Welcome to the HST Cycle 34 Discussion Panelist Orientation! We will start at five minutes after the hour.

At any time, if you have questions, please enter them into the chat. And please remember to mute yourself ;-)

Alex, please start recording!

STScI | SPACE TELESCOPE SCIENCE INSTITUTE

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

HST Cycle 34 Discussion Panelist Orientation

https://hst-docs.stsci.edu/hsp/hubble-space-telescope-peer-review-information

Molly Peeples
on behalf of the STScI Science Policy Division

May 4, 2026

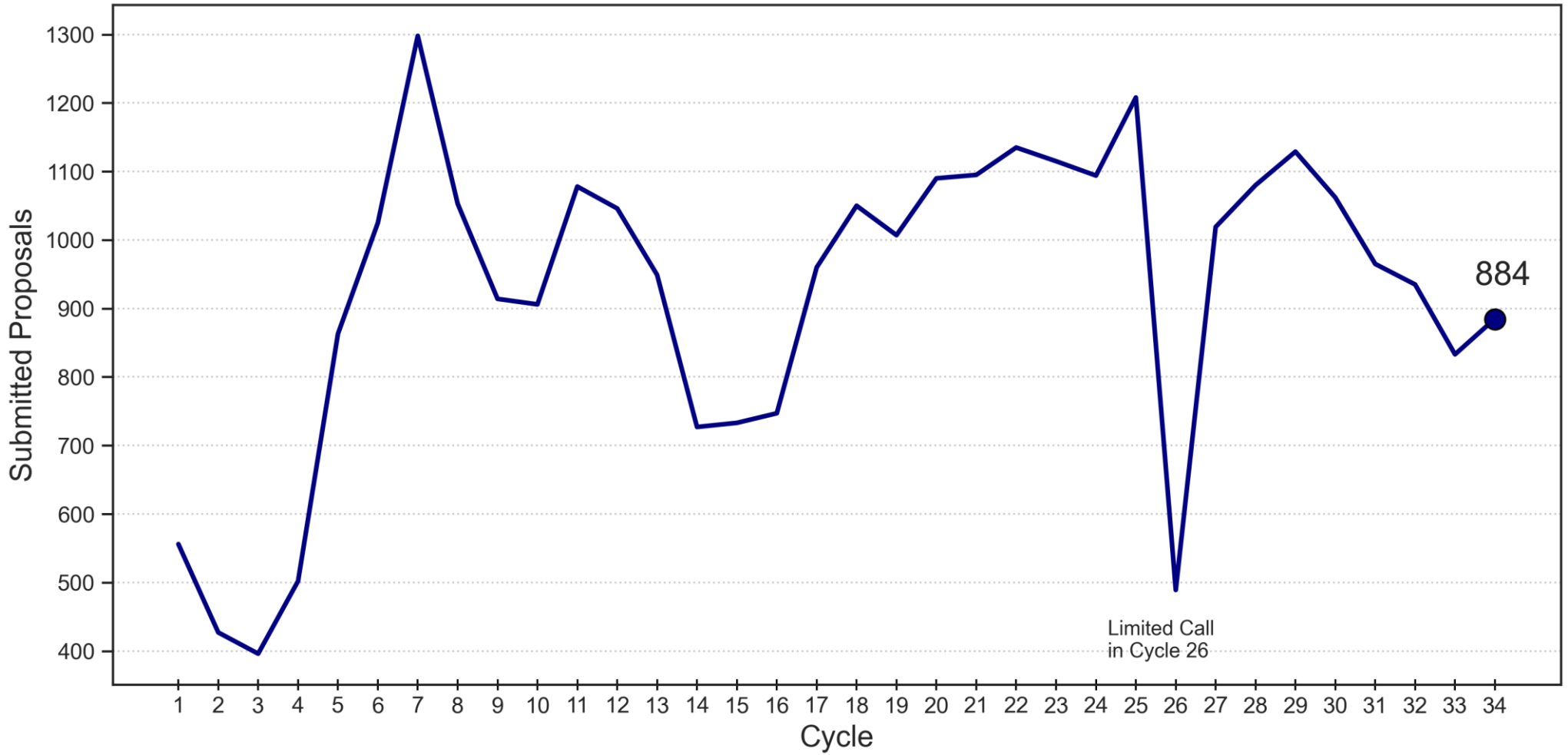
Today's Orientation

1. Welcome from the STScI Director, Jennifer Lotz
2. Welcome from the Cycle 34 TAC Chair, Céline Péroux
3. Telescope Allocation Committee Orientation
    - Overview
    - What happens before the panels meet
        - Includes overview on the Dual Anonymous Peer Review by Amy Jones (Science Policy Division)
    - What happens during the panel meetings
        - This will be brief today, as we will have another brief orientation and Q&A on this shortly before the panels meet.
    - Policy Issues
    - Personnel and Logistics
4. Hubble Observatory and Instrument performance update from Joleen Carlberg (HST Mission Office)

Your participation is crucial to maximizing the science from Hubble

- The Hubble Cycle 34 TAC review is supported by over 200 reviewers, including **94 discussion panelists** (you!),and 112 external panelists.
- This is a *community* process: you have ~880 proposals to review, from 3,511 unique investigators.
- Getting your grades in on time and writing thoughtful reviews doesn't just help the STScI staff—it helps your fellow panelists and the proposers.

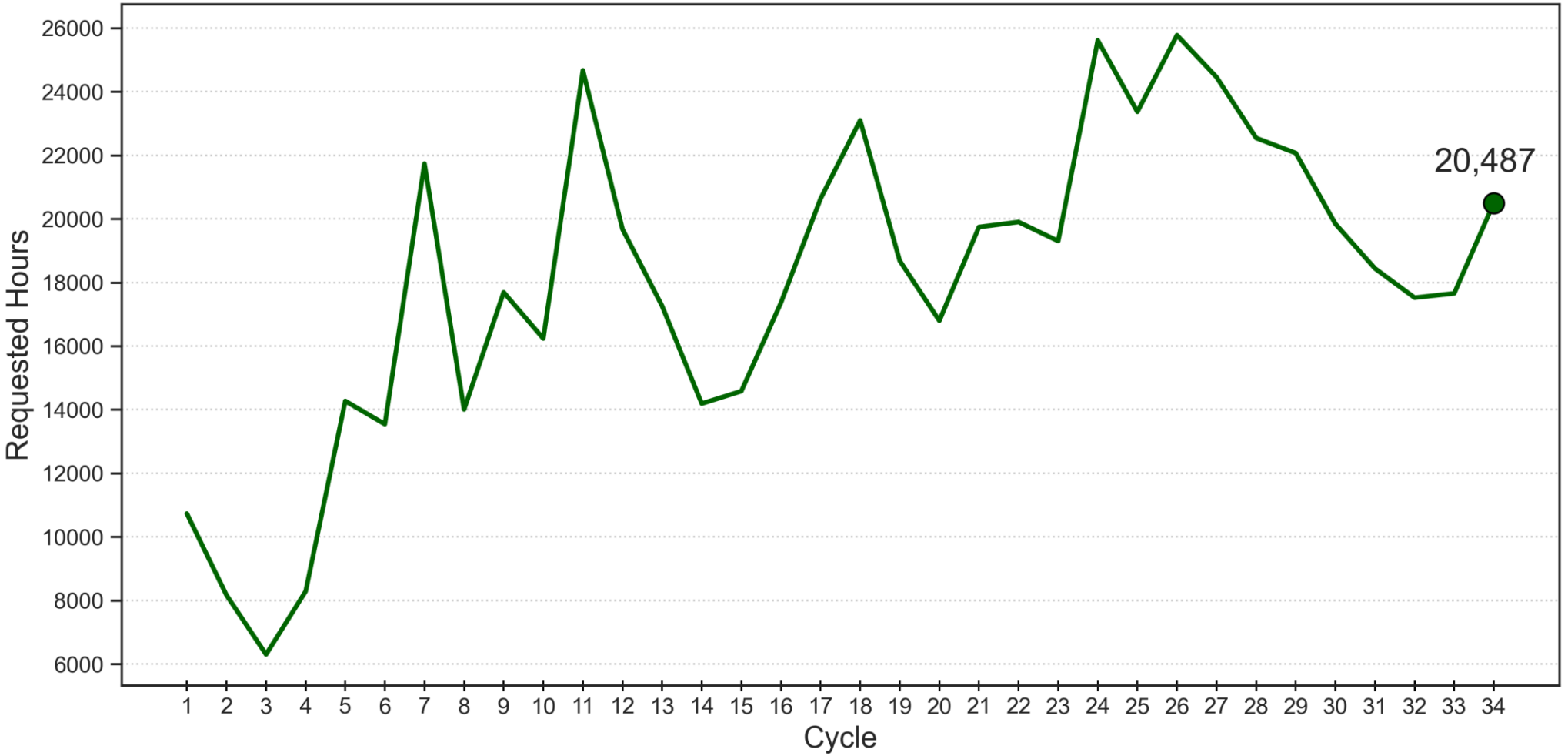
Cycle 34 Proposal Submissions



Thirty-five years after launch, Hubble remains in high demand!

Statistics provided by Alex Hamanowicz

Cycle 33 Orbit Requests

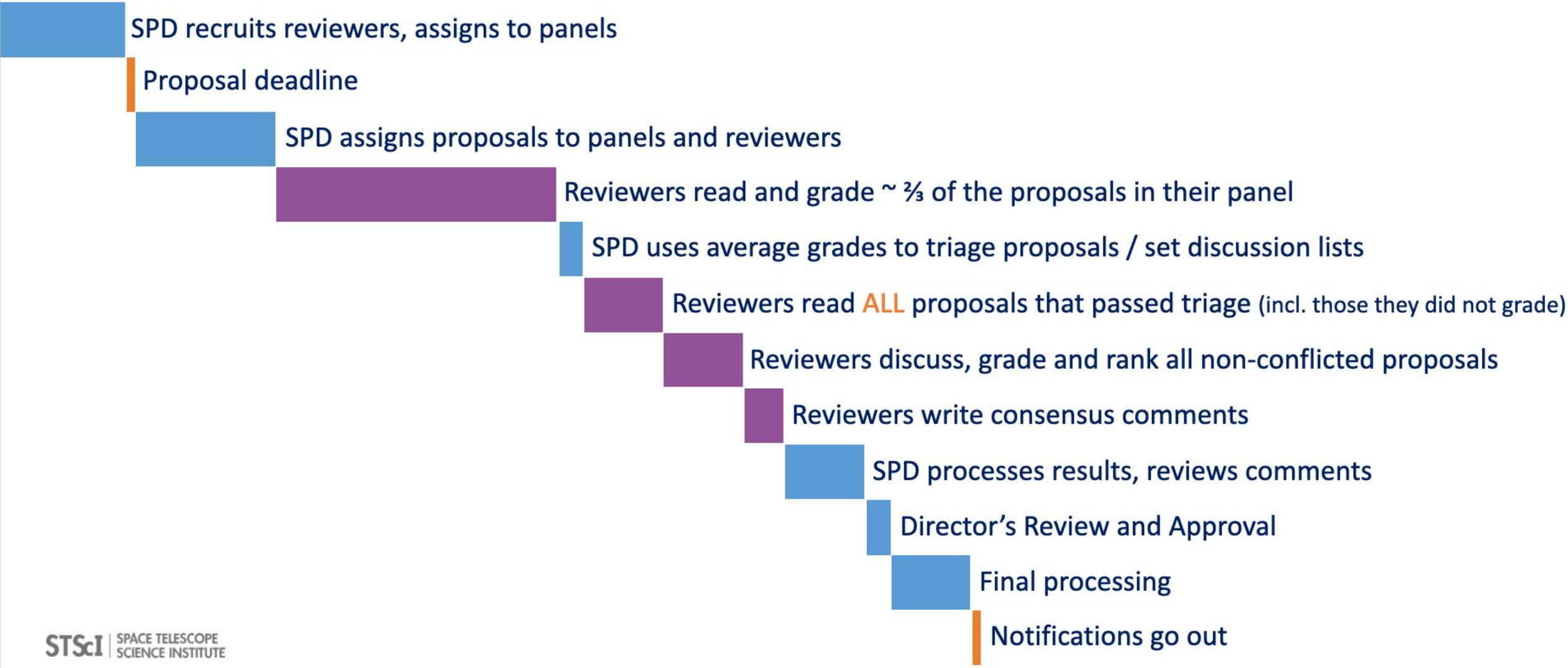


Backup slides include more detailed submission statistics

Statistics provided by Alex Hamanowicz

Overview of the Review Process

SPD = Science Policy Division



Overview of the Review Process

SPD = Science Policy Division

SPD recruits reviewers, assigns to panels

Proposal deadline

SPD assigns proposals to panels and reviewers

Preliminary Grading — Reviewers read and grade ~ ⅔ of the proposals in their panel

SPD uses average grades to triage proposals / set discussion lists

Pre-Meeting — Reviewers read ALL proposals that passed triage (incl. those they did not grade)

Panel Meeting — Reviewers discuss, grade and rank all non-conflicted proposals

Post-Meeting — Reviewers write consensus comments

SPD processes results, reviews comments

Director's Review and Approval

Final processing

Notifications go out

Cycle 34 Proposal Review Schedule

Date	Milestone
Thursday, April 16, 2026	Cycle 34 Proposal Deadline
Friday, May 1, 2026	STScI releases proposals to panelists for review
Monday, May 4, 2026	Orientation meeting for Discussion panelists
Friday, May 8, 2026	Deadline to **check for and report** additional conflicts of interest
Friday, May 29, 2026	Deadline for Discussion panelists to submit preliminary grades for their assigned proposals
Friday, June 5, 2026	STScI sends each Discussion panelist the list of proposals to be discussed by their panel
Thursday, June 11, 2026	Discussion panelists Q&A
Monday - Thursday, June 22 – 25, 2026	Virtual Discussion panels meet
Monday - Wednesday June 29 – July 1, 2026	Executive Committee meets (virtually)
Friday, June 26, 2026	Deadline for Discussion panel review comments
Mid-late July 2026	STScI releases the Cycle 34 Science Program

Overview

Main Takeaways from this orientation

1. **Plan for the preliminary grading deadline:** read and grade all proposals assigned to you by Friday, May 29.
   - Take notes as you go along.
2. **Your first point of contact is your Panel Support Scientist (PSS)**: *any* questions, concerns, or personal emergencies that may affect your participation go to them first.
3. **Bring concerns up as soon as you have them:** the sooner you let us know about any potential issues with a proposal (such as but not limited to anonymity concerns), the better it is for you, us, and your fellow panelists. Email your PSS instead of bringing it up later!
4. **Report any potential new conflicts soon:** please try to familiarize yourself with the proposals you have been assigned *soon* in order to catch any new conflicts (such as being on a directly competing proposal).
5. **Ensure no scheduling conflicts during the panel meetings June 22-25.**

Useful Definitions

- **Discussion panels/panelists:** eight panels meeting virtually, and **discussing**, **grading**, **ranking**, and **providing written feedback on** a subset of proposals in their respective science categories.
- **External panels/panelists:** four panels (only Exoplanets, Galaxies, Stellar Physics, and Stellar Populations) **grading** and **providing written feedback on** a subset of Very Small, archival, and snapshot proposals. Their grades are used by STScI to generate a rank-ordered list of proposals in each science category.
- **Executive Committee:** the panel **discussing**, **grading**, **ranking**, and **providing written feedback on** the largest proposals, composed of the TAC Chair, Panel Chairs and Vice-Chairs, and At-Large Members.
- **Telescope Allocation Committee (TAC):** the body of all members of the Executive Committee and the Virtual and External panels.

Telescope Allocation Committee (TAC) Organization

- Overall TAC Chair: Céline Péroux (European Southern Observatory - Germany)
- Since Cycle 28, we have followed a hybrid approach, with each of 8 scientific categories having a corresponding topical panel divided into external panels and virtual discussion panels. In addition to reviewing proposals, the discussion panels advise the Panel Chair and Vice-Chair on Large, Treasury, Pure Parallel and large Snapshot proposals for review by the Executive Committee.
- The Executive Committee, led by the TAC Chair, is comprised of the At-Large members (none this cycle), the Panel Chairs (8), and the Panel Vice-Chairs (7). The Executive Committee reviews the Large, Treasury, Pure Parallel, and large Snapshot programs and reviews the overall programmatic balance.

Discussion versus External Panels

Hybrid approach: dividing proposals between external review and discussion review.

External panels provide the assessment and grading of a subset of Small GO proposals (1 – 15 orbits, “Very Small”) including Snapshot (SNAP) and Archival (AR) proposals.

- These proposals are ranked by STScI using the grades of the external panelists.

Discussion panels review the remaining Small GO and Medium proposals. After the initial triage, panelists interact **virtually** by video-conference to finalize their rankings.

- These proposals are ranked after the discussion and grading in the group panels.

Exceptions – all Small/Medium Target of Opportunity (ToO) proposals will be reviewed by the Discussion panels. Due to proposal load, Solar System, Transients, SMBH and CGM-IGM have no External panel.

You are a Discussion panelist.

Panels and Associated Science Categories

Topical panels have these science categories:

- Solar System: all bodies in our solar system (*discussion panel only*)
- Exoplanets and Planet Formation: exoplanets, planet formation, debris disks
- Stellar Physics: cool + hot stars, late stages, low-mass stars, star formation, supernovae
- Transients: all Target of Opportunity (ToO) proposals related to Galactic or Extragalactic high-energy transient phenomena (follow-up of classical novae, supernovae, kilo-novae, tidal disruption events, GRBs, FRBs, etc.) *(discussion panel only)*
- Stellar Populations and Interstellar Medium: resolved stellar populations in galaxies, Milky Way structure, star clusters, ISM in Local Group galaxies
- Galaxies: stellar content of galaxies, ISM in other galaxies, galaxy clusters, surveys, deep fields, lensing, galaxy evolution
- Circum- and Intergalactic Medium: CGM, IGM, galaxy outflows, galaxy halos, IGM, quasar absorption lines *(discussion panel only)*
- Supermassive Black Holes and Active Galaxies: AGN, quasars, SMBH, jets, galaxy/BH co-evolution (*discussion panel only*)

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- Solar System: all bodies in our solar system (
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...veys, deep

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...: AGN, quasars, SMBH, jets, galaxy/BH co-evolution

Note, especially for returning panelists:

"Large Scale Structure" no longer exists as a separate panel, but all of the relevant subject matter (cosmology, distance ladder, deep fields, galaxy clusters, gravitational lensing, etc.) has been dispersed to other panels!

So don't be surprised if you see some of these subjects covered in your panel.

Types of Proposals

- Regular General Observer (GO): Regular observing proposals.

- Snapshot (SNAP): Observing proposals of relatively short, easy to schedule observations. Usually SNAPs request a list of targets, of which only ~1/3 can be expected to be observed; proposal should explain how success will be achieved with a subset of proposed targets observed. Target list likely to be "generic". Used to increase the observing efficiency of the observatory.

- Archival (AR): Archival research proposals; US PI's and co-I's can request funding. Data-based AR proposals must be primarily based on Hubble data. Archival proposals are externally reviewed, except Solar System, SMBH and CGM-IGM ARs, which are in the virtual panels.
  - Theory proposals: results should enhance the value of HST 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.

More info: https://hst-docs.stsci.edu/display/HSP/HST+Proposal+Categories

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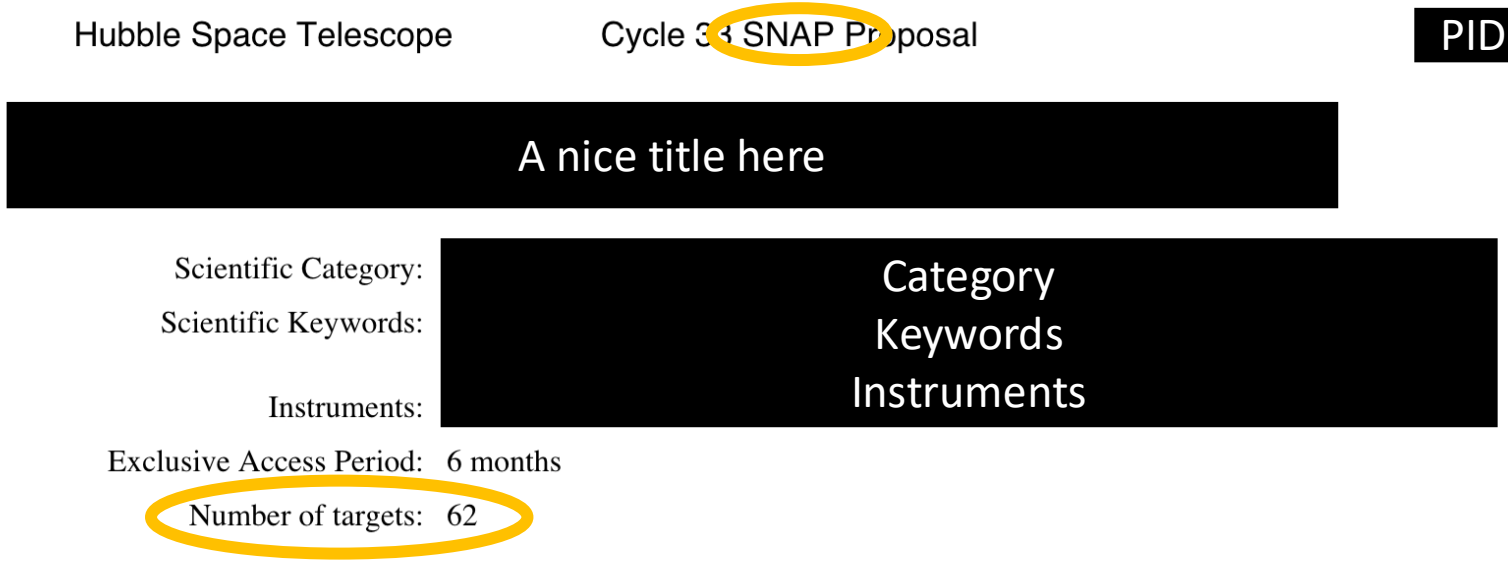


Special Categories of Proposals

- Joint Proposals: programs in which HST science is the prime science, but multi-wavelength observations from another ancillary observatory (JWST, Chandra, XMM-Newton, TESS, NOIRLab, NRAO) are critical for the science goals of the proposal.
- 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 Cycle: Proposals requesting time for both this cycle and in the future (up through Cycle 36, or Cycle 38 under the LTM initiative). These future observations will still require resources to execute and analyze, and thus must be fully justified scientifically.
- Archival Cloud Computing: Proposals requesting funding to use Amazon Web Services (AWS) for data analysis, as all non-exclusive access data for current Hubble instruments (ACS, COS, STIS, WFC3, FGS) are now available via AWS.
- Archival Data Science Software: Proposals requesting financial support for the development of software products that will be made available to the community for the purposes of analyzing HST data.

More at: https://hst-docs.stsci.edu/display/HSP/HST+Proposal+Categories

Special Initiatives

https://hst-docs.stsci.edu/hsp/hubble-space-telescope-call-for-proposals-for-cycle-34/hst-special-initiatives

- In all cases: no extra time available and no additional weight is given in grading. Proposals must meet the usual requirement of high scientific quality set for all successful HST proposals.
- The **UV Initiative** highlights programs that use the UV capabilities of Hubble.

- **New this Cycle: Hubble-Roman Science (HRS) Initiative**
  - Nancy Grace Roman Space Telescope (Roman): launch by May 2027, first Call for Proposals was due in March 2026.
  - The HRS Initiative is designed to **encourage observations with Hubble that complement and enhance the scientific impact of Roman observations** or are essential to achieving critical science goals of future Roman programs. HRS data will have no Exclusive Access Period (EAP).
  - Proposals must justify why the HST observations are critical to the success of the future Roman program. **You should assess the proposal based on the science expectations for the full program including both the HST and Roman observations.**

Special Initiatives

- **Long-Term Monitoring (LTM) Initiative**
  - Highlights HST's longevity, its importance for time-domain astronomy, and the importance of long-time baseline science. Encourages proposals that:
    - ✓ Provide **time-series observations** of astrometric, photometric and/or spectroscopic variations.
    - ✓ Capitalize on past HST or JWST observations by providing **late-epoch observations** that are designed to probe long-term astrometric, photometric and/or spectroscopic variations.
    - ✓ Propose **first-epoch observations** to lay the foundation for future time-domain work. You should assess the science impact of the full program, not just the current cycle observations.
  - Request observations across 5 cycles in Future Cycle programs — beyond the standard 3-cycles. **Assume that HST will be operating nominally for all Future Cycle programs.**

Special Initiatives

- **Habitable Worlds Observatory Precursor Science (HPS) Initiative**
  - The Habitable Worlds Observatory (HWO) is a large infrared/optical/ultraviolet space telescope that is being designed to search for signs of life on exoplanets along with a platform for transformational astrophysics.
  - The HPS Initiative is intended for investigations with Hubble that will support HWO science planning to inform mission architectures and trades, with the goal of reducing the cost and risk of HWO's future design and development. HPS programs are expected to generate knowledge, methods, or data that:
    - ✓ constrain astrophysical parameters critical for HWO target selection, instrument design, or observational strategies,
    - ✓ provide essential empirical inputs for science programs that HWO aims to address, or
    - ✓ develop analysis techniques and data products that can be applied or scaled to HWO observations.
  - The *Special Requirements* section should explicitly describe the link to specific HWO precursor studies, Science Case Development Documents, anticipated HWO observations, or technical trades. HPS data will have no Exclusive Access Period (EAP), by default.
- The strength of the connection to HWO planning and development needs will be explicitly considered during the review. Where the Hubble observations are deemed essential to achieving long-term HWO science goals, review panels will evaluate the proposal in the context of the combined Hubble+HWO programmatic impact.
- Proposals must still demonstrate why Hubble is required to achieve the program's science goals.

Special Categories of Proposals

- GO-Archival Proposals: GO programs that include a **significant** archival component. Low levels of archival work are not required to set this flag. Some of these proposals ***may*** provide an analysis plan for the archival work, but those were ***not*** required.

- This flag was new in Cycle 31, but implementation may still be inconsistent. In particular, you may see very different levels of archival work in programs with this flag set.

- It is helpful if you can flag any concerns with these programs so we can improve our documentation for the future!

Special Categories of Observations

- Parallel Observations: Since Hubble'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 orbit allocation, they do require resources for both STScI support, 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": Proposed independently of the primary observations. Reviewed by the Executive Committee regardless of size.

More at: https://hst-docs.stsci.edu/display/HSP/HST+Observation+Types

Special Requirements

In general, if it looks like a proposal is requesting something special (e.g., being in the “continuous viewing zone” or requiring a specific timing window), check that they list this requirement in the “Special Requirements”. Likewise, if something is specified in the Special Requirements, consider whether or not it is scientifically justified in the proposal.

All “Special Requirements” must be mentioned in the Phase I proposal in order to be implemented, so it is up to you to verify these requirements are required scientifically.

When it doubt, check out the Call for Proposals: https://hst-docs.stsci.edu/hsp/hubble-space-telescope-call-for-proposals-for-cycle-34

The Review Process: before the panels meet

Discussion Panel Reviews of Small and Medium Proposals

Step 1: Preliminary grading

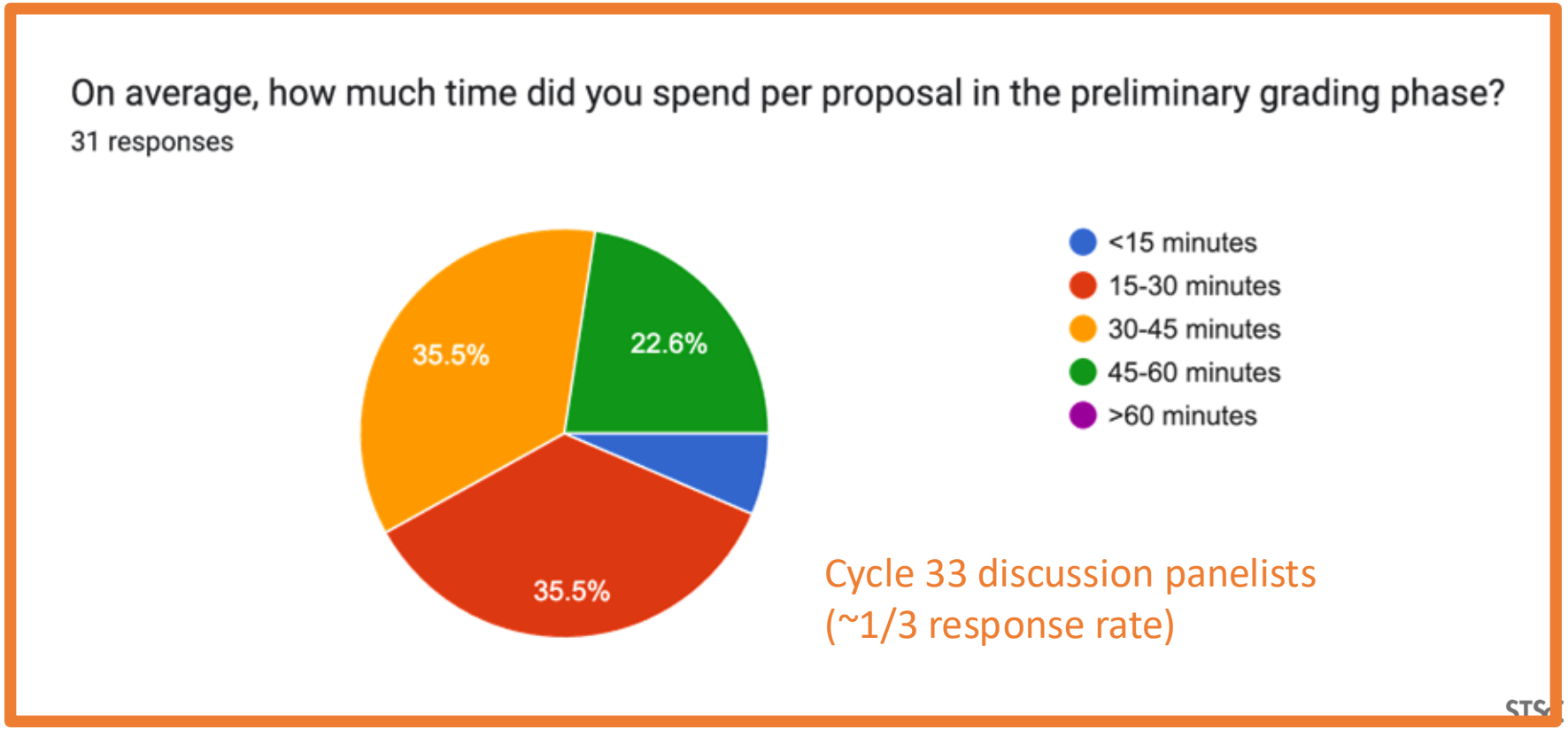
- Each proposal has 4-5 reviewers, including 1 primary & 1 secondary. The primary and secondary will be expected to lead the discussion of these proposals, so for these, be sure to include in your notes a summary of what the proposal is about, not just its strengths and weaknesses.
- Each reviewer assigns grades for (1) Impact within the sub-field, (2) Out-of-field impact, and (3) Suitability of Hubble.
- You *must* grade all proposals to which you are assigned, even if you are not the primary or secondary reviewer.
- The number of assignments depends on the panel/proposal load but typically:
  - Primary/Secondary: 5-10 proposals
  - Grading: 25-40 proposals

General Guidelines

- Access proposals at https://spirit.stsci.edu/. All grades and comments will be entered through this portal.
  See https://hst-docs.stsci.edu/display/HSP/SPIRIT+WebReviewer+Tool+Guide (and your email) for full instructions.
- Anticipate how much time it will take to review proposals. Including writing comments, it may take 30–45 minutes per proposal. There is less than 4 weeks between now and the deadline (Friday, May 29, 2026). Plan accordingly and budget your time; doing a few proposals a day is a *lot* less stressful than saving them all for the last minute—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.
- Take notes. It may be a while between reading a proposal in detail and discussing it on the panel, and your notes will help both you and the other panelists. Notes now also helps with writing comments for triaged proposals later!

General Guidelines

- Anticipate how much time it will take to review proposals. Including writing comments, it may take 30–45 minutes per proposal. There is less than 4 weeks between now and the deadline (**Friday, May 29, 2026**). Plan accordingly and budget your time; doing a few proposals a day is a *lot* less stressful than saving them all for the last minute—and leads to better reviews and comments for the proposers.



Selection Criteria

- In-field Impact: The scientific merit of the program 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 of the topical panel to which it was assigned.
- Out-of-field impact: The program's impact for astronomy in general. Are there implications for other science areas and/or insights into larger-scale questions?
  - The proposal does not have to impact all of astronomy, but should ideally impact a number of other sub-fields or provide significant impacts in at least one other sub-field.
- Suitability & Feasibility: The necessity for HST observations or relevance to HST science. The feasibility of the science program. For observing programs, this means a demonstration that the unique capabilities of HST are required to achieve the science goals; how much of a scientific advantage does HST data offer over other facilities? Consider how well any special requirements have been justified.

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://hst-docs.stsci.edu/hsp/hubble-space-telescope-peer-review-information/reviews-grades-comments/selection-criteria-and-scoring-system

We use a "Stellar Magnitude" Scoring System: 1 is BEST

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

Longer descriptions, more details, and examples at:
https://hst-docs.stsci.edu/hsp/hubble-space-telescope-peer-review-information/reviews-grades-comments/selection-criteria-and-scoring-system

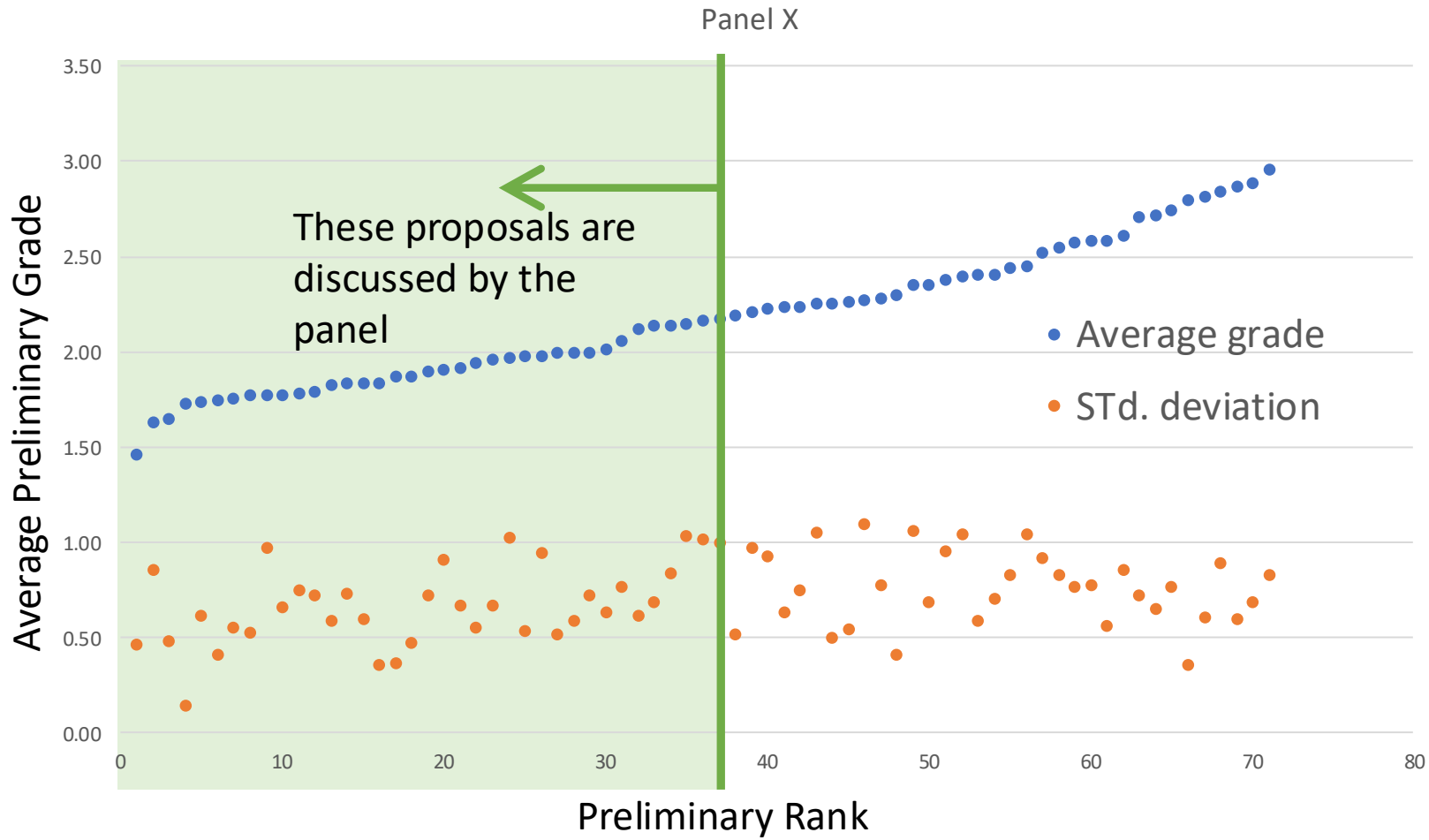
Dual Anonymous Review

- In a Dual Anonymous Review, the identities 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 Policy Division (email your Panel Support Scientist; you were emailed these names previously, and they are at the end of this presentation). SPD will review and then provide guidance for how to proceed.

Step 2: Preliminary ranking

STScI averages grades & advance the higher ranked proposals to the next stage.

- Preliminary grades and specific ranks are not circulated to the panels; proposals to be discussed should be reviewed as a group without bias of prior ranking



Proposals for Review

- Discussion lists will be distributed on Friday June 5, 2026. You will need to review all surviving proposals so you can contribute to the discussion.
- Each non-conflicted panelist may suggest one (1) proposal from the triage for inclusion in the review. A strong justification must be provided. It is *extremely* rare for triaged proposals to be awarded time. If you have one to suggest, tell your Chair ASAP to give your fellow panelists time to review the proposal.
- The process is necessary in order to limit the number of proposals for discussion
  - Spend time discussing the best proposals
  - Avoid discussing proposals that are less likely to be approved
- Get your grades in time so we can distribute these discussion lists as soon as possible, giving everyone more time to read the proposals they did not initially grade.

Dual Anonymous Peer Review (DAPR)

The Review Process: during the panel meetings

The Panel Meetings

The subject panels will meet virtually via Webex Monday, June 22 through Thursday, June 25.

Plan to be available from 10am to 4pm Eastern Daylight Time each day: That's 7am–1pm on the US west coast, 4am–10am in Hawaii, 3pm–9pm in the British Isles, 4pm–10pm Central European Time, and 5pm–11pm in Israel.

It is important to be present for the discussion of all proposals (unless there is a conflict). Except for unforeseen emergencies, you should not schedule activities unrelated to the review during those times.

The Panel Chair will set the schedule; breaks will be scheduled throughout the day.

Roles and Responsibilities

- Panel Chair, supported by the Vice-Chair runs the meeting
- Everyone should follow the code of conduct
- Panel Support Scientist (PSS) monitors SPIRIT, produces ranked lists, answers questions, or summons STScI staff experts, as needed. They have the authority to stop the discussion if the discussion strays away from proposal criteria strengths and weaknesses.
- Space Telescope Science Institute (STScI) staff
  - Science Policy Division (SPD) answers questions on policy issues
  - Instruments Division (INS) answers technical questions on instrument capabilities and performance
  - Scheduling Group answers questions on the execution of observing programs
- Observers

  Representatives from NASA Headquarters, the HST Project at Goddard Space Flight Center, ESA, the STScI Director and Deputy Director, STScI ESA Office, STScI HST Mission Office

Tools for a virtual meeting: Slack

- You will be invited to the Hubble TAC Slack Team. Please try to join as soon as the invitations are sent, so we have ample time for troubleshooting.
  - If you have served on one of our TACs before it is possible that you will not receive the invitation email as you are already in our system. To log into Slack please go to hst-tac.slack.com choose "I have a guest account" and proceed to log in using the email address which you use for logging into SPIRIT tool. You can request the password reset through forgotten password option. Please **do not use** sign in with MyST SSO.
- If you have problems logging into the Slack HST TAC space please contact your Panel Support Scientist.
- Your panel will have its own channel. The desktop app is vastly superior to using it in a browser window.
- Once it is open, Slack will be the easiest way to get in touch with STScI staff, your Panel Chair, and the other Panelists.
- Do not discuss individual proposals within the panel channels in Slack.

Tools for a virtual meeting: Webex

- Each panel will have its own channel in Webex. Connection information will both be emailed to you and posted to Slack.
  - Your PSS will organize a Webex check for your Panel in advance of the meeting. *Please* join if you can, even if you have used Webex before. Also, a chance to say hi!
  - There exists a Webex app for phones and tablets, and international call-in numbers in case of loss of connectivity. Best to be prepared…
- Read through https://hst-docs.stsci.edu/hsp/hubble-space-telescope-peer-review-information/panel-meetings/webex-and-slack-guidelines in advance of the meeting

The Panel Meeting -- Overview

1. Panels discuss and re-grade each proposal on the discussion list.
2. Once the grading is complete, the ranked list is compiled.
3. Panels can re-rank proposals within this list to allow for science balance, etc.
4. Once the ranking is complete, panelists can review the Team Expertise for the top proposals.
5. Panelists provide written consensus reports for *every* proposal.
6. Panelists comment on a subset of the Executive Committee (Large, Treasury, Pure Parallels) proposals to assist the Chair and Vice Chair in their reviews.

Detailed Proposal Discussion Procedures

1. Panelists with conflicts disconnect from the virtual meeting room or are moved to a separate “breakout room”. This includes STScI staff and Observers.
2. The Chairs and Vice-Chairs manage the process and may participate in the discussion, but do not grade.
3. The primary reviewer summarizes and reviews proposal. The secondary reviewer adds supplementary comments.
4. The panelists discuss the proposal, ***without comparisons to any other proposals***.
5. The discussion should include the resource allocation: primary orbits, coordinated or pure parallel, exclusive access period, duplication justification, special requirements.
6. The panel submits final grades on the proposal via SPIRIT. Panelists that are present and not conflicted except the panel chair and vice chair must grade--NO abstentions!!
7. The primary reviewer is responsible for collating all relevant comments, and recording those comments in SPIRIT.

Proposal Ranking: Procedures

1. Each panel has an allocation of *N* orbits for Small proposals and *M* orbits for Medium proposals.
   - All proposals must be graded and ranked on the same scale.
   - Calibration proposals are drawn from a separate pool of orbits and do not count against the panel's orbit allocation
   - If your panel has Archival or Snapshot proposals, they do not count toward the orbit allocation. (There is a total Snapshot orbit total across all panels.)
2. Once all proposals have been graded, the Panel Support Scientist (PSS) generates an initial ranked list.
3. The panel then discusses and agrees on **a final ranked list of programs** that encompasses at least 2×*N* orbits.
   - Any changes to the initial ranked list must be done by sequential pairwise comparisons and changes, being mindful of any conflicts of interest
   - Some panels don't change their initial ranked list at all; others make many many changes.

Medium Proposals

- Medium proposals are reviewed solely in their assigned panel.
- Each panel grades and ranks the Medium proposals together with all other proposals.
- Medium proposals may be recommended for acceptance if they are above the 1*N* line. Panels should not artificially move a Medium proposal above the line.
- Each panel is allocated *M* orbits for Medium proposals based on the relative orbit pressure among the Medium proposals across all panels.
- Medium proposals above the 1*N* line have no orbit charge until the Medium orbit allocation *M* is reached going from the highest to the lowest ranked Medium proposal above the 1*N* line.
- Thereafter, Medium orbits of additional Medium proposals that are above the 1*N* line **must** come out of the Small orbit pool, if the panel wishes to recommend them.
- If the Medium proposals above the 1*N* line do not fully use the Medium orbit allocation, those Medium orbits will be returned to the communal pool; the panel **cannot** allocate them to Small programs.
- A summary of the recommended Medium proposals will be provided by the Chairs at the beginning of the Executive Committee meeting.

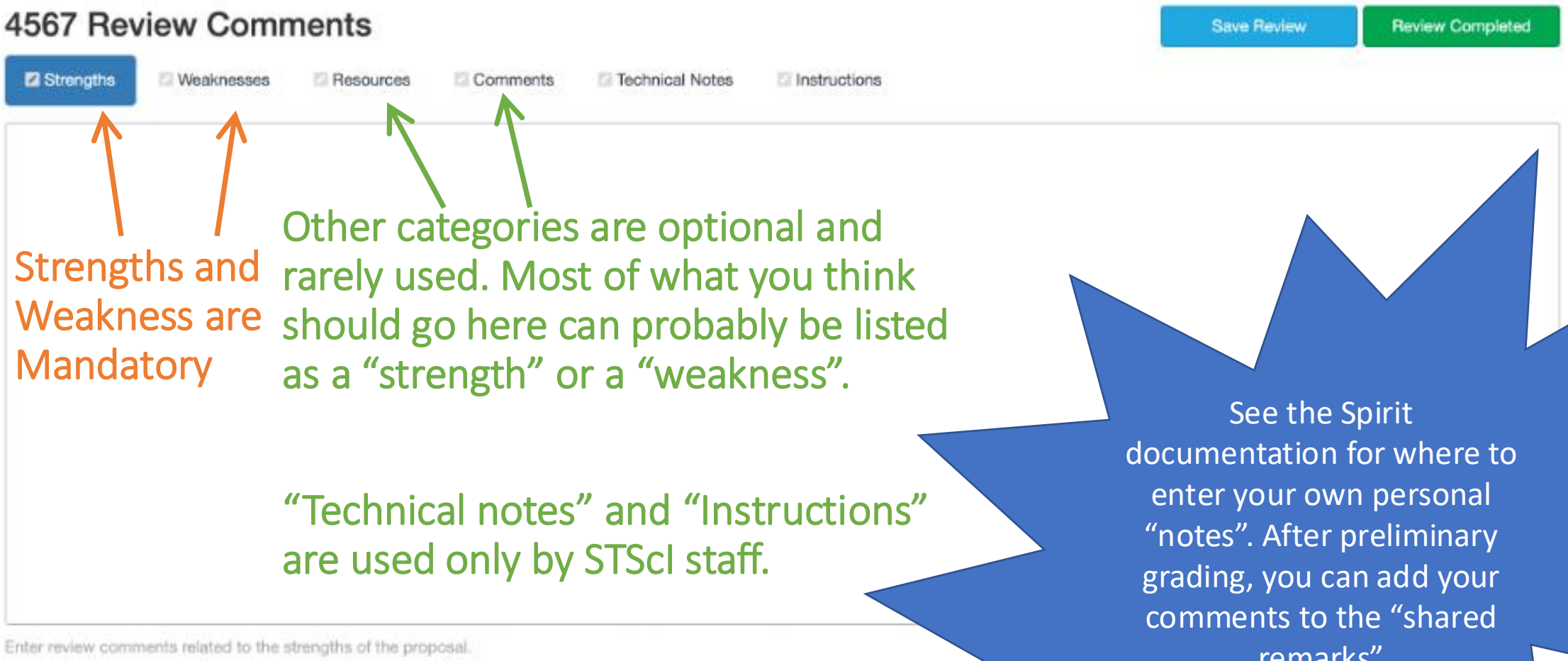
Proposal De-anonymization and Team Expertise Review

- After the ranking has been finalized and is frozen, the proposals above the 1*N* line are de-anonymized and panels will review the Team Expertise description for each recommended proposal.
- If necessary, the panel may express concerns about insufficient expertise, which will be recorded and communicated with the Director.
- Any concerns will not change the ranking of the proposals in the panel but may affect the Director's decision to accept a particular proposal.
- Even if no concerns are raised, this process is in place to alleviate community anxieties about the dual anonymous review process.

Proposal Comments

- Comments are required for **all** proposals (including triaged proposals).
- Final comments may be entered after the meeting finishes; expect to spend time after other work has completed working on the comments as a group.
- The deadline for panel members to enter comments is Friday June 26, 2026 and for Chairs to review and approve comments is Tuesday June 30, 2026.
- Primary reviewer is responsible for writing the comments; add any comments arising from the discussion to produce a final set of comments for each proposal.
- Don't make up reasons for rejection – if a proposal was good, but just didn't quite make the cut, then say so. Be particularly careful near the allocation boundaries. Use *Mandatory* comments only to exclude targets [e.g. duplications] or to reduce observing time allocation. All other comments are *advisory*.
- Do not use any generative AI programs (e.g., ChatGPT) to assist in writing comments.
- BE THOUGHTFUL. People put a lot of effort into writing these proposals, and you have put a lot of effort into reviewing them. Let your comments reflect that effort.

Proposal Comments: Practical Instructions



See the Spirit documentation for where to enter your own personal “notes”. After preliminary grading, you can add your comments to the “shared remarks”

Proposal Comments: Detailed Instructions

- Proposal feedback comments should be concise.
- Please avoid asking questions in the comments.
- The reports should focus on the scientific content and not the reviewer.
- Comments that may be perceived as derogatory or insulting must be avoided.
- Reviewers cannot be sure at the time of writing feedback comments whether the proposal will be accepted (even if it is “above the line”). The comments should be phrased in such a way that they are sensible and meaningful regardless of the final outcome.
- Reviewers should 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 there were others that were more compelling.
- 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.
- Please do not use generative language AI (e.g. ChatGPT) to write your comments.

For more information: https://hst-docs.stsci.edu/hsp/hubble-space-telescope-peer-review-information/reviews-grades-comments/proposal-feedback-comments

Executive Committee Proposals

Panelists are asked to comment on a subset of the Executive Committee proposals:

- Panel Chairs and Vice Chairs will be reviewing Large and Treasury proposals as part of the Executive Committee. Some of these proposals will be aligned with your panel; others will be from other fields.
- The Panel Chair and Vice Chair will solicit feedback from the panel on the subset of proposals they have been given to review. This process allows more scope for specialist commentary, informing the Chairs and aiding discussion in the Executive Committee meeting.
- Closer to the review, your panel chair will be in touch with how they plan to solicit feedback. Often, this is a group discussion amongst the panel members. Same rules apply for conflict of interest as with panel proposals.

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 an active participant in the discussions, but do not interrupt others or talk over others.
- Keep comments succinct and to the point, thus giving everyone the opportunity to contribute to the discussion.
- Be polite and professional in your written feedback comments, *especially* when providing critical comments.
- Hubble 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.

Please report any violations of the code of conduct to your SPD manager, your PSS, and/or your Chair.

Conflict of Interest

Our goal is informed, impartial discussion of each proposal:

- Voting panel members should have neither direct nor indirect interest vested in the outcome of the review
- The subset of the review panel discussing the proposal should have sufficient knowledge to assess the science

Anonymizing proposals 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
  - On directly competing proposals
- Institutional conflicts are **not** considered
- Panelists may flag additional conflicts during the meeting
  - Please raise any such concerns with PSS and SPD members
  - Do **not** identify the potential cause to other panelists

Conflict of Interest

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

Conflict of Interest: Procedures During Panel Review

- Complete the Conflicts of Interest Disclosure form before reviewing proposals
- Panel Chair (aided by Panel Support Scientist) is responsible for checking conflicts
- Do not try to guess the names of the investigators on the proposal
- In almost all cases, conflicts are already recorded in our database
- Note conflicts before discussing each proposal
- Do **not** state the nature of the conflict (e.g., *"I am a co-I on this proposal"*)

Conflicted panelists disconnect from the virtual meeting room (or go into a breakout session) and do not vote. After grading, the PSS will reinvite panelists to return.

If in doubt, ask the Science Policy Division (SPD) for clarification.

General Guidelines

- Panel Members should assume that **all instruments** will be performing nominally in Cycle 34.
- Panel Members should not modify proposals unless there is an **extremely** strong Scientific Justification
- 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 to summon 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

Confidentiality

- Remember that you should not discuss the deliberations or outcomes of the panel evaluations – now, or in the future.
- Do not post comments to Facebook, Twitter, Instagram, TikTok, etc. regarding the content or your participation in the panel meeting.
- Do not use generative language AI (e.g., ChatGPT) for *any* part of the review process.
- Individual reviews should be independent; do not consult with other panelists before the panel convenes.
- As a video-conference panelist, make sure no one with a vested interest can follow the panel discussion. (Headphones are better for audio anyhow!)
- 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.

Personnel & Logistics

Panel Personnel

Panel	PSS	SPD Manager
Executive Committee	Alex Hamanowicz	Claus Leitherer
Exoplanets	Paul Bennet	Claus Leitherer
Galaxies	Sapna Mishra	Dan D'Orazio
CGM-IGM	Avery Kim	Dan D'Orazio
SMBH	Deep Anand	Amy Jones
Solar System	Britney Whittington	Claus Leitherer
Stellar Physics	Benjamin Gibson	Dan D'Orazio
Stellar Populations	Annabella Meech	Amy Jones
Transients	Mariarosa Marinelli	Claus Leitherer

You will receive an email with the name of your Chair and Vice-Chair. The TAC chair will also be on Slack and in the Webex rooms during the meeting.

Where to Go To for Help

- Call for proposals: https://hst-docs.stsci.edu/hsp/hubble-space-telescope-call-for-proposals-for-cycle-34
- Full online documentation for the review process: https://hst-docs.stsci.edu/hsp/hubble-space-telescope-peer-review-information

Discussion Panelists

Proposals reviewed by the Discussion panels are subject to a two-stage review process: 1) asynchronous preliminary grading; and 2) the virtual review meeting.

Discussion panelists will read and grade all proposals that they are assigned, and write feedback comments for a subset of those. They also advise their Panel Chair and Vice Chair on a subset of the Large, Treasury, and Pure Parallel proposals assigned for review to the Executive Committee.

Prep Work & General Info	Preliminary Grading	Pre-Meeting	Discussion Meeting	Post-Meeting
Before May 1, 2026	May 1 - May 29, 2026	May 29-June 21, 2026	June 22-25, 2026	June 25-26, 2026
Before getting started, familiarize yourself with the review process, Hubble and its instruments, the types of proposals you will be reviewing, and who to ask for help!	During this phase, you will: • Be assigned as a Grader for a subset of the proposals assigned to your panel. • Check for and report additional conflicts of	During this phase, you will: • Prepare for the panel meeting. • Review all proposals listed for discussion, *especially those you did not read for*	The panel meets for 4 days. During this phase, you will: • Discuss proposals in turn and enter numerical scores as grades after each	During this phase, you will: • Write comments for every primary assignment (including triaged proposals). Reviewers are forbidden from

Who to Go To for Help

- **Questions? When in doubt, email your Panel Support Scientist (PSS)!**
- If you notice a potential issue with a proposal (dual-anonymous violation, conflict of interest, over page limits, etc.) report it to your PSS immediately instead of waiting for the panel review!
- Potential conflict of interest? Email your PSS.
- Problems accessing the reviewing tool, Spirit? Email your PSS.
- Questions about HST instruments and their capabilities, or technical feasibility of a proposed program? Email your PSS.
- Have unavoidable scheduling constraints during the virtual meetings? Email your Panel Chair & Vice Chair (sooner obviously better…) and cc your PSS.
- Want to give an update on your status? Email your PSS.
- Once you have access to the HST TAC Slack, that is the easiest way to get help.

Other STScI Personnel (some of whom may drop in on your panels)

- Director's Office:
  - Jennifer Lotz – Director
  - Rachel Osten – Deputy Director
  - Mercedes López-Morales – Associate Director for Science
  - Neill Reid – Multi-Mission Project Scientist
- Science Policies Division:
  - Laura Watkins – Science Policy Division Head
  - Claus Leitherer – Hubble Science Policy Lead
  - Molly Peeples – Cross-Mission Policy Scientist
  - Dan D'Orazio, Amy Jones – Hubble Science Policy Scientists
  - Alex Hamanowicz – TAC Technical Manager
  - Amber Armstrong, Brett Blacker – TAC Technical Support
- Hubble Mission Office
  - Julia Roman-Duval – HST Mission Office Head
  - Marc Rafelski – HST Mission Office Deputy Head
  - Joleen Carlberg – HST Mission Office Scientist
- Planning and Scheduling:
  - Bill Januszewski – Operations Planning Branch
- Logistics:
  - Sherita Hanna, Shemiah Smith, Victory Ramnarine, Melody Easton – Events Planning Group Staff
  - Kevin Flinn, Gary Gilbert - IT Technologist (in charge of all things A/V, Webex, etc.)

NASA and ESA Personnel (some of whom may drop in on your panels)

- NASA:
  - **Jennifer Wiseman** – Hubble Senior Project Scientist, NASA GSFC
  - **Ken Carpenter** – Hubble Operations Project Scientist, NASA GSFC
  - **Andrew Ptak** – Hubble Deputy Operations Project Scientist, NASA GSFC
  - **Doris Daou** – Hubble Program Scientist, NASA HQ

- ESA:
  - **Chris Evans –** Head of the ESA Office at STScI and Hubble Project Scientist for ESA, STScI
  - **Paule Sonnentrucker –** ESA Hubble Mission Manager, STScI

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 last year's survey: we value your input!! (You might like to make notes as go through to remind you.)

Reminders

- Check for conflicts; report any to your Panel Support Scientist (PSS) *immediately*
- Report any possible policy violations (DAPR, page limits, format) to your PSS as soon as you notice them!
- Schedule enough time in the next few weeks to **review and grade your assigned proposals by the deadline of Friday, May 29, 2026**
- Minimize scheduling conflicts during the panel meeting (June 22-25), and notify the Panel Chair of any remaining conflicts
- Later, but before the TAC panel meeting: read through all proposals that will be discussed and Executive Committee (EC) proposals
    - EC proposals can be found in the “Download Panel Files”

Thank you!

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

Back Up

GO Proposals Information (780 proposals for 20,487 orbits)

Type	Proposals	HST Orbits
Very Small (1-15 orbits)	354	2,747
Small (16–34 orbits)	265	6,357
Mediums (35–74 orbits)	120	6,281
Large (75+ orbits)	41	5,102
Treasury	8	1,055
Pure Parallel	0	0
ESA	207	5,453

Statistics provided by Aleksandra Hamanowicz

Archival Research Requests (74 total)

Archival Research	# of Proposals
Regular	48
Theory	26
Cloud Computing	3
Data Science Software	6

Statistics provided by Aleksandra Hamanowicz

Joint Observatory Requests

Observatory	Proposals	Partner Time	HST Orbits
Chandra	6	444 ksec	116
JWST	44	643.5 h	1,186
NOIRLab	14	24 nights	350
NRAO	4	71 h	72
TESS	2		69
XMM	12	683 ksec	187

Statistics provided by Aleksandra Hamanowicz

Targets of Opportunity Requests

	Proposals	Activations
Ultra Disruptive	6	6
Disruptive	18	23
Non-Disruptive	21	64
Flex Day	2	20

(Some proposals are in multiple categories)

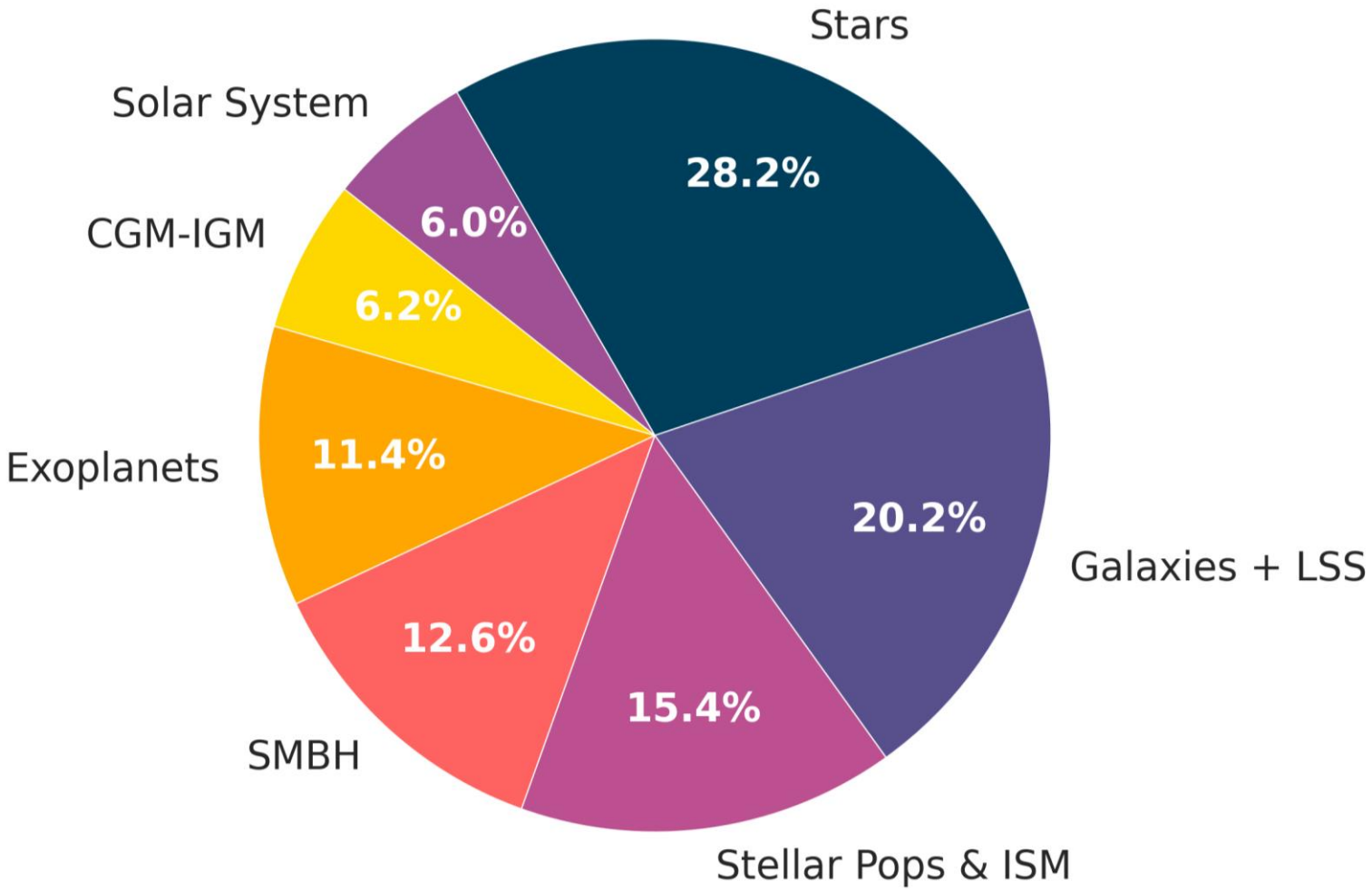
Statistics provided by Aleksandra Hamanowicz

Special Initiatives

Initiative	Proposals	HST Orbits
UV Initiative	344 GO + 25 AR	10,410
Long-Term Monitoring	18 GO	779
Cloud Computing	3 AR	-
Data Science Software	6 AR	-
Calibration	1 GO + 1 AR	25
Hubble-Roman	18 GO + 3 AR	713
HWO	3 AR + 38 GO	1,850

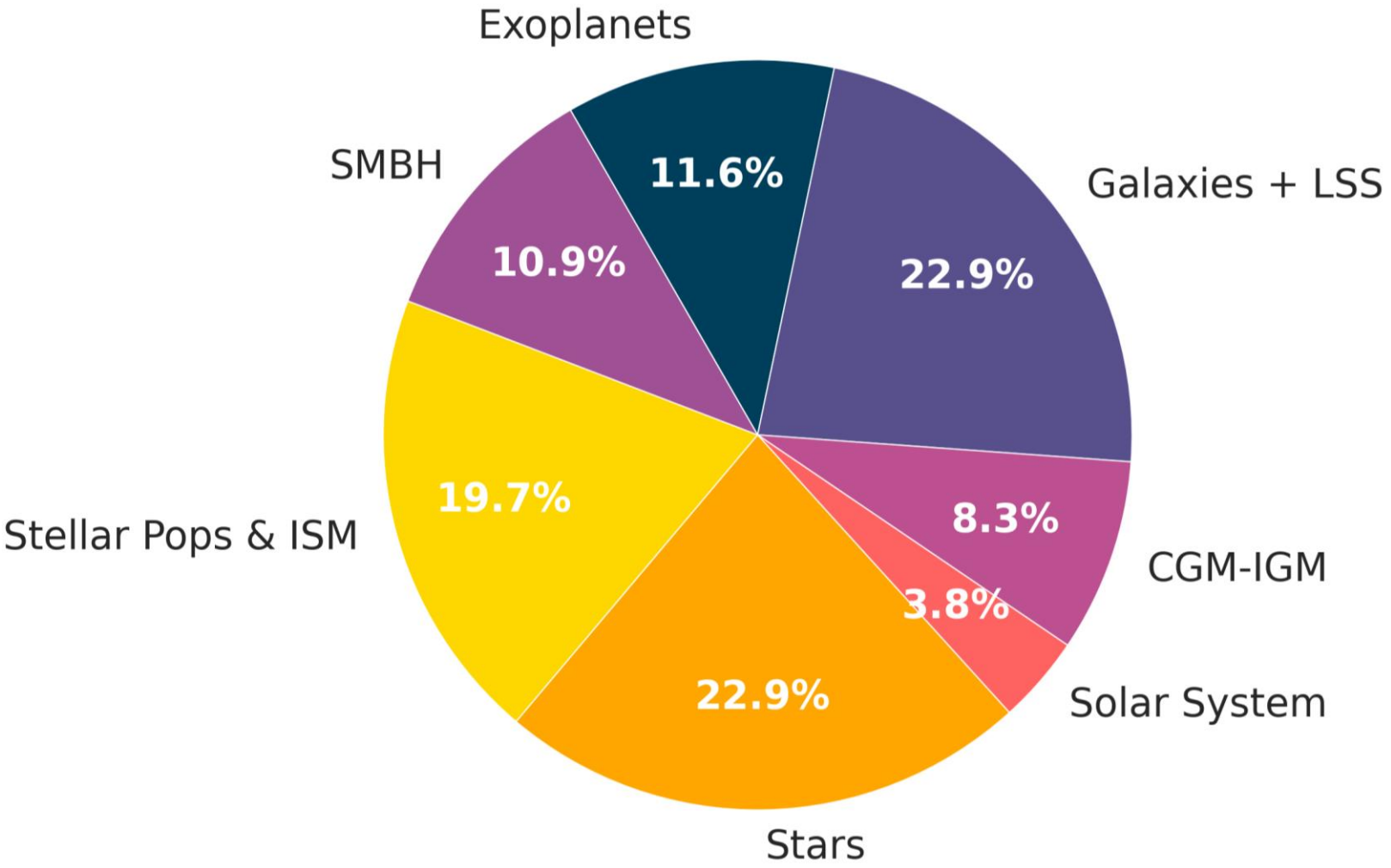
Statistics provided by Aleksandra Hamanowicz

Science Categories for Proposals



Statistics provided by Aleksandra Hamanowicz

Science Categories for Orbits



Statistics provided by Aleksandra Hamanowicz

Close Collaborators

Who qualifies as a close collaborator?

- **Active** collaborator on a current research program (including Cycle 34 HST proposals)
- **Active** co-author on 3 or more papers in last 3 years
  - i.e. more than a participant in a large project (e.g. SDSS)
- **Active** collaborator on several recent programs
  - Pre-pandemic, this was ~3 projects in last ~3 years; adjust accordingly.

Key question: would I or my personal research benefit (or would there be an *appearance* of benefit) if this proposal is accepted?

If the answer is yes, then there is a conflict

Duplication Policy

- To maximize observing efficiency, later-cycle GO programs may not duplicate observations in current or past GO programs; duplicate targets will be disallowed or embargoed unless justified scientifically.
- Duplications are defined as *same target or field, same instrument and mode, similar spectral range, similar exposure time*.
- ***Consult SPD staff if in doubt***.
- The PI is responsible for noting duplications. Panels should approve duplications explicitly (in comments) or observations can be disallowed.
- Same-cycle duplications: avoid duplicate targets within and between panels. No “forced collaborations” allowed.
- STScI will check accepted proposals for duplications.