Cycle-8 2021 ALMA Proposal Townhall meeting

New Proposal review system

18/March, 2021

- Dual-Anonymous proposal review
- Distributed peer review

Dual-Anonymous Proposal Review

Motivation: the presence of **biases** from the analysis of previous proposal rankings (Carpenter 2020)
Meaning: The proposal team does not know the identity of the reviewers and the reviewers do not know the identity of the proposal team

General Guidelines

(1) Do not identify the PI or any of the co-PIs or co-Is in the proposal
ex) 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
ex) 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)
ex) 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 Cycle 7 proposal, they should not indicate the proposal code and investigators of the previously accepted proposal.

ex) This is a resubmission of our ongoing Cycle 7 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 Cycle 7 program. Half of our targets have been observed and we are resubmitting the proposal to observe the remaining half.

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.

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.

Guideline for Large Program

Step-1: Scientific justification (6 pages) follows the dual-anonymous guideline
Step-2: Management plan (1 page) will be reviewed by ALMA Proposal Review Committee, after review completion of the scientific justification.
APRC may recommend to the ALMA Director that a proposal be rejected only if they feel the proposal team is not qualified to carry out the program or does not have the necessary computing resources.

Compliance

Proposal will be rejected ! **If PIs do not anonymize their proposals in accordance with the guidelines.**

Minor violations (e.g., unintentional first person reference that should have been in third person) → reviewers will instructed to flag such proposals to the JAO. JAO will provide the Proper feedback to the PI if any violation is detected.

Distributed peer review

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

ex) 1 submitted proposal → reviews 10 proposals

2 submitted proposals → reviews 20 proposals

Target proposals: <25 hrs 12-m array, <150 hrs 7-m array

(For all proposals that request between 25 to 50 hrs on the 12-m array, the PI is required to designate a reviewer.
The reviewer will not need to review proposals as long as the final time request confirmed by the JAO is more than 25hrs)

Reviewer: (1) **PI**

(2) PI could designate a **co-I**

(3) **If the PI does not have a PhD** at the time of proposal submission, the PI can still be the reviewer, but **a mentor** (who must have a PhD) must be identified at the time of the proposal submission (in OT)

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 **(1-10)** in order of scientific priority, and **write a brief review** for each proposal.

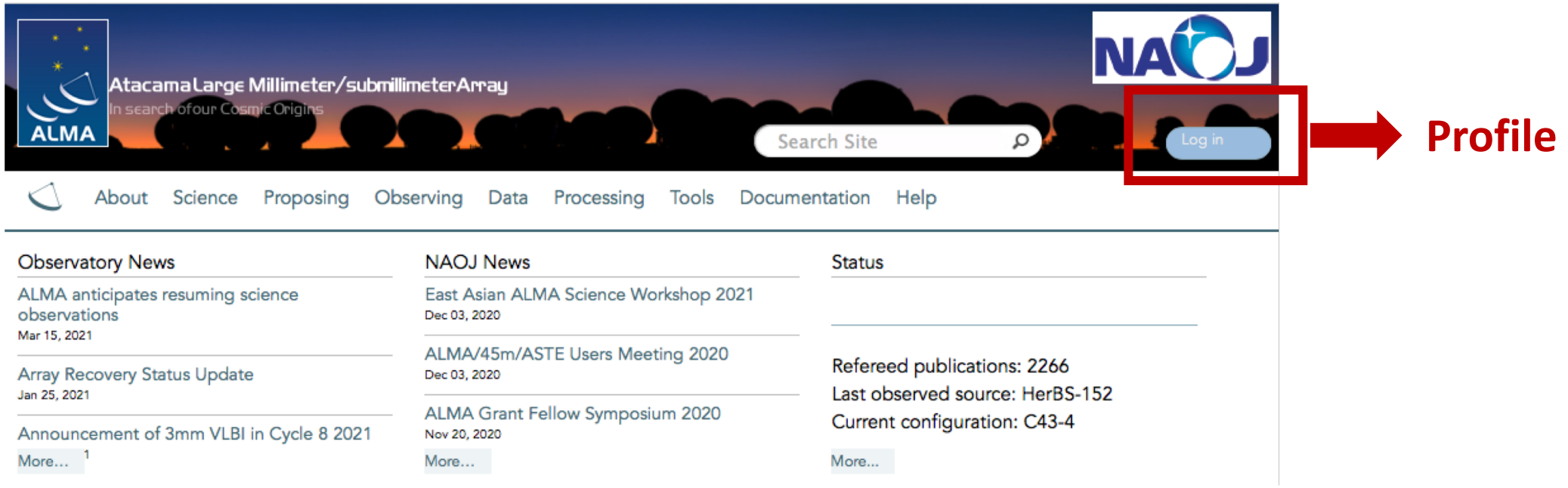
If ranks and reviews are not submitted by the time of the Stage-1 review deadline,
the proposal on which the reviewer is acting as the designated reviewer will be **rejected**

- **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 if desired In Stage-2.**

- The ranks from all reviewers of each submitted proposal will be combined to produce a global ranked list of proposals, which will be used to produce the observing queue after merging with the results of the panel process.

Notice

Reviewer **enter their fields of expertise** in their ALMA Science Portal profile (https://almascience.nao.ac.jp)
: or the category/keywords of the submitted proposal will be used for the assignment.



Anticipated Timeline (all dates subject to change)

17 March 2021	Release of the ALMA Cycle 8 2021 Call for Proposals and Observing Tool, and opening of the archive for proposal submission.
21 April 2021	Proposal submission deadline
21 April - 05 May 2021	JAO assigns proposals for distributed peer review and review panels.
06 May 2021	Proposals are released to the Reviewers, and Stage 1 of the review processes begin.
03 June 2021	Distributed peer review Stage 1 deadline
08 June 2021	Distributed peer review Stage 2 begins
10 June 2021	Panel review Stage 1 deadline
15 June 2021	Distributed peer review Stage 2 deadline
21-25 June 2021	Panel review virtual meeting
29 June - 01 July 2021	ALMA Proposal Review Committee (APRC) meeting
August 2021	Results of the proposal review sent to the proposers