirmation of the Process



The Reviewer Tool
Proposal set(s)



The Reviewer Tool
Accepting or declaring conflicts on proposals

- Accept or reject each of your assignments based on your perceived conflicts of interest using the 'Accept' and 'Conflict' buttons.
- Guidance regarding conflicts can be found at .
- Conflict declarations must be submitted by May 15, 2024.

← Back | Submit conflict decisions | Proceed to final submission page

Ranked list of assignments, reviewed on behalf of Proposal Set 2024.1.00001.S — *Sun Test*

Assignment list for Submitted Proposal 2024.1.00001.S

	Code	Status	Title	
Details	2024.1.10011.S	Pending	Proposal title 1	☺ Accept ✕ Conflict
Details	2024.1.10013.S	Pending	Proposal title 2	☺ Accept ✕ Conflict
Details	2024.1.10184.S	Pending	Proposal title 3	☺ Accept ✕ Conflict
Details	2024.1.10225.S	Pending	Proposal title 4	☺ Accept ✕ Conflict
Details	2024.1.10270.S	Pending	Proposal title 5	☺ Accept ✕ Conflict
Details	2024.1.10335.S	Pending	Proposal title 6	☺ Accept ✕ Conflict
Details	2024.1.10639.S	Pending	Proposal title 7	☺ Accept ✕ Conflict
Details	2024.1.11298.S	Pending	Proposal title 8	☺ Accept ✕ Conflict
Details	2024.1.11454.S	Pending	Proposal title 9	☺ Accept ✕ Conflict
Details	2024.1.11503.S	Pending	Proposal title 10	☺ Accept ✕ Conflict

The Reviewer Tool
Beginning the reviewing process

To complete your ranks and reviews:

- Add a review for each proposal and (optionally) enter a comment to the JAO.
- Drag-and-drop each proposal to put your list into your preferred rank order from 1 (strongest) to 10 (weakest).
- Any Proposal Set can be submitted once all ranks and reviews within it are completed.

← Back | Submit conflict decisions | Proceed to final submission page

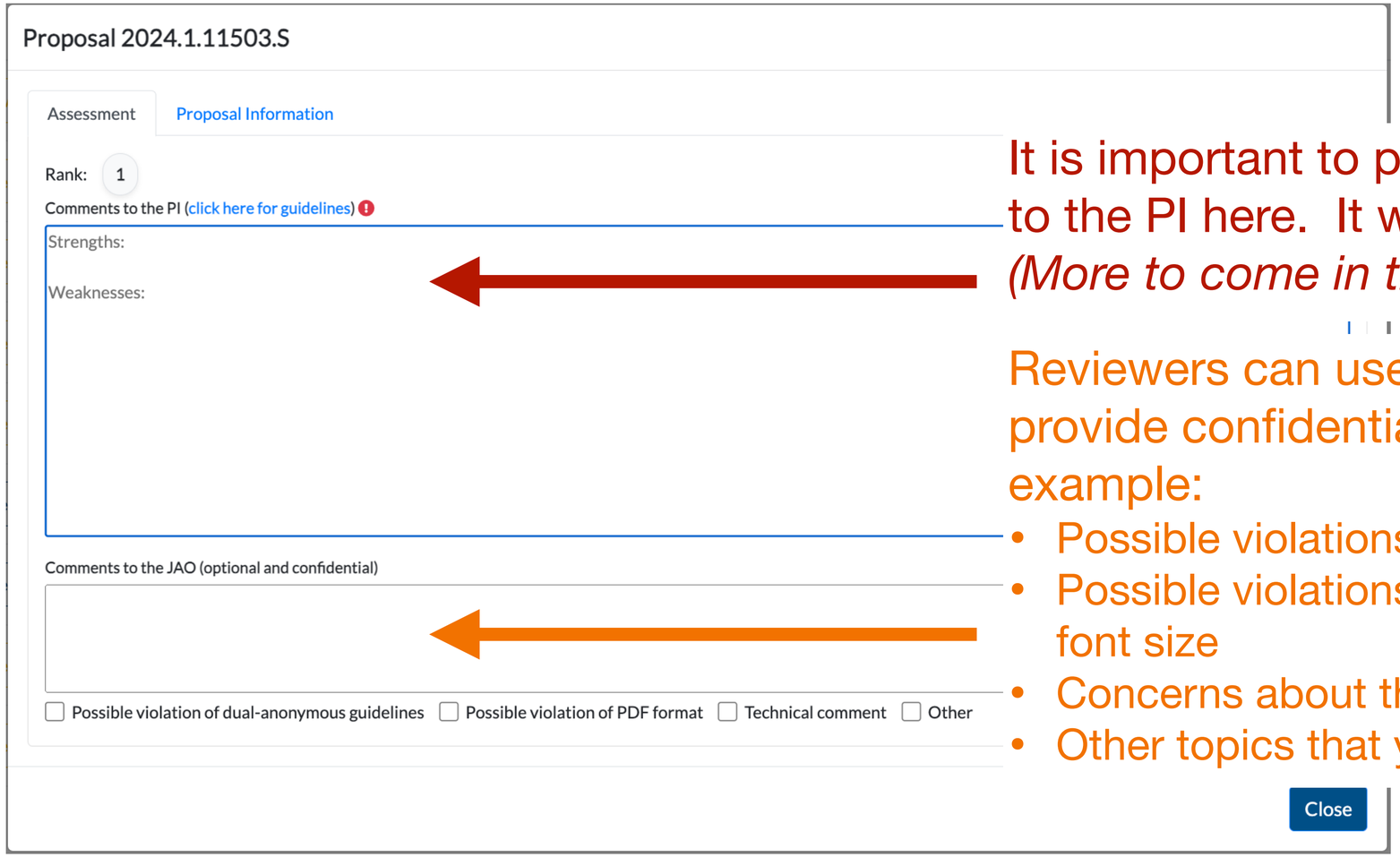
Ranked list of assignments, reviewed on behalf of Proposal Set 2022.T.10146.S — *Tracing the Flow into Dense Cores in High-Mass Star Forming Filaments*

Ranking (1=strongest, 10=weakest)	Code	Status	Title
1		Drag proposals here and put in rank order	

Assignment list for Submitted Proposal 2022.T.10146.S

	Code	Status	Title
Add Review	2022.T.10145.S	Ready to review	Proposal title 1
Add Review	2022.T.10186.S	Ready to review	Proposal title 2
Add Review	2022.T.10276.S	Ready to review	Proposal title 3
Add Review	2022.T.10486.S	Ready to review	Proposal title 4
Details	2022.T.10844.S	Conflicted pending decision	Proposal title 5
Details	2022.T.10985.T	Conflicted pending decision	Proposal title 6
Add Review	2022.T.11047.S	Ready to review	Proposal title 7
Add Review	2022.T.11366.S	Ready to review	Proposal title 8
Add Review	2022.T.11420.S	Ready to review	Proposal title 9
Add Review	2022.T.11707.S	Ready to review	Proposal title 10

The Reviewer Tool
Comments to the PI and to the JAO

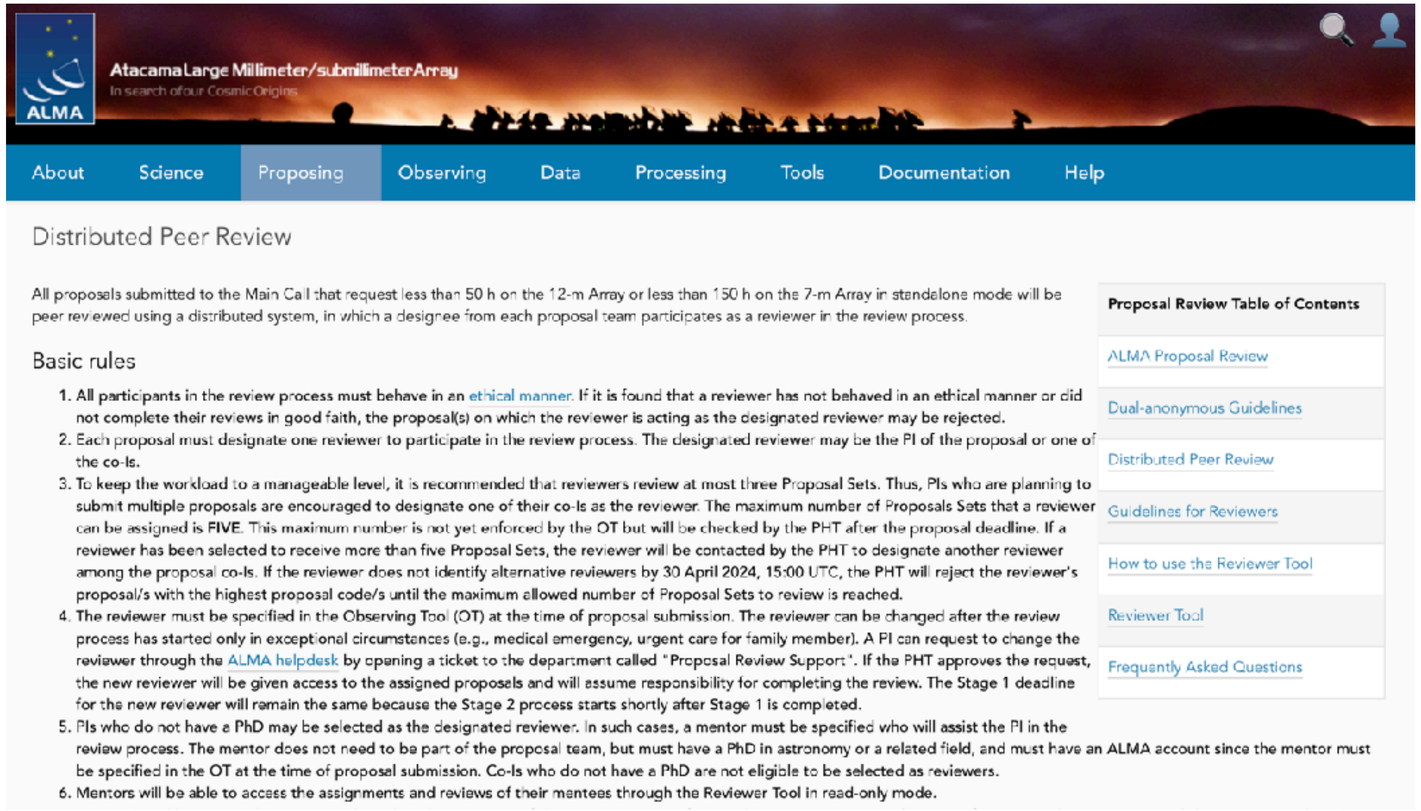


It is important to provide a constructive comment to the PI here. It will be sent verbatim to the PI.
(More to come in the next part of this presentation.)

Reviewers can use “Comments to the JAO” to provide confidential comments to the JAO. For example:

- Possible violations to the dual-anonymous guidelines
- Possible violations to the PDF format and/or minimum font size
- Concerns about the observational setup
- Other topics that you would like to share with the PHT

The Reviewer Tool
Where to find help



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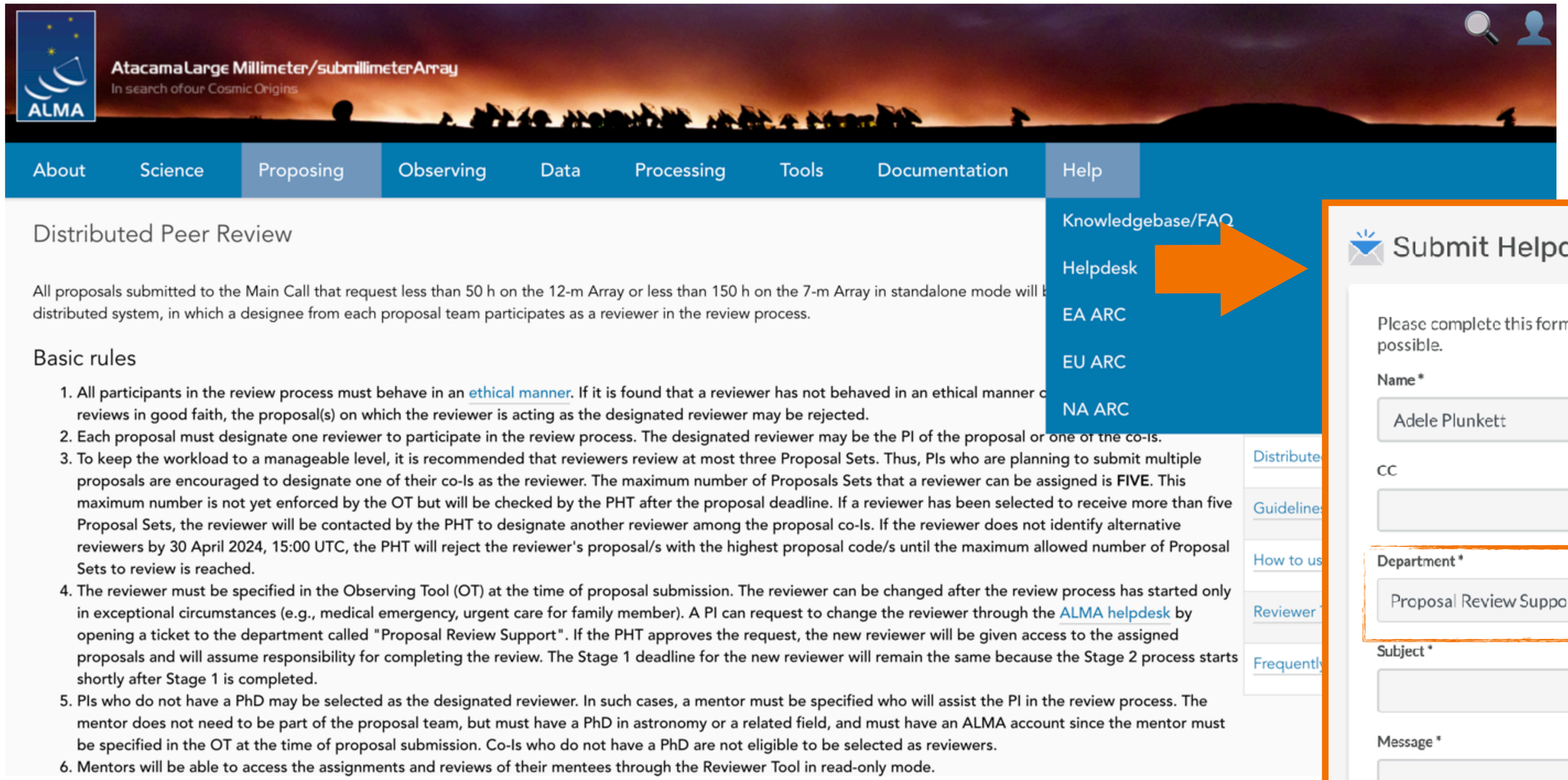
Where to find help

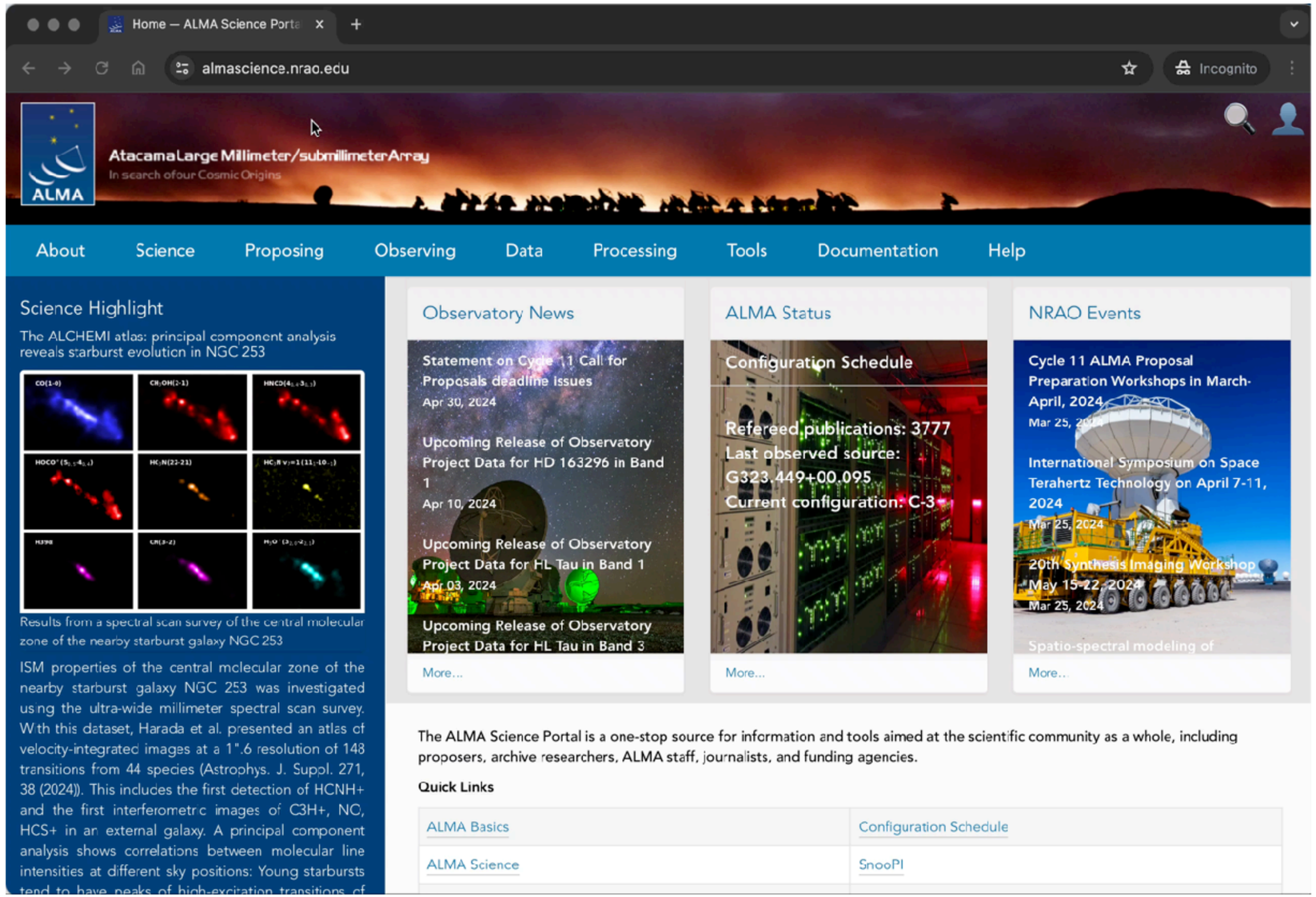


Relevant information

https://almascience.org/proposing/alma-proposal-review

- Dual-anonymous guidelines
- Description of the distributed peer review
- Detailed guidelines for the reviewers
- FAQ

Relevant information



Questions?

Guidelines to reviewing proposals

- Goals
- Review criteria
- Best practices for writing reviews
- Lessons Learned from prior cycles

Goals

Goals of the proposal review

- Establish a ranked list for all assignments within a Proposal Set

- Provide a comment to the PI with the strengths and weaknesses for each assigned proposal in a Proposal Set

How long will this take?

- You should plan to spend about 1-2 working days to review one Proposal Set

Proposal components

Abstract

Scientific Justification

Technical Justification

All three components are important and should be read by the reviewers.

Review criteria

Overall scientific merit

- Does the proposal clearly indicate which important, outstanding questions will be addressed?
- Will the proposed observations have a high scientific impact on this particular field and address the specific science goals of the proposal?
- Does the proposal clearly describe how the data will be analyzed in order to achieve the science goals?

Suitability of the observations to achieve the scientific goals

- Is the choice of target (or targets) clearly described and well justified?
- Are the requested signal-to-noise ratio, angular resolution, largest angular scale, and spectral setup sufficient to achieve the science goals?
- Does the proposal justify why new observations are needed to achieve the goals?
- For Joint Proposals, does the proposal clearly describe why observations from multiple observatories are required to achieve the science goals?

Technical Justification

ALMA Observing Tool

Observing Tool performs (most) technical validations

➡ reviewers can assume requested sensitivity, angular resolution, largest angular scale, and correlator setup are valid and can be achieved technically.

Reviewers should evaluate if setup is sufficient to achieve science goals.

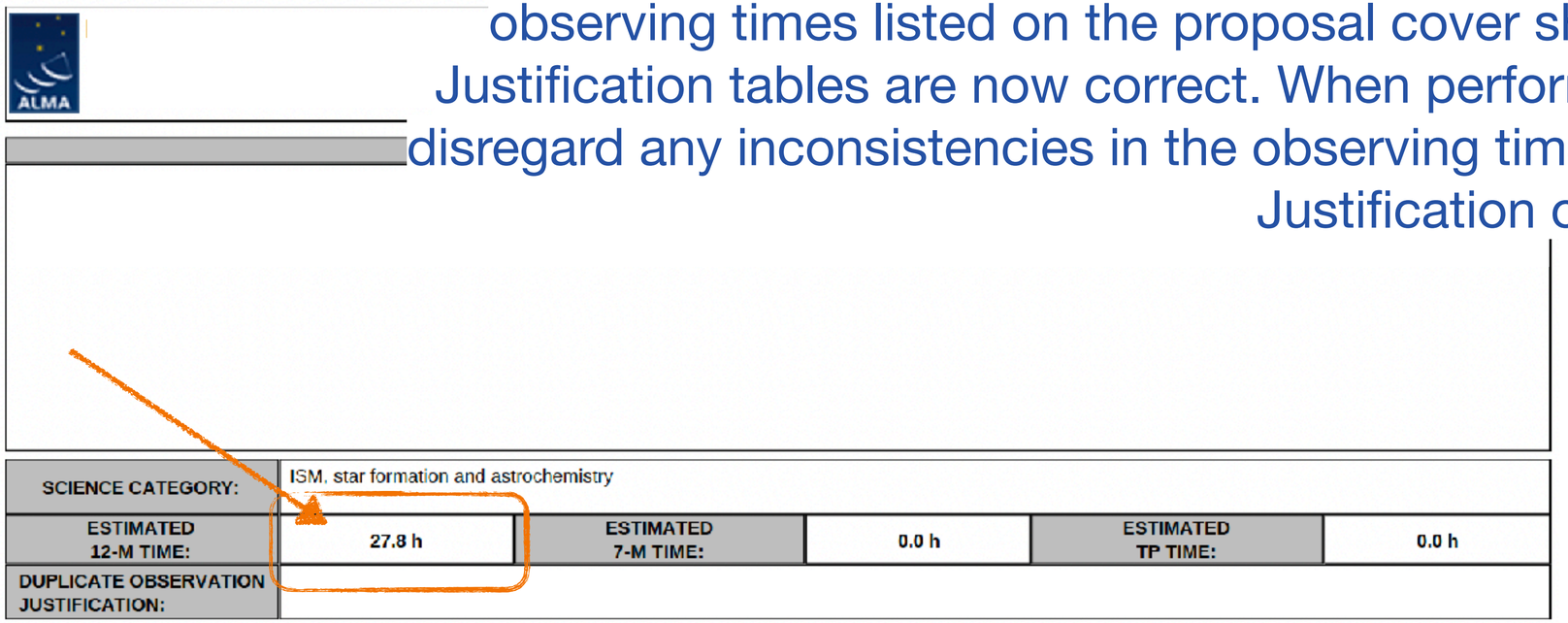
- Sensitivity
- Correlator setup
- Largest angular scale
- Angular resolution

The proposal should clearly justify the setup with references as appropriate.

A note for Cycle 11 reviews

For some proposals requesting Bands 7-10, the observing time listed on the proposal cover sheet may not match what a PI wrote in the Scientific Justification or Technical Justification.

This issue was fixed after the proposal deadline, and the automatically generated observing times listed on the proposal cover sheet and in the Technical Justification tables are now correct. When performing your review, please disregard any inconsistencies in the observing time written in the Scientific Justification or Technical Justification.



SCIENCE CATEGORY:	ISM, star formation and astrochemistry				
ESTIMATED 12-M TIME:	27.8 h	ESTIMATED 7-M TIME:	0.0 h	ESTIMATED TP TIME:	0.0 h
DUPLICATE OBSERVATION JUSTIFICATION:					

See the Science Portal news item on April 30: https://almascience.org/news/statement-on-cycle-11-call-for-proposals-deadline-issues

Special cases

Reviewers should review **all proposals** following the same review criteria

- Resubmissions

If the proposal is accepted any science goals which have already been observed will be descoped by the JAO

- High-risk/high-impact

Reviewers are encouraged to give full consideration to well-designed high-risk/high-impact proposals even if there is no guarantee of a positive outcome or definite detection

- Proposal size

A proposal should not be down/up graded solely based on the amount of requested observing time.

Best practices for writing reviews

- Summarize both strengths and weaknesses
- Avoid giving the impression a minor weakness was the cause of a poor ranking
- Take care to ensure strengths and weaknesses do not contradict each other

- Do not ask questions in your review
- Questions usually indicate a proposal weakness - state the weakness directly

- A proposal review is NOT just a summary of the proposal
- While the reviewer may include a BRIEF (~ 1 sentence) summary, the bulk of the contents need to discuss the strengths and weaknesses of the proposal

Best practices for writing reviews

- Be as specific as possible when writing reviews
- Avoid generic statements that could apply to most proposals
- Critique the proposal and not the PI or the proposal team

- Use complete sentences when writing the comments
- Be concise, it is not necessary to write a lengthy review, but avoid writing a single sentence

- Be professional and constructive
- Do not use sarcasm or any insulting language

Best practices for writing reviews

- Do not include statements about scheduling feasibility
- Do not include explicit references to other proposals that you are reviewing, such as project codes
- Maintain anonymity
- Proof-read your reviews

Example review

Strengths: Jets and outflows have been shown to be a common phenomenon during the protostellar phase, but details about the exact mechanism in the type of source proposed here are not fully known. The proposed target is very well justified and given its proximity, will provide excellent spatial resolution to study the structure of the outflow. The observations and analysis described will shed light on the physics of jet launching and accretion, leading to a better understanding of the evolution of this type of source.

Weaknesses: However, the proposal did not adequately explain how the proposed observations will test whether the observed phenomenon is a result of the particular outflow launching mechanism or other scenarios discussed in the proposal. Also, the proposal did not adequately explain why the requested number of molecular transitions are needed for the proposed excitation analysis, compared with the pros and cons of instead observing fewer or different transitions.

Brief summary of proposal

Strengths specific to the proposal

Weaknesses specific to the proposal

Comments should indicate the strengths/weaknesses of the proposal, not the PI or the proposal team.

Unconscious bias

Unconscious bias in the review process is when a reviewer holds a bias (of which they are often unaware) in favor of, or against, a proposal for reasons other than scientific merit.

Examples include: culture, age, prestige, language, gender, and institutional bias.

ALMA is committed to awarding telescope time purely on the basis of scientific merit. As reviewers:

- Be aware of unconscious bias
- Keep your review factual and as objective as possible

To further reduce any potential bias ALMA implemented dual-anonymous review in Cycle 8.

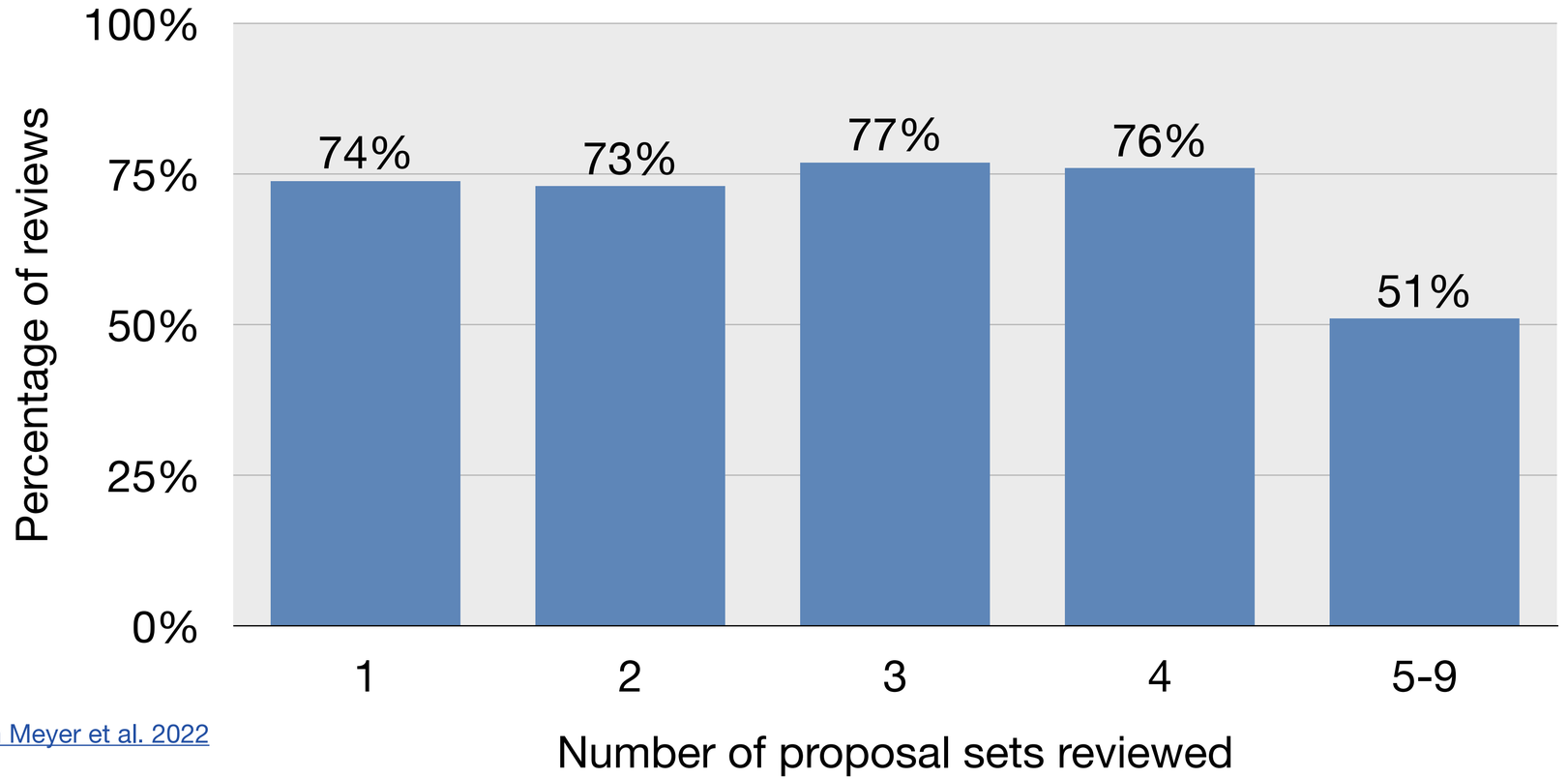
Dual-anonymous

Remember the role of reviewers is to evaluate the scientific merit of the proposal:

- Review the proposal based on the scientific merit
- Do not try to guess the identity of the PI or the proposer team
- If a proposal does not follow the dual-anonymous guidelines:
  - Review it solely by its scientific merit
  - Inform the PHT using the box "Comment to JAO" via the Reviewer Tool

Review workload

Helpfulness of a review vs. number of proposals sets reviewed in Cycle 8



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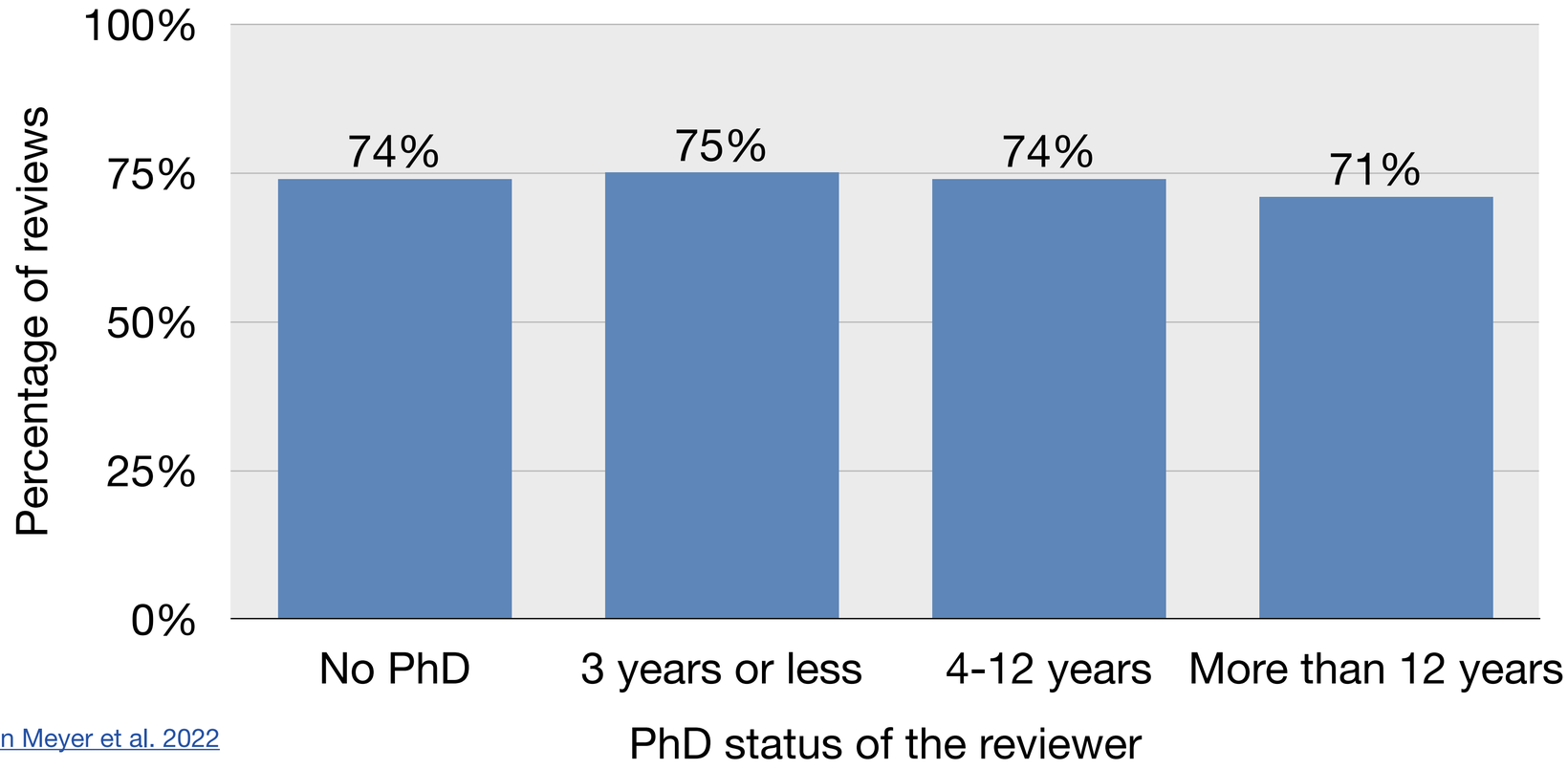
If you have many Proposal Sets to review, be sure to allocate sufficient time to review them all satisfactorily.

Everyone can write helpful reviews!

Helpfulness of a review vs. career status of the reviewer in Cycle 8



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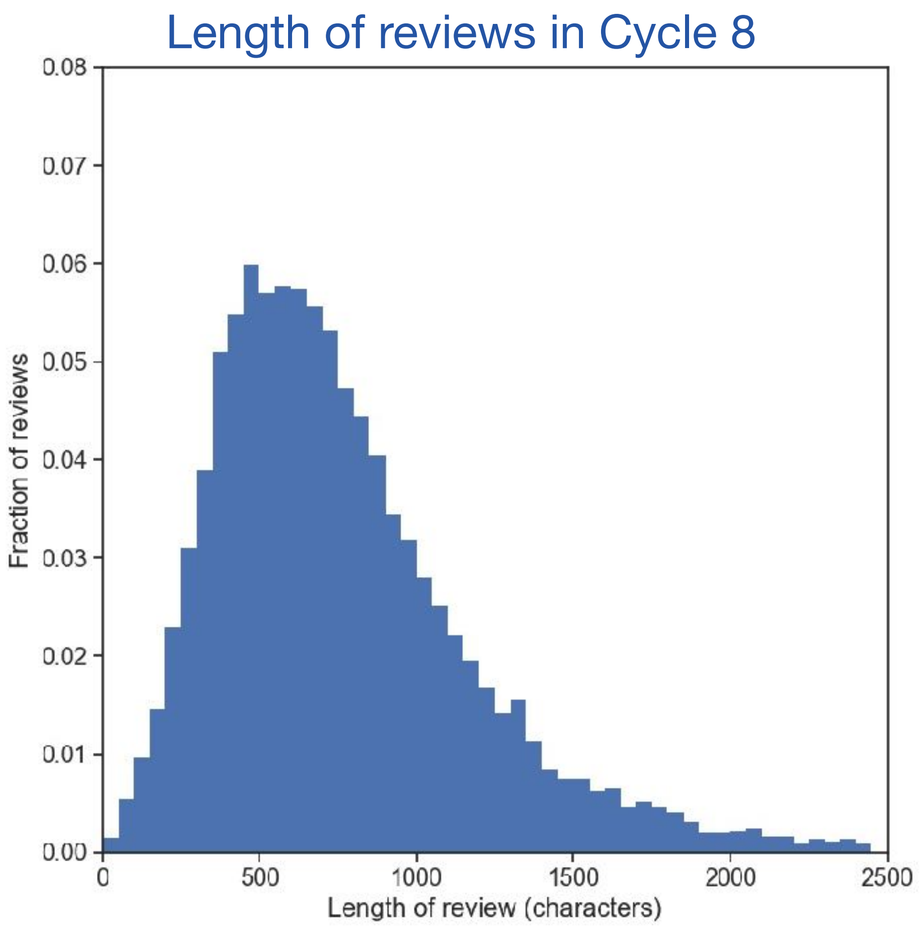
Students and young postdocs write just as helpful reviews as more experienced astronomers.

Length of review



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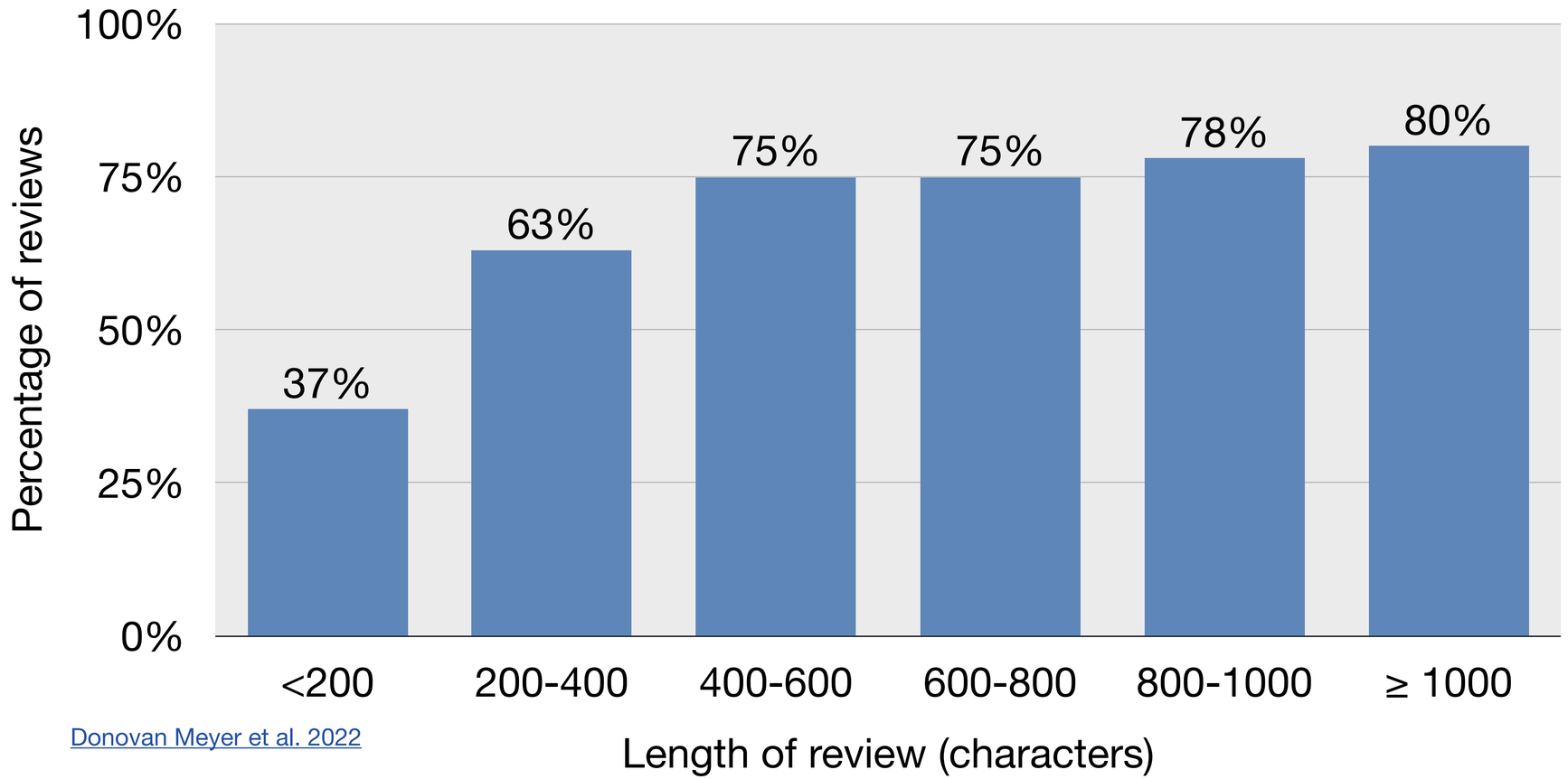
- Typical length of a review is ~700 characters, or about 6 sentences.

Length of review

Helpfulness of a review vs. length of the comment to PI



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We appreciate you for sharing your expertise and your time with us.

Your are contributing to the Observatory's quest to study the universe in the millimeter/submillimeter wavelength range.

Questions?