ALMA Cycle-12

2025. 03. 17

- Dual-Anonymous proposal review
- Distributed peer review

Dual-Anonymous proposal review

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.

the proposal team does not know the identity of the reviewers and the reviewers do not know the identity of the proposal team

Proposals that do not follow the dual-anonymous guidelines may be subject to disqualification

General Guidelines pertaining to all Programs

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

General Guidelines

(1) Do not identify the PI or any of the co-PIs or co-Is in the proposal

In Smith et al. (2018), we demonstrated... *violation !*

As demonstrated in Smith et al. (2018),...

As demonstrated in [1],...

(2)Do not refer the data from ALMA or other observatories in a self-identifying fashion

Figure 1 shows the image from our Cycle 7 ALMA program (2019.1.02045.S, PI Smith).

Figure 1 shows the image from the Cycle 7 program 2019.1.0245.S.

(3) Software and datasets that are available in a public repository (e.g., GitHub) or in a public paper can be referenced per normal practices. If the software or data are not public, it can be referenced as "obtained via private communication". (name should not be specified)

We use our group's line identification package STAR...

We use the line identification package STAR by co-I Sandra Smith...

We use the line identification package STAR (obtained via private communication)...

(4) Do not include references and links to papers in preparation or submitted that are stored on personal web pages. References to submitted papers on public archives (e.g., arXiv) are acceptable.

(5) Do not include personal acknowledgements or the source of any grant funding that may identify the proposers.

(6) While proposers may note if they are resubmitting an ongoing proposal, they should not indicate the proposal code and investigators of the previously accepted proposal.
This is a resubmission of our ongoing B program 2019.1.02045.S (PI: Smith). Half of our targets have been observed and we are resubmitting the proposal to obtain the remaining half.
This is a resubmission of our ongoing program. Half of our targets have been observed and we are resubmitting the proposal to observe the remaining half.

Example text

Here is an example text that would need to be modified according to the guidelines, with the text to be changed in bold:

"We propose to perform a multi-band, beam-matched spectral scan of the central molecular zone of the nearby starburst galaxy NGC 253 in order to obtain the first template of extragalactic molecular complexity and calibrate extragalactic molecular diagnostics. To sample a wide range of molecular excitation states, we will scan the full ALMA bands 3, 4, 6, and 7. ***From our*** *previous ALMA observations (Mangum+2015), we estimate that in band 6 and 7 we will obtain confusion limited spectra in most of the central region.* ***Our pioneering studies*** *of multi-band spectral scans (e.g., Costagliola+2015) show that the combined effect of more optically thin tracers and proper treatment of molecular excitation can lead to a tenfold increase in the sensitivity of molecular diagnostics to the physical properties of the ISM."*

Here is the same text revised according to the guidelines:

"We propose to perform a multi-band, beam-matched spectral scan of the central molecular zone of the nearby starburst galaxy NGC 253 in order to obtain the first template of extragalactic molecular complexity and calibrate extragalactic molecular diagnostics. To sample a wide range of molecular excitation states, we will scan the full ALMA bands 3, 4, 6, and 7. ***Based on*** *previous ALMA observations (Mangum+2015), we estimate that in band 6 and 7 we will obtain confusion limited spectra in most of the central region.* ***Previous studies*** *with multi-band spectral scans (e.g., Costagliola+2015) show that the combined effect of more optically thin tracers and proper treatment of molecular excitation can lead to a tenfold increase in the sensitivity of molecular diagnostics to the physical properties of the ISM."*

Distributed Peer Review

one member of the proposal team, the PI or a co-I, commits to review ten other submitted proposals.

- PI proposals (<50 hrs 12-m array, <150 hrs 7-m array)
- Maximum number of Proposals sets : 3

If the reviewer does not identify alternative reviewers by 30 April 2024, 15:00 UTC, the PHT will reject the reviewer's proposal/s with the highest proposal code/s until the maximum allowed number of Proposal Sets to review is reached

- If the PI does not have a Ph.D. at the time of proposal submission, the PI can still be the reviewer, but a mentor must be identified at the time of the proposal submission

Basic rules

All participants in the review process must behave in an **ethical manner**. If it is found that a reviewer has not behaved in an ethical manner or did not complete their reviews in good faith, **the proposal(s) on which the reviewer is acting as the designated reviewer may be rejected.**

All participants in the review process are expected to behave in an ethical manner.

- Reviewers will judge proposals solely on their scientific merit.
- Reviewers will be mindful of bias in all contexts.
- Reviewers will declare all 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, the APRC, 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.

Procedure

Proposal Handling Team (PHT) at JAO will assign ten proposals after checking the potential **conflicts of interest** (affiliation (automatically identified), frequent collaborations, etc).

Stage-1

Reviewer will rank the ten proposals (**1** (strongest)-**10**(weakest)) in order of scientific priority, and write a review for each proposal.

If ranks and reviews are not submitted by the time of the Stage-1 review deadline,

the proposal on which the reviewer is acting as the designated reviewer will be rejected

Stage-2 (Option)

Anonymized comments from the other reviewers of the same proposals will be made available.

Reviewers can modify their own ranks and comments during this stage

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

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?
- Reviewers should evaluate if setup is sufficient to achieve 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?

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.

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 refer to the proposal, not to the PI