

Cycle 29 TAC Results and Cycle 30 Preparations

TAC Process in Cycle 29 (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.
- **Virtual panels** reviewed the remaining Small GO, Medium, Archival Legacy, Large and Treasury proposals. Virtual panelists interacted virtually by video-conference.
- Exception – all Solar System proposals were reviewed by the virtual panel (due to the small proposal pool)

TAC Process in Cycle 29 (2)

Proposals reviewed by virtual group panels:

- There were eight panels, with 10 – 12 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, and an orbit allocation for Small proposals based on proposal and 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 by video-conference as well.

Cycle 29 TAC Summary Results

Category	Requested	Approved	Percentage Approved	ESA Approved	ESA Approved Percentage
GO Proposals	926	126	13.6%	29	23.0%
Snapshots	44	13	29.5%	4	30.8%
Archival	95	28	29.5%	0	0.0%
AR Legacy	21	5	23.8%	0	0.0%
Theory	43	8	18.6%	0	0.0%
Total	1,129	180	15.9%	33	23.7%
Primary Orbits	22,067	2,695	12.2%	421	15.7%

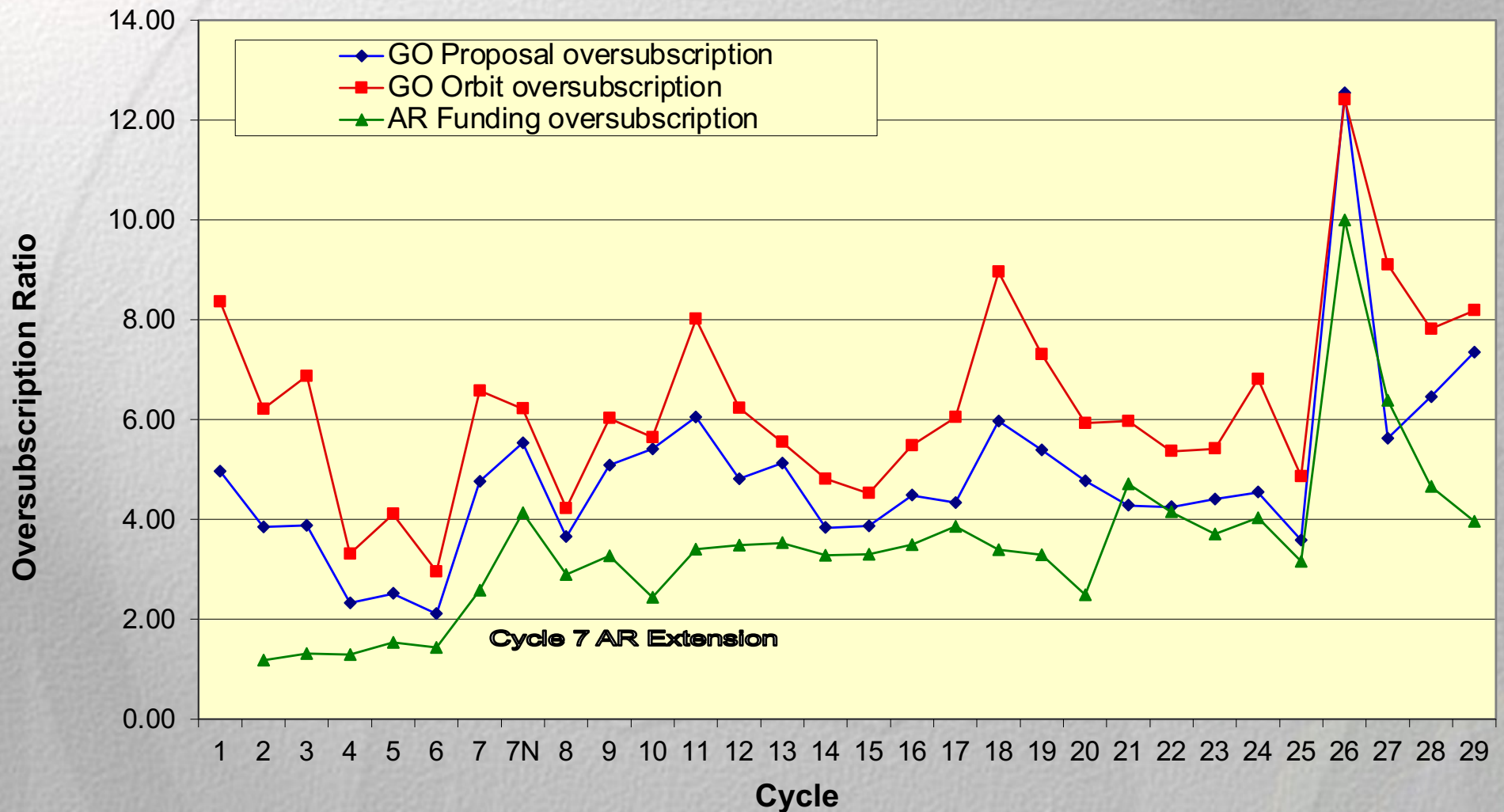
Programs recommended by the Executive Committee

ID	Resources	Science Category	Title
1555	AR Legacy	Exoplanets	Sculpting Hubble's Exoplanet Legacy: A Comprehensive Uniform Dataset of Exoplanet Transmission Spectra
1577	AR Legacy	Galaxies	Feasting on the Riches of Odysseus' Voyage
1652	99	Solar System	A combined HST and JWST study of the composition of the faintest trans-Neptunian objects: Testing hypotheses for the formation of the Solar System
1690	137	IGM/CGM	Connecting the Smoke to the Fire: Mapping Andromeda's Inner Circumgalactic Medium
1727	AR Legacy	Galaxies	SUPERCAL: Unified Reprocessing of the Large HST Cosmology Survey Fields - New Science, Archival Legacy, and Pathfinder for JWST
1758	AR Legacy	Galaxies	The LMC's Galactic Wind through the Eyes of ULLYSES
1778	AR Legacy	Galaxies	The Local Group legacy database of HST photometry
2079	195	Stellar Populations	The Panchromatic Hubble Andromeda Southern Treasury (PHAST)
2092	22 + 40 + 20	Stellar Physics	Delivering on the promise of multi-messenger astronomy
2171	110	Exoplanets	Essential Ultraviolet Stellar Characterization for Cycle 1 JWST Transiting Planet Targets
2330	118+7+7	Stellar Physics	Accreting white dwarfs as probes of compact binary evolution

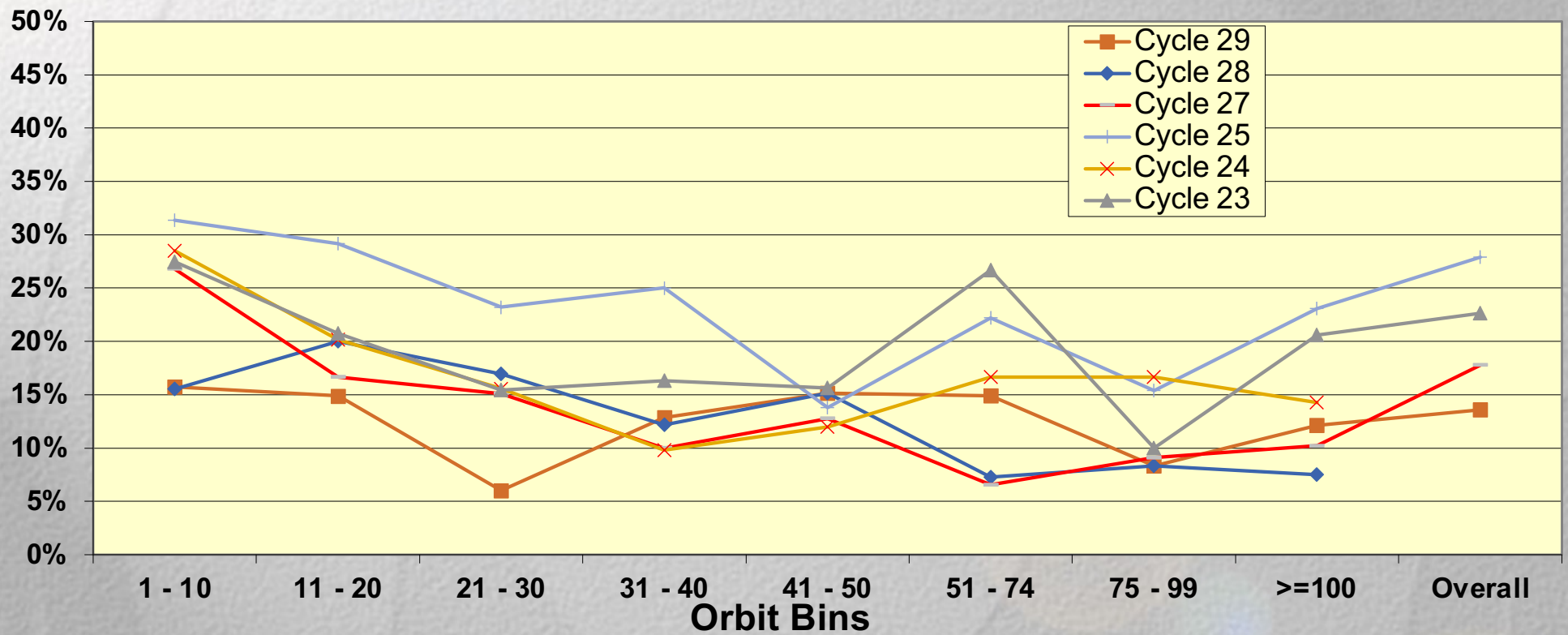
Medium Programs recommended by the Panels

ID	Resources	Science Category	Title
1438	56	Galaxies	The Final Frontier: HST and JWST Exploration of Galaxies Across Cosmic Epochs
1450	44	Galaxies	Far-UV spectroscopy of 22 early-type galaxies: testing for IMF variation and a legacy dataset
1493	20 + 20 +30	Supermassive Black Holes	The Last Gasp of the TDE Wind
1513	50	Galaxies	Peak Efficiency: Mass Assembly in a Forming Supercluster at the Peak of Cosmic Star Formation Activity
1592	46	Galaxies	Calibrating local estimators for the escape fraction of ionizing radiation 2.7Gyrs after the Big Bang
1743	71	IGM/CGM	Mainly on the Plane: Solving the Milky Way CGM Anomaly with Low-Galactic-Latitude QSOs
1785	66	Large Scale Structure	The HST/JWST Quasar Legacy Survey: Probing the Primordial Environment of Quasars and the Topology of Cosmic Reionization
1872	18 + 12 + 10	Solar System	Observing Jupiter's FUV auroras during the Juno Extended Mission
1985	55	IGM/CGM	Connecting Galaxy Black Hole Mass with the State of the Circumgalactic Medium
2031	50	Supermassive Black Holes	Shedding light on light echoes: mapping the accretion disk and broad line region in Mrk 279
2125	47	Stellar Populations	FUV-Optical Spectroscopic Mapping of the PDRs in NGC7023 and The Horsehead
2143	20 + 8 + 8	Stellar Populations	Hunting for Black Holes with Astrometric Microlensing
2177	20 + 20	Stellar Physics	Betelgeuse: An Iconic and Surprising Red Supergiant
2323	55	Stellar Physics	Using STIS ultraviolet spectroscopy to understand the physical properties, evolution, and structure of white dwarfs in sixteen newly discovered ultracompact binaries.
2387	35 + 5	Exoplanets	A comparative study of atmospheric escape in the brightest system of super-earths straddling the evaporation valley
2474	54	Galaxies	Massive Stellar Populations at Reionization Metallicities: Anchoring Stellar Population Models for the JWST Era
2504	54	IGM/CGM	Unveiling Multiphase Accretion Flows in a Sample of Truly Edge-on Galaxies

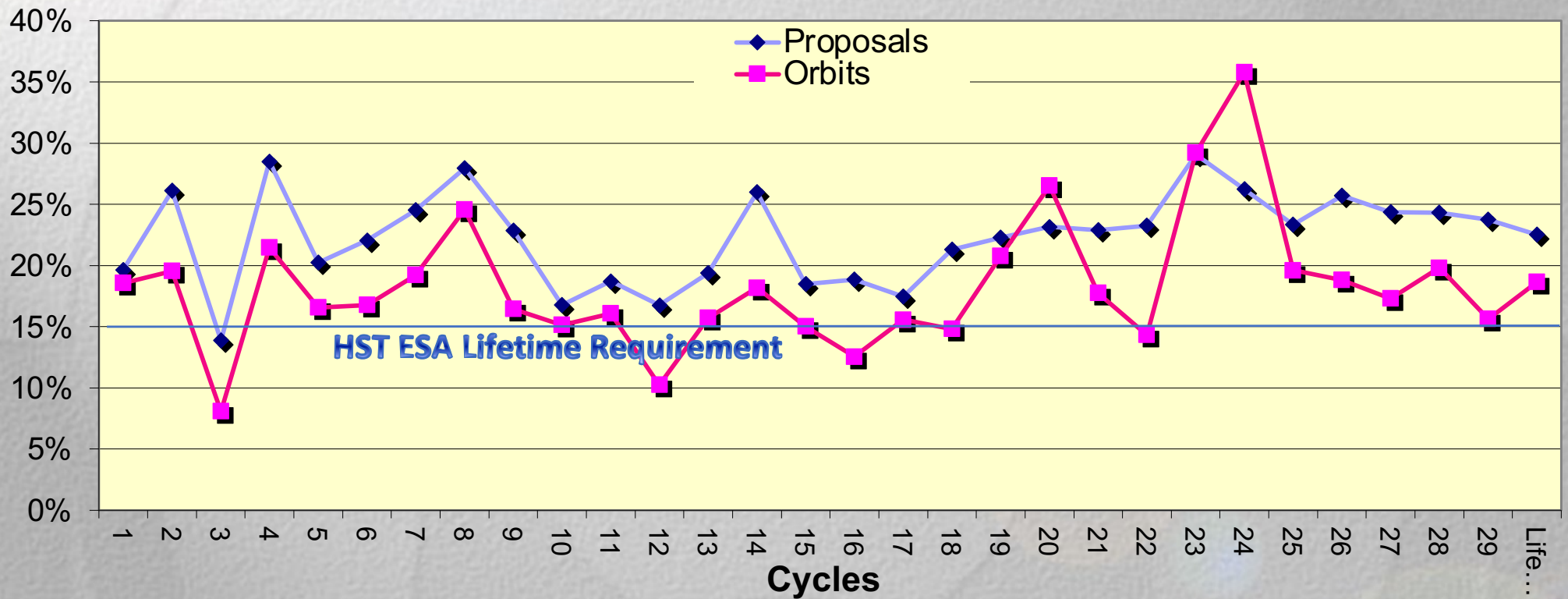
Oversubscription by Cycle



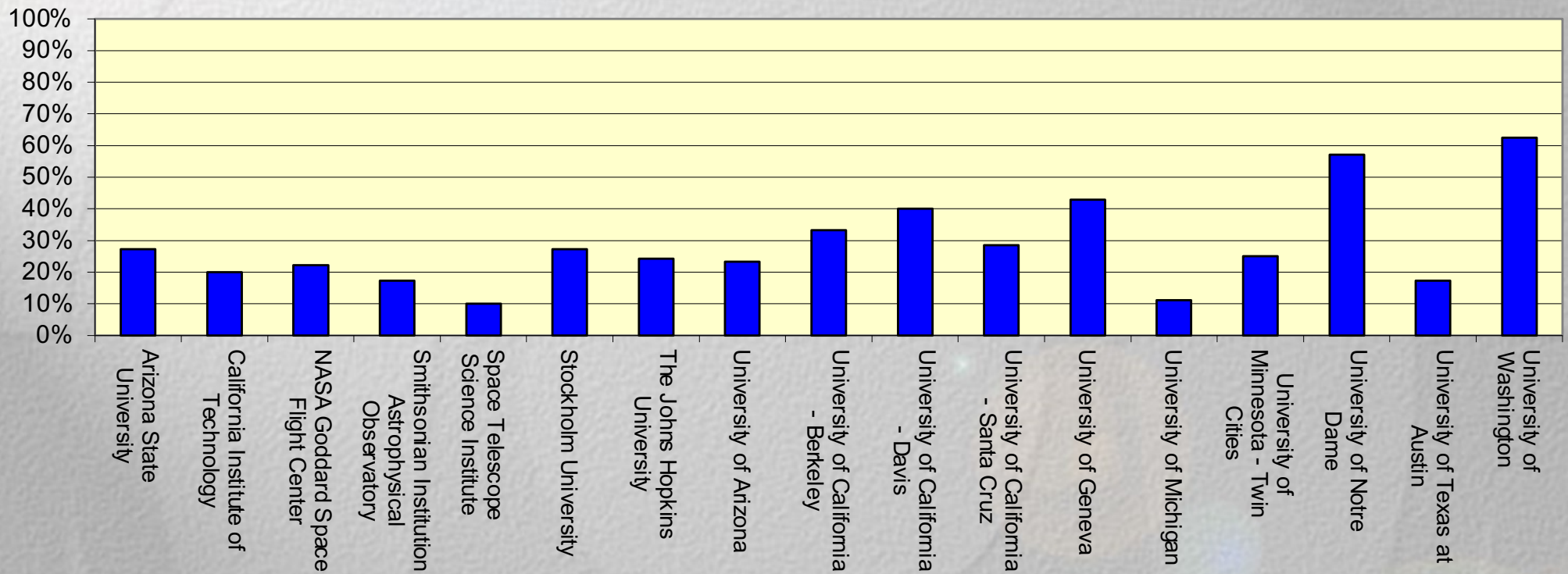
Acceptance Fraction by Size



ESA Acceptance Fraction

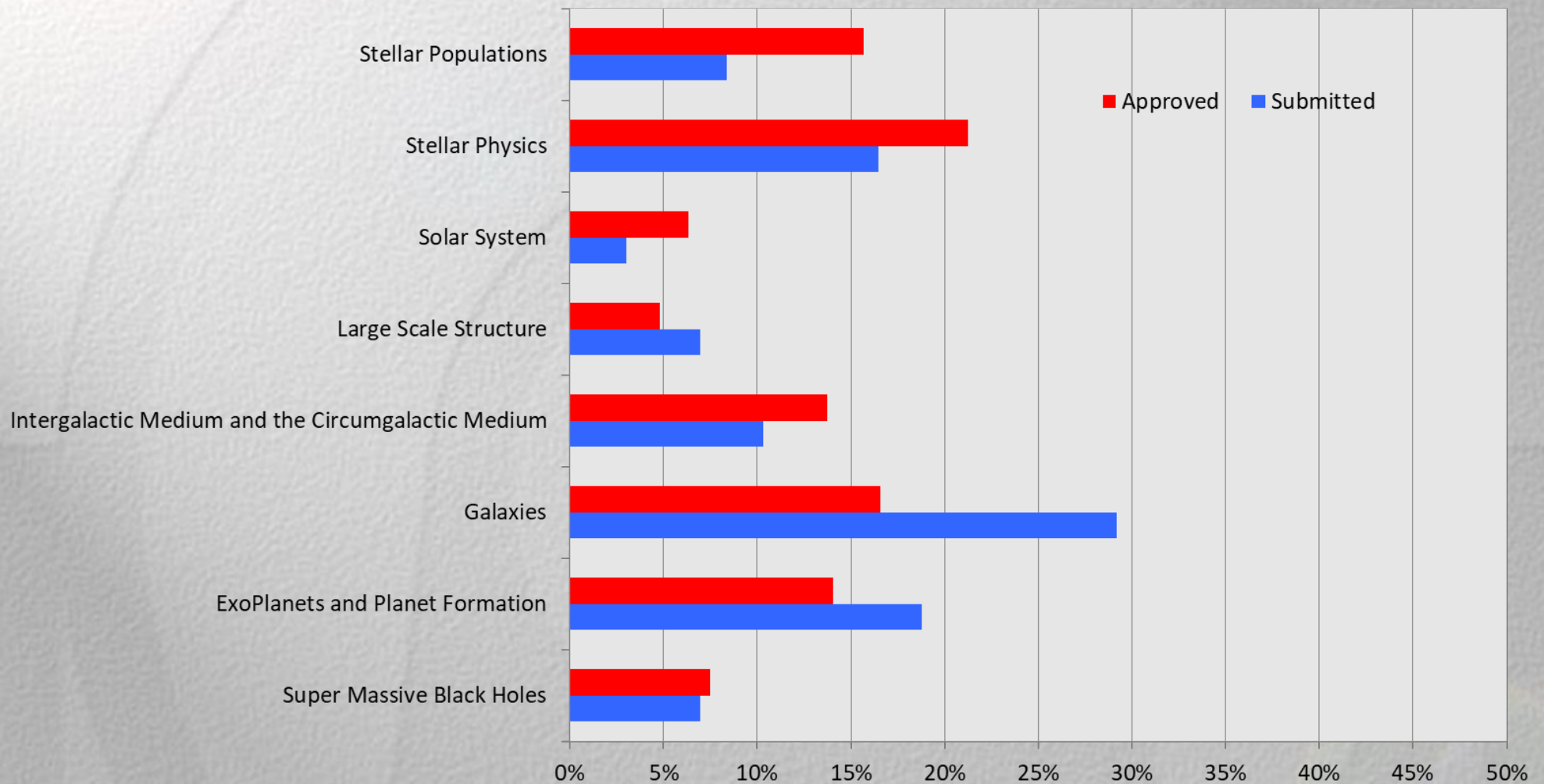


Proposal Institutional Acceptance Fraction

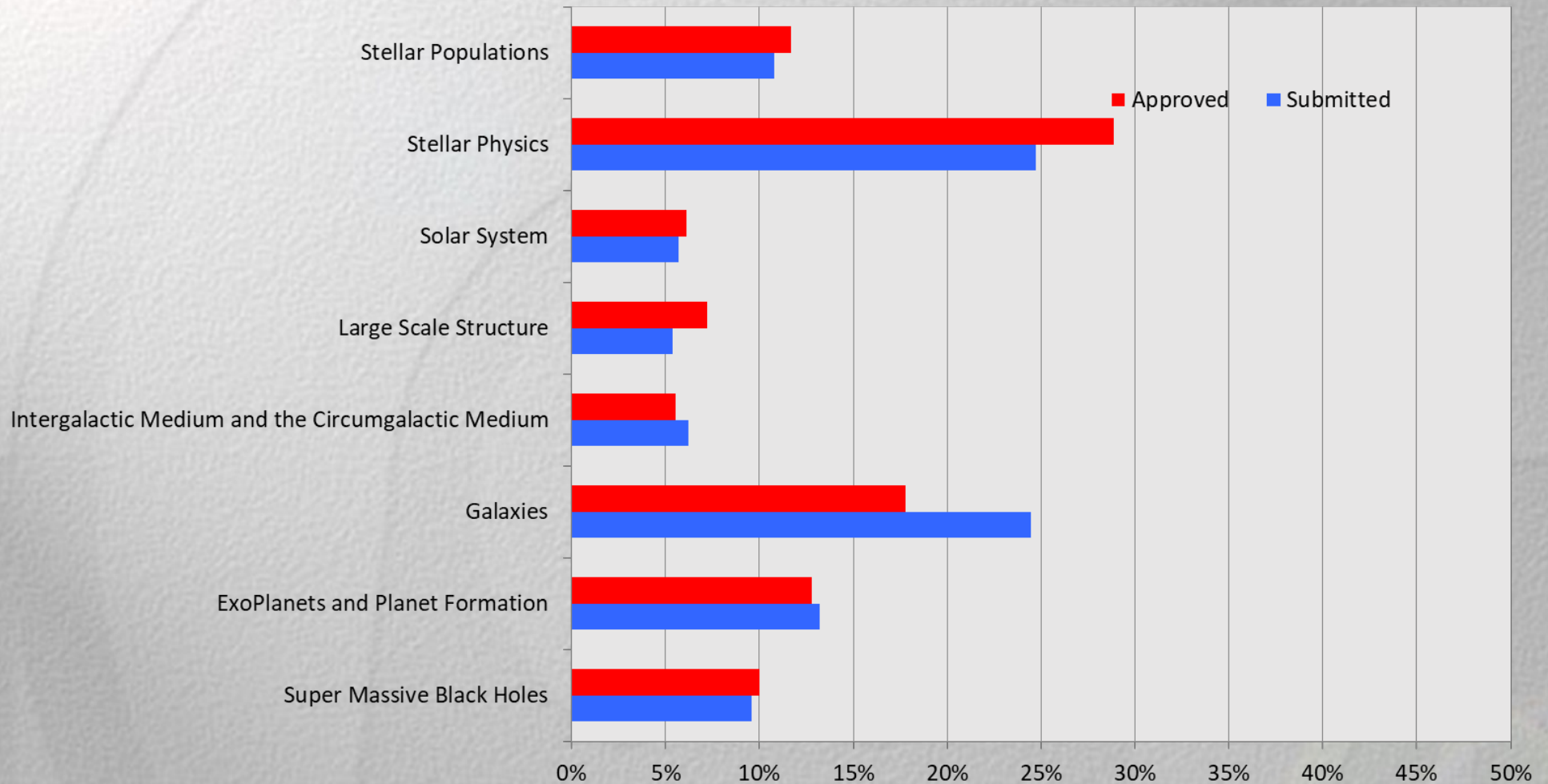


Only shows Institutions that have ≥ 3 Proposals approved

Science Category Distribution by Orbits



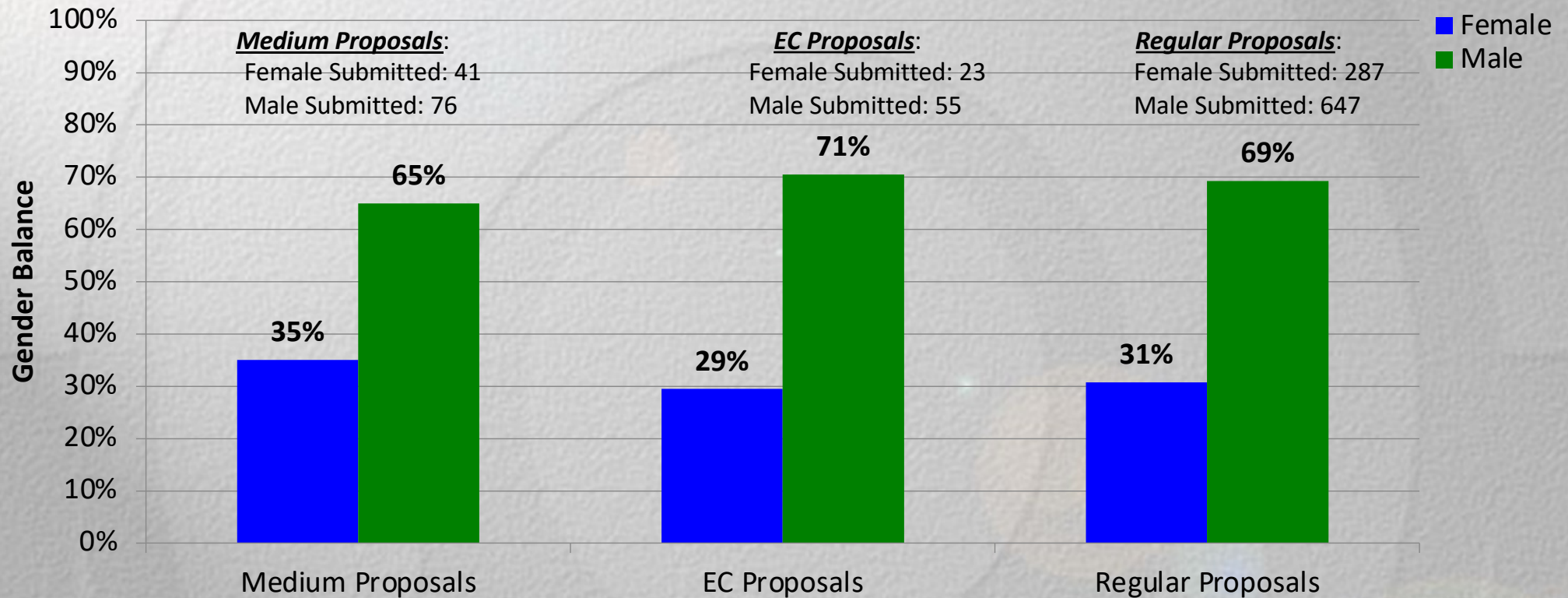
Science Category Distribution by Proposals



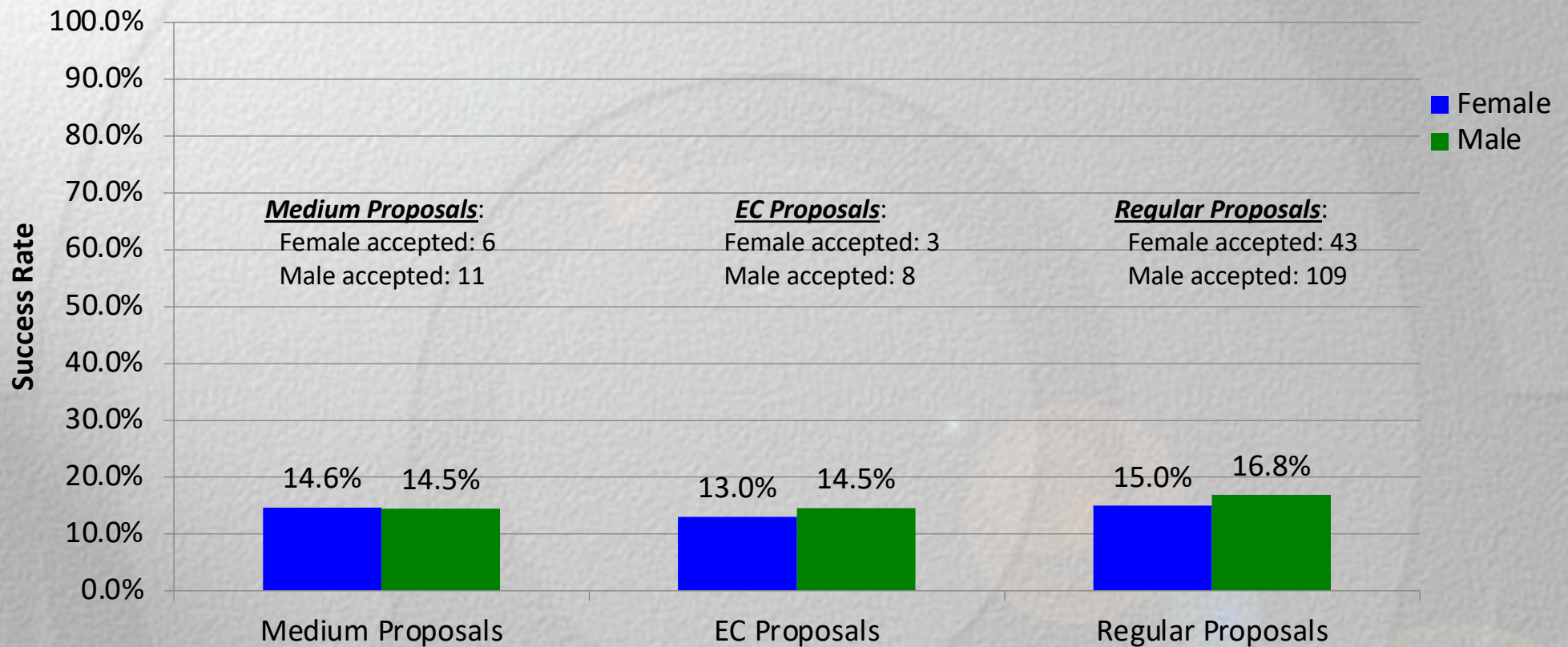
Instrument Summary

Configuration	Mode	Prime %	Coordinated Parallel %	Total	Instrument Prime Usage	Instrument Prime + Coordinated Parallel Usage	Snap Usage
ACS/SBC	Imaging	1.8%	0.0%	1.5%			0%
ACS/SBC	Spectroscopy	0.5%	0.0%	0.4%			0%
ACS/WFC	Imaging	8.8%	51.5%	16.6%			23%
ACS/WFC	Ramp Filter	0.0%	0.0%	0.0%	11.1%	18.5%	0%
ACS/WFC	Spectroscopy	0.0%	0.0%	0.0%			0%
COS/FUV	Spectroscopy	30.2%	0.0%	24.6%			10%
COS/NUV	Imaging	0.0%	0.0%	0.0%	30.7%	25.0%	0%
COS/NUV	Spectroscopy	0.5%	0.0%	0.4%			0%
FGS	POS	0.0%	0.0%	0.0%	0.0%	0.0%	0%
FGS	TRANS	0.0%	0.0%	0.0%			0%
STIS/CCD	Imaging	1.5%	0.0%	1.3%			0%
STIS/CCD	Spectroscopy	3.5%	0.0%	2.9%			2%
STIS/FUV	Imaging	1.3%	0.0%	1.1%	26.6%	21.7%	0%
STIS/FUV	Spectroscopy	11.7%	0.0%	9.5%			0%
STIS/NUV	Imaging	0.1%	0.0%	0.1%			0%
STIS/NUV	Spectroscopy	7.3%	0.0%	5.9%			0%
WFC3/IR	Imaging	5.7%	5.4%	5.6%			12%
WFC3/IR	Spectroscopy	4.7%	0.0%	3.8%	31.6%	34.8%	0%
WFC3/UVIS	Imaging	20.6%	43.2%	24.8%			46%
WFC3/UVIS	Spectroscopy	1.8%	0.0%	1.5%			7%

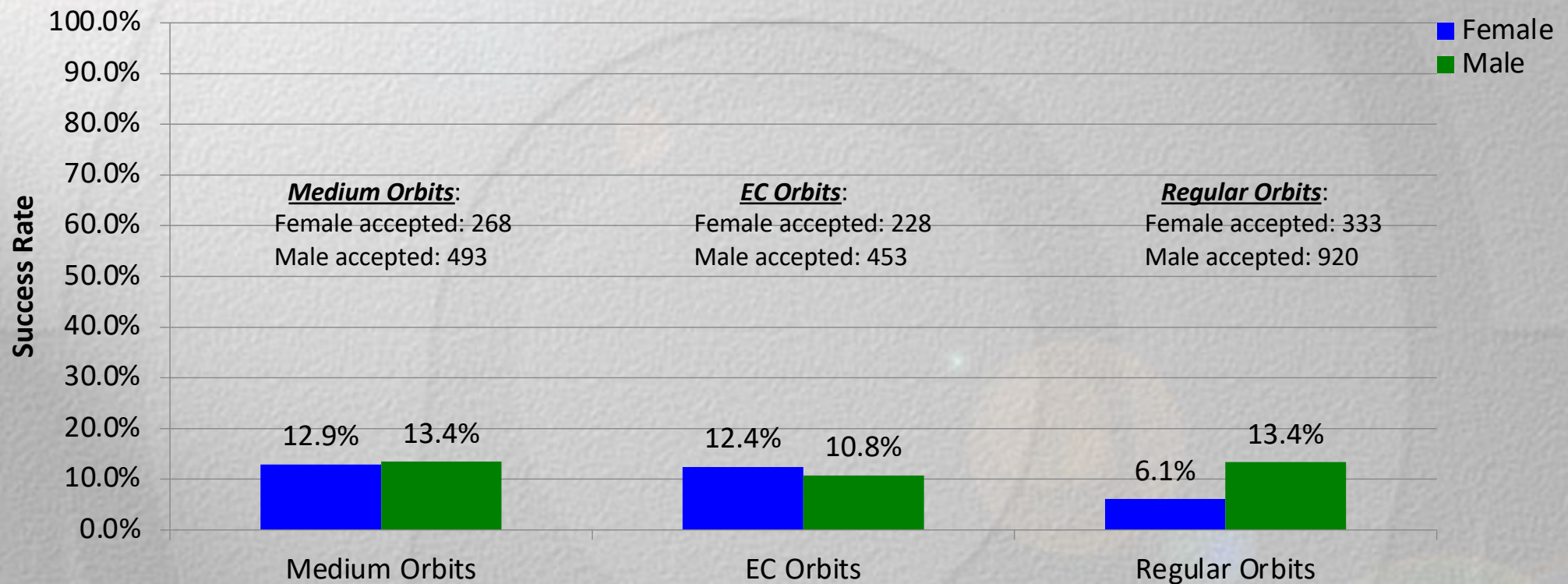
Gender Submission Statistics



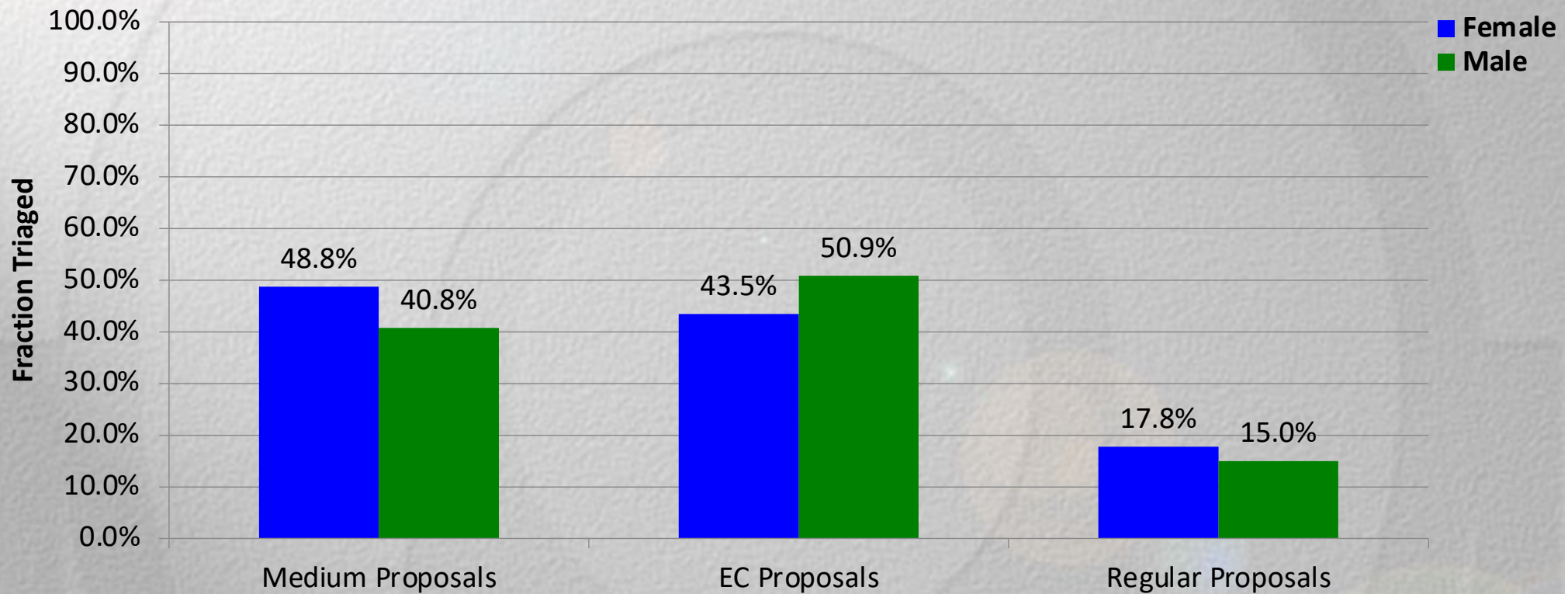
Gender Success Rate by Proposals



Gender Success Rate by Orbits

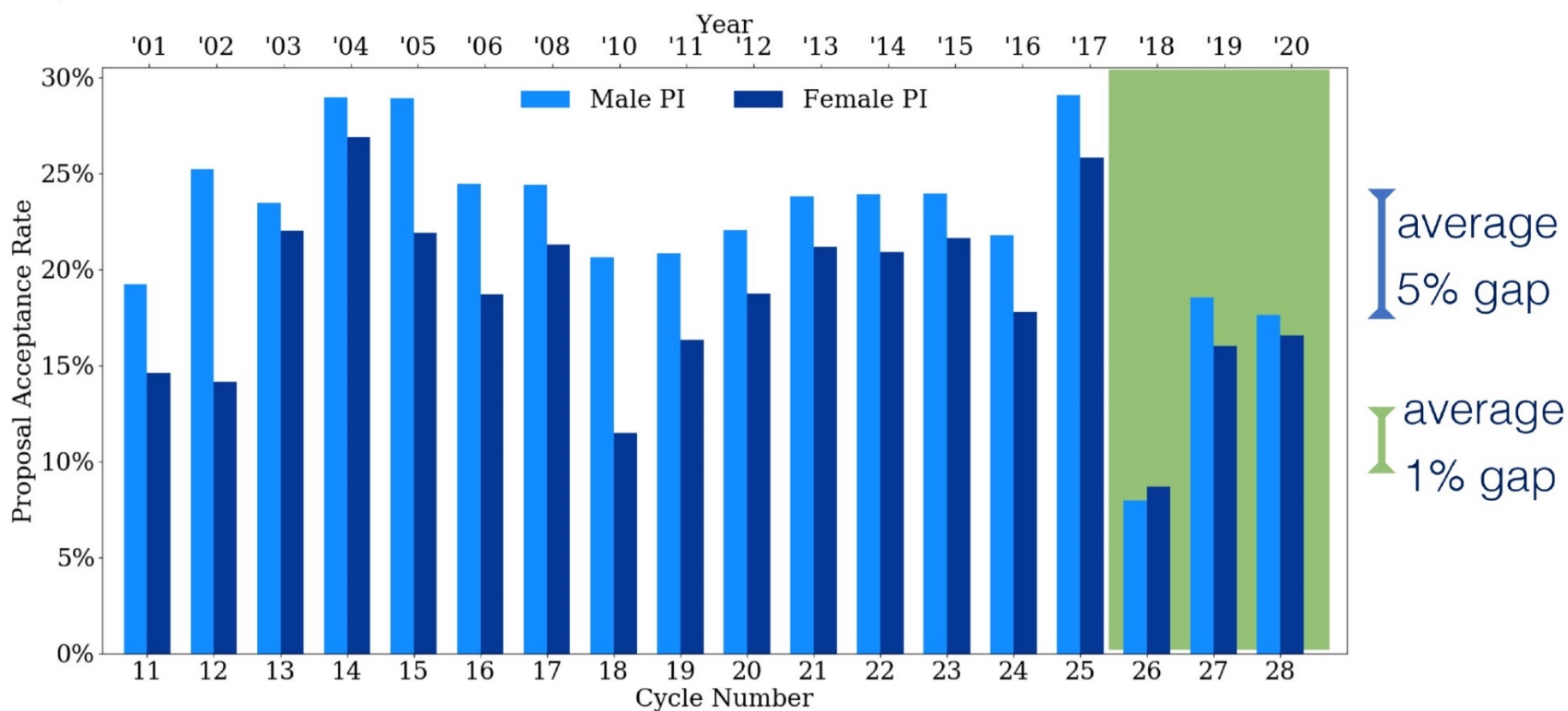


Triage Gender Distribution





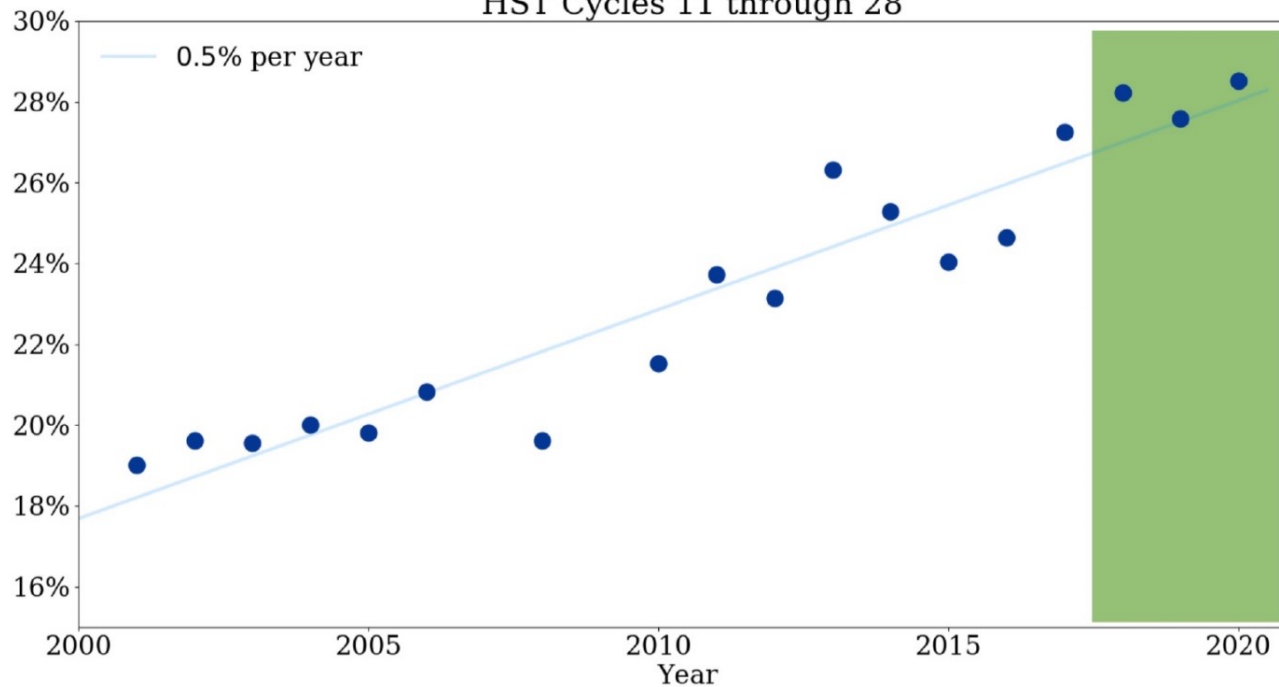
Impact of the Dual-Anonymous Review: Decreasing the Gap in Gender Bias





Impact of the Dual-Anonymous Review: Enticing New Proposers

Fraction of proposals submitted by female PIs
HST Cycles 11 through 28



Number of PIs awarded
programs for their first time

Cycle 28	55
Cycle 27	51
Cycle 26	6
Cycle 25	21
Cycle 24	5

Cycle 30 Preparations

- Cycle 30 will start on **10/1/22** and end on **9/30/23**
- The Cycle 30 HST TAC will have the same hybrid structure as the Cycle 29 TAC, with external panelists reviewing Small (< 16 orbits), SNAP and AR proposals.
- New: all Small and SNAP proposals in CGM/IGM and LSS will be in the virtual panel.
- All other proposals will be exclusively reviewed by virtual panels.
- 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 C29 will be offered.

Cycle 30 Panels

(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)
- *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 30 Plans (cont.)

- The overall TAC Chair will be Boris Gaensicke (University of Warwick).
- Chairs and Vice-Chairs for all 8 panels will be selected in October/November 2021.
- Each panel will have 8 – 12 Panelists and a Chair and Vice-Chair. Solar system will not have a Vice-Chair.
- The Panel Chairs and Vice-Chairs and three At-Large members will form the Executive Committee.

Available Orbits in Cycle 30

- Roughly **3000** orbits available for Cycle 30 GOs. The Cycle 29 allocation was 2700.
- Provisional break-down:
 - **700** orbits for the TAC (**Large** and **Treasury**)
 - **1500** orbits for the 8 Panels (**Small** GO with <35 orbits)
 - **800** orbits will be allocated for **Medium** proposals (35 – 74 orbits)
 - An additional 1000 Snapshot observations and 500 Pure-Parallel observations may be allocated.
 - Distribution may be adjusted based on proposal pressure.

Tentative Cycle 30 Proposal Review Schedule

- *01/06/22*: Call for Proposals release
- *03/25/22*: Phase I Proposal deadline
- *04/15/22*: Proposals made available to panels
- *05/18/22*: Grades and reviews due from panelists
- *05/20/22*: Triage results available to panels
- *06/01/22 – 06/08/22*: Panels and EC meet
- *06/17/22*: Notifications sent out
- *07/14/22*: Phase 2 proposal deadline
- *08/04/22*: Budget submission deadline

Backup: Details on the C29 Results

UV Initiative

- ◇ Target was 40% for panels and 50% for EC
- ◇ Overall 46% for UV Proposals and 68% for orbits recommended
 - ⇒ 82% of EC are UV Orbits
 - ⊃ (total orbit request not all UV)
 - ⇒ 1829 of 2695 Orbits Recommended
 - ⇒ 14 of 42 ARs; 70 of 394 GOs

Target of Opportunity Proposals

ID	Orbits	Disruptive Activations	Non-Disruptive Activations	Total Activations	Multi-Cycle	Type of ToO
1464	17	1		1		UV STIS spectra of SN
1493	20+20+30		5	5	Yes	Tidal Disruption Events
1624	4		4	4	Yes	Mrk 590 as AGN builds up
1715	13	1		1		UV STIS spectra of early nearby SN
1858	12		8	8		STIS Spectra of Type I Sne
1867	2	1		1	Yes	Jupiter or Saturn Impact
1876	18	1		1	Yes	UV Spectra of H-poor Superluminous SN
1961	20		2	2		Classical Novae
2010	4		1	1		Superluminous SN2020abjc
2032	1		1	1		Superluminous SN2020wnt
2083	2	1		1	Yes	STIS Spectra of Type I Sne
2092	22+40+20	1		2	Yes	UV and IR Imaging and Spectroscopy of Kilonva
2143	20		4	4	Yes	Black Hole Microlensing Candidate
2211	3		1	1	Yes	Black Hole Xray Transient
2223	6+6	1		1	Yes	GRB z > 6.5
2258	6	1		1	Yes	UV Spectra of fast-evolving luminous transients
2330	118+7+7		9	9	Yes	Accreting White Dwarfs - COS Spectra
2347	2		2	2		Narrow field UV Transient Survey
	208 *	8	37	45		* Orbits are Total per proposal not ToO Orbits

Chandra Coordinated Proposals

◇ 11 GO Proposals were submitted for 204 HST Orbits and 836 ksecs of Chandra time.

⇒ 1 recommended for 110 HST Orbits and 180 ksecs of Chandra time: *Essential Ultraviolet Stellar Characterization for Cycle 1 JWST Transiting Planet Targets*

XMM-Newton

Coordinated Proposals

- ◇ 12 GO Proposals were submitted for 281 HST Orbits and 1076 Ksecs of XMM-Newton time
 - ⇒ 3 recommended for 146 HST Orbits and 152.5 Ksecs of XMM-Newton time

ID	Orbits	Ksecs	Title
1493	20+20+30	32.5+32.5+32.5	The Last Gasp of the TDE Wind
1636	16	30	An HST exclusive look at two rising stars: high-energy spectra of the two closest M dwarfs to host transiting terrestrial exoplanets
2171	110	90	Essential Ultraviolet Stellar Characterization for Cycle 1 JWST Transiting Planet Targets

NOIRLab Coordinated Proposals

- ◇ 7 GO Proposals were submitted for 132 HST Orbits and 15 NOIRLab Nights
 - ⇒ 2 recommended for 25 HST Orbits and 1.1 NOIRLab Nights

ID	Orbits	Nights	Title
1715	13	.66	Early Ultraviolet Spectroscopy of a Nearby Supernova
1858	12	.45	Measuring the Effect of Progenitor Metallicity on Type Ia Supernova Distance Estimates

NRAO Coordinated Proposals

- ◇ 9 GO Proposals were submitted for 236 HST Orbits and 166 NRAO Hours
 - ⇒ 2 recommended for 24 HST orbits and 9 NRAO hours

ID	Orbits	Hours	Title
2177	20	8	Betelgeuse: An Iconic and Surprising Red Supergiant
2190	4	1	Physical diagnostics of AGN feedback from the first spatially resolved UV spectra of a jet-driven AGN outflow

TESS Coordinated Proposals

- ◇ 4 GO Proposals were submitted for 104 HST Orbits and 4 TESS Targets
 - ⇒ None recommended