

Collaboration Agreement

I. Roles & Responsibilities

- A. Leads: Ensure that scientific goals of the program are being achieved in a timely manner. If applicable, manage institutional budgets and/or supervise Co-Investigators. Attend regular Collaboration meetings.
 - 1. Program Leads: Additionally provide guidance in overall Program direction, pace, and management; organize and run Collaboration meetings – Natasha Batalha and Johanna Teske
 - 2. Major Institutional Leads: Hannah Wakeford, Natalie Batalha, Mercedes Lopez-Morales
 - 3. Administrative Lead: Manages program-level budget issues – Johanna Teske
- B. Co-Investigators: Contribute expertise to meet the scientific goals of the program. Produce agreed-upon research products (reduced data, analysis, models, papers, etc.). Attend regular Collaboration meetings. – Angie Wolfgang, Peter Gao, Anat Shahar, Mark Marley, Munazza Alam, Lili Alderson
 - 1. Program funded graduate students and postdocs: additionally expected to spend time in line with the budgeted commitment on designated research products. – Nicholas Scarsdale, Jea Adams, Nicole Wallack, Nick Wogan
- C. Partners: Invited by Leads or Co-I's to participate in the Collaboration to contribute additional expertise and/or resources to meet the scientific goals of the program, and/or expand the goals of the program. Any Lead or Co-I may request to invite a new Partner, but this request must be approved by all of the Leads, and the Partner must agree to the Collaboration Agreement. Partners have similar responsibilities as Co-I's, but more specific to a particular research product.
 - 1. Each new Partner request should be accompanied by a short paragraph describing their added expertise and/or resources, their expected commitment to the Collaboration in terms of time and research product, and any expectations they have from the Collaboration (for example, attend team meetings; be included in paper discussions; be asked for specific contributions in addition to what the team is contributing).

II. Code of Conduct

- A. We adopt a modified version of the AAS Code of Conduct, outlined [here](#). Quoting the code, modified for our Collaboration:

All people encountered in professional life should be treated with respect. At no time is abusive, demeaning, humiliating, or intimidating behavior acceptable; abuses of power are unacceptable. Scientists [within the Collaboration] should work to provide an environment that encourages the free expression and exchange of scientific ideas. They should promote equality of opportunity and fair treatment for all their colleagues, regardless of gender, race, ethnic and national

origin, religion, age, marital status, sexual orientation, gender identity and expression, disability, veteran status, etc. Scientific ability must be respected wherever it is found.

More senior members of the Collaboration have a special responsibility to facilitate the research, educational, and professional development of students and subordinates. This includes providing safe, supportive work environments (e.g., free from bullying or harassment), appropriate acknowledgment of their contribution to any research results, as well as respect for them as individuals and protection of their academic freedom (e.g., freedom to disagree with or dispute wider community-held positions without fear of retaliation).

The AAS Code of Conduct (linked above) and the AAS Anti-Harassment Policy (linked [here](#)) provide more detailed descriptions of unacceptable behaviors.

- B. Additional guiding principles: We frame these principle in the concept of psychological safety¹ within the Collaboration.
1. Learner Safety: It's safe to discover, ask questions, experiment, learn from mistakes, look for new opportunities
 - a) When in doubt, ask! This will help facilitate and encourage communication between Collaboration members.
 - b) We will try to embrace a growth mindset – come to learn! Struggle and even failure is part of the research process, and there is often more than one way to do something
 2. Collaborator Safety
 - a) People will be given space and time to express an idea without interruption in meetings.
 3. Challenger Safety: It's safe to challenge the status quo, speak up, express ideas, identify changes, expose problems
 - a) We will try to practice “both/and” thinking rather than going straight to “either/or thinking” (e.g., <https://executivecoachingconcepts.com/either-or-thinking/>).
 4. Inclusion Safety: It's safe to know that you are valued, treat all people fairly, feel your experiences and ideas matter, include others regardless of title/position, and openly contribute.
 - a) We will try to assume others have the best intentions and come to discussions with an open and curious mindset.
 - b) More senior members will create space for more junior members to express their opinions, ask questions, and present and take credit for their own work.

¹ The four categories here are from a presentation by Dr. Audrey J. Murrell, from <https://thriveglobal.com/tags/psychological-safety/>. See also *The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth* by Amy Edmondson.

- c) We acknowledge that science is not done in a vacuum, and that what happens outside of the workplace can strongly affect what happens inside it. Conversations about topics beyond JWST, exoplanets, and science are a part of a productive team where members come to understand and respect each other as humans.
 - (1) If the conversation is making someone uncomfortable, they are encouraged to say so without feeling like they are derailing the conversation, and the rest of the team is expected to respect this request and move back to the JWST/exoplanet topic. If a conversation activates an aspect of people's identities we will defer to those with the activated marginalized identity. This could mean either discussing or moving on as they deem is most helpful and healthy for them.

III. Information Sharing & Publications

A. Defining Program Proprietary Data

1. Does not include the target list and raw pixel-level data from MAST
2. Does include:
 - a) Reduced data products (including but not limited to any raw data that has been corrected for systematics from team members)
 - b) Theoretical models from team members (including but not limited to results of forward models or retrieval studies from team members)
 - c) Additional Program-related data or products shared in confidence with team members, e.g., new radial velocity data

B. Current and Future Proposals

1. The proposal text and/or figures should not be shared outside of the Leads and Co-I's without permission from a Co-PI.
2. Any observing or grant proposals that utilize proprietary program data (as defined in III.A.2) should be discussed with the Collaboration at least 1 month before submission; approval for submission is not guaranteed.

C. Sharing of Ancillary Data Produced by Collaboration

1. All ancillary data products produced by the Collaboration should remain proprietary until publication unless otherwise instructed by the data product creator(s).
2. Prior to publication, any ancillary data product can only be shown in a public proceeding (conference, colloquium, seminar, etc.) with written permission from the product creator(s).
3. We will strive to make all ancillary data products publicly available upon publication of results in accordance with [NASA's science information policy \(SPD-41\)](#).
 - a) Example: <https://arxiv.org/pdf/2104.04101.pdf>

4. We will strive to use and create publicly available tools for the analysis of our data, such that the results are readily reproducible.

D. Publications

1. Leads, Co-I's, and program-funded grad students and postdocs should be invited to be co-authors on any "Core Collaboration publication", as described below.
2. Partners should be invited to be a co-author on any Collaboration publication to which they contributed effort, defined as meeting two or more of the following criteria:
 - a) Contribute to writing text
 - b) Contribute to data reduction
 - c) Attend the majority of meetings relevant to the publication and provide verbal input
 - d) Contribute to theoretical modeling
 - e) Contribute additional complementary data that benefits/enhances the results
 - f) Provide substantive comments on the manuscript
3. By signing their names to a Collaboration publication, all coauthors are understood to be accepting responsibility for the paper.
4. First through third authors of publications will be decided as early as possible (see preliminary expectations below), and any requests for changes to author ordering should be brought up to the Collaboration.
5. Preliminary expectations for "Core collaboration publications" and their leads are based on who is responsible for "championing" each planet study, which is listed on our [team timeline page](#).
 - a) In addition, we expect several other publications as outlined in the spreadsheet linked above, e.g., detailing the reduction pipeline and/or population-level analysis. We expect a COMPASS team effort on the paper detailing a uniform population-level analysis of all targets.
6. In addition to the "champion" there is also a preliminary expectation for a theory and an observer lead for each planet as outlined on our [team timeline page](#).
7. Authorship on ancillary publications will be determined through the author contribution form and will not necessarily include authorship invitations to all leads, Co-I's and program-funded grad students and postdocs.
8. Any Collaboration member can propose and lead possible new ideas/projects at any time throughout the program.
9. We will do our best to publish results in a timely manner, and to agree and stick to schedules/deadlines for each publication. Flexibility with timelines may be needed to accommodate individual needs and a healthy work-life balance.
10. We acknowledge that there may arise a situation where a Collaboration member's data is rendered unusable due to JWST-related technical

issues. If this is the case, the Collaboration will strive to ensure that the member still has the opportunity to co-first author a paper. We will make particularly strong efforts to ensure more early career members have opportunities to lead papers.

E. Other Ancillary/Supporting Data

1. New/not publicly available ancillary products (observations, models, etc.) from individuals/teams outside of the Collaboration may be critical to or significantly improve the analysis and/or interpretation of the JWST observations.
 - a) In this case, interested individuals/teams will be considered in the 'Partner' category for the data sets/publications related to their ancillary products, and they will be expected to contribute to writing (describing the ancillary product) as well as sharing the ancillary product, fulfilling the Partner publication requirement in III.D.2.
 - b) Teams contributing ancillary data can be large. We will not impose a hard cut-off in the number of co-authors, but request that large teams nominate ~1-3 coauthors for Collaboration publications that include their ancillary products.
2. Additional observations and/or models from individuals/teams outside of the Collaboration may be complementary but not critical to the analysis and/or interpretation of the JWST observations.
 - a) In the case of published ancillary information, it should be properly cited/credited in the paper.
 - b) In the case of unpublished ancillary information in this non-critical category, there is no expectation that the external individuals/teams be included on the Collaboration publication of the JWST observations. Collaboration members are free to collaborate with the individuals/teams to write additional publications, but there is also no expectation to do so. There can be publications of such ancillary information that are completely separate from the Collaboration.

IV. Reporting & Violations

- A. An individual who wishes to raise a concern about inappropriate behavior or violation of the Code of Conduct (see II above) can do so by contacting one of the Leads.
- B. Alternatively, if an individual does not feel comfortable raising a concern about inappropriate behavior or Code of Conduct violations to any of the Leads, they can nominate another Collaboration member to speak to the one of the Leads on their behalf. Munazza Alam volunteers to serve in this role if need be.
- C. Any violations of the Code of Conduct (see II above) can be used by authors as reason to raise a question about inviting any Collaboration members to be on publications using 2512 program data. We strongly encourage early identification

of such violations, and (if possible) resolution within the Collaboration. If resolution within the Collaboration becomes difficult, we will seek institutional (e.g., Ombudsperson) or outside (e.g., mediation) support.

- D. Final decision power in issues of disagreement that have not been resolved by Collaboration discussion/vote resides in the Co-PI's who will settle any issues on a case-by-case basis. The Co-PI's will be open and transparent in the reasoning behind such decisions.