



**STScI** | SPACE TELESCOPE  
SCIENCE INSTITUTE

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

# JWST Cycle 1 GO/AR Results

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Summary of the Cycle 1 TAC recommendations approved by the  
STScI Director on March 18, 2021

JSTUC April 8, 2021



## Review Agenda

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- Proposal submission and the TAC Process
- Executive Summary of Review Recommendations
- Executive Committee Programs
- Summary Statistics
- Next Steps
- Investigator Demographics
- Cycle 2 timeline
- Summary
- Medium Programs





# Proposal submission and the TAC process

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# Summary

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- The JWST Cycle 1 GO/AR deadline was on November 24 2020
  - Proposers could request an extension to December 3
  - A total of 1173 complete submissions were received
    - 1 proposal was rejected subsequently for technical non-compliance
- The 1172 compliant proposals include
  - 1084 GO proposals for ~25,280 hours
  - 75 AR or Theory proposals
  - 374 proposal led by ESA PIs (31.9%)
  - 44 proposals led by Canadian PIs (3.8%)
  - 12766 Co-investigators in total
  - 4332 Unique investigators (PI, co-PI & co-I)
  - 1985 investigators have **not** been on a past HST proposal
- Representation from
  - 44 Countries
  - 45 US states + DC and the Virgin Islands
- We conducted a post-deadline survey for community feedback
  - Results will be presented at the JSTUC meeting in June



## TAC review process

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- 18 topical panels for smaller proposals – each panel has a time allocation (N hours)
- All proposals are in dual anonymous format
- Executive committee (panel chairs + at-large) review larger-scale proposals
- Preliminary grades submitted ~10-14 days before the meeting
  - Initial ranked list determined but not communicated to the panel
- Initial ranked list used to identify bottom ~40% of proposals
  - Those proposals are marked for triage
  - Panelists can raise triaged proposals (one proposal each) for discussion during the virtual meeting
- Remaining proposals are discussed at the virtual meeting & panelists re-grade
- The proposals are ranked once the grading is complete
- Panels can re-rank based on science balance, panel consensus
  - 1N line marks the panel recommendations to the ST Director
  - Panels rank to 2N to provide contingency
- Once the re-ranking is complete, the team expertise is available for panel review



## JWST TAC logistics

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- TAC meeting took place virtually on February 16-19 (10 Galactic panels), February 23-26 (8 Extragalactic panels) & March 1-4 2021 (Executive Committee – 2 TAC co-chairs)
  - ~200 astronomers from the community
  - 12 observers from NASA Project, ESA, CSA
  - Each panel supported by STScI staff members as panel support scientists and levelers
  - ~100 STScI staff in support – science policies, panel support staff, IT, instrumentation, scheduling, levelers
  - Multiple orientation sessions for STScI support staff, TAC Chairs & TAC panel members
    - Presentations all available on Jdox <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/james-webb-space-telescope-science-policies-group-and-review-information/orientation-materials>
- Each TAC panel had a dedicated bluejeans link and associated slack channel
  - Additional slack channels for observers, levelers, PSS, SPG, TAC co-chairs & others
- All proposals receive feedback on strengths and weaknesses
  - Extended deadline for completing comments (March 5 for panels, March 13 for exec Committee)





## Panel Allocations

3500 hours small, 1500 hours medium, 1000 hours large/treasury

Panel	Small Allocation (Hours)	Med Allocation (Proposals)	Panel	Small Allocation (Hours)	Med Allocation (Proposals)
Solar System	191	2	Galaxies 1	195	3
Exoplanets 1	237	2	Galaxies 2	170	2
Exoplanets 2	241	1	Galaxies 3	223	2
Exoplanets 3	234	3	Galaxies 4	215	2
Exoplanets 4	216	2	SMBH 1	156	2
Stellar Physics 1	171	1	SMBH 2	163	2
Stellar Physics 2	170	1	LSS 1	150	1
Stellar Physics 3	162	1	LSS 2	146	2
Stellar Pops 1	221	2			
Stellar Pops 2	239	1			

Panel allocations set based proportionately on proposal/time requests

~4:1 oversubscription



# Executive summary

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## Executive Summary

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- Dual anonymous
  - Three proposals were rejected for non-compliance and excluded from discussion
  - The proposal PIs have been given appropriate feedback
- Acceptance Rate
  - GO 1 in 4 for proposals and Hours
    - Small: 52% of time – 1 in 4.1
    - Medium: 32% of time – 1 in 3.8
    - Large: 16% of time - 1 in 4.75
  - Survey 0 recommended
  - Archival Research 20/75 = 1 in 3.75
    - Regular 15 recommended
    - Theory 5 recommended
    - Legacy 0 recommended
- Instruments: MIRI 28.1%, NIRCcam 24.4%, NIRISS 6.7%, NIRSPEC 40.8%
  - Imaging 30% vs Spectroscopy 70%
- Student led PIs 8.7%



# Executive Summary

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- CSA Acceptance
  - Pls 4% for proposals and hours of total observing program
  - CSA Submitted vs Accepted is
    - 23% for proposals 10 out of 44
    - 31% for hours 249 out of 813
  - Cols are 2% of the total Cols
- ESA Acceptance
  - Pls for proposals 33.5% and 30% for hours of total observing program
  - ESA Submitted vs Accepted is
    - 24% for proposals 89 out of 374
    - 22% for hours 1786 out of 8222
  - Cols are 36% of the total Cols
- Recommend Awarding to Archival Research Programs
  - Regular AR – \$1.5M
  - Theory – \$500K
  - Legacy – 0
  - Estimates based on \$100K for Regular/Theory and \$400K for Legacy



## Executive Summary

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- Proposal acceptance fraction 27% for panelists
- Proposal acceptance fraction 25% for STScI staff
- Joint HST: 0 Recommended
- Medium Proposals
  - 43 out of 163 recommended for 2029.6 Hours
    - 32 out of Medium Allocation and 11 from Small Allocation (Panels)
  - 45 were triaged
- Calibration Proposals
  - 4 recommended for 49.9 Hours
- ToO Activations
  - 4 less than 14 days and 12 > then 14 days
- Pure Parallels
  - 3 recommended for 779 Hours
- Cloud Computing
  - 0 recommended
- Data Science Software
  - 1 recommended
- Zero exclusive access period
  - ~1585 hours of GO programs + ~500 hours ERS programs + ~200 hours GTO programs





## Summary Results

Proposals	Requested	Approved	% Accepted	CSA Accepted	CSA % Total	ESA Accepted	ESA % Total
General Observer	1084	266	25%	10	4%	89	33%
Survey	13	0	0%	0	0%	0	0%
Regular AR	41	15	37%	0	0%	0	0%
AR Legacy	3	0	0%	0	0%	0	0%
Theory	31	5	16%	0	0%	0	0%
<b>Total</b>	<b>1172</b>	<b>286</b>	<b>24%</b>	<b>10</b>	<b>4%</b>	<b>89</b>	<b>33%</b>
<b>Primary Hours</b>	<b>24440</b>	<b>6031</b>	<b>25%</b>	<b>249</b>	<b>4%</b>	<b>1786</b>	<b>30%</b>

- CSA & ESA Hours/Proposals are for GO/Survey only
- 50 Hours are from Calibration Pool



# Executive Programs

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# Programs Recommended by the Executive Committee

ID	Hours	Science Category	Title	Description
1571	591 Pure Par	Galaxies	PASSAGE--Parallel Application of Slitless Spectroscopy to Analyze Galaxy Evolution	Pure parallel imaging with NIRISS WFSS at moderate and high galactic latitudes to probe high redshift galaxies
1584	278	Exoplanets and Exoplanet Formation	A DSHARP-MIRI Treasury survey of Chemistry in Planet-forming Regions	MIRI MRS observations of 17 disks from the DSHARP ALMA survey
1727	208 + 81 C Par	Large Scale Structure of the Universe	COSMOS-Webb: The Webb Cosmic Origins Survey	Multiband imaging with NIRCcam of 0.6 sq. deg in COSMOS to m(AB)~27.5 + MIRI imaging of ~0.2 sq. deg.
1837	187 + 47 Cpar	Galaxies	PRIMER: Public Release IMaging for Extragalactic Research	Multiband imaging with NIRCcam and MIRI of the UDS and COSMOS fields aiming to reach m(AB)~29
1981	76	Exoplanets and Exoplanet Formation	Tell Me How I'm Supposed To Breathe With No Air: Measuring the Prevalence and Diversity of M-Dwarf Planet Atmospheres	NIRSpec time series transit spectroscopy of small planets around M dwarfs to detect and characterise atmospheres
2072	20 + 20 + 20	Stellar Physics and Stellar Types	See Through Supernovae: Nebular Spectroscopy of Exploding White Dwarfs	NIRSpec and MIRI spectra of supernovae, three per cycle through cycle 3, targetting a range of types at 150 and 250 days after maximum
2079	128 + 96 Cpar	Galaxies	The Webb Deep Extragalactic Exploratory Public (WDEEP) Survey: Feedback in Low-Mass Galaxies from Cosmic Dawn to Dusk	Deep NIRCcam multiband imaging and NIRISS WFSS parallel data centred on the HUDF to m(AB)~30.5
2107	107 + 11 Cpar	Stellar Populations and the Interstellar Medium	A JWST-HST-VLT/MUSE-ALMA Treasury of Star Formation in Nearby Galaxies	NIRCcam and MIRI multiband imaging of 19 nearby, morphologically diverse, star-forming galaxies
2211	38 Pure Par	Solar System Astronomy	A pure parallel survey of water in the asteroid belt	Pure parallel imaging in the ecliptic to measure colours for main belt asteroids and estimate water content
2418	98	Solar System Astronomy	DiSCo-TNOs: Discovering the composition of the trans-Neptunian objects, icy embryos for planet formation	NIRSpec prism observations of 96 TNOs to measure composition
2512	141.6	Exoplanets and Exoplanet Formation	Seeing the Forest and the Trees: Unveiling Small Planet Atmospheres with a Population-Level Framework	NIRSpec time series observations of 11 transiting planets (2-15 Earth mass) in 8 exoplanet systems to characterise the atmospheres
2514	150 Pure Par	Galaxies	PANORAMIC -- A Pure Parallel Wide Area Legacy Imaging Survey at 1-5 Micron	Multiband pure-parallel imaging with NIRCcam at moderate and high galactic latitudes to probe high redshift galaxies
2561	68 + 5 Cpar	Galaxies	UNCOVER: Ultra-deep NIRCcam and NIRSpec Observations Before the Epoch of Reionization	NIRCcam imaging (M(AB)~30) and NIRSpec MOS observations of the lensing cluster Abell 2744 coupled with NIRISS WFSS parallel observations



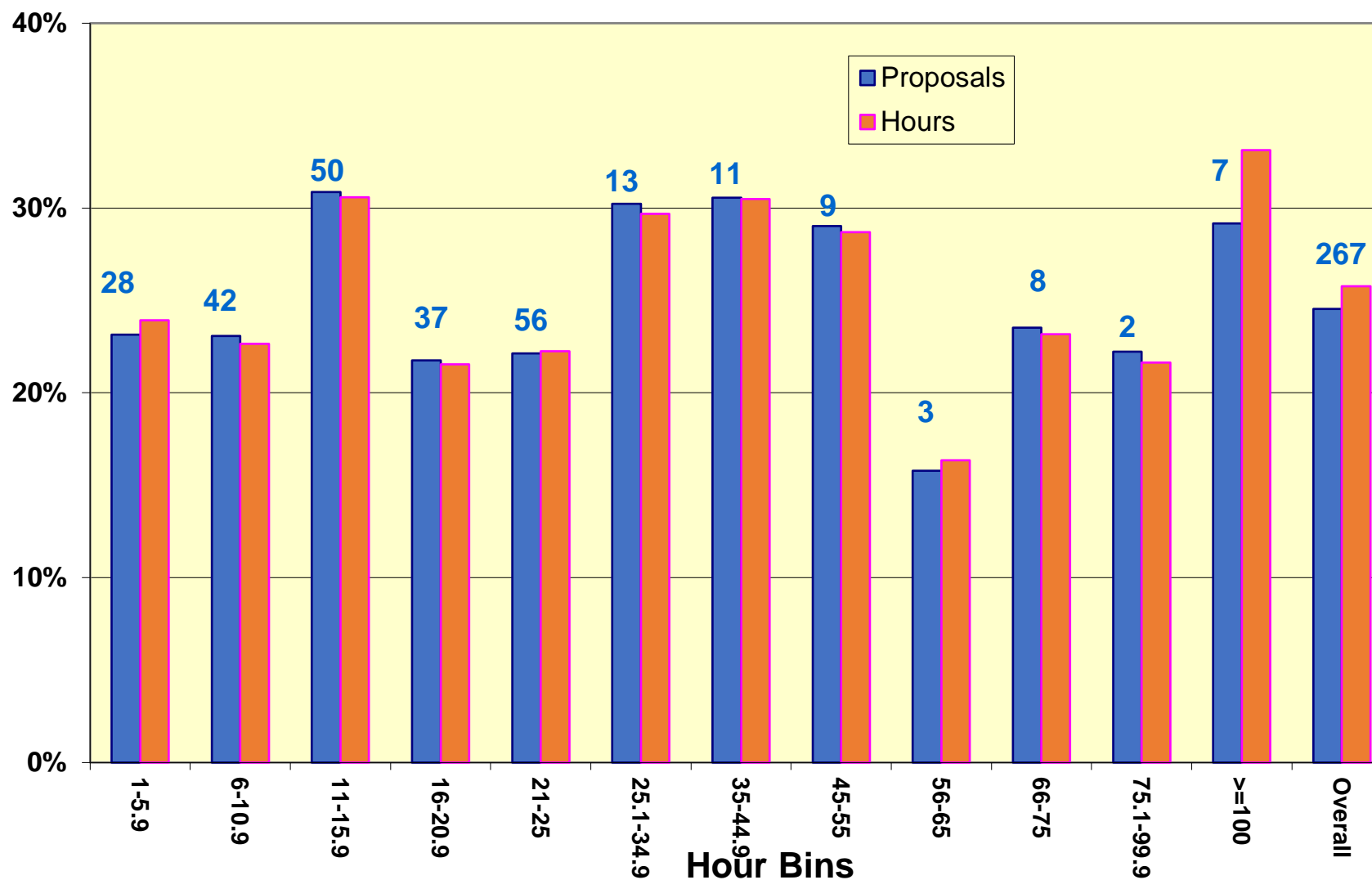
The background of the slide is a deep space image featuring a dense field of stars of various colors (blue, white, yellow) and a large, complex nebula with swirling clouds of gas and dust in shades of blue, purple, and brown. The text "Summary statistics" is centered in the middle of the image.

# Summary statistics

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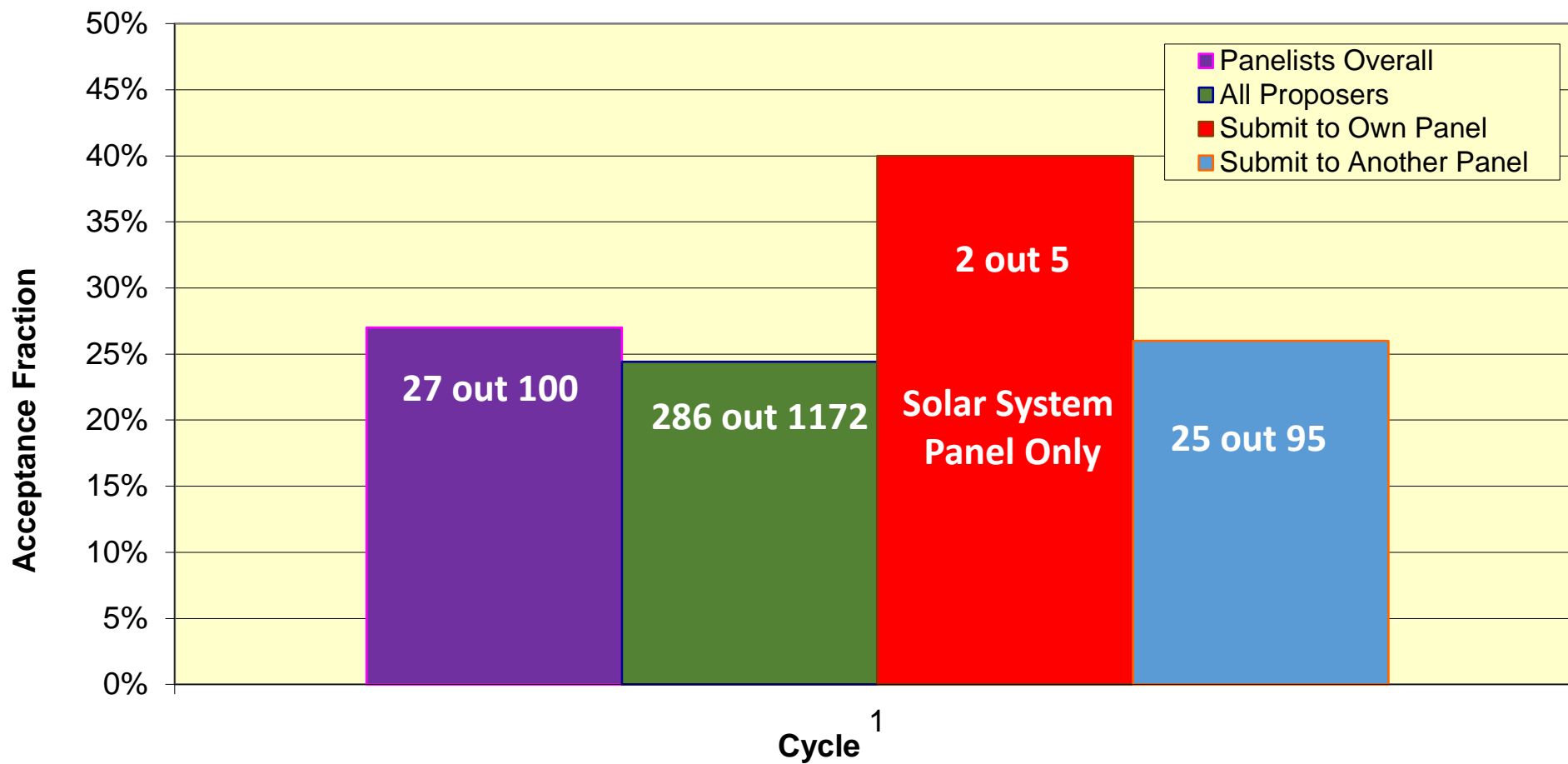


## Acceptance Fraction by Size





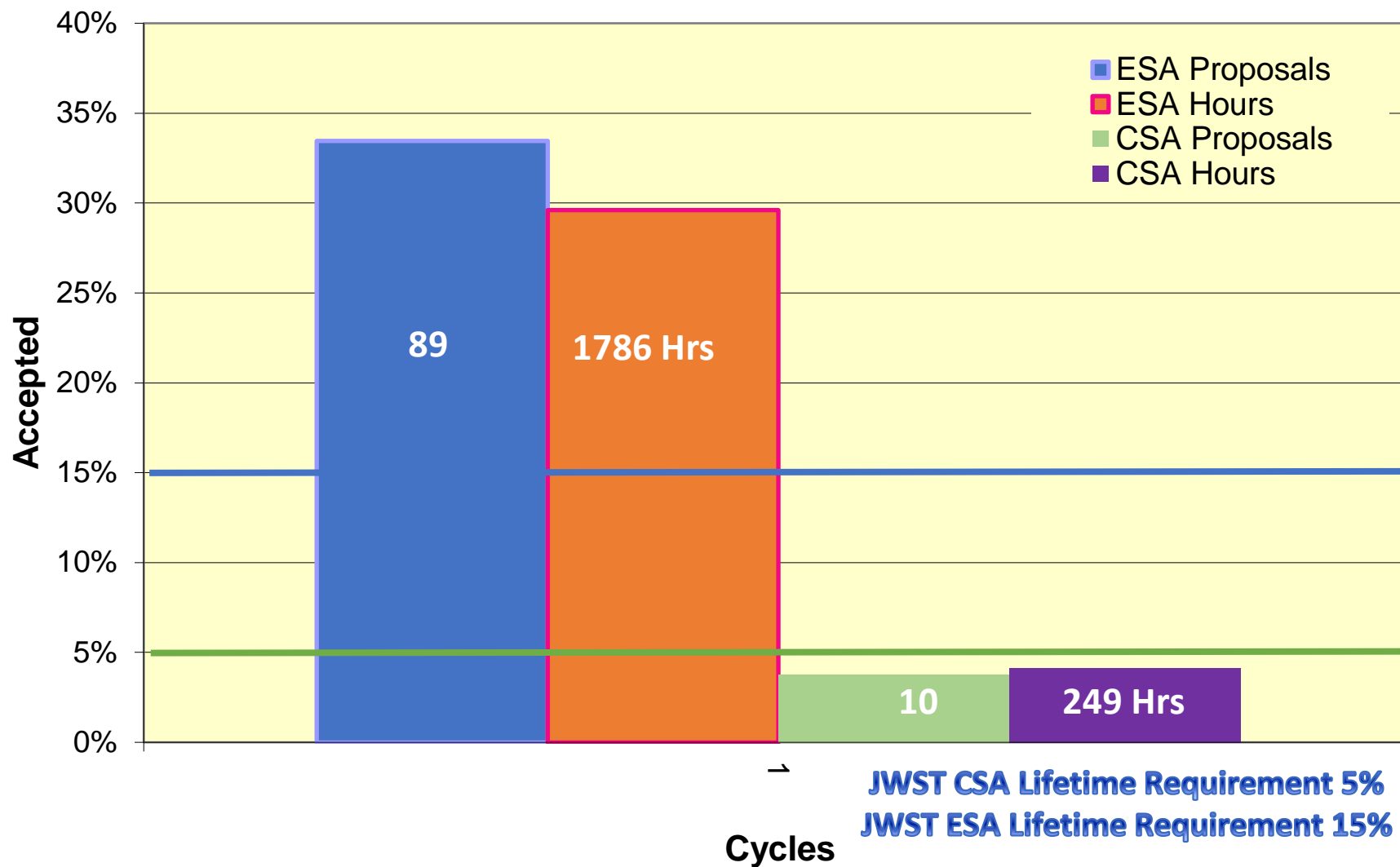
## Panelist Acceptance Fraction





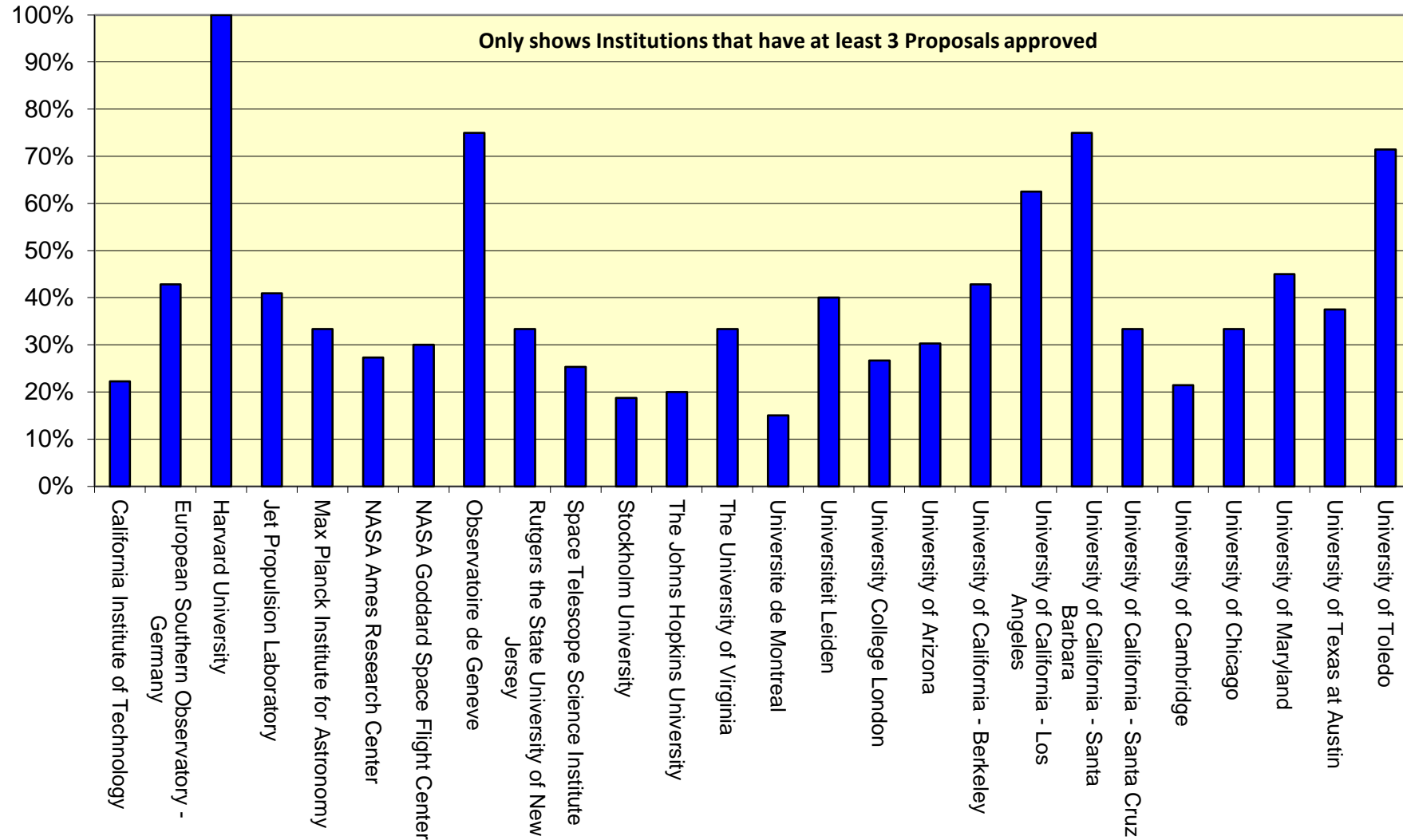


## CSA/ESA Acceptance Fractions



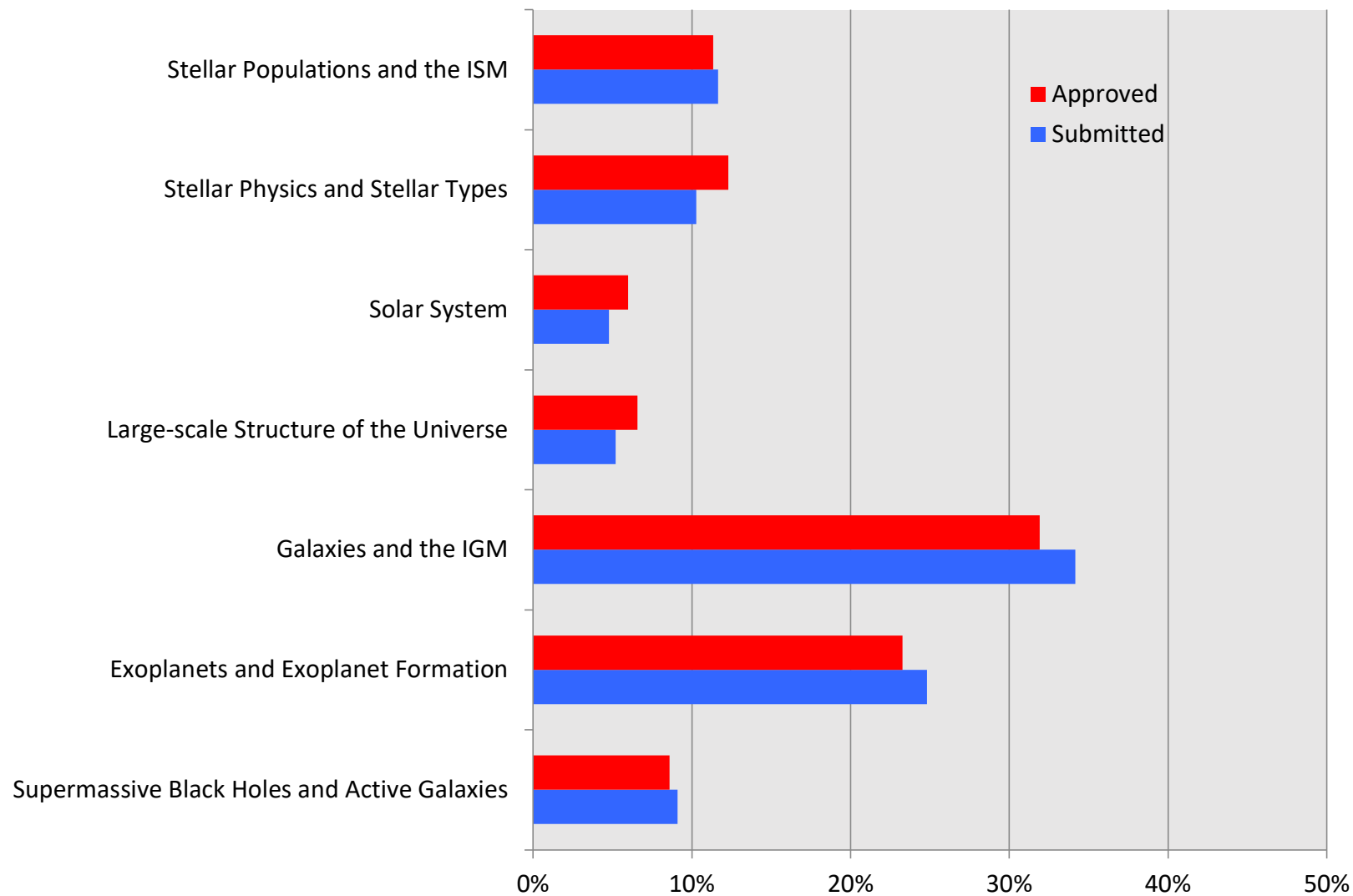


# Proposal Institutional Acceptance Fraction





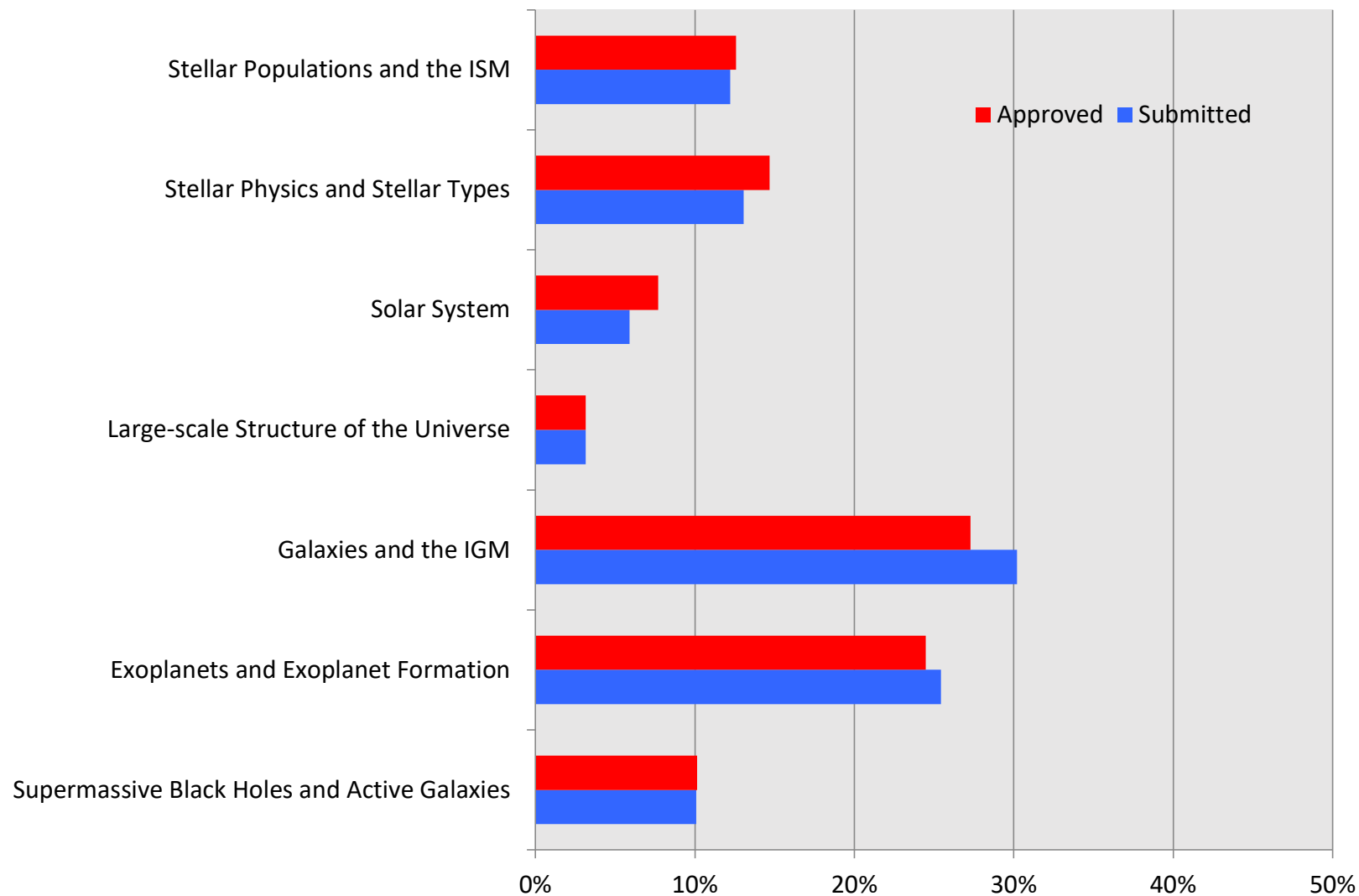
# Science Category Distribution for Hours







# Science Category Distribution for Proposals





# Instruments

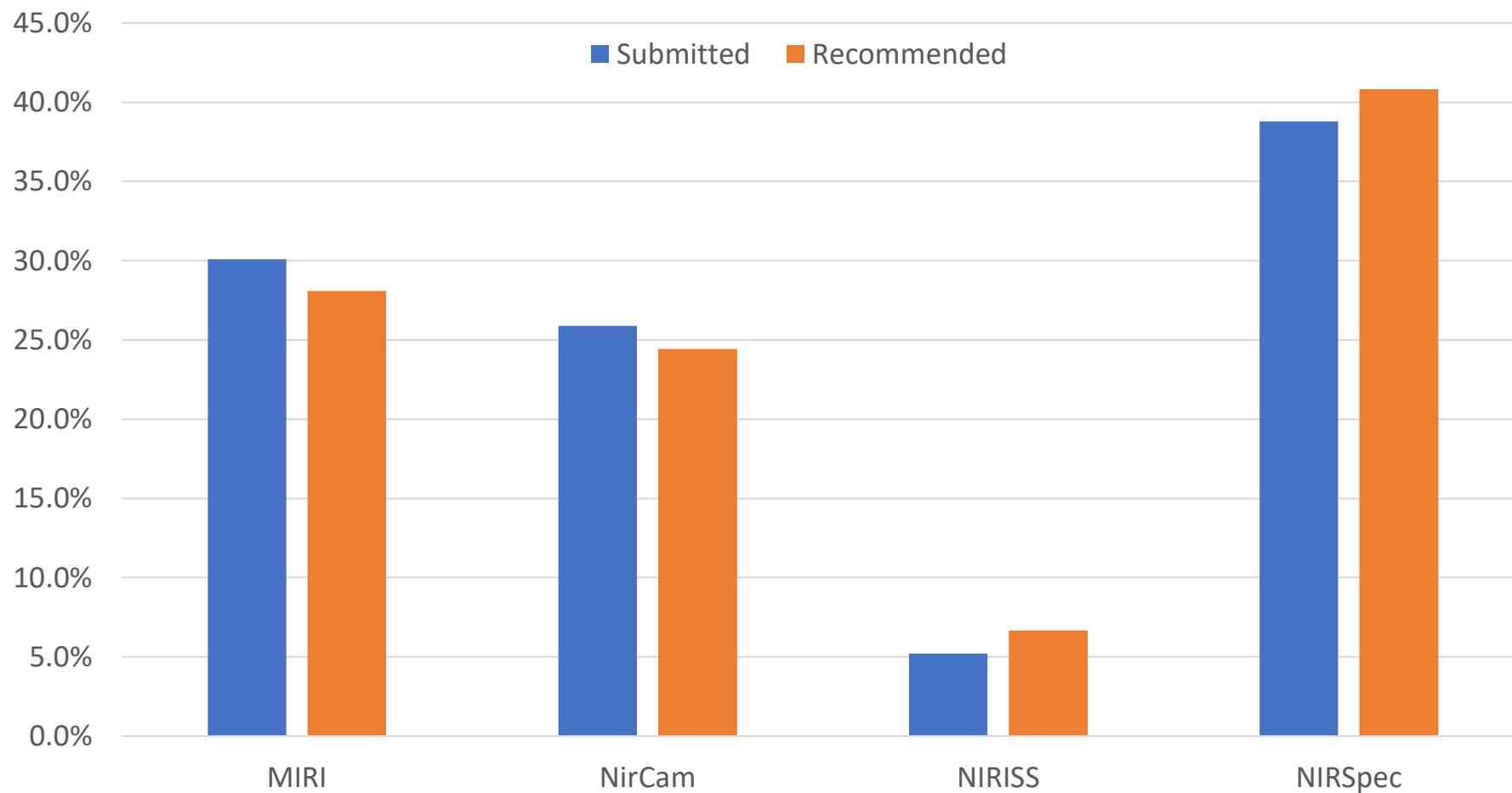
Instrument	Mode	Prime %	Coordinated Parallel %	Total	Instrument Prime Usage	Instrument Prime + Coordinated Parallel Usage	Pure Parallels
	MIRI Coronagraphy	1.6%		1.4%			
MIRI	MIRI Imaging	7.8%	15.1%	8.7%	29.9%	28.1%	
	MIRI LRS	6.0%		5.3%			
	MIRI MRS	14.5%		12.7%			
	NIRCam Coronagraphy	0.8%		0.7%			
	NIRCam GrismTimeSeries	1.2%		1.0%			
NirCam	NIRCam Imaging	15.9%	42.4%	19.2%	21.0%	24.4%	24.1%
	NIRCam TimeSeries	0.6%		0.5%			
	NIRCam WFSS	2.5%	6.5%	3.0%			
	NIRISS Imaging						
NIRISS	NIRISS AMI	0.1%		0.05%			
	NIRISS SOSS	1.6%		1.4%	4.6%	6.7%	
	NIRISS WFSS	3.0%	21.3%	5.2%			75.9%
	NIRSpec BrightObjectTimeSeries	11.9%		10.4%			
NIRSpec	NIRSpec FixedSlitSpectroscopy	2.8%		2.5%			
	NIRSpec IFUSpectroscopy	14.9%		13.1%	44.5%	40.8%	
	NIRSpec MOS	14.8%	14.6%	14.8%			

Imaging 30% vs 70% Spectroscopy



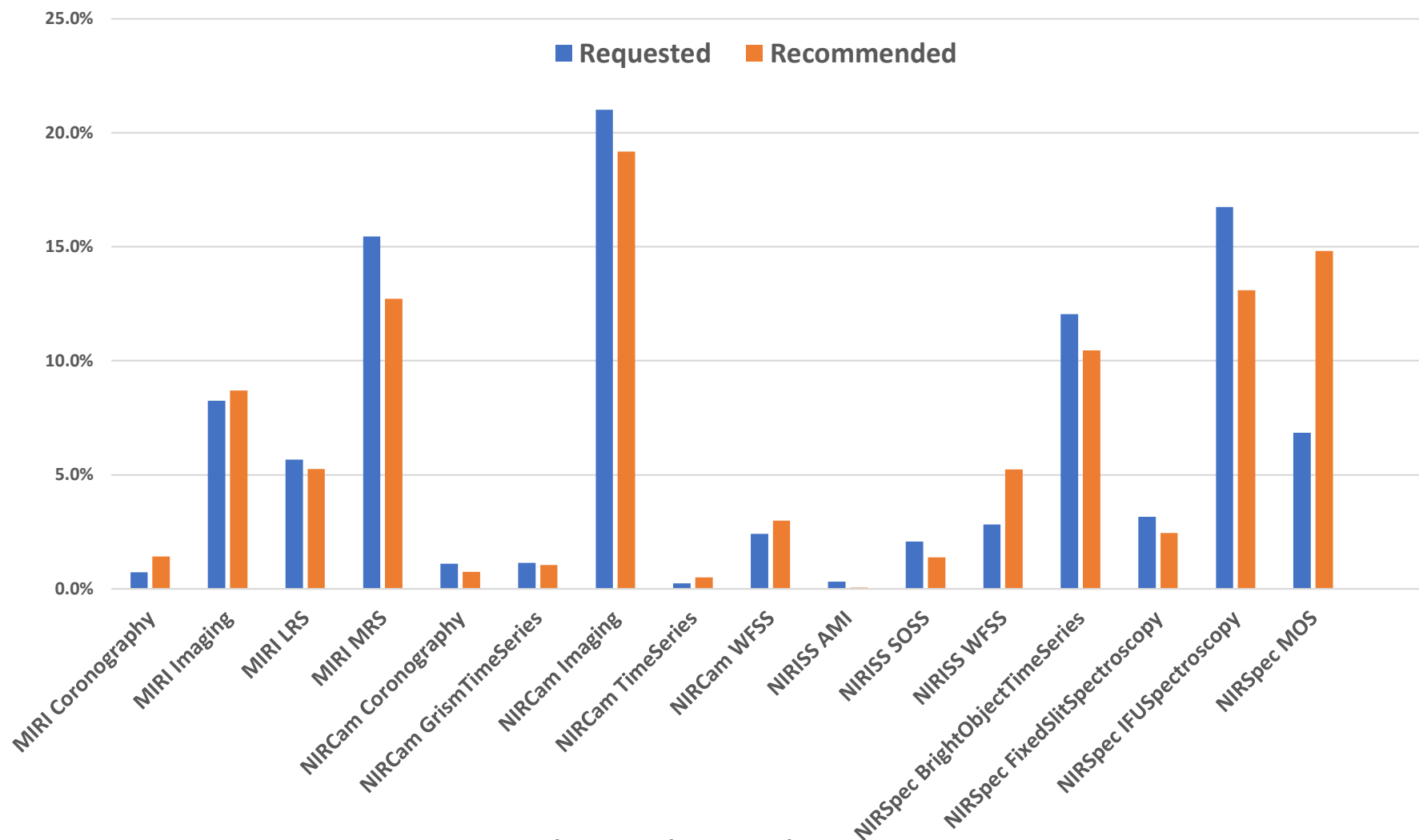
# Instruments

## INSTRUMENTS





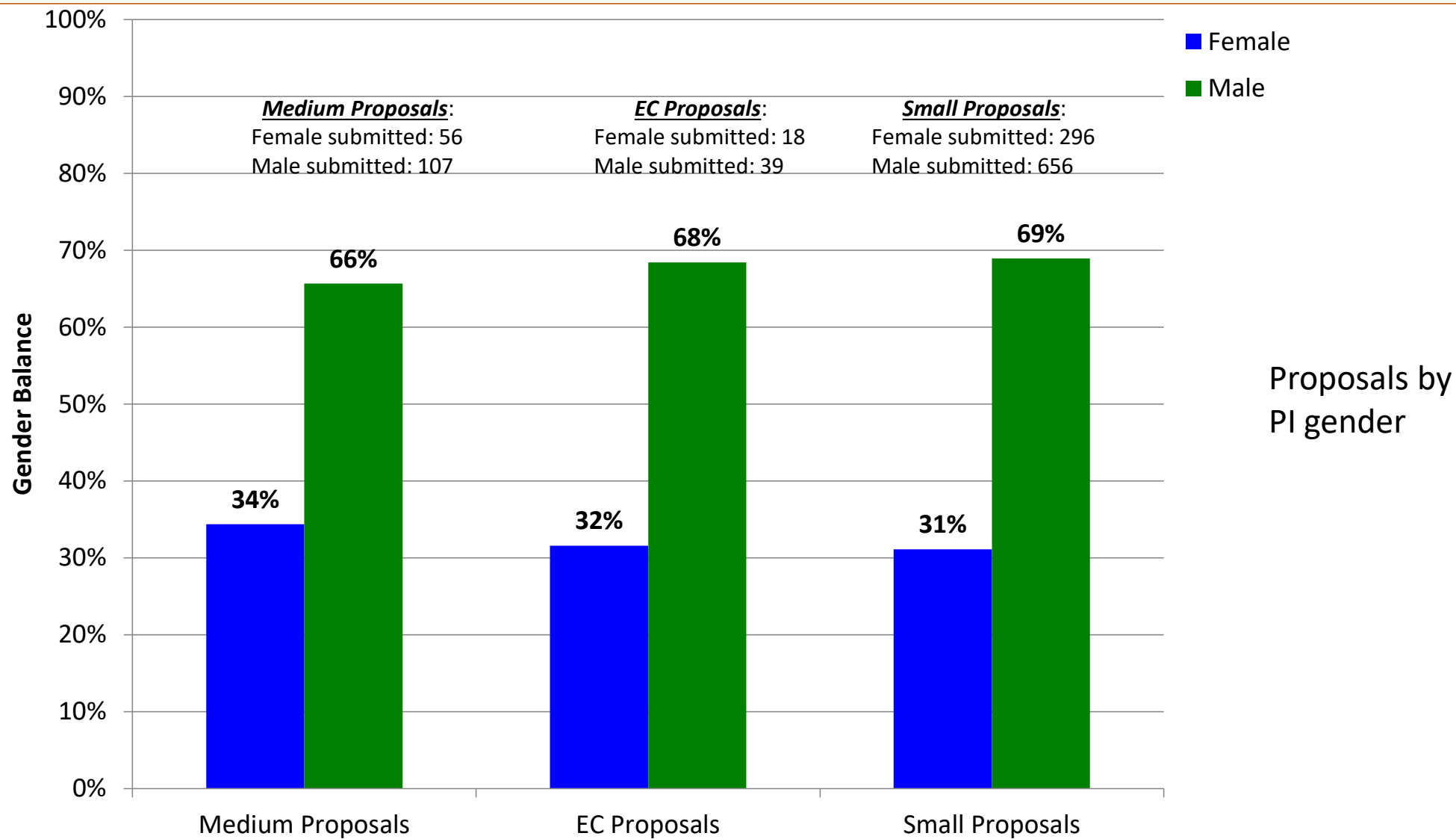
# Instrument Modes



Imaging 30% vs 70% Spectroscopy



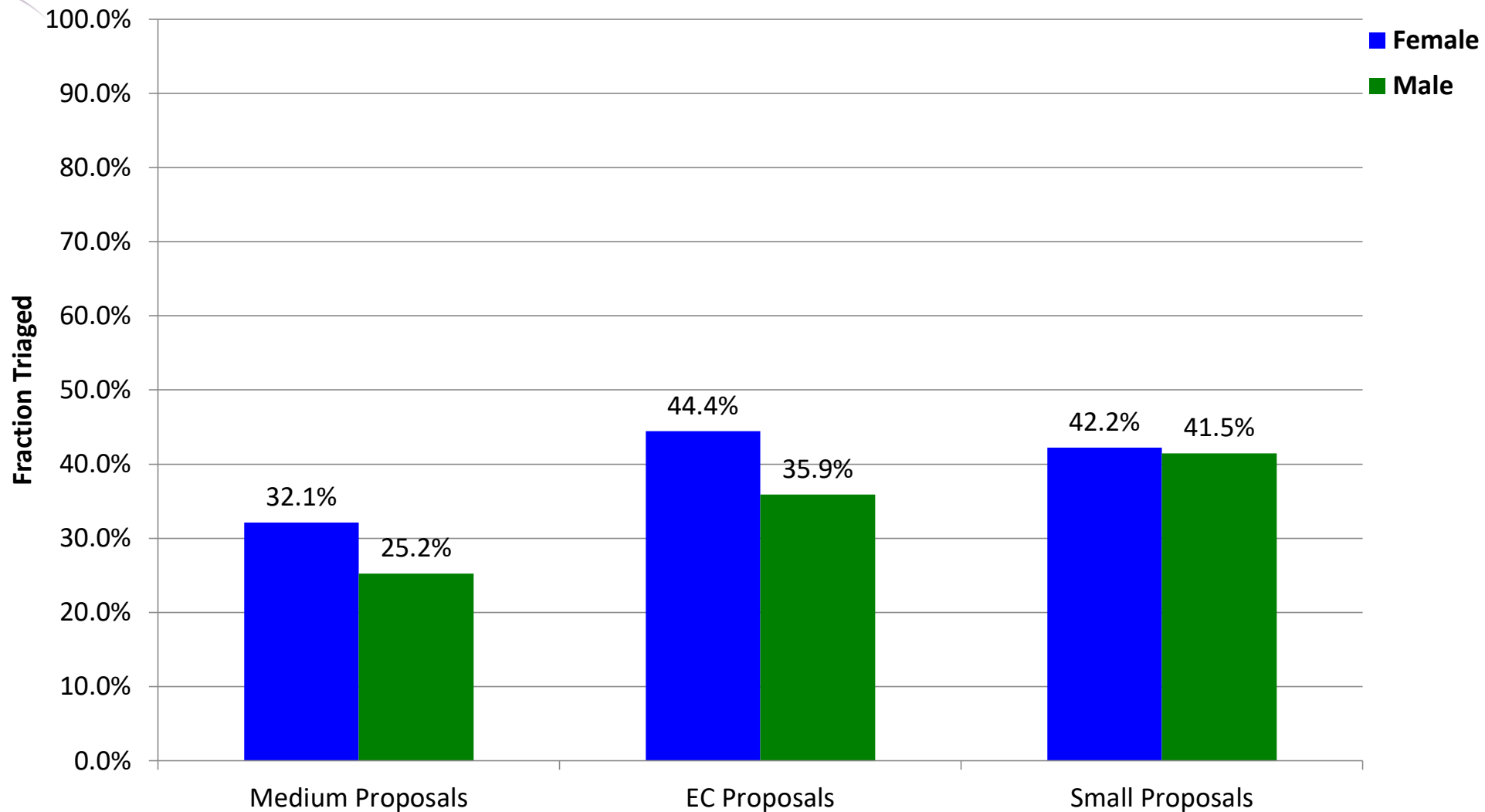
# Gender Submission Stats



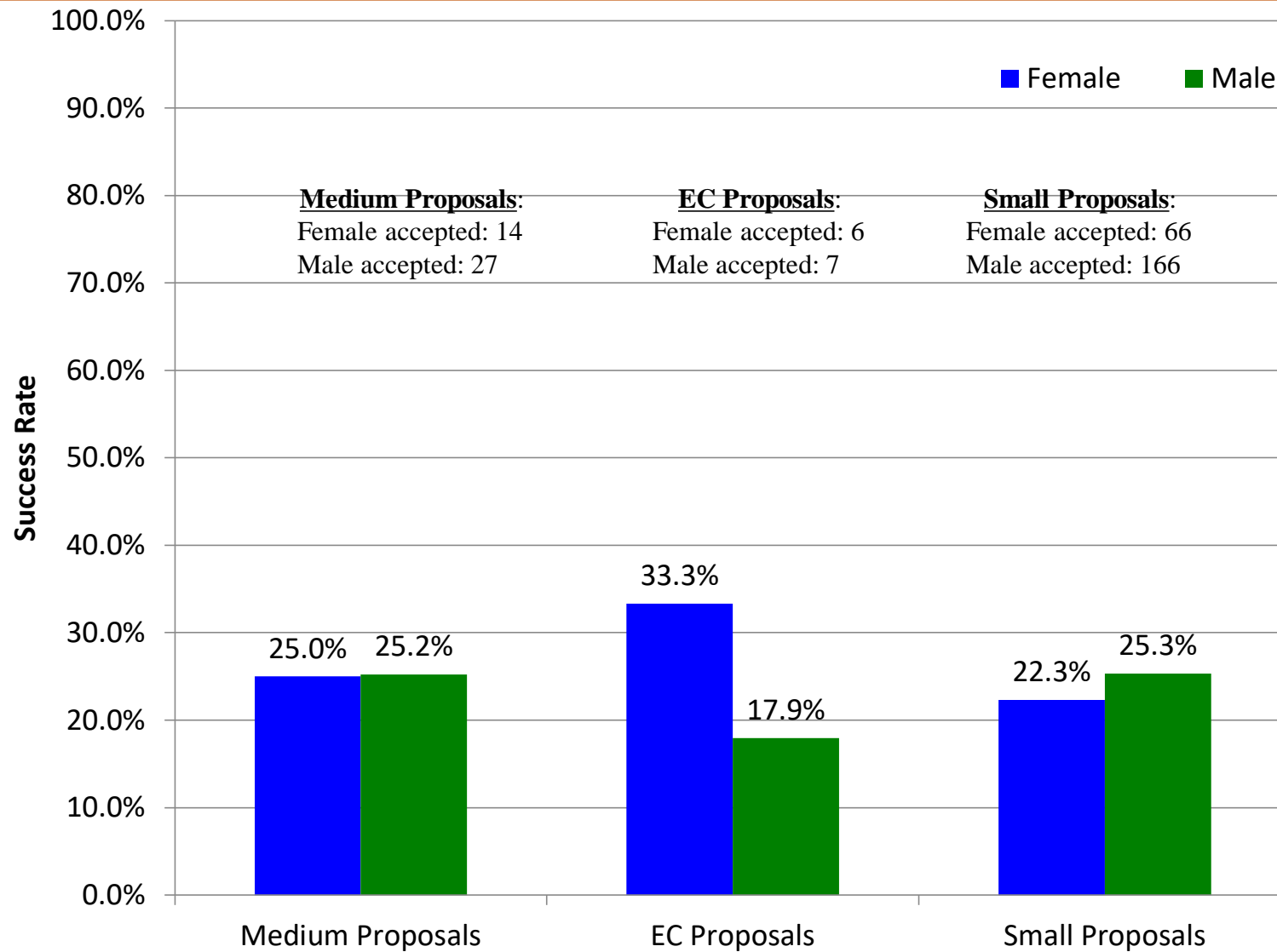




# Triage - Gender Distribution

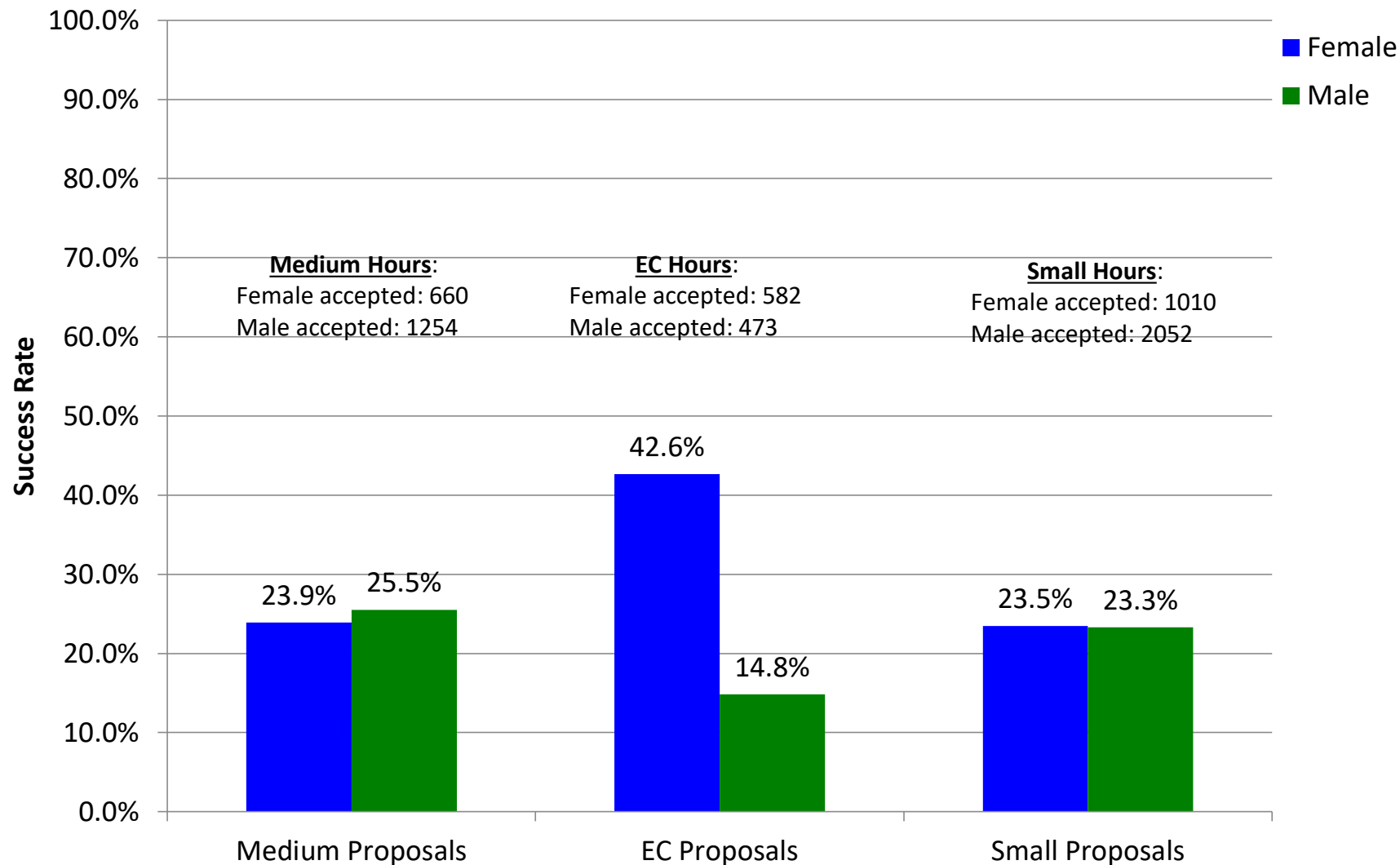


# Gender Success Rates by Proposals





# Gender Success Rates by Hours





## Gender Stats

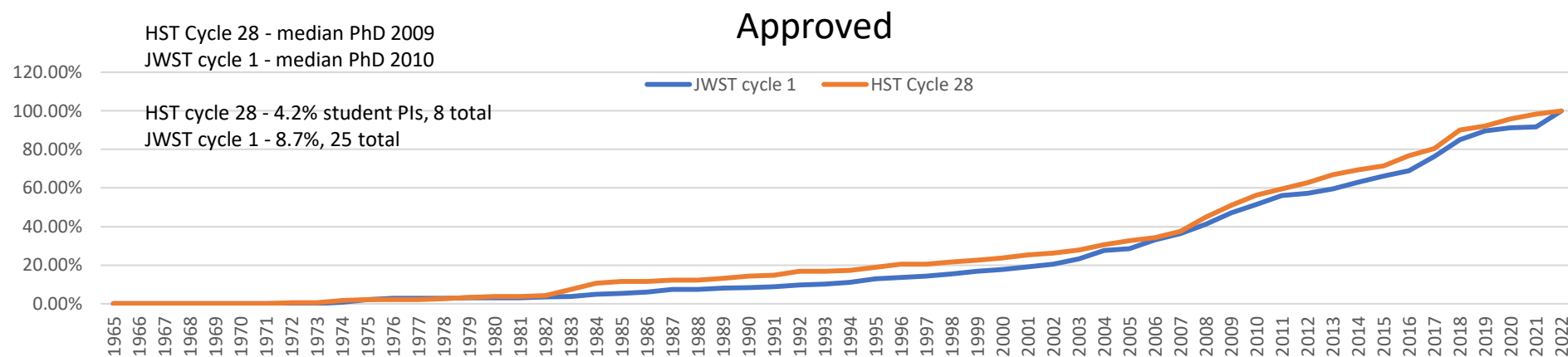
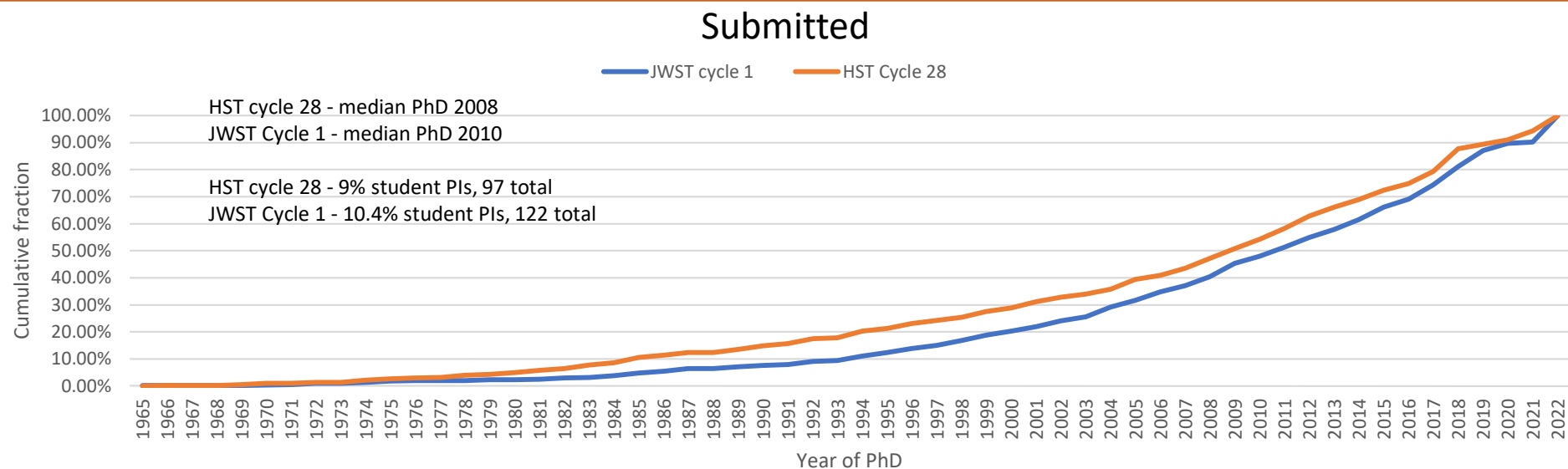
- Fraction of proposals with female PIs is higher than HST Cy 28
  - JWST Cycle 1 – 31.6%; HST Cycle 28 – 28.5%
- Fraction of female-PI accepted proposals
  - JWST Cycle 1 - 30.1% (86/286); HST Cycle 28 - 27.3% (52/190)
- Triaged Proposals
  - 151/370 for female PIs, 40.8%
  - 313/802 for male PIs, 39%

	JWST Approved	Cycle 1 Submitted	Success Rate	HST Approved	Cycle 28 Submitted	Success Rate
Proposals	286	1172	<b>24.4%</b>	190	1080	<b>17.8%</b>
Female PIs	86	370	<b>23.2%</b>	52	308	<b>16.9%</b>
Male PIs	200	802	<b>24.9%</b>	138	772	<b>17.9%</b>





# PI Seniority





# Proposal types

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## Calibration Programs

- 4 Submitted and 4 Recommended for 49.9 Hours

ID	Title	Instrument	Resources	Panel
01556	A Time Series Calibration of Medium Resolution Spectroscopy with MIRI	MIRI	12.8	ExoPlanets4
01666	Validating JWST's in-orbit clock accuracy	NIRCam	22.9	StellarPhysics3
01902	High resolution, high contrast kernel phase imaging with NIRCam	NirCam	4.3	ExoPlanets2
02627	Demonstrating a Model-based Coronagraphic Phase Retrieval for Processing of High-Contrast-Imaging Observations with the James Webb Space Telescope	NIRCam	9.9	ExoPlanets4

**These hours don't count against the GO science allocation**



## Data Science Software Archival Research Programs

- 4 submitted and 1 Recommended

ID	Title	Panel	Decision
02354	Preventing the Slit-Loss Catastrophe Using Flexible, Spatially Resolved Galaxy Models	Galaxies4	Recommend





## Mission Support Programs

ID	Hours	Title	Decision	Mission
01678	12.7	Calibrating Billions of SPHEREx Spectra from 2.4 to 5.0 um	Recommend	SPHEREx
01731	8.7	Variability and Abundance of Hydration on M-Type Asteroid (16) Psyche: The search for water on the largest metallic asteroid	Recommend	Discovery Mission Psyche
02060	3.39	Unraveling the primordial constituents and exogenic processes that shaped Callisto's surface	Recommend	Europa Clipper and JUICE
02574	25.52	JWST observations of Lucy mission targets	Recommend	Lucy



## Pure Parallel Programs

- 8 Submitted and 3 Recommended for 779 Hours

ID	Hours	Science Category	Mode	Title	Decision
01571	591	Galaxies	NIRISS WFSS	PASSAGE--Parallel Application of Slitless Spectroscopy to Analyze Galaxy Evolution	Recommend
02211	38	Solar System	NIRCam Imaging	A pure parallel survey of water in the asteroid belt	Recommend
02514	150	Galaxies	NIRCam Imaging	PANORAMIC -- A Pure Parallel Wide Area Legacy Imaging Survey at 1-5 Micron	Recommend

**02514 ranked highest for NIRCam imaging**



## Recommended Targets of Opportunity

ID	Hours	Disruptive Activations	Non-Disruptive Activations	Total Activations	Multi-Cycle	Type of ToO	Notes
01424	10		1	1		Gas Giant Storm Eruption	~14 days
01586	6.6		2	2		Black Hole Xray Binary	~14 days
01906	24.9		1	1		Massive Young Stellar Object	~14 days
01936	14.9		1	1	Yes	Kilonova	~14 days
01984	11.9	1		1		Kilonova Short Gamma-Ray Burst	2-5 days
02061	17.2	1		1	Yes	Kilonova	~2 days
02072	19.8 + 19.8 + 19.8		3	3		Type Ia Supernovae	> 60 Days
02091	9.3 + 2.7		1	1		Kilonova	>20 Days
02114	21.1		2	2		Type Ia Supernovae	> 70 days
02122	22.1		1	1		Core-Collapse Supernovae Type II Sne	> 30 days
02337	17.7	1		1		Next Interstellar Object	~ 14 days
02395	25	1		1		Kilonova	+10 Hours Cycle 2; 2-5 days
	<b>191.2</b>	<b>4</b>	<b>12</b>	<b>16</b>			



## INS Sniff Test Results

- Medium (non-Conflicted) and Executive Committee proposals were sent for review
  - 19 reviews of 12 Galactic programs
    - 17 with no or minor, fixable problems
    - 1 moderate and 1 major problem, both fixable
  - 19 reviews of 14 extragalactic programs
    - 15 with no or minor, fixable problems
    - 1 moderate/1 major fixable problem
    - 2 major possibly fixable problems
      - Problematic program 1-- not enough information in the proposal to determine if the science is feasible with the proposed exposure times.
      - Problematic program 3-- exposure time too short on 4 out of 18 observations.
  - 15 of 17 reviews of Executive Committee programs
    - 13 with no or minor, fixable problems
    - 2 with major fixable problems: 1 with exposure times too long for parallels; 1 with high data volume per visit
- The substantial majority of programs have no more than minor technical issues that can be dealt with through the standard review process. We do not recommend undue delay in the announcement of the program.

Instrument	# of Reviews
MIRI	14
NIRCAM	17
NIRISS	4
NIRSPEC	20



The background of the slide is a deep space image featuring a dense field of stars and a prominent nebula. The nebula, located on the left side, displays intricate patterns of blue and purple gas clouds. The rest of the frame is filled with numerous stars of varying brightness, some appearing as sharp points of light and others as soft, glowing clouds. The overall color palette is dominated by dark blues, purples, and whites from the starlight.

# Next Steps

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## Technical & Scheduling Reviews

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All proposals will be subject to technical and scheduling reviews by STScI staff

Key scheduling issues:

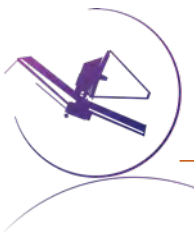
- High data volume – may preclude parallel observations in some instances
- Uninterrupted observations – only allowable when scientifically required

Some programs may require adjustments that lead to longer charged times

- We will be flexible in allowing some such adjustments in Cycle 1

Note disseminated to all PIs of accepted programs:

- *All program allocations are tentative, subject to successful technical and scheduling reviews by STScI staff. These reviews are particularly critical for Cycle 1. Staff will work with you to implement any necessary changes to optimize the program. Programs may be subject to cancellation if they are judged infeasible or they require the addition of significant additional resources.*



## Subscription level

- **8,760 hours in an observing cycle (one year)**
- **Cycle 1: 10,500 - 11,000 hours to plan:**
  - 6000 hours GO
  - 500 ERS
  - 3800 GTO
  - 500 cal
  - 100 DD

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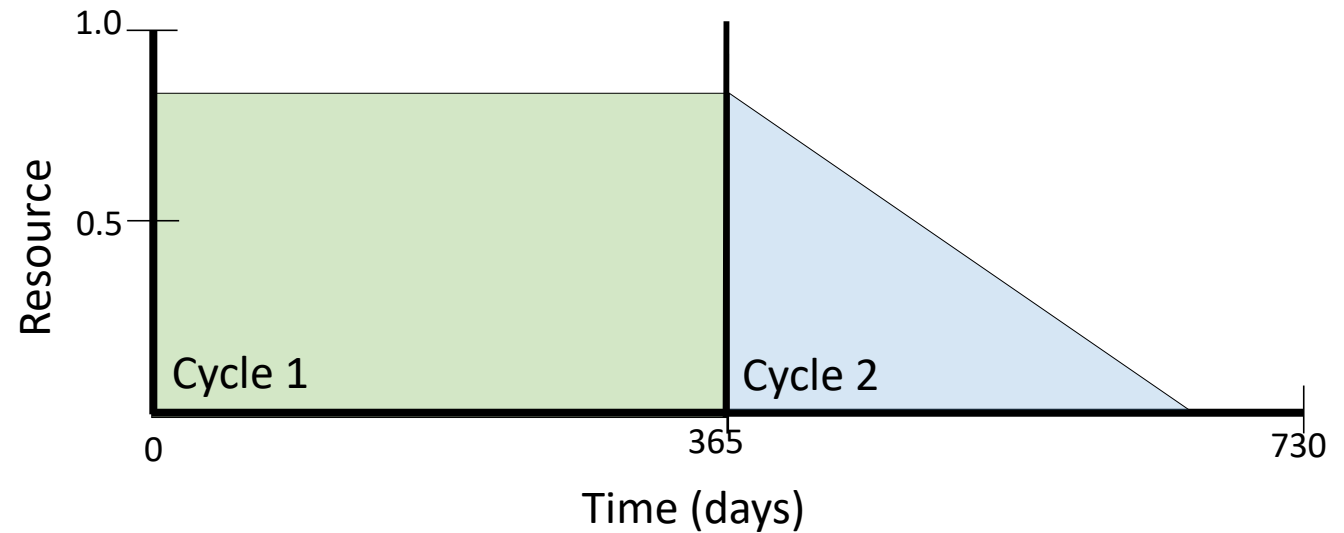
  - ~11,000 hours
- More than 25% of cycle material will appear in ***the cycle observing tail*** – ie, Cycle 2.
  - Observing tails help scheduling efficiency (more flexibility to fill gaps) – but result in some later plan windows.



## JWST SCIENCE PLANNING AND SCHEDULING

# Long Range Planning takes into account “unplannable” material

- LRP planners must account for *unplannable* or *unassignable* observations at the time of the build. (i.e., ToOs, DDs, WOPRs, some cals).
- Also, any science program not in a final *assignable* or *plannable* state.
- Since not all programs are plannable when the LRP is built, room needs to be left in the plan for their entry at some future time.
- Having a large amount of flight-ready material allows weekly schedulers to pull observations forward to fill inefficient gaps.



Combined with the large amount of accepted observations – ~11,000 hours including calibration programs – **many Cycle 1 programs will get observing windows in the Cycle 2 time-frame.**





# Investigator demographics

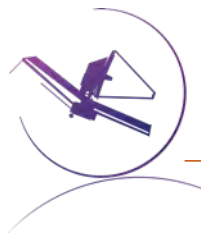
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## Countries of PIs

Country	Submitted	Approved	Country	Submitted	Approved
Australia	9	3	Italy	37	9
Austria	2	1	Japan	37	3
Belgium	6	1	Korea	4	
Brazil	5	2	Mexico	3	
Canada	43	10	Portugal	2	
Chile	14	1	Russia	1	
China	5	1	Spain	24	2
Denmark	16	4	Sweden	20	3
France	45	6	Switzerland	19	8
Germany	53	14	Taiwan	8	2
Greece	5	2	Thailand	1	
Hungary	1	1	The Netherlands	29	10
Ireland	3	1	United Kingdom	101	22
Israel	1		United States	680	180
			<b>Unique</b>	932	258
<b>CSA Proposals</b>	44	10	<b>ESA Proposals</b>	374	89





## US States by PIs

State	Submitted	Approved	State	Submitted	Approved	State	Submitted	Approved
AL	2		KY	6		OH	13	5
AZ	52	13	LA	2		OK	1	
CA	142	44	MA	54	10	PA	9	3
CO	9	2	MD	166	45	SC	2	1
CT	4		ME	1	1	TN	2	2
DC	7	2	MI	15	1	TX	40	13
DE	1		MN	7	1	UT	2	1
FL	13	3	MO	6	1	VA	14	6
GA	5	1	MT	2	1	WA	5	
HI	17	2	NC	4		WI	5	2
IL	25	8	NJ	10	4			
IN	3	2	NM	3				
KS	5		NY	26	6			
				STScI Proposals			87	22



## Countries of CoPIs

Country	Submitted	Approved	Country	Submitted	Approved
Australia	5	2	Ireland	1	
Austria	1		Italy	15	3
Belgium	1		Japan	15	8
Brazil	3		Korea	1	
Canada	18	6	Russia	1	
Chile	1	0	Spain	8	1
China	4		Sweden	9	5
Denmark	16	10	Switzerland	4	2
Finland	1		Taiwan	1	1
France	29	8	The Netherlands	10	7
Germany	21	10	United Kingdom	27	6
Greece	1		United States	250	101
Hungary	2	2			



## US States by CoPIs

State	Submitted	Approved	State	Submitted	Approved	State	Submitted	Approved
AK	1		LA	1		NY	10	2
AR	1		MA	24	7	OH	4	3
AZ	15	7	MD	60	24	OK	2	1
CA	48	22	MI	5	1	PA	5	1
CO	3	2	MN	2	1	TX	16	8
CT	3		MO	1		UT	1	
DC	6	4	MT	2	1	VA	6	3
FL	9	4	NJ	1	1	WA	1	
HI	6	4	NM	1		WI	1	
IL	12	3	NV	2	2	WY	1	



## Countries of Cols

Country	Submitted	Approved	Country	Submitted	Approved	Country	Submitted	Approved
Abu Dhabi	2		Greece	32	6	Portugal	30	9
Argentina	2	1	Hungary	22	7	Russia	12	4
Australia	199	77	India	22	5	Serbia	6	2
Austria	24	8	Iceland	12	3	South Africa	13	3
Belgium	99	24	Iran	4	1	Spain	333	76
Brazil	44	15	Ireland	39	15	Sweden	170	48
Canada	352	72	Israel	38	21	Switzerland	305	107
Chile	183	43	Italy	576	149	Taiwan	43	10
China	89	27	Japan	389	104	Thailand	9	1
Cyprus	4		Korea	44	11	The Netherlands	399	134
Czech Republic	13	2	Lebanon	1		Turkey	3	1
Denmark	269	74	Mexico	35	5	Ukraine	7	4
Finland	19	3	New Zealand	4	1	United Kingdom	1051	302
France	677	145	Norway	10	3	United States	6339	2080
Germany	822	251	Poland	20	5			
			<b>Unique Cols</b>	<b>4182</b>	<b>2189</b>	<b>Total Cols</b>	<b>12767</b>	<b>3859</b>
<b>CSA Cols</b>	<b>378</b>	<b>82</b>	<b>ESA Cols</b>	<b>5019</b>	<b>1395</b>	<b>Unique Investigators</b>	<b>4332</b>	<b>2264</b>



## US States by Cols

State	Submitted	Approved	State	Submitted	Approved	State	Submitted	Approved
AK	6	3	KS	47	11	OH	107	37
AL	17	2	KY	14	3	OK	15	6
AR	5		LA	13	7	PA	74	30
AZ	577	181	MA	539	143	RI	1	1
CA	1297	477	MD	1519	486	SC	17	5
CO	70	15	ME	16	7	TN	14	8
CT	70	25	MI	130	52	TX	399	136
DC	116	47	MN	65	17	UT	10	3
DE	3	2	MO	30	7	VA	158	50
FL	116	52	MT	11	3	VT	2	
GA	18	4	NC	17	3	WA	52	8
HI	97	23	NH	5	4	WI	40	15
IA	1	1	NJ	99	32	WV	6	2
ID	2		NM	22	6	WY	17	7
IL	198	84	NV	13	7	Virgin Islands	1	
IN	34	10	NY	259	58	<b>STScI</b>	861	245



## Canadian (CSA) Provinces and Territories

PIs			CoPIs		Cols	
Territory	Submitted	Approved	Submitted	Approved	Submitted	Approved
Alberta	2	1			10	7
British Columbia	5	1	7	3	57	12
Manitoba	1	0			15	0
Nova Scotia					1	0
Ontario	11	3	3	1	126	23
Quebec	24	5	8	2	143	30





## ESA Countries

PIs			CoPIs		Cols	
Country	Submitted	Approved	Submitted	Approved	Submitted	Approved
Austria	2	1	1		24	8
Belgium	6	1	1		99	24
Czech Republic					13	2
Denmark	16	4	16	10	269	74
Finland					19	3
France	45	6	29	8	677	145
Germany	53	14	21	10	822	251
Greece	5	2	1		32	6
Hungary	1	1	2	2	22	7
Ireland	3	1	1		39	15
Italy	37	9	15	3	576	149
Norway					10	3
Poland					20	5
Portugal	2				30	9
Spain	24	2	8	1	333	76
Sweden	20	3	9	5	170	48
Switzerland	19	8	4	2	305	107
The Netherlands	29	10	10	7	399	134
United Kingdom	101	22	27	6	1051	302

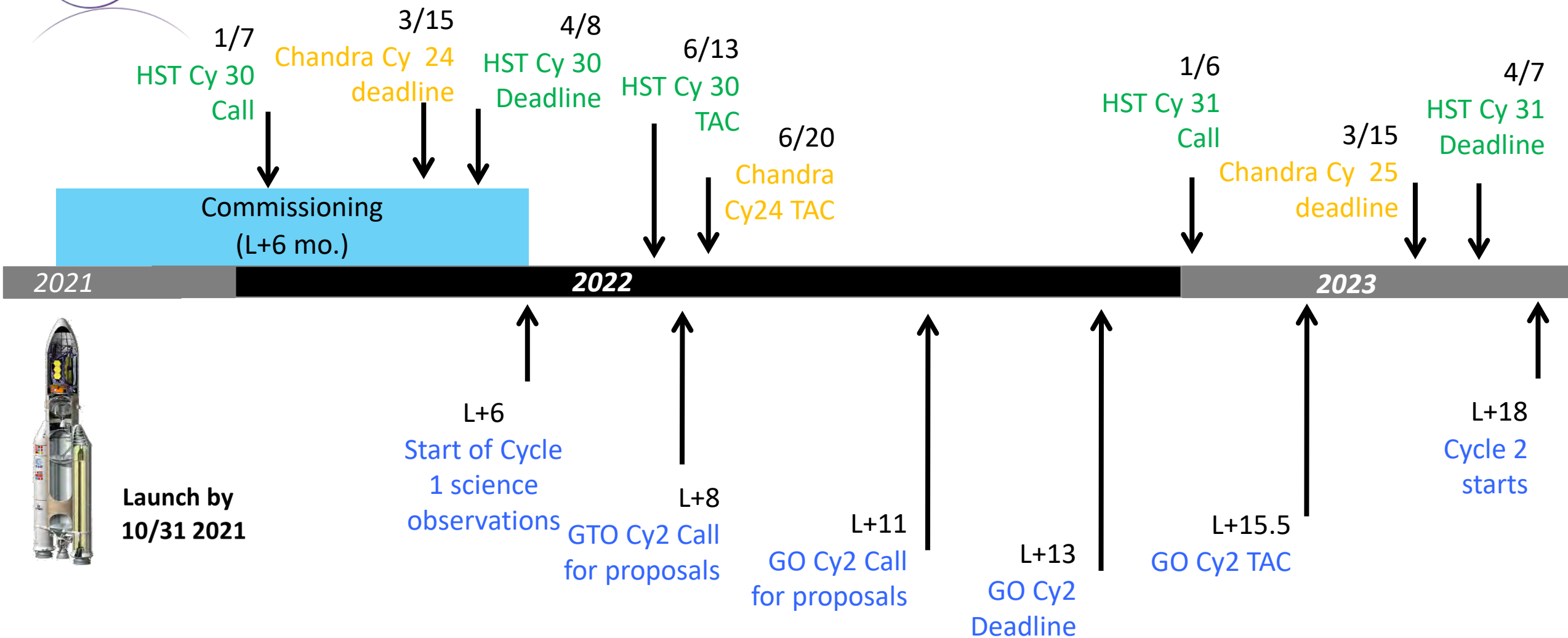


# Cycle 2 timeline

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## Science Timeline – JWST Cycle 2



HST & Chandra dates are estimates



The background of the slide is a deep space image featuring a dense field of stars of various colors (blue, white, yellow) and a large, complex nebula with swirling clouds of gas and dust in shades of blue, purple, and brown. The word "Summary" is centered in the middle of the image.

# Summary

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# Summary

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- Proposals
  - 286 proposals recommended from 1172 submitted
  - 5981 Hours are recommended for GO Cycle 1
  - 50 Hours are recommended from Calibration Pool
  - 15 Archival Research Programs recommended
  - 5 Theory Programs recommended
- Investigators
  - 258 unique PIs
  - 2264 Unique Investigators from >450 institutions
    - 41 Countries (44), 43 US States and Territories (47), 4 Canadian Provinces (6), 19 ESA Countries (19)
- The Cycle 1 Science Program
  - All proposals will be reviewed to verify technical and scheduling information
  - A long range plan, incorporating GTO, ERS and GO observations will be constructed
  - Observations will extend into Cycle 2





# Medium Programs

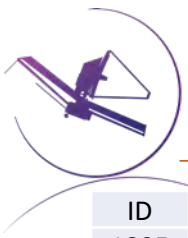
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# Medium Programs Recommended by the Galactic Review Panels

ID	Hours	Science Category	Title	Summary
1563	35	Exoplanets and Exoplanet Formation	Icy Kuiper Belts in Exoplanetary Systems	NIRSpec IFU and M* Rcam imaging for Kuiper belt regions for 4 nearby debris disk systems including Beta Pic, 49 Ceti, HD 32297, HD 181327
1633	39	Exoplanets and Exoplanet Formation	A Deep Molecular Survey of HD 189733b	MIRI and NIRCcam transit spectroscopy of HD 189733b over 5 transits to probe molecules in the atmosphere
1729	45	Exoplanets and Exoplanet Formation	A NIRSpec Phase Curve for the ultrahot Jupiter WASP-121b	Full phase curve with NIRSpec for WASP-12b to go with GTO NIRISS curve
1803	49	Exoplanets and Exoplanet Formation	Unlocking the Mysteries of the Archetype Sub-Neptune GJ1214b with a Full-Orbit Phase Curve	MIRI LRS observations of GJ 1214b through full phase curve, 2 eclipses and one transit
2372	68	Exoplanets and Exoplanet Formation	Deep Characterization of the Atmosphere of a Temperate Sub-Neptune	Use NIRSpec to measure transmission spectrum for K2-18b, 6 transits
2538	24	Exoplanets and Exoplanet Formation	Using JWST to search for Planetary Sculptors in an ALMA-Selected Sample of Debris Disks	MIRI coronagraphy of 5 systems with debris disk structure indicating the presence of a large planet
2589	54	Exoplanets and Exoplanet Formation	Atmospheric reconnaissance of the TRAPPIST-1 planets	NIRSpec and NIRISS observations of 8 transits of Trappist 1, planets b, c, g and h
1635	35 + 10 Cpar	Galaxies	Galaxy Protoclusters as Drivers of Cosmic Reionization	NIRSpec MOS observations of 8 candidate members of 2 protoclusters - look for rest-frame optical emission lines
1701	43	Galaxies	Dissecting the Prototypical Starbursts NGC 253 and M 82 and Their Cool Galactic Winds	MIRI MRS spectra, MIRI imaging and NIRCcam imaging of the central regions of NGC 253 and M82
1747	25	Galaxies	Linking Bright Galaxy Properties to IGM Opacity and Environment in the Early Epoch of Reionization with NIRSpec	NIRSpec prism observations of best $z \sim 8$ galaxy candidates from superBORG compilation
1783	45	Galaxies	JWST probes Feedback in Emerging extragalactic Star clusters: JWST-FEAST	Using NIRCcam and MIRI imaging of nearby galaxies to probe star formation and feedback at high spatial resolution
1810	46+ 36 Cpar	Galaxies	The Stellar and Gas Content of Galaxies at Cosmic Noon	NIRSpec MOS observations of 150 galaxies at $1.7 < z < 3.5$ . Two pointings in COSMOS field.
1840	34	Galaxies	ALMA [OIII]88um Emitters. Signpost of Early Stellar Buildup and Reionization in the Universe	NIRCcam & NIRSpec IFU observations targeting LAE/LBGs at $z > 6$ , known targets
1869	74	Galaxies	LyC22 - Deep spectroscopic insights on star-forming galaxies 2.2 Gyr after the Big Bang	Survey for Lyman continuum galaxies at $z \sim 3$ with NIRSpec MOS, targeting two fields currently being surveyed by Keck, Subaru and HST
1879	54	Galaxies	Opening the era of direct metallicity measurements in high redshift galaxies	NIRSpec MOS observation of 60 galaxies in COSMOS field



# Medium Programs Recommended by the ExtraGalactic Review Panels

ID	Hours	Science Category	Title	Summary
1895	53	Galaxies	FRESCO: The First Reionization Epoch Spectroscopic COmplete Survey	NIRCam grism imaging of the GOOD-N and GOODS-S fields
1914	64	Galaxies	The AURORA Survey: First Direct Metallicity Calibrations at High Redshift	NISpec MOS - COSMOS and GOODS-N fields
2123	74	Galaxies	A Pathfinder for JWST Spectroscopy: Deep High Spectral Resolution Maps of Galaxies over $1 < z < 6$	NIRSpec MOS spectra of 40 galaxies in HDUF
2130	28	Galaxies	Embedded Star Formation in Nearby Galaxies: The Advent of Parsec Scale Studies beyond the Magellanic Clouds	MIRI & NIRCam imaging of massive YSOs in the Magellanic Clouds
2136	32	Galaxies	The emergence of the modern Hubble sequence revealed by JWST slit-stepping	NIRSpec MOS observations of galaxies in EGS using stepping to map out systems
2321	41	Galaxies	The first blind H-alpha narrow-band survey of star-formation at $z > 6$	NIRCam narrowband imaging of COSMOS-CANDELS field to find emission line objects at $z > 6$
2391	67	Galaxies	The resolved properties of PAHs at low metallicity	MIRI & NIRCam imaging of dusty star forming regions in IC 1613 and Sextans A
2567	41	Galaxies	Do Massive Black Holes Come in Small Packages? A census of black holes in compact stellar systems in the Virgo cluster.	NIRSpec IFU spectra of ultracompact dwarfs IN Virgo to search for BH signatures
2593	39	Galaxies	CECILIA: A direct-method metallicity calibration for Cosmic Noon through the Epoch of Reionization	NIRSpec MOS spectra of $\sim 25$ galaxies at $z \sim 2-3$ selected from the Keck Baryonic structure survey, looking for strong lines
1995	26 + 11 Cpar	Large Scale Structure of the Universe	Answering the Most Important Problem in Cosmology Today: Is the Tension in the Hubble Constant Real?	Distances to SHOES galaxies - Cepheid, TRGB, SNIa - 11 galaxies
2046	38	Large Scale Structure of the Universe	A definitive test of the dark matter paradigm on small scales	Using MIRI imaging to measure 4-band photometry for quadruply imaged cold dust tauri - probe dark matter halos
2078	62 + 30 Cpar	Large Scale Structure of the Universe	A Spectroscopic survey of biased halos In the Reionization Era (ASPIRE): A JWST Quasar Legacy Survey	NIRCam WFSS observations of 25 QSOs $6.5 < z < 6.8$ with ALMA data, looking for associated galaxies
1568	45	Solar System Astronomy	An Ultra-Sensitive Pencil Beam Search for 10 km Trans-Neptunian Objects	Deep imaging with NIRCam in a single ecliptic field (3x3 mosaic) at 3 epochs to find tiny TNOs
2416	26	Solar System Astronomy	Measuring Volatile Production in Active Centaurs with JWST NIRSpec	NIRSpec IFU observations of 4 active centaurs
2574	26	Solar System Astronomy	JWST observations of Lucy mission targets	NIRSpec and MIRI spectra of asteroids targeted by the Lucy mission



# Medium Programs Recommended by the ExtraGalactic Review Panels

ID	Hours	Science Category	Title	Summary
1802	65	Stellar Physics and Stellar Types	Investigating Protostellar Accretion Across the Mass Spectrum	NIRSpec & MIRI MRS observations to probe accretion and feedback in 5 protostars
1947	45	Stellar Physics and Stellar Types	JWST Survey of the Prototypical Core-collapse Supernova Remnant Cassiopeia A	NIRSpec IFU, MIRI imaging, NIRCам imaging MIRI/MRS of Cass A
2302	75	Stellar Physics and Stellar Types	Bolometric Luminosities of Cool Brown Dwarfs: The Key to Their Effective Temperatures and the Mass Function	NIRSpec & MIRI spectra & MIRI imaging of brown dwarfs from 1-21 microns
2395	25	Stellar Physics and Stellar Types	A comprehensive view of a binary neutron star merger	Rapid ToO and longer term follow up spectra of GW event
2473	39	Stellar Physics and Stellar Types	Multiplicity Survey of 20 Y Dwarfs with NIRCам Kernel Phase Interferometry	NIRCам imaging of 20 Y dwarfs
1617	36	Stellar Populations and the Interstellar Medium	The Boundary of Galaxy Formation: Constraints from the Ancient Star Formation of the Isolated, Extremely Low-Mass Galaxy Leo P	Deep imaging with NIRCам of Leo P to get below the turnoff and derive an age estimate and ancient SFH
2183	31	Stellar Populations and the Interstellar Medium	Illuminating the dust properties in the diffuse ISM with JWST	MIRI MRS & NIRCам grism of los spectra towards OB stars probing diffuse ISM
2331	60	Stellar Populations and the Interstellar Medium	Unveiling Grain Growth in Very Dense Galactic Cores	MIRI MRS spectra on sightlines through 3 dense cores to probe ISM, absorption features in background stars
1670	34	Supermassive Black Holes and AGN	Closing in on the launching sites of AGN outflows	MIRI MRS observations of 6 AGN to probe the kinematics and ionisation states at the cores
1717	28	Supermassive Black Holes and AGN	Feedback around Supermassive Black Holes in Dusty Nuclei	MIRI MRS spectra of the nuclei of 7 nearby IR luminous galaxies
1764	66 + 9 Cpar	Supermassive Black Holes and AGN	A Comprehensive JWST View of the Most Distant Quasars Deep Into the Epoch of Reionization	NIRSpec, MIRI, NIRISS, NIRCам imaging and spectroscopy of the only 3 quasars known at $z > 7.5$
1967	50	Supermassive Black Holes and AGN	A Complete Census of Supermassive Black Holes and Host Galaxies at $z=6$	NISpec fixed slit plus NIRCа, imaging of 12 lowest luminosity QSOs at $z > 6$
2016	32	Supermassive Black Holes and AGN	Revealing Low Luminosity Active Galactic Nuclei (ReveaLLAGN)	NIRSpec & MIRI/MRS observations of low luminosity AGN

43 medium proposals – 32 charged against the medium panel allocation; 11 from the small hours allocation