# Cycle 31 TAC Results and Cycle 32 Preparations 

## TAC Process in Cycle 31 (1)

- Hybrid process: proposals were split between external panels and virtual panels meeting by video-conference.
- External panelists provided the assessment and grading of a subset of Small GO proposals ( $1-15$ orbits) including Snapshot and Archival proposals (except for two panels with only AR in order to balance proposal load).
- Virtual panels reviewed the remaining Small GO, Medium, Archival Legacy, Large and Treasury proposals. Virtual panelists interacted by video-conference.
- Exception - all Solar System proposals were reviewed by the virtual panel (due to the small proposal pool)


## TAC Process in Cycle 31 (2)

## Proposals reviewed by virtual group panels:

- There were eight panels, with $11-16$ members, including Chair and Vice-Chair (no Vice-Chair in Solar System).
- Each panel was allocated an allocation for Medium proposals based on orbit pressure, as well as an orbit allocation for Small proposals based on orbit pressure.
- The panel Chairs and Vice-Chairs, together with the TAC Chair and three At-Large members, constituted the Executive Committee that reviewed Large/Treasury/Legacy proposals.
- The Executive Committee met in-person the week following the virtual panel meeting.


## Cycle 31 TAC Summary Results

| Category | Requested | Approved | Percentage <br> Approved | ESA <br> Approved | ESA <br> Approved <br> Percentage |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GO Proposals | 785 | 122 | $15.5 \%$ | 20 | $16.4 \%$ |
| Snapshots | 42 | 7 | $16.7 \%$ | 2 | $28.6 \%$ |
| Archival | 74 | 21 | $28.4 \%$ | 0 | $0.0 \%$ |
| AR Legacy | 13 | 4 | $30.8 \%$ | 0 | $0.0 \%$ |
| Theory | 39 | 5 | $12.8 \%$ | 0 | $0.0 \%$ |
| Total | $\mathbf{9 5 3}$ | $\mathbf{1 5 9}$ | $\mathbf{1 6 . 7 \%}$ | $\mathbf{2 2}$ | $\mathbf{1 7 . 1 \%}$ |
| Primary Orbits | $\mathbf{1 8 , 4 3 8}$ | $\mathbf{2 , 6 1 4}$ | $\mathbf{1 4 . 2 \%}$ | $\mathbf{4 5 3}$ | $\mathbf{1 7 . 3 \%}$ |

## Oversubscription by Cycle



## Acceptance Fraction by Size



## ESA Acceptance Fraction



## Proposal Institutional Acceptance Fraction



Only shows Institutions that have $>=3$ Proposals approved

## Science Category Distribution by Orbits



## Science Category Distribution by Proposals



## Gender Success Rate by Proposals



## Gender Success Rate by Proposals



## Percentage of new PI's



## Cycle 32 Preparations

- Cycle 32 will start on $\mathbf{1 0 / 1 / 2 4}$ and end on $\mathbf{9 / 3 0 / 2 5}$
- The Cycle 32 HST TAC will have the same hybrid structure as the Cycle 31 TAC, with external panelists reviewing Small ( $<16$ orbits), SNAP and AR proposals.
- Exception: all Small and SNAP proposals in CGM/IGM and LSS will be in the virtual panel.
- There will be no external panels for Solar System and (proposed) Transients.
- All other proposals will be exclusively reviewed by virtual panels.
- The Executive Committee will meet in-person.
- The reviews will again be dual-anonymous.
- All five instruments will be offered (if operational): ACS, COS, FGS, STIS, WFC3.
- The same proposal categories as in C31 will be offered.

C31 TAC Results and C32
Preparations

## Cycle 32 Panels <br> (Small and Medium Proposals)

- Solar System Panel (major and minor planets and other bodies)
- Planets and Planet Formation Panel (Extra-solar Planets, Debris Disks)
- Stellar Physics Panel (Cool Stars, Hot Stars, Compact Stellar Objects, Resolved Star Formation, Circumstellar Matter)
- (Proposed) Transients Panel (Galactic or Extragalactic highenergy transient phenomena)
- Stellar Populations Panel (Resolved Stellar Populations, ISM)
- Galaxies Panel (Unresolved Stellar Populations and Galaxy Structure, ISM in External Galaxies, Unresolved Star Formation)
- CGM \& IGM Panel (CGM, IGM, QSO absorption lines)
- Massive Black Holes and their Hosts Panel (AGN/Quasars)
- Large-Scale Structure of the Universe Panel (Cosmology, Galaxy Clusters, Lensing, Distance Scale)


## Cycle 32 Plans (cont.)

- The TAC Chair is Margaret Hanson (Univ. of Cincinnati)
- The selection of the Panel Chairs and Vice-Chairs, and the panelists is underway.
- Each virtual panel will have 11-15 Panelists and a Chair and Vice-Chair. Solar System and (proposed) Transients will not have a Vice-Chair. The panels will meet virtually.
- The Panel Chairs and Vice-Chairs and three At-Large members will form the Executive Committee.
- The Executive Committee will meet in-person.


## Available Orbits in Cycle 32

- Up to $\mathbf{3 2 0 0}$ orbits available for Cycle 32 GOs. The Cycle 31 allocation was 2300.
- Provisional break-down:
- $\mathbf{8 0 0}$ orbits for the EC (Large and Treasury)
- $\mathbf{1 6 0 0}$ orbits for the 9 Panels (Small GO with $<35$ orbits)
- $\mathbf{8 0 0}$ orbits will be allocated for Medium proposals ( $35-74$ orbits)
- An additional 1000 Snapshot observations and 500 Pure-Parallel observations may be allocated.
- Up to $\mathbf{1 5 0 0}$ orbits available for Multi-Cycle Treasury programs
- Distribution may be adjusted based on proposal pressure.


## Tentative Cycle 32 Proposal Review Schedule

- 12/13/23: Call for Proposals release
- 03/26/24: Phase I Proposal deadline
- 04/12/24: Proposals made available to panels
- 05/10/24: Grades and reviews due from panelists
- 05/17/24: Triage results available to panels
- 05/28/24-06/05/24: Panels and EC meet
- Mid-June: Notifications sent out
- 07/17/24: Phase 2 proposal deadline
- 08/01/24: Budget submission deadline

C31 TAC Results and C32

## Backup: Details on the C31 Results

## Programs recommended by the Executive Committee

| ID | Resources | Science Category | Title |
| :---: | :---: | :--- | :--- |
| 04330 | AR | Stellar Physics and <br> Stellar Types | Unlocking the Stellar Treasure Trove: A Legacy Library of Stellar Hosts' Heterogeneities, <br> Activity, and Spectral Contributions from HST Exoplanet Data |
| 04205 | 122 | Solar System <br> Astronomy | HST-Juno Io Campaign: Connecting Volcanos to the Plasma Environment |
| 04028 | 250 Targets | Supermassive Black <br> Holes and Active <br> Galaxies | A Snapshot Survey of Sub-arcsec Dual Quasars and Lenses at z>2 |
| 04594 | 110 | Stellar Physics and <br> Stellar Types | A Legacy Far-Ultraviolet Spectral Atlas of Extremely Metal-Poor O Stars |
| 04536 | AR | Galaxies | Galactic Winds Unveiled: Leveraging Cloud Simulations with Radiative Transfer to <br> Constrain Feedback |
| 04580 | AR | Galaxies | ArchExtract: Maximizing Hubble's Archival Legacy of Slitless Spectroscopy |
| 04098 | AR | Intergalactic Medium <br> and the Circumgalactic <br> Medium | The Local Gaseous Cosmic Web |
| 04327 | 169 | Galaxies | Resolving gas, star formation and feedback in nearby galaxies with an <br> HST+JWST+ALMA Treasury |
| 04101 | 61 | Stellar Populations and <br> the Interstellar Medium | The Hubble Missing Globular Clusters Survey |
| 04625 | 88 | Stellar Physics and <br> Stellar Types | From High-Energy Particle Beam Heating in Stars to Ozone Destruction in Planets: NUV <br> Spectra as the Fulcrum for a Comprehensive Understanding of Flaring M Dwarf Systems |
| 04393 | 131 | Intergalactic Medium <br> and the Circumgalactic <br> Medium | CONTACT: Circumgalactic Observations of Nuv-shifted Transitions Across Cosmic Time |

## Medium Programs recommended by the Panels

| ID | Resources | Science Category | Title |
| :---: | :---: | :--- | :--- |
| 04412 | 47 | Exoplanets and Exoplanet <br> Formation | Hot Rock Stars: Capturing high-energy spectra of 5 M dwarfs hosting <br> terrestrial exoplanets that JWST will test for atmospheres |
| 04456 | 48 | Exoplanets and Exoplanet <br> Formation | Bridging the Gap Between Exo-Kuiper Belts and the Solar System's Zodiacal <br> Light in Support of Future NASA Exoplanet Missions |
| 04126 | 44 | Galaxies | Dust in Galactic Winds and Fountains: A Near-UV Survey of Nearby Highly <br> Inclined Starburst and Active Disk Galaxies |
| 04505 | 40 | Galaxies | Ultradiffuse Galaxies in the Virgo Cluster |
| 04510 | 42 | Galaxies | Proper Motions of Galaxies in the M81 Group: Unleashing the Full Power of <br> HST's 20-year Time Baseline |
| 04850 | 74 | Galaxies | Mega-deep UV spectroscopy of star-forming galaxies: completing the picture <br> of the extremely metal-poor massive stars underlying high-ionization UV <br> nebular emission |
| 04464 | $20+20$ | Large Scale Structure of the <br> Universe | The Origin of the Virgo Intergalactic Population |
| 04645 | 45 | Large Scale Structure of the <br> Universe | Pioneering Precision: Advancing Cosmology with the First Statistical Sample <br> of Gravitationally Lensed Supernovae |
| 04042 | 38 | Stellar Physics and Stellar Types | Hot and cool - hot companions as probes of red supergiants |
| 04694 | $30+12$ | Stellar Physics and Stellar Types | Gamma-ray burst supernovae across cosmic time |
| 04222 | 36 | Stellar Populations and the <br> Interstellar Medium | Expansion and Evolution of the Crab Nebula: A 23+ Year HST Perspective <br> Active Galaxies |
| 03988 | 50 | Supermassive Black Holes and | A Fundamental Test of Black Hole Masses: Ultraviolet Echo Mapping the <br> Multi-Scale Broad Line Gas around Quasars |

## Instrument Summary

$\left.\begin{array}{|c|c|c|c|c|c|c|c|c|}\hline & & & & & & \\ \text { Configuration } & \text { Mode } & \text { Prime \% } & \begin{array}{c}\text { Coordinated } \\ \text { Prime + } \\ \text { Parallel \% }\end{array} & \text { Total } & \begin{array}{c}\text { Instrument } \\ \text { Prime Usage }\end{array} & \begin{array}{c}\text { Carallel Usage } \\ \text { Parated }\end{array} & \begin{array}{c}\text { Pure Parallel } \\ \text { Usage }\end{array} & \text { Snap Usage }\end{array}\right\}$

## Gender Submission Statistics



## Gender Success Rate by Orbits



Preparations

## Triage Gender Distribution



## Gender Success by Science Category



## UV Initiative

Target was $40 \%$ for panels and $50 \%$ for EC Overall 35\% for UV Proposals and 47\% for orbits recommended
$\Rightarrow 78 \%$ of EC are UV Orbits
$\supset$ (total orbit request not all UV)
$\Rightarrow 1229$ of 2614 orbits recommended
$\Rightarrow 10$ of 30 ARs; 46 of 122 GOs recommended

## Target of Opportunity Proposals

$\left.\left.\begin{array}{|c|c|c|c|c|c|c|c|c|}\hline \text { ID } & \text { Orbits } & \begin{array}{c}\text { Disruptive } \\ \text { Activations }\end{array} & \text { Non-Disruptive Activations } & \begin{array}{c}\text { Flex Day } \\ \text { Activations }\end{array} & \begin{array}{c}\text { Total } \\ \text { Activations }\end{array} & \begin{array}{c}\text { Multi- } \\ \text { Cycle }\end{array} & \text { Type of ToO } & \text { Notes } \\ \hline 03943 & 4 & 1 & & & 1 & & \begin{array}{c}\text { Next Interstellar } \\ \text { Object }\end{array} & \text { within 1 week }\end{array} \right\rvert\, \begin{array}{c}\text { Next Cometary } \\ \text { Disintegration }\end{array}\right]$

## Joint JWST Proposals

29 GO Proposals were submitted for 721 HST orbits and 219 hours of JWST time.
$\Rightarrow 7$ recommended for 232 HST Orbits and 45.5 hours of JWST time

| ID | Orbits | Hours |  |
| :---: | :---: | :---: | :--- |
| 04039 | 6 | 5.08 | A multiwavelength study of protoplanetary disk ionization |
| 04205 | 122 | 4.8 | HST-Juno Io Campaign: Connecting Volcanos to the Plasma Environment |
| 04293 | 6 | 5.43 | Elucidating Jupiter's auroral processes with HST and JWST |
| 04591 | 15 | 12 | Winging the SMC: 3D Structure of the Interstellar Medium in the Tidally Distrupted Wing of the SMC |
| 04645 | 45 | 8.1 | Pioneering Precision: Advancing Cosmology with the First Statistical Sample of Gravitationally Lensed <br> Supernovae |
| 04694 | 30 | 6.8 | Gamma-ray burst supernovae across cosmic time |
| 04697 | 8 | 3.27 | Moving beyond the Milky Way: Enabling Cross-Observatory Proper Motion Determinations with HST and JWST |

## Joint Chandra Proposals

## 9 GO Proposals were submitted for 111 HST Orbits and 648 ksecs of Chandra time.

$\Rightarrow 1$ recommended for 17 HST Orbits and 104 ksecs of
Chandra time

| ID | Orbits | Ksecs |  |
| :---: | :---: | :---: | :--- |
| 3906 | 17 | 104 | Activity at the Edge |

## Joint XMM-Newton Proposals

## $\diamond 10$ GO Proposals were submitted for 172 HST orbits and 701 ksecs of XMM-Newton time

$\Rightarrow 2$ recommended for 57 HST Orbits and 105 ksecs of XMM-Newton time

| ID | Orbits | ksecs |  |
| :---: | :---: | :---: | :--- |
| 04268 | 10 | 60 | Toint HST+XMM time-resolved UV+X-ray observations of a quasi-periodically erupting X-ray source |
| 04412 | 47 | 45 | Hot Rock Stars: Capturing high-energy spectra of 5 M dwarfs hosting terrestrial exoplanets that JWST will <br> test for atmospheres |

## Joint NOIRLab Proposals

## 14 GO Proposals were submitted for 305 HST orbits and 26.32 NOIRLab nights <br> $\Rightarrow 1$ recommended

| ID | Orbits | Nights | Title |
| :---: | :---: | :---: | :--- |
| 04694 | 30 | 2 | Gamma-ray burst supernovae across cosmic time |

## Joint NRAO Proposals

## 8 GO Proposals were submitted for 166 HST orbits and 158 NRAO Hours

$\Rightarrow 1$ recommended for 8 HST orbits and 4 NRAO hours

| ID | Orbits | Hours |  |
| :---: | :---: | :---: | :--- |
| Title |  |  |  |
| 04627 | 8 | 4 | Betelgeuse: The Great Dimming Redux? |

## TESS Exoplanet Initiative

1 GO Proposal was submitted for $90+22$ HST orbits
$\Rightarrow 0$ recommended

## Cloud Computing

## 3 proposals were submitted

$\Rightarrow 1$ recommended

| ID |  |
| :---: | :--- |
| Title |  |
| 04403 | Galaxy Parallax Preparatory Science |

## Fundamental Physics

## 18 proposals were submitted: 3 AR and 15 GO for 479 orbits

$\Rightarrow 1$ GO recommended for 31 orbits

| ID | Type | Resources | Title |
| :---: | :---: | :---: | :--- |
| 04603 | GO | 31 | Extending Precision Cosmology to Early Hosts of Type Ia Supernovae via Surface Brightness <br> Fluctuation (SBF) Distances |

## Pure Parallel Proposals

2 GO Proposals were submitted for 430 HST orbits $\Rightarrow 0$ recommended

## ULLYSES Proposals

## 1 AR and 7 GO Proposals were submitted for 223

 HST orbits$\Rightarrow 1$ recommended for 110 orbits

| ID | Resources | Title |
| :---: | :---: | :---: |
| 04594 | 110 | A Legacy Far-Ultraviolet Spectral Atlas of Extremely Metal-Poor O Stars |

