

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

HST Cycle 31 Virtual Panelist Orientation https://hst-docs.stsci.edu/hsp/hubble-space-telescope-science-policies-group-and-peer-review-information

Claus Leitherer on behalf of the STScI Science Policies Group June 12, 2023



Today's Orientation

- 1. Welcome from the STScI Director, Nancy Levenson
- 2. Time Allocation Committee Orientation
 - Overview
 - What happens before the panels meet
 - Includes overview on the Dual Anonymous Peer Review by Laura Watkins (Hubble Science Policies Group)
 - What happens during the panel meetings
 - Policy Issues
 - Personnel and Logistics
- 3. Hubble Observatory and Instrument performance update from John MacKenty (HST Mission Office)

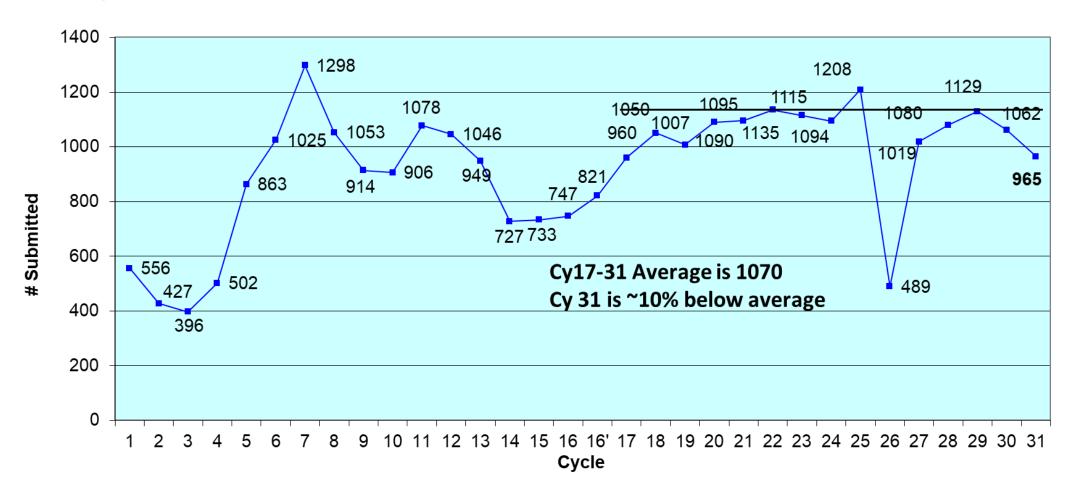


Your participation is crucial to maximizing the science from Hubble

- The Hubble Cycle 31 TAC review is supported by 340 panel members, including 234 external panelists and 106 virtual panelists.
- This is a *community* process: you have 965 proposals to review, from 3676 total 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.



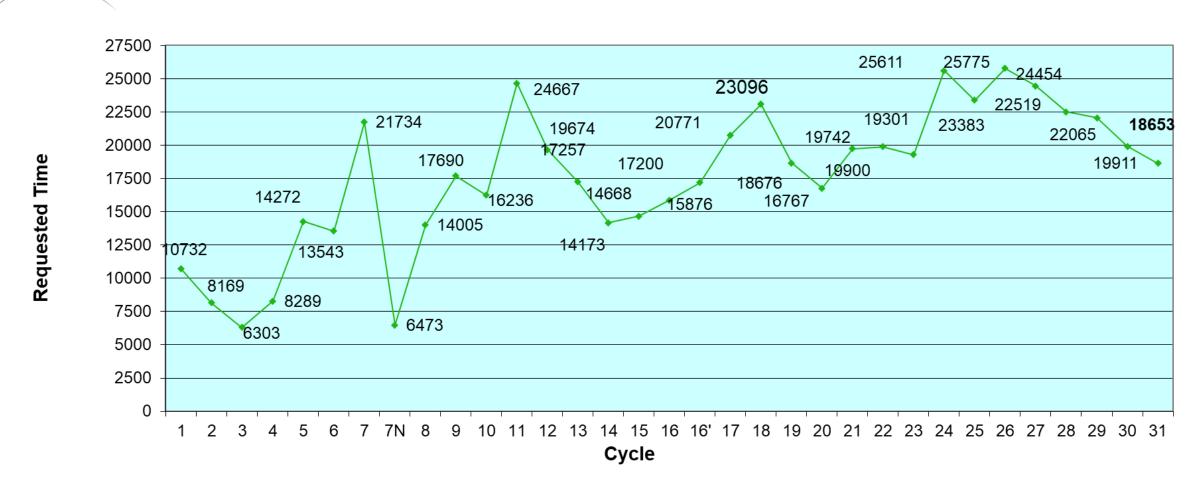
Cycle 31 Proposal Submissions



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



Cycle 31 Orbit Requests



Backup slides include more detailed submission statistics

Cycle 31 Proposal Review Schedule

Date	Milestone		
May 24, 2023	Cycle 31 Proposal Deadline		
June 7, 2023	STScI releases proposals to panelists for review		
June 12, 2023	Orientation meeting for Virtual panelists		
July 14, 2023	Deadline for Virtual panelists to submit preliminary grades for their assigned proposals		
July 17, 2023	STScI sends each Virtual panelist the list of proposals to be discussed by their panel		
August 1 – 4, 2023	Virtual panels meet		
August 7 – 9, 2023	Executive Committee meets		
August 21, 2023	STScI releases the Cycle 31 Science Program		



Useful Definitions

- Virtual panels/panelists: eight panels meeting virtually, and <u>discussing</u>, <u>grading</u>, <u>ranking</u>, and <u>providing written feedback on</u> proposals in their respective science categories. Pre-pandemic, these panels physically met at STScl.
- External panels/panelists: seven panels (none for Solar System) grading and providing written feedback on a subset of small, archival, and snapshot proposals. Their grades are used by STScI to generate a rank-ordered list of proposals in each science category.
- Expert reviewers: experts who provide <u>written input</u> for the largest proposals but are not members of the TAC.
- Executive Committee: the panel <u>discussing</u>, <u>grading</u>, <u>ranking</u>, and <u>providing</u>
 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: Rupali Chandar (University of Toledo)
- Since Cycle 28, we have followed a hybrid approach, with each of eight scientific categories having a corresponding topical panel divided into external panels and virtual panels. In addition to reviewing proposals, the virtual panels advise the Panel Chair and Vice-Chair on Large, Treasury, and AR Legacy proposals for review by the Executive Committee.
- The Executive Committee, led by the TAC Chair, is comprised of the At-Large members (3), the Panel Chairs (8), and the Panel Vice-Chairs (7). The Executive Committee reviews the Large, Treasury, and AR Legacy programs and reviews the overall programmatic balance.

Virtual versus External Panels

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

External panels provide the assessment and grading of a subset of Small GO proposals (1 - 15 orbits) including Snapshot and Archival proposals.

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

<u>Virtual panels</u> 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 Solar System and all Small/Medium Target of Opportunity proposals will be reviewed by the virtual panels. All small and medium observing proposals for LSS and IGM/CGM will be reviewed by the virtual panels.

You are a virtual panelist.



Panels and Associated Science Categories

Topical panels have these science categories:

- Solar System: all bodies in our solar system (virtual panel only)
- Exoplanets and Planet Formation: exoplanets, planet formation, debris disks
- Stellar Physics: cool + hot stars, late stages, low-mass stars, star formation, supernovae
- Stellar Populations: Resolved stellar populations in galaxies, Milky Way structure, star clusters, ISM in Local Group galaxies
- Galaxies: stellar content of galaxies, ISM in other galaxies, dynamics, galaxy evolution
- Circum- and Intergalactic Medium: galaxy outflows, galaxy halos, IGM, quasar absorption lines
- Supermassive Black Holes: AGN, quasars, SMBH, jets, galaxy/BH co-evolution
- Large-scale Structure: cosmology, lensing, galaxy clusters, surveys, deep fields



Types of Proposals

- Regular General Observer (GO): Regular observing proposals.
- Snapshot (SNAP): Observing proposals of relatively short, easy to schedule observations. Usually surveys requesting 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. All archival
 proposals are externally reviewed (except "Legacy" AR proposals, which generally
 require more resources; Solar System AR are in the virtual panel).
 - 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/hsp/hubble-space-telescope-call-for-proposals-for-cycle-31/hst-proposal-categories



Special Categories of Proposals

- Joint Proposals: programs in which HST science is the prime science, but multiwavelength 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.
- Long-term: Proposals requesting time for both this cycle and in the future (up through Cycle 33). 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/hsp/hubble-space-telescope-call-for-proposals-for-cycle-31/hst-proposal-categories



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. These proposals should
 also provide an analysis plan for the archival work.
- This flag is new this cycle, so 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.



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/hsp/hubble-space-telescope-call-for-proposals-for-cycle-31/hst-observation-types



Special Categories of Observations

In general, if it looks like a proposal is requesting something special (e.g., being in the "continuous viewing zone"), 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-31

The Review Process: before the panels meet



Virtual Panel Reviews of Small and Medium Proposals

Step 1: Preliminary grading

- Each proposal has 6 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.



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/hsp/hubble-space-telescope-science-policies-group-and-peer-review-information/reviews-grades-comments/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 are more than 4 weeks between now and the deadline (Friday, July 14, 2023). 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.



Selection Criteria

- Impact within the sub-field: 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: The necessity for HST observations or relevance to HST science. 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?

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-science-policies-group-and-peer-review-information/reviews-grades-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 subfields	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-science-policies-group-and-peer-review-information/reviews-grades-comments/selection-criteria-and-scoring-system STSCI SCIENCE INSTITUTE



Dual Anonymous Review

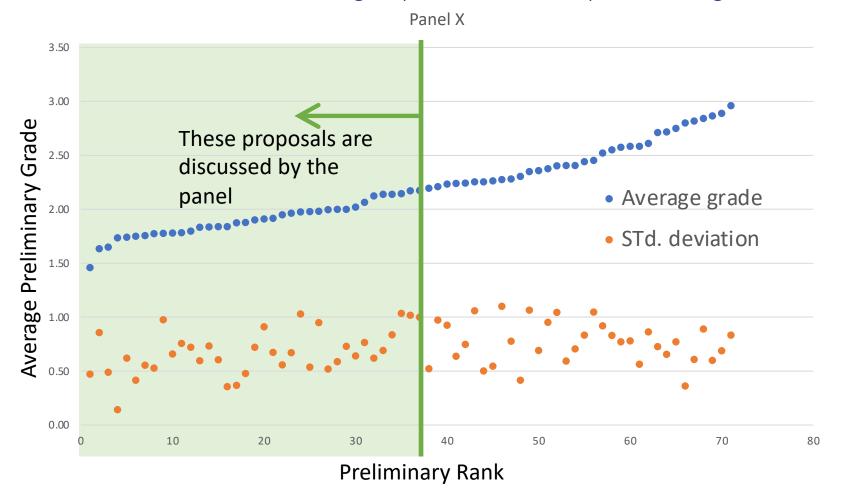
- In a Dual Anonymous Review, the identities of the proposal teams have been removed from the proposals prior to the preliminary review.
- During all stages of the panel review process, reviewers grade and rank proposals without knowing the identities of the proposal teams.
- Panelists should flag any proposals they identify as not compliant with the
 posted Dual Anonymous Review guidelines and bring them to the attention
 of the Science Policies Group (email your Panel Support Staff and your
 Science Policies Group Manager; you were emailed these names previously,
 and they are at the end of this presentation). SPG 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 Monday, July 17, 2023. 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.

The Review Process: during the panel meetings



The Panel Meetings

The subject panels will meet virtually via BlueJeans Tuesday, August 1 through Friday, August 4.

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
 - Panelists should follow the code of conduct
- Panel Support Scientist (PSS) monitors SPIRIT, produces ranked lists, answers questions, or summons STScI staff experts, as needed
- Leveler has 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 Group (SPG) 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

- Later this week, you will be invited to the Hubble TAC Slack Team. Please accept and join! 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.
- Each panel will have its own channel in BlueJeans. Connection information will both be emailed to you and posted to Slack.
 - Your PSS will organize a BlueJeans check for your Panel in advance of the meeting. *Please* join if you can, even if you have used BlueJeans before. Also, a chance to say hi!
 - There exists a BlueJeans app for phones and tablets, and international call-in numbers in case of loss of connectivity. Best to be prepared...
- Do not discuss individual proposals within the panel channels in Slack.
- Read through https://hst-docs.stsci.edu/hsp/hubble-space-telescope-science-policies-group-and-peer-review-information/blue-jeans-and-slack-guidelines in advance of the meeting



The Panel Meeting -- Overview

- 1. Panels discuss and re-grade each proposal.
- 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, AR Legacy) 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. Everyone 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 Staff generates an initial ranked list.
- 3. The panel then discusses and agrees on a final ranked list of programs that encompasses at least $2 \times N$ 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 1N 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 1N 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 1N line.
- Thereafter, Medium orbits of additional Medium proposals above the 1N line **must** come out of the Small orbit pool.
- If the Medium proposals above the 1N 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 1N 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 <u>all</u> 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 August 9, 2023 and for Chairs to review and approve comments is August 12, 2023.
- 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*.
- 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

4567 Review Comments Strengths Weaknesses Resources Comments Technical Notes Instructions Other categories are optional and rarely Strengths and used. Most of what you think should go

Weakness are Mandatory

here can probably be listed as a "strength" or a "weakness".

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".

Save Review

Review Completed



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.

For more information: https://hst-docs.stsci.edu/hsp/hubble-space-telescope-science-policies-group-and-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, Treasury, and Archival Legacy proposals as part of the Executive Committee.
- Some of these proposals will be quite topical to 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.
- All Executive Committee proposals have also been sent to expert reviewers for comments. These comments are made available to all non-conflicted EC members assigned to each proposal, i.e., your input will not be all the panel has to go on.





Code of Conduct

All participants in the proposal review process are expected to:

- Be mindful of bias in all contexts.
- 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 nonnative 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 SPG manager, your PSS, and/or your Chair.

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Conflict of Interest

Our goal is informed, unbiased 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 SPG members
 - Do **not** identify the potential cause to other panelists

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 <u>not</u> 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 Policies Group (SPG) for clarification.



General Guidelines

- Panel Members should assume that all instruments will be performing nominally in Cycle 31
- 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 STScl
 - STScI will perform a technical review on all accepted proposals and will work with successful Pls 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 outcome 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.
- 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	SPG Manager	Panel Support	email	Leveler
Solar System	Brett Blacker	Wilson Joy Skipper	wskipper @stsci.edu	TBD
Exoplanets	Claus Leitherer	Chris Clark	cclark@stsci.edu	TBD
Stellar Physics	Claus Leitherer	Shelley Meyett	meyett@stsci.edu	TBD
Stellar Populations	Andrew Fruchter	Justin Pierel	jpierel@stsci.edu	TBD
Galaxies	Laura Watkins	Amanda Pagul	apagul@stsci.edu	TBD
CGM & IGM	Andrew Fruchter	Gagandeep Anand	ganand@stsci.edu	TBD
Supermassive BH	Claus Leitherer	Bhavin Joshi	bjoshi5@jhu.edu	TBD
Large-scale Structure	Claus Leitherer	Calum Hawcroft	chawcroft@stsci.edu	TBD
TAC	Claus Leitherer	Brett Blacker	blacker@stsci.edu	TBD

You should have received an email with the name of your Chair and Vice-Chair. The three At-Large Members will also be on Slack and in the BlueJeans 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-31
- Full online documentation for the review process: https://hst-docs.stsci.edu/hsp/hubble-space-telescope-science-policies-group-and-peer-review-information

HST Proposal Opportunities and Science Policies / Hubble Space Telescope Science Policies Group and Peer Review Information / HST Peer Review Guide / Virtual (Discussion) Panelists

Virtual (Discussion) Panelists

Search HST Science Policy



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

Virtual 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 Legacy proposals assigned for review to the Executive Committee.

Prep Work & General Info	Preliminary Grading	Pre-Meeting	Discussion Meeting	Post-Meeting
Before April 8, 2022.	April 8 - May 13, 2022	May 17-31, 2022	June 1-3, 2022	June 4-7, 2022
Before getting started, familiarise yourself with the review process, Hubble and its	During this phase, you will: Be assigned as Primary Reviewer, Secondary	During this phase, you will: • Prepare for the panel meeting.	The panel meets for 3 days. During this phase, you will:	During this phase, you will: • Write comments for every primary
instruments, the types of proposals you will be reviewing, and who to ask for	Reviewer or Grader for a subset of the proposals assigned to your panel.	Review all proposals listed for discussion, especially those you	Discuss proposals in turn and enter numerical scores as	assignment (including triaged proposals). • Assist the primary

On this Page

- HST Proposal Opportunities and Science Policies
 - Hubble Space Telescope Call for Proposals for Cycle 30
 - > The Hubble Space Telescope Primer for Cycle 30
 - HST Phase I Proposal Roadmap
 - HST Phase II Proposal Roadmap
 - HST Cycle 29 Director's Discretionary Time Submission
 - HST Cycle 29 Mid-Cycle Time Submission
 - HST Mid-Cycle Approved Programs
 - > Hubble Space Telescope Science Policies Group and Peer Review Information
 - > HST Peer Review Guide





Who to Go To for Help

- Questions? When in doubt, email your Panel Support Staff (PSS)!
- Potential conflict of interest? Email your PSS.
- Problems accessing Spirit? Email <u>wasabi@stsci.edu</u> and/or Brett Blacker.
- Questions about HST instruments and their capabilities, or technical feasibility of a proposed program? Email your PSS and SPG Manager.
- Have unavoidable scheduling constraints during the virtual meetings? Email your Panel Chair & Vice Chair (sooner obviously better...).
- Want to give an update on your status? Email your PSS and SPG Manager.
- 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:

- Nancy Levenson Interim Director
- Marc Postman Interim Deputy Director
- Neill Reid Associate Director for Science

Science Mission Office:

- Alessandra Aloisi Science Mission Office Head
- Elena Sabbi, Laura Watkins Science Mission Office Deputy Heads
- Claus Leitherer Hubble Science Policies Lead
- Katey Alatalo, Christine Chen, Andy Fruchter, Amaya Moro-Martin, Jamila Pegues, Linda Smith Science Policies Scientists
- Brett Blacker TAC Technical Manager
- Crystal Mannfolk Deputy TAC Technical Manager

Hubble Mission Office

- Tom Brown HST Mission Office Head
- Helmut Jenkner, Julia Roman-Duval HST Mission Office Deputy Heads
- Carol Christian, John MacKenty HST Mission Office Scientists

Planning and Scheduling:

- **Bill Januszewski** - Operations Planning Branch

• Logisitics:

- Sherita Hanna, Shemiah Smith, Darlene Spencer Events Planning Group Staff
- Thomas Marufu IT Technologist (in charge of all things A/V, BlueJeans, 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
- Mike Garcia 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!!

Thank you!

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





GO Proposals Information (795 proposals for 18,653 orbits)

Туре	Proposals	HST Orbits
Small (1–34 orbits)	655	8,719
Mediums (35–74 orbits)	100	4,874
Large (75+ orbits)	40	5,060
Treasury	19	2,241
Pure Parallel	2	430
ESA	194	4,411



Archival Research Requests (127 total)

Archival Research	# of Proposals	
Regular	73	
Theory	41	
AR Legacy	13	



Joint Observatory Requests

Observatory	Proposals	Requested Time	HST Orbits
Chandra	9	648 Ksecs	111
JWST	29	219 Hours	721
NOIRLab	16	37 Nights	332+400 (PPar)
NRAO	8	158 Hours	166
TESS	1	2 Targets	88
XMM	10	701 Ksecs	172



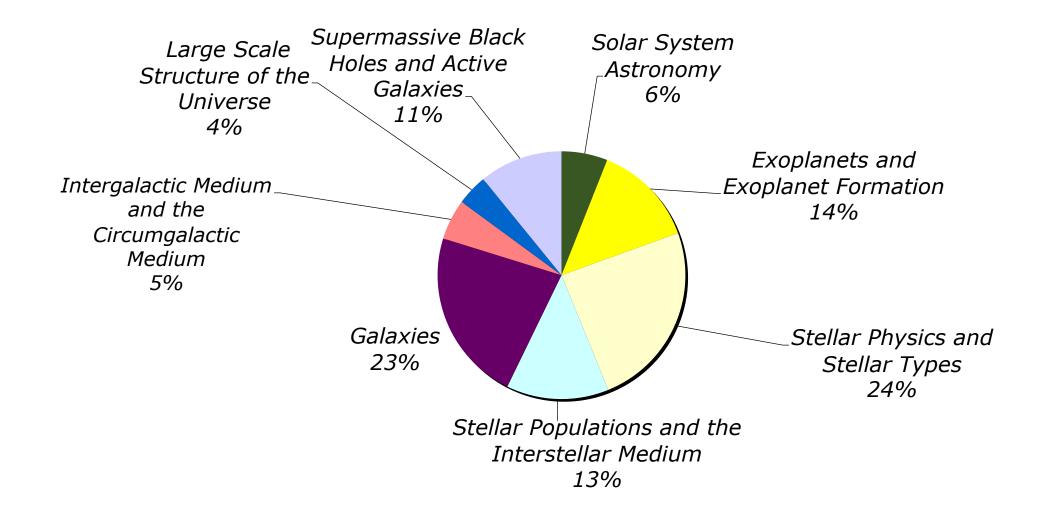
Targets of Opportunity Requests

	Activations
Ultra Disruptive	7
Disruptive	18
Non-Disruptive	46
FlexDay	37
JWST Disruptive Component	2

Initiative	Proposals	HST Orbits	
UV	296 + 40 ARs	8220	
Fundamental Physics	16 + 3 ARs	495	
Cloud Computing	3	-	
Data Science Software	4	_	
Calibration	1	8	

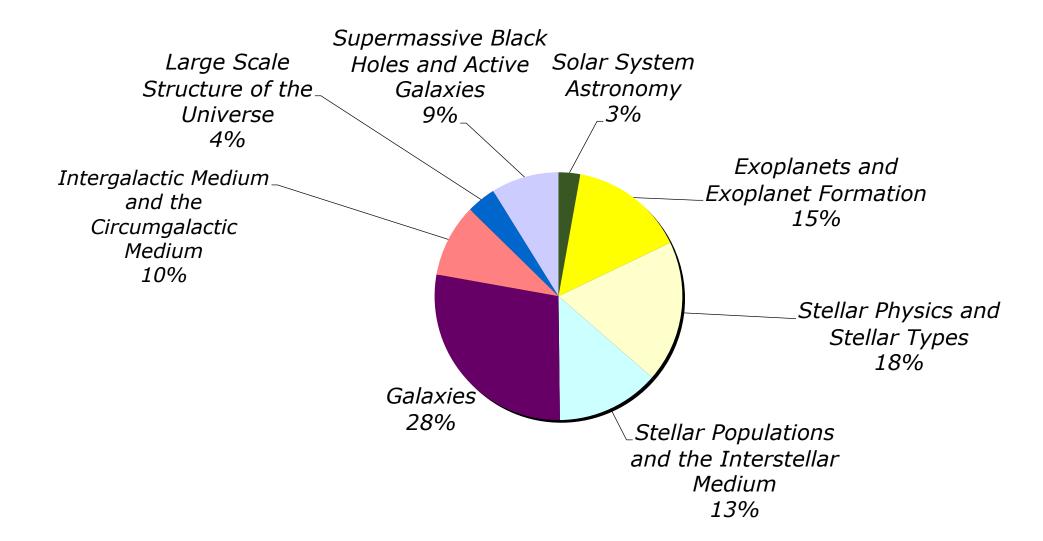


Science Categories for Proposals





Science Categories for Orbits



Close Collaborators

Who qualifies as a close collaborator?

- <u>Active</u> collaborator on a current research program (including Cycle 31 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 SPG 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.

HST TAC Summary and Agenda

- Virtual panels grade proposals <u>between now and July 14</u>.
- **Virtual panels** meet <u>Tuesday</u>, <u>August 1 Friday</u>, <u>August 4</u> between 10a and 4p EDT, with appropriate breaks inserted. Minor adjustments to accommodate time zone differences can be considered.
- Virtual panels rank
 - Small GO proposals requesting 16 34 orbits (IGM/CGM and LSS rank <u>all</u> Small proposals)
 - All Target of Opportunity proposals requesting 1-74 orbits
 - Medium GO proposals requesting 35 74 orbits
- Panel members advise the Panel Chair and Vice-Chair on Large, Treasury, and Archival Legacy proposals.
- The Executive Committee meets in person Monday, August 7 Wednesday, August 9.
- Executive Committee reviews
 - Large GO proposals (> 74 orbits)
 - Pure Parallel Proposals
 - Treasury Proposals
 - Archival Legacy Proposals
 - SNAP proposals requesting > 250 targets