

# JWST Cycle 1 Proposal Selection Process

JWST Cycle 1 proposals will be reviewed by panels of scientists from the international astronomical and planetary science communities that will make recommendations to the STScI Director.

## How STScI Conducts the Proposal Review

JWST programs are selected through competitive peer review. A broad range of scientists from the international astronomical community evaluate and rank all submitted proposals using a well-defined set of criteria and paying special attention to any potential conflicts of interest. The review panels and the Telescope Allocation Committee (TAC) offer their recommendations to the STScI Director. The STScI Director is the Selecting Official for JWST. Based on the recommendations, the Director will make the final allocation of observing time.

## The Review Panels

The review panels will consider Small GO ( $\leq 25$  hours), Medium GO (25-75 hours), Calibration GO, Survey, Regular AR, Calibration AR, Community Data Science Software, and Theory proposals. Each review panel has an allocation of a specific number of hours, depending on the overall proposal number submitted in a given area. Medium Proposals are reviewed by the panels and ranked together with the Small Proposals, but are charged differently to the panel's allocation. Each panel will be allowed (but not required) to recommend one Medium Proposal that falls above the hour allocation line at no cost to the panel's allocation total. However, any subsequent Medium Proposals that are ranked above the allocation line will be deducted from that allocation. The panel recommendations generally do not require further approval of the TAC, and scientific balance will be determined within each panel rather than by the TAC. The panels do not adjudicate Large GO ( $>75$  hours) or Treasury GO proposals, but they will send comments on those proposals to the TAC.

Panelists are chosen based on their expertise in one or more of the scientific topics covered by the panel. Each panel spans several scientific categories. In Cycle 1, we anticipate having panels covering the following areas: Solar System, Planets and planet formation, Stellar Physics, Stellar Populations (resolved) and the Galactic /nearby galaxy ISM, Galaxies and the IGM, Massive black holes and their host galaxies, and Cosmology. Examples of the topical areas covered by each panel are given in the following table:

Panel	Science topics
Cosmology	Cosmology, dark matter, GRBs, cosmic infrared background, galaxy clusters, gravitational lensing, high-z universe, deep field surveys, large-scale structure
Massive black holes and their host galaxies	AGN, QSOs, feedback mechanisms
Galaxies and the IGM	Studies of galaxies as systems including nearby galaxies, interacting galaxies, elliptical galaxies, starbursts, luminous IR galaxies (LIRGS/ULIRGS/HLIRGS), galaxy evolution, dwarf galaxies, unresolved stellar populations
Stellar populations (and the ISM)	Resolved stellar populations, gas and dust in the Galactic interstellar medium and in nearby galaxies, H II regions, star clusters, star forming regions
Stellar physics	Studies of individual stars including massive stars, YSOs & protostars, evolved stars, compact objects, cool stars, brown dwarfs
Planets and planet formation	Exoplanets, debris disks, protoplanetary disks
Solar system	Trans-Neptunian objects, asteroids, comets, planets, moons

Within a panel, proposals are assigned to individual expert reviewers based partly on the keywords given in the proposal and partly on analysis of the proposal text. The Science Mission Office at STScI reserves the right to re-classify proposals.

## The Telescope Allocation Committee

The TAC will include the TAC chair, the panel chairs from all panels, and three at-large members to ensure broad expertise across the full range of scientific categories. The primary responsibility of the TAC is to review Large GO and Treasury GO programs, and any other particularly large requests of resources, and will be the arbiter of any extraordinary or cross-panel issues.

## Selection Criteria

Reviewers are instructed to focus on the science case presented in the proposal.

Evaluations of JWST proposals are based on the following criteria:

- The scientific merit of the program and its potential contribution to the advancement of scientific knowledge;

- The program's importance to astronomy in general. This should be stated explicitly in the "Scientific Justification" section of the proposal;
- The strength of the data analysis plan;
- A demonstration that the unique capabilities of JWST are required to achieve the science goals of the program.

*Additional Criteria for all GO Proposals*

- The rationale for selecting the type and number of targets: Reviewers will be instructed to recommend or reject proposals as they are and to refrain from object or hour trimming. Therefore, it is very important to strongly justify both the selection and the number of targets in your proposal, as well as the number of hours requested.
- The reasonability of requested resources.
- The technical feasibility of the project and the likelihood of success. Quantitative estimates of the expected results and the needed signal to noise ratio of the data must be provided.

*Additional Criteria for Large GO and Treasury GO Proposals*

- The level of coordination of the overall work plan and the production of appropriate databases and/or tools.

*Additional Criterion for Survey Proposals*

- Willingness to waive all or part of the exclusive access period. While this is not the primary criterion for acceptance or rejection, it can provide additional benefit to any proposal and will be weighed by the reviewers as such.

*Additional Criterion for Calibration Proposals*

- The extent to which these observations or analyses enable new types of scientific investigation with JWST and the importance of those observations.

*Additional Criteria for all Archival Proposals*

- The improvement or addition of scientific knowledge with respect to the original use of the data. In particular, a strong justification must be given to reanalyze data if the new project has the same science goals as the original proposal.
- The demands on STScI resources, including funding, technical assistance, archiving and dissemination of products.
- A well-developed analysis plan describing how the scientific objectives will be realized.
- The appropriateness of the management plan and its consistency with the funding level for the proposed category.

*Additional Criteria for Treasury GO Proposals*

- The extent to which the data products will enable additional scientific investigations and the importance of those investigations.
- The level of data products produced and plans for their timely dissemination to the community.

### *Additional Criteria for Theory Proposals*

- The extent and importance of JWST science investigations enabled by the theoretical analysis and results.
- The level of planning for timely dissemination of theoretical results, and possibly software or tools, to the community.

### *Additional Criteria for Community Data Science Software Proposals*

- The relevance of the proposed software development to JWST science investigations and/or data reduction or interpretation.
- The level of planning for timely dissemination of the proposed software products to the community.

Next: [JWST Cycle 1 Awarded Program Implementation](#)

## Related Links

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