



STScI | SPACE TELESCOPE
SCIENCE INSTITUTE

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

JWST Cycle 4 External Panelist Orientation

Presenters: Amaya Moro-Martín, Jeff Valenti, and Laura Watkins
on behalf of the STScI Science Policies Group

November 6, 2024

<https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-peer-review-information>



Today's Orientation

1. Welcome from the STScI Director's Office
2. JWST Cycle 4 Observatory Perspective (Jeff Valenti)
3. Time Allocation Committee Orientation (Amaya Moro-Martín)
 - Overview
 - The Review Process
 - Dual Anonymous Peer Review (Laura Watkins)
 - Policy Issues
 - Personnel and Logistics
4. Questions and Answers



Time Allocation Committee Orientation

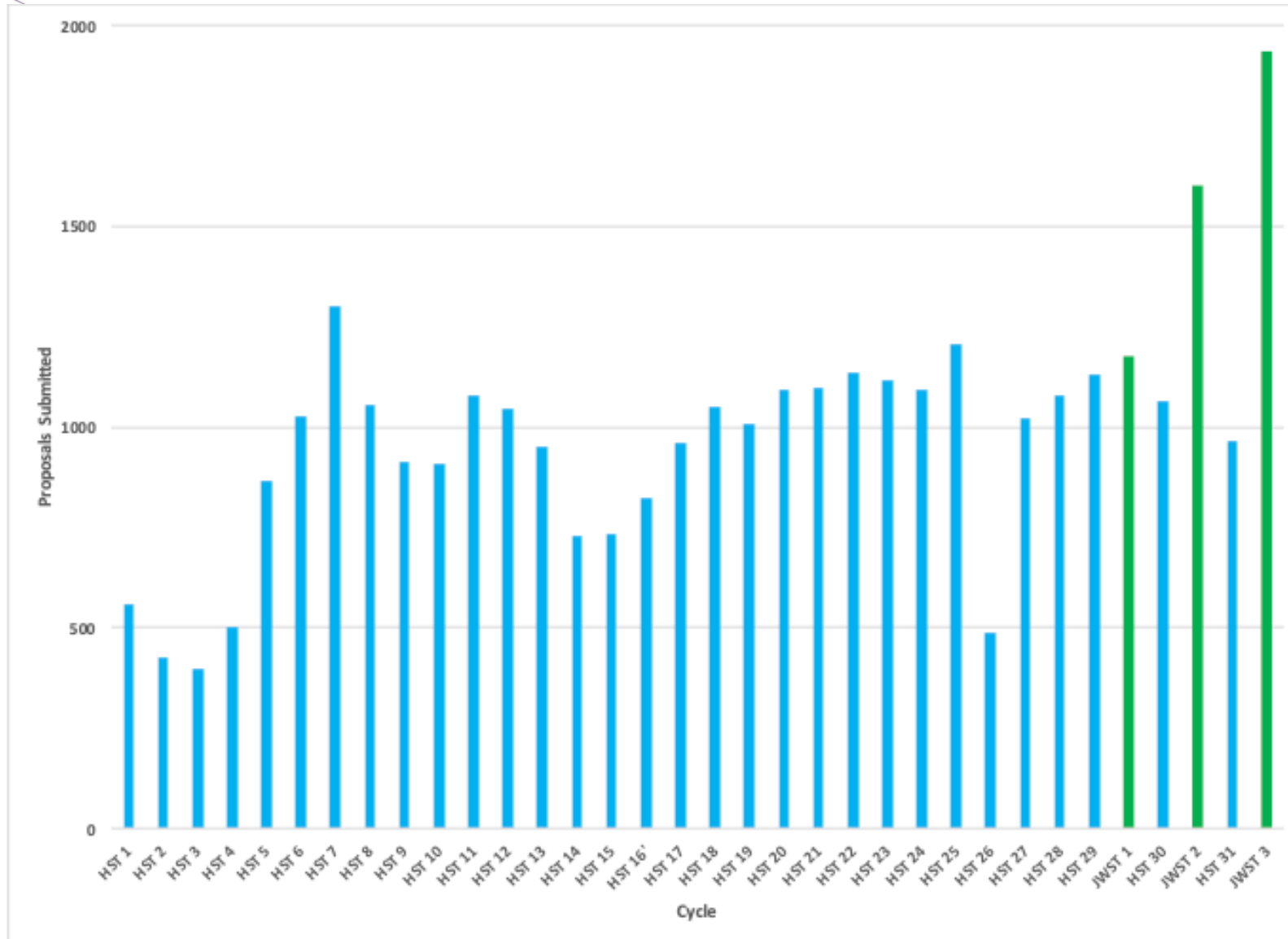


Maximizing the science return from JWST is a community effort

- The JWST Cycle 4 TAC review is supported by 536 panelists, including
 - 315 External panelists
 - 183 Discussion panelists
 - 36 panel Chairs and Vice Chairs
 - 2 TAC Chairs
 - > 70 Expert reviewers
- 2374 proposals will be included in the review package (compared to 1931 in Cycle 3)
- There are 8,500 hours for observations in Cycle 4 (compared to 5,500 hours in Cycle 3).
- Please, allocate sufficient time to read the proposals and to write thoughtful reviews so you can send your grades on time. This helps the community and ensures that the proposal selection process maximizes JWST science return.



Cycle 4 Proposal Submissions



Largest number of proposals received by any observatory in response to a Call for Proposals!



JWST Cycle 4 Proposal Review Schedule

Date	Milestone
October 16, 2024	GO/AR Cycle 4 Proposal Deadline
November 6, 2024	Orientation meeting for External panelists
November 11, 2024	STScI Releases proposals to panelists for review and grading (for discussion panels is preliminary grading)
January 10, 2025	Deadline for panelists to submit grades for proposals that they are assigned (for Externals panelists they are the final grades, for Discussion panelists they are preliminary grades)
January 17, 2025	STScI sends each Discussion panelist the list of proposals to be discussed by their panel
	External panels do not meet
February 3 – February 7, 2025	Telescope Allocation Committee Meetings: Discussion Panels
February 10 – 13, 2025	Telescope Allocation Committee Meetings: Executive Committees Meeting
Early-Mid March, 2025	PI notification letters are distributed
July 1, 2025	Beginning of Cycle 4 Observations



Overview



Topical Panels and Associated Scientific Categories

Scientific Category	Topical coverage
Solar System	Observe or analyze data relevant to objects within the Solar System
Exoplanet Atmospheres and Habitability	Atmospheric properties and/or chemical composition of exoplanets or related objects, through direct or indirect observations or data analysis, or theoretical analysis
Exoplanetary System Formation and Dynamics	Planet formation, including investigations of the structure and chemical composition of protoplanetary disks, and dynamical models or simulations
Stars and Stellar Populations	Physics of individual star and star clusters in the Milky Way and nearby galaxies, and investigating the global properties of the resolved stellar populations in nearby galaxies
Gas, Dust and ISM	Gas, dust and the interstellar medium in nearby galaxies, including the chemical composition and interactions with winds and shocks
Nearby Galaxies to Cosmic Noon	Galaxy formation and evolution, galaxy clusters and groups, and the galaxy distribution at lower redshifts, extending to the properties of systems at cosmic noon, $z \sim 2-3$
High-Redshift Galaxies and the Distant Universe	Galaxy formation and evolution, galaxy clusters and groups, and large-scale structure at high redshifts, from $z > 3$ through $z \sim 12$ or more
Super Massive Black Holes and Active Galaxies	Active galactic nuclei, QSOs, Seyfert galaxies, super-massive black holes and feedback mechanisms



Who Reviews What

External panels (provide asynchronous reviews; do not meet) **YOUR PANELS**

- 8 External panels corresponding to the 8 Scientific Categories.
- Review Very Small GO proposals (≤ 20 hours) and regular AR proposals.
- Provide grades and written feedback **by January 10, 2025**. STScI uses the grades received by each proposal to generate a rank-ordered list of proposals in each of the 8 Scientific Categories. The comments from all the reviewers assigned to the proposal are sent verbatim to the proposer (i.e. there is no consensus report).
- The top proposals likely to be recommended to the Director for acceptance are provided to the panel Chairs of the face-to-face Discussion panels of that same Scientific Category prior to the meeting to allow them to identify potential duplications with the proposals reviewed by their panels and to monitor programmatic balance. Duplications are adjudicated by the panel Chairs, with feedback from the Discussion panels, when required.



Who Reviews What

Discussion panels (face-to-face, on-line meetings) (NOT YOUR PANELS)

- 18 discussion panels (some Scientific Categories have multiple panels).
- Review Small (> 20 and ≤ 50 hours), Medium (> 50 and ≤ 130 hours) and all Target of Opportunity and Survey proposals, regardless of size.
- Provide preliminary grades to STScI. STScI uses the grades received by each proposal to generate a rank-ordered list of proposals from which a triage list is created.
- Discuss non-triaged proposals during face-to-face, on-line meeting and provide final grades (all non-conflicted panelists vote). Grades are used to generate a rank-ordered list that is then discussed during the meeting. Re-ranking can occur to avoid duplications and achieve a science balance. After the meeting, the primary reviewer writes a consensus report for each proposal based on written comments all reviewers.
- Discussion panels do not adjudicate Large (>130 hours) or Treasury GO proposals or AR Legacy proposals, but they advise their Chair and Vice Chair on the scientific merit of the subset of those proposals assigned to their panel.



Who Reviews What

Executive Committees (ECs) (face-to-face, in-person meetings) (NOT YOUR PANELS) :

- There are 2 ECs (one “Galactic” and one “Extragalactic”) formed a **TAC Chair** and the **Chairs** and **Vice Chairs** from all the corresponding panels.
- Review Large GO proposals (> 130 hours), Treasury GO programs, Legacy AR programs and other requests for substantial resources, such as large Pure Parallel programs.
- Similar review process as the Discussion panels. The ECs are provided additional input on proposals from the Discussion panels, via the corresponding panel Chair and Vice Chair, and from the Expert Reviewers, that provide asynchronous reviews. The Executive Committee also adjudicates any cross-panel scientific issues, as needed.

Expert Reviewers (provide asynchronous reviews; do not grade)

- Provide asynchronous reviews for: (1) proposals evaluated by the Executive Committees; (2) proposals with a large number of panelists that are conflicted; (3) joint-observatory proposals. In the latter case, the Expert Reviewers are drawn from the joint-observatories' user communities.



Proposal Categories reviewed by External Panels

- **Regular General Observer (GO):** Regular observing proposals.
- **Archival (AR):** Archival research proposals; US PI's and co-I's can request funding. Data-based AR proposals must be primarily based on JWST data.
- **AR Theory proposals:** results should enhance the value of JWST observational programs through their broad interpretation (in the context of new models or theories) or by refining the knowledge needed to interpret specific observational results.
- **Archival Cloud Computing:** Proposals requesting funding to use Amazon Web Services (AWS) for data analysis, as all non-exclusive access JWST data is available via AWS.
- **Archival Data Science Software:** Proposals requesting financial support to develop software products available to the community for the purpose of analyzing JWST data.

More info: <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-call-for-proposals-for-cycle-4/jwst-proposal-categories>



Proposal Categories reviewed by External Panels

- **GO-Archival Proposals:** In past cycles, we required separate GO and AR proposals for programs that included new observations and substantial analysis of JWST archival data so that both could be funded at an appropriate level. We are now offering the GO-Archival option for research programs where substantial effort (>10%) will be devoted analyzing JWST archival data and where new observations are still required to address a scientific goal. GO-Archival proposals should include an Analysis Plan for the archival data.
 - This flag is new and implementation may be inconsistent. In particular, you may see very different levels of archival work in programs with this flag set. We will also be lenient about the lack of analysis plan this time, as long as the archival work is well-justified elsewhere in the proposal.



Proposal Categories reviewed by External Panels

- **Joint Proposals:** JWST science is the prime science, but multi-wavelength observations from one or more partner observatory (HST, Chandra, XMM-Newton, NOIRLab, NASA-Keck, ALMA, NRAO) are critical for the science goals. Proposers may request simultaneous observations but there is no guarantee they can be executed. Technical reviews by the partner observatory might be provided for additional feedback. You can access these reviews in SPIRIT.
- **Calibration Proposals:** not linked explicitly to a specific science program; provide a calibration or calibration software that can be used by the community for existing or future programs. Can be GO or Archival.
- **Future Cycles:** Proposals requesting time in more than one cycle (up to three cycles, 4, 5, and 6). A clear scientific case must be provided for the need to allocate time beyond Cycle 4. **Scheduling concerns are not a sufficient justification.** Target of opportunity proposals are eligible to be Future Cycles proposals.



Observation Types

More info: <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-call-for-proposals-for-cycle-4/jwst-observation-types>

- **Parallel Observations:** Since JWST's instruments are located at different positions in the focal plane, it is possible to observe simultaneously with one or more instruments in addition to the primary instrument. While these observations do not count toward a panel's hour allocation, **they do require resources** for both STScI support (including consideration of data rate), and US investigators can request funding for their analysis. Thus any **parallel observations must be well-justified and approved by the TAC.**
 - “Coordinated Parallel”: Parallel observations part of the same program as the primary observations; may have different science goals. Must be fully described and justified scientifically; can be rejected even if the primary observations are approved.
 - “Pure Parallel” (**Reviewed by the Executive Committee regardless of size**): Proposed independently of the primary observations.
- **Target of Opportunity (Reviewed by Discussion Panels).**



Special Requirements

- Proposals may have Special Requirements that include, but are not limited to:
 - Aperture Position Angle (orientation) constraints
 - Target of Opportunity observations (these proposals go to the Discussion panels)
 - Specific dates or ranges of specific dates for time-constrained observations
 - Coordinated Parallel observations
 - Links between observations, including non-interruptible sequences
 - Requests for low background or background-limited observations
- If a proposal includes a Special Requirement
 - Check that it is described in the “Special Requirements” section of the proposals.
 - Consider whether or not it is scientifically justified in the proposal.
- Failure to list them or to justify them may lead to those requests not being met.



Dual Anonymous Peer Review

Presenter: Laura Watkins (Science Mission Office)



The Review Process



General Guidelines

- Access proposals at <https://spirit.stsci.edu/>. **All grades and comments will be entered through this portal.** See <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-peer-review-information/reviews-grades-and-comments/spirit-webreviewer-tool-guide> (and your email) for full instructions.
- **Anticipate how much time it will take to review proposals based on your own experience.** Past surveys indicate that review times can vary significantly from person to person, on average they report about 30–45 minutes per proposal. There are ten weeks between now and the deadline (**Friday, January 10, 2024**). Plan accordingly and budget your time; doing a few proposals a day is a *lot* less stressful than all in few days —and leads to better reviews and comments for the proposers.
- You may want to **start by reading all of the abstracts** for your assigned proposals, instead of digging straight into individual proposals. This will help you get an overview of the task, and it is good for finding conflicts of interest early (e.g., competing proposals or unidentified close collaborators), which helps everyone.



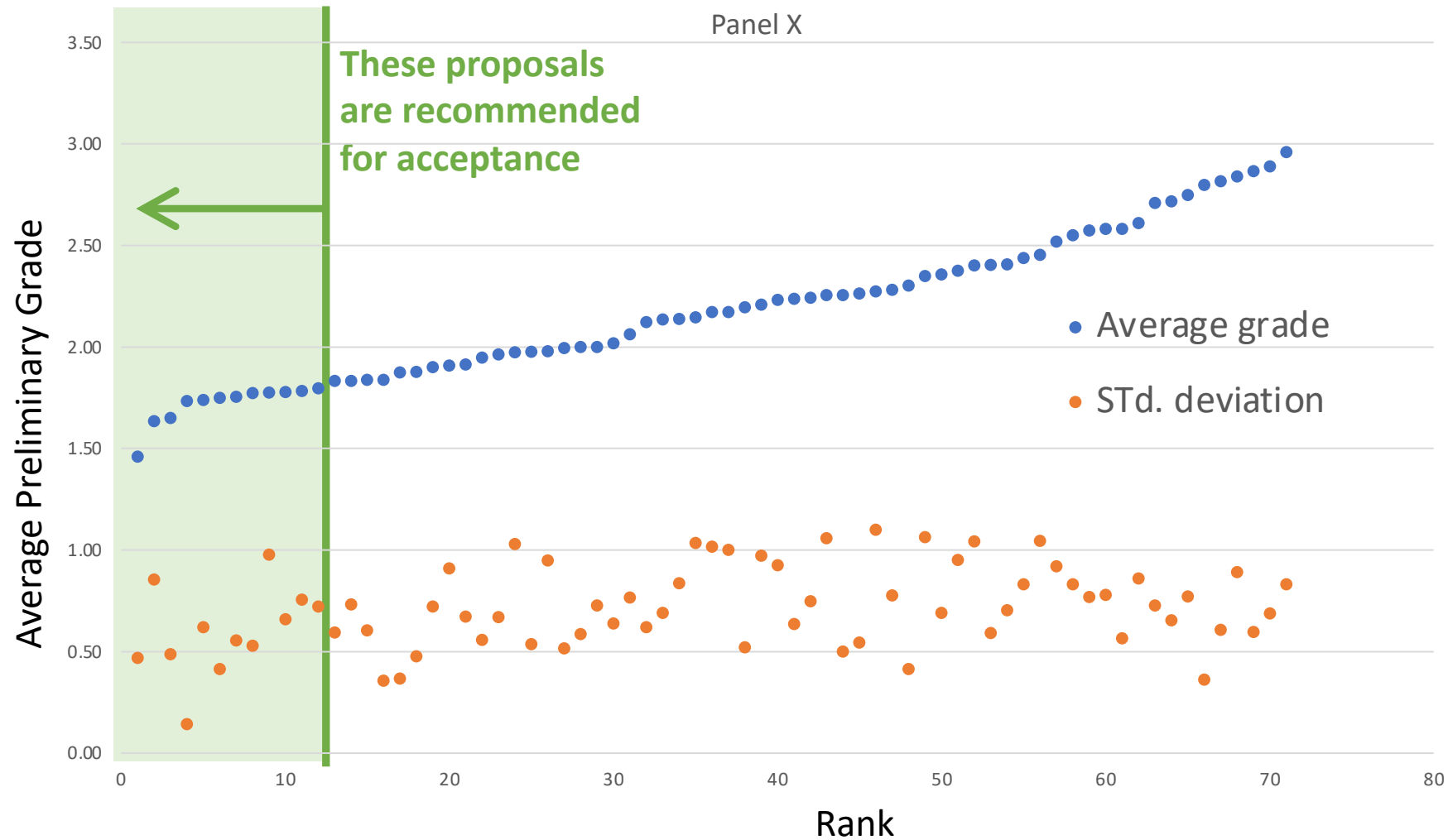
Selection of Proposals Reviewed by External Panels

- External panels grade proposals between now and January 10.
- Reviewers grade on an absolute system (excellent → poor).
- ALL proposals should be graded using the same scale.
- Grades are collected, averaged, and ranked list compiled for that Scientific Category.
- Hour allocation is done by Scientific Category, based on hour pressure.
- **Comments from each reviewer for externally reviewed proposals are returned to the proposers verbatim.**
- The highest ranked proposals are marked as recommended for acceptance.
- This information is provided to the panel Chairs of the face-to-face Discussion panels of that same Scientific Category prior to the meeting to allow them to identify potential duplications with the proposals reviewed by their panels and to monitor programmatic balance. Duplications are adjudicated by the panel Chairs, with feedback from the Discussion panels, when required.



Selection of Proposals Reviewed by External Panels

STScI averages grades & marks highest ranked proposals as recommended for acceptance.





Selection Criteria

(A) In-field Impact:

- *The scientific merit of the program within its immediate sub-field, and its contribution to advancement of knowledge.*
- The immediate sub-field of the proposal is the niche area of the program, not the whole broad science area (e.g. Trans-Neptunian Objects, not Solar System Astronomy).
- Will the proposed program improve our understanding of the objects, classes of object, or specialist topics under study in the proposal? By how much? Is the work relevant and timely?
- The evaluation should be based on what is written in the proposal, not on the reviewer's broader knowledge, even if the reviewer is an expert in the sub-field. Though, in most cases, the reviewer will *not* be an expert in the sub-field of the proposal, and the proposal should have been written accordingly.



Selection Criteria

(B) Out-of-field Impact:

- *The program's impact outside of its immediate sub-field.*
- A proposal does **not** have to impact **all** of astronomy. The out-of-field impacts could be in other sub-fields within the broader science area of the proposal, or in other broad science areas (e.g. in the case of a TNO proposal, this could be solar system formation or planet formation in general, among others).
- Proposals should discuss implications for other fields or sub-fields, and their breadth, significance, and timeliness. Are there implications for other science areas and/or insights into larger-scale questions? Will the proposed program improve our understanding of science areas beyond the immediate sub-field of the proposal? How broad and how significant is this new understanding?
- This evaluation should be based on what is written in the proposal, not on the reviewer's broader knowledge.



Selection Criteria

(C) Suitability & Feasibility:

- *The suitability of JWST observations or datasets, or relevance to JWST science. The necessity of special requirements. The feasibility of the science program.*
- Proposals should demonstrate that the capabilities of JWST are required to achieve the scientific goals, or demonstrate the relevance of the work to JWST science. Technical issues will be adjudicated by STScI instrument scientists.
- **For GO programs:** Has the proposed program demonstrated that the unique capabilities of JWST are required to achieve the science goals? How much of an advantage does JWST data offer over other facilities? Has the time request been well justified? Have any special requirements been well justified? Have parallel observations been well justified? Have any duplications been well justified? If joint time was requested, have those additional observations been well justified? Does the observing plan make efficient use of resources? Is there a clear path to science?



Selection Criteria

(C) Suitability & Feasibility (continuation):

- **For AR programs:** Has the proposed program demonstrated that the unique capabilities of JWST are required to achieve the science goals? How much of an advantage does JWST data offer over other facilities? Is JWST the predominant source of data for the program? If data from other facilities will be used, has its use been well justified. Is there a clear path to science?
- **For Theory programs:** Has the proposed program demonstrated a broad applicability to JWST observational programs or data products? Will the proposed program provide results that assist in planning future JWST observations, improve analysis of JWST data or data products, or improve interpretation of JWST data or data products? Is there a clear path to science?



Selection Criteria

- The final grade is the straight average of these values.
 - (A) In-field Impact:
 - (B) Out-of-field Impact
 - (C) Suitability & Feasibility
- AR and GO calibration proposals are required to provide an analysis plan; reviewers should also consider the strength of the analysis plan in assessing the first two criteria.
- Descriptions of additional criteria by type of proposal are given in the Proposal Selection Procedures section of the Call for Proposals.

The evaluation should be based on what is written in the proposal, not on the reviewer's broader knowledge.

Reviewers must ensure that the comments address some or all of these primary criteria.

<https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-peer-review-information/reviews-grades-and-comments/selection-criteria-and-scoring-system>



We use a “Stellar Magnitude” Scoring System: 1 is BEST

Grade	Impact within the sub-field	Out-of-field impact	Suitability
1	Potential for transformative results	Transformative implications for one or more other sub-fields	Science goals can only be achieved with JWST
2	Potential for major advancement	Major implications for one or more other sub-fields	Major advantages in using JWST over other facilities
3	Potential for moderate advancement	Some implications for one or more other sub-fields	Some advantages in using JWST over other facilities
4	Potential for minor advancement	Minor impacts on other sub-fields	Minor advantages in using JWST over other facilities
5	Limited potential for advancing the field	Little or no impact for other sub-fields	JWST offers little or no advantage over other facilities or the advantages of using JWST are unclear.

Longer descriptions, more details and examples at: <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-peer-review-information/reviews-grades-and-comments/selection-criteria-and-scoring-system>



Proposal Comments

- Comments are required for all proposals.
- **The deadline for you to enter ALL of your comments is Wednesday, January 10, 2025.**
- Don't make up reasons for rejection – if a proposal was good, but not great, then say so.
- Have your comments reflect your grades: you will not know whether or not a proposal is recommended for acceptance.
- **All comments go back to the proposers verbatim, e.g.,**

Strengths:

Reviewer #1: The proposed observations will revolutionize our understanding of space krakens.

Reviewer #2: Only JWST can get IR observations of space krakens, and the proposal makes a strong case for why the IR is important for determining how long space krakens live.

Weaknesses:

Reviewer #1: It is not clear from this proposal what implications the proposed data and analyses will have for other classes of space creatures.

Reviewer #2: The target signal-to-noise of ten zillion is not well justified in the proposal.



Proposal Comments: Practical Instructions

4567 Review Comments

Save Review

Review Completed

Strengths

Weaknesses

Resources

Comments

Technical Notes

Instructions

Enter your
comments
here

Other categories are optional and rarely used. Most of what you think should go here can probably be listed as a “strength” or a “weakness”. *Leave blank unless actively needed!*

If any duplications are not well-justified, “Resources” is a good place to note this. “Technical notes” and “Instructions” should be used only to document conversation with STScI technical staff—we will tell you if something should go there!

Enter review comments related to the strengths of the proposal.

See the Spirit
documentation
for where to
enter your own
personal “notes”.



Proposal Comments: Detailed Instructions

- Proposal feedback comments should be concise.
- Please **avoid asking questions in the comments**.
 - For example, “the proposal did not sufficiently motivate the number of requested targets” is preferred over “why have 6 targets instead of 5?”
- The reports should focus on the scientific content and not the reviewer: **do not reference yourself**. If it was not clear *to you*, then it was simply not clear.
 - For example, "The proposal did not sufficiently explain why these targets were chosen" is preferred over "It is not clear to me why these targets were chosen"
- Do not refer to the proposer, instead refer to the the proposal.
- Avoid any comments that may be perceived as derogatory.
- You cannot be sure at the time of writing feedback comments whether the proposal will be accepted. The **comments should be phrased in such a way that they are sensible and meaningful regardless of the final outcome**.



Proposal Comments: Detailed Instructions

- Avoid statements that create the impression that the low ranking of a proposal is due to a minor mistake.
 - Many proposals do not have obvious weaknesses but are just less compelling than others: in such a case, acknowledge that the considered proposal is good but that it had limitations.
- Never include in the report an explicit reference to another proposal, such as the proposal ID.
- Whenever possible, make suggestions for possible improvements, but avoid giving the impression that following those suggestions guarantees that the proposal will be more successful in next cycle.
- JWST is a shared resource and we receive proposals from all over the world, many from non-native English speakers. The proposal should be understandable, but please take care to **judge the science in the proposal, not the quality of the language or the grammar.**

For more information: <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-peer-review-information/reviews-grades-and-comments/proposal-feedback-comments>



Policy Issues



Code of Conduct

All participants in the proposal review process are expected to:

- **Be respectful** in any written or verbal communications you have as part of the review process.
- Step in to address abusive or bullying behavior.
- **Be respectful of all** regardless of differences (professional or otherwise).
- Actively help create an environment free of harassment.
- **Be polite and professional** in your written feedback comments, *especially* when providing critical comments.

Please report any violations of the code of conduct to your SPG manager or your PSS.



Confidentiality

- Remember that you should not discuss the proposals you review or your evaluations – now, or in the future.
- Do not post comments to Facebook, X (Twitter), Instagram, TikTok, etc. regarding the content or your participation in the panel meeting.
- Individual reviews should be independent; do not consult with other panelists.
- Confidentiality carries from prior years: Do not discuss/compare prior years proposals in this review, even with panel members who also served in prior years.
- Please purge any review files from your computer after the review.
- Panelist names will be shared in the STScI Newsletter after the selections are public; only then should you feel free to update your c.v., etc.



Dual Anonymous Review

- The goal of Dual Anonymous Review is to put the focus on the **science** and remove the focus from the proposing team.
- In a Dual Anonymous Review, the identifications and expertise of the proposal teams have been removed from the proposals prior to the preliminary review.
- During all stages of the panel review process, reviewers grade and rank proposals without knowing the identities of the proposal teams.
- **Panelists should flag any proposals they identify as not compliant** with the posted Dual Anonymous Review guidelines and bring them to the attention of the Science Policies Group (email your Science Policies Group Manager; these names are at the end of this presentation). **SPG will review and then provide guidance for how to proceed.**



Conflict of Interest

Our goal is informed, unbiased discussion of each proposal

- Grading panel members should have neither direct nor indirect interest vested in the outcome of the review
- Grading panel members should also have sufficient knowledge to assess the science

Anonymizing proposal simplifies conflicts

- We only consider personal conflicts
 - Direct involvement in the proposal
 - Involvement of close collaborators/competitors/family members based on names supplied by individual panelists
- Institutional conflicts are **not** considered
- Most identified by automated checks and info provided by you
- If you strongly suspect you have a conflict with a given proposal, you are conflicted.
- **Panelists may flag additional conflicts found while reviewing a proposal**
 - **Please raise any such concerns with your PSS and SPG manager.**



Conflict of Interest

If you have not yet identified your conflicts of interest, please do so IMMEDIATELY.



General Guidelines

- Panel Members should assume that all instruments will be performing nominally in Cycle 4
- Panel Members should *not* reject or downgrade proposals based on technical considerations without concurrence by STScI
 - STScI will perform a technical review on all accepted proposals and will work with successful PIs to make programs flight ready. If technical questions arise during the panel review, please ask your PSS, who will contact a relevant expert.
- Panel Members should *not* take scheduling considerations into account in grading proposals, but any scheduling constraints *must* be clearly stated *and* scientifically justified.

Concentrate on recommending the best science... but recognize that it may not be possible to schedule all highly ranked programs



Personnel & Logistics



Relevant STScI Personnel

- **Jennifer Lotz** – STScI Director
- **Nancy Levenson** – STScI Deputy Director
- **Mercedes Lopez-Morales** - Associate Director for Science
- **Neill Reid** – Multi-mission Project Scientist
- **Marc Postman** – Interim Science Mission Office Head
- **Laura Watkins** – Science Mission Office Deputy Head
- **Katey Alatalo** – JWST Science Policies Lead
- **Amaya Moro-Martin** – JWST Science Policies Deputy Lead
- **Andy Fruchter, Claus Leitherer, Jamila Pegues, Linda Smith, Amy Jones, Dave Stark, Josh Lothringer, Nikolay Nikolov, Becca Levy** – Science Policies Scientists
- **Aleksandra Hamanowicz** – TAC Technical Manager
- **Brett Blacker** – Acting TAC Technical Manager
- **Amber Armstrong** – Deputy TAC Technical Manager
- **Tom Brown** – JWST Mission Office Head
- **Jeff Valenti** – JWST Mission Office Mission Scientist
- **Macarena Garcia Marin** – JWST Mission Office Project Scientist
- **Stacey Bright** - – JWST Mission Office Deputy Project Scientist
- **Beth Perriello** – Observations Planning Branch
- **Darlene Spencer** – Events Planning Group Staff
- **Kevin Flinn** – IT Technologist (in charge of all things A/V, Webex, etc.)



Where (or Who) to Go To for Help

- Call for proposals: <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-call-for-proposals-for-cycle-4>
- Full online documentation for the review process: <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-peer-review-information>
- Questions? When in doubt, email your Panel Support Scientist (PSS)!
- Potential conflict of interest? Email your PSS.
- Problems accessing Spirit? Email wasabi@stsci.edu and/or Alex Hamanowicz (ahamanowicz@stsci.edu)
- Questions about JWST instruments and their capabilities, or technical feasibility of a proposed program? Email your PSS and SPG Manager.
- Want to give an update on your status or require an extension on deadlines? Email your SPG Manager.



Panel Personnel

Panel	SPG Manager	Panel Support Scientist
Solar System	Amaya Moro-Martin	TBD
Exoplanet Atmospheres	Amy Jones	TBD
Planetary Systems	Linda Smith	TBD
Stars and Stellar Populations	Dave Stark	TBD
Dust and Gas	Josh Lothringer	TBD
Galaxy Ecosystems	Nikolay Nikolov	TBD
Galaxy Frontiers	Jamila Pegues	TBD
SMBH	Becca Levy	TBD



After the TAC ...

- As always, we welcome feedback on the TAC process
 - How did the grading process work?
 - Can we improve it?
 - What were the main shortcomings?
- We will send email to all Panel members with a survey requesting your views of the process. Please fill it out! Many of the process improvements this year were in a direct response to previous surveys: we value your input!!



Thank you!

The JWST TAC would not be possible without your critical support and contributions!