Proposal Cycle: Updates and Plans

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Previous actions

Highlights of CDO activities — summer workshop

Report on Cycle 23

Plans for Cycle 24

Summary

CUC 8 & 12 Nov 2021

Previous Actions

The committee renews our recommendation that the Director keeps exploring the possibility of Joint Observing programs with ALMA.

Discussed at the ALMA board meeting earlier this year. Currently with the ALMA Director.

We recommend the addition of "pull-down", readily visible Resource Cost on a target by target basis to be implemented for the next proposal Cycle.

In progress, on track for release in the new year.

Previous Actions

Issues around remote reviews

Missing in Action reviewers: trend for reviewers to get sidetracked by work and/or family commitments during a virtual review.

(1) informally name a back-up secondary on all proposals in the event that such an interruption occurs

This would add considerably to the panel workload prior to the review — works well with panels with ~10-15 proposals.

Previous Actions

Issues around remote reviews

(2) Set clear deadlines for when certain activities should be completed (e.g., finish discussions by X time/date, complete primary reviews by Y time/date, etc.) to help stay on track and set expectations.

Will be implemented for Cycle 24 with an improved and more detailed agenda.

(3) Option to attend virtually — "hybrid" reviews

Not recommended by NASA HQ

Highlights

Cycle 23 Peer Review:
21st - 30th June- 2021, Fully Remote.

Target List posted 23rd July

E-letters, including approved targets and peer review reports were mailed 30th July

Budget letters were mailed 12th Aug

Cost proposal deadline: 23rd Sept 2021

Highlights

Time Domain Science Working Group: Pat's presentation.

Summer Workshop: Novel Methods in Computing and Statistics for X-ray Astronomy

Virtual workshop - 6 days of talks, 3 hours per day, 19 invited speakers.

400+ registrations

3 days of in-depth tutorials, including the Chandra Source Catalog, Sherpa, Bayesian X-ray analysis, advanced DS9 and 3ML.

Discussion with AAS Journals on data/software aspects of publishing.

Discussion with former X-ray astronomers turned Data Scientist

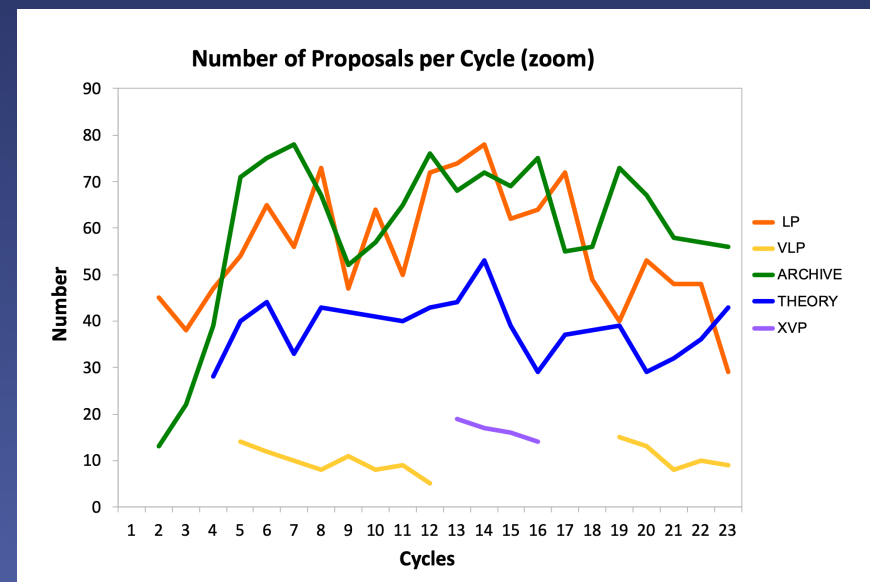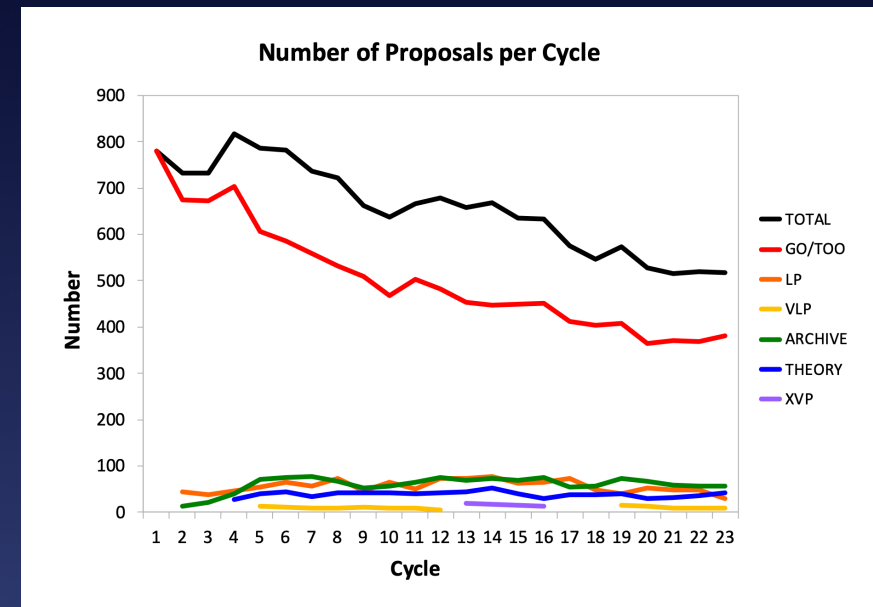66 talks (invited, contributed, and lightning) posted to YouTube

Cycle 23 Proposal Statistics

517 proposals submitted:
- GO 380 (inc. TOO, 368)
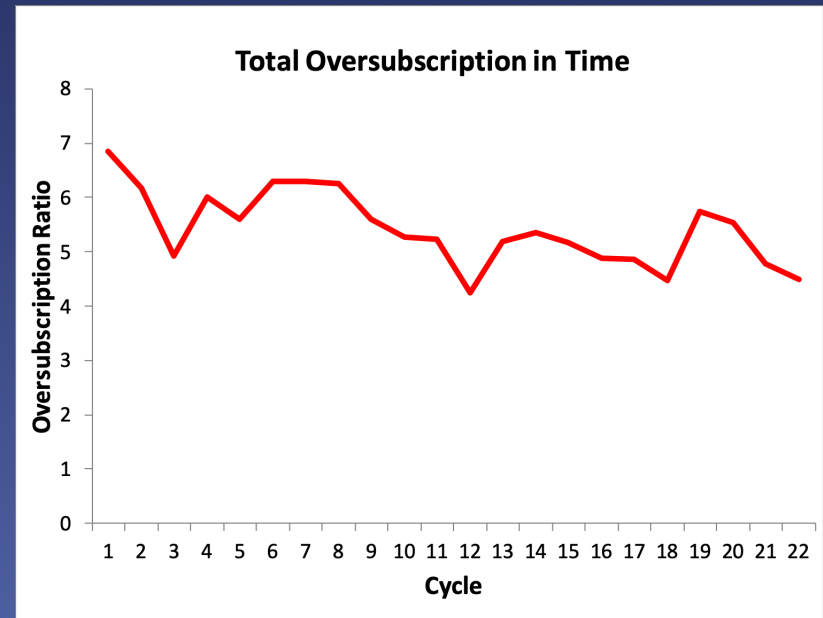- LP 28 (47)
- VLP 9 (10)
- Archive 56 (57)
- Theory 43 (36)

154 approved.
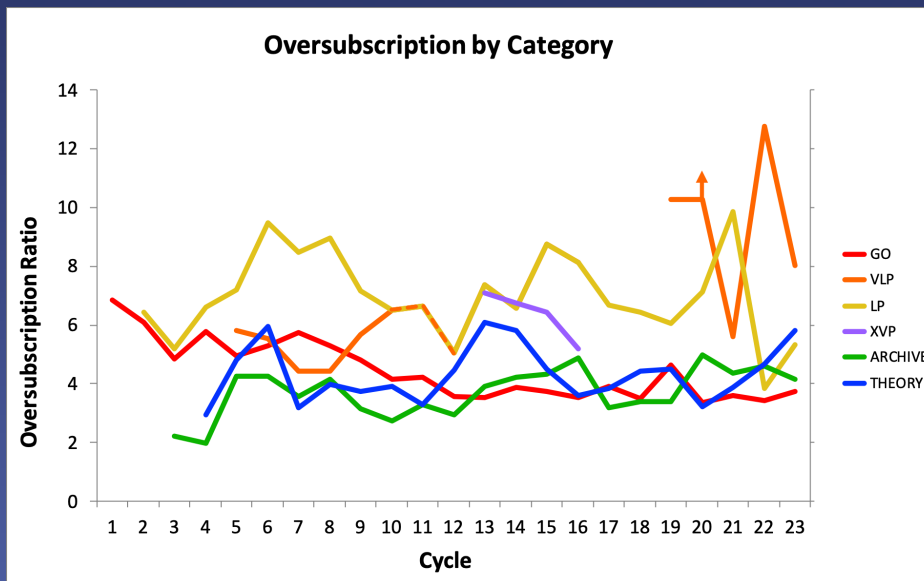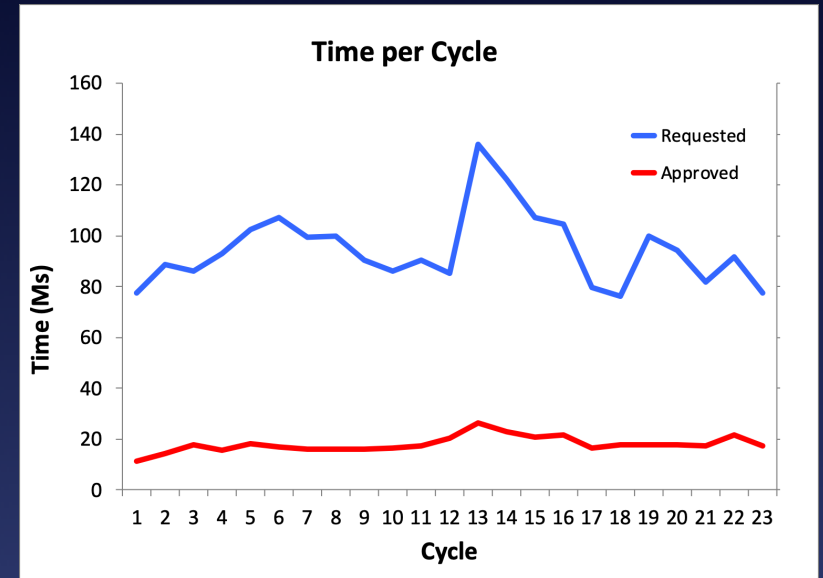
Decline in LP submissions likely due to the extra time available in Cycle 22

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Cycle 23 Proposal Statistics

- Total Time: 17 Ms
- Oversubscription in time: 4.5
- GO oversubscription: 4.0
- LP oversubscription 5.3
- VLP oversubscription 8.0
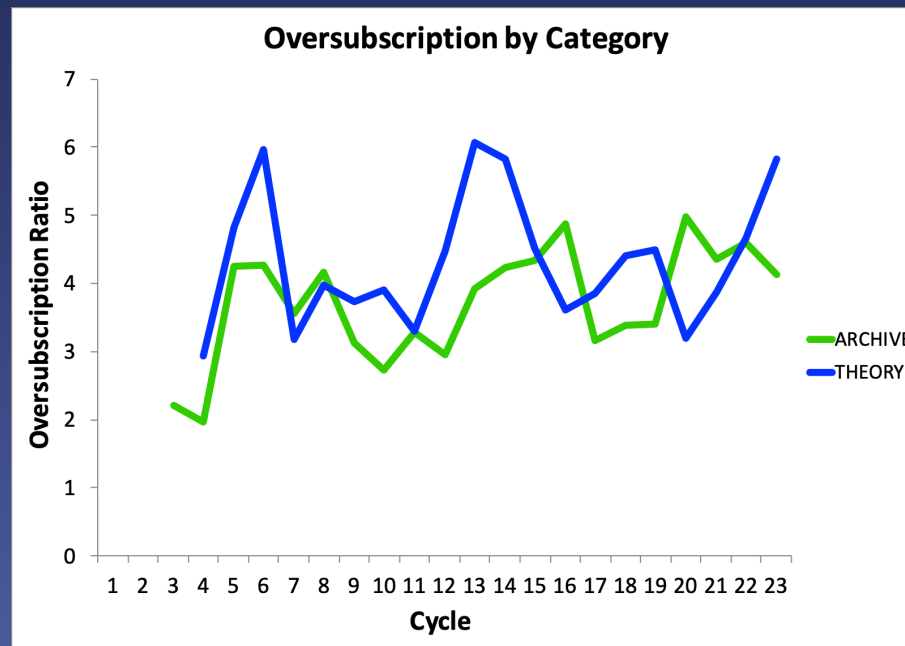- One VLP approved

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Cycle 23 Proposal Statistics

Archive:
- Budget: $1050K
- Allocated $1065K (15)
- Over-subscription: 4.1

Theory:
- Budget: $600K
- Allocated: $597K (7)
- Over-subscription: 5.8

Oversubscription by Category

(Legend: ARCHIVE, THEORY; X-axis: Cycle; Y-axis: Oversubscription Ratio)

Dual Anonymous Peer Review (DAPR)

Mandated by NASA to minimize effects of unconscious bias.

Elements of DAPR:

Proposers do not know who the reviewers will be AND the reviewers do not know the identity of the proposing team.

Proposals need to be "anonymized".

Panel discussion should not include speculation as to the identity of the proposing team: levelers are present to monitor and redirect if necessary.

After the final rankings, Team Expertise documents for highly ranked proposals are distributed to reviewers. Panelists can express concern as to the background of the proposing team, but not change rankings.

Dual Anonymous Peer Review (DAPR)

What went well:

Most US reviewers comfortable with DAPR format.

Proposers conscientious about anonymizing proposals: multiple minor violations found but only one proposal rejected.

69/72 reviewers surveyed rated DAPR process as good, very good or excellent (51 as very good or excellent).
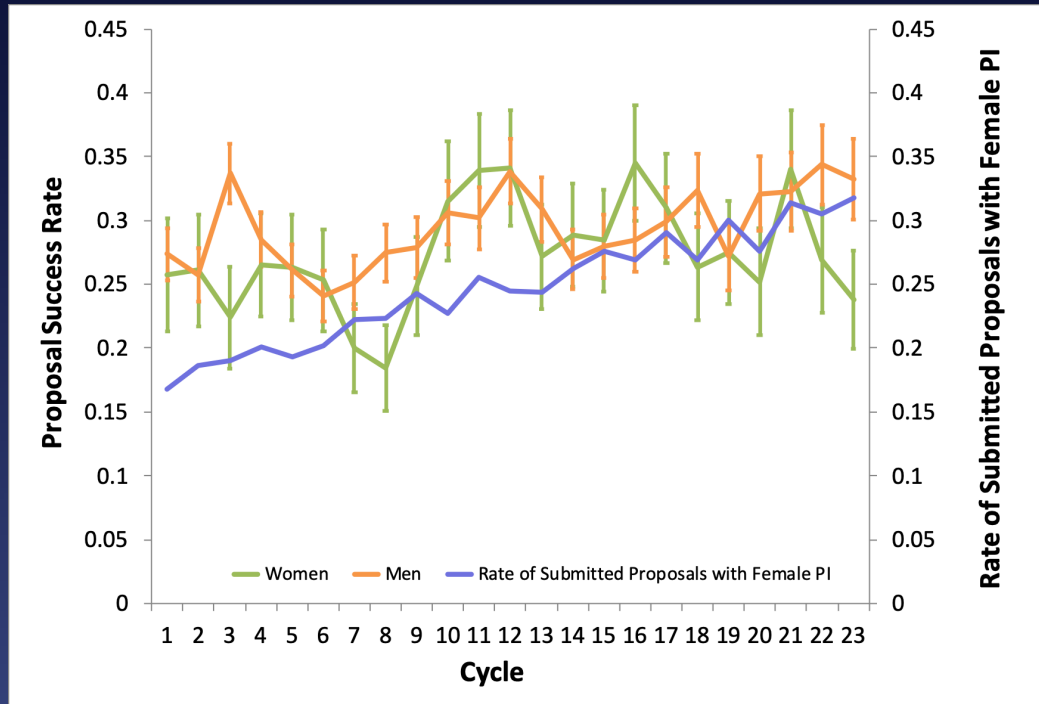
Challenges:

European reviewers not as familiar with DAPR.

Many questions on grey areas: giving necessary science background vs. giving clues as to the identity of the team.

Leveler role is tedious and frustrating: possible issue for recruiting volunteers in future cycles.

Dual Anonymous Peer Review

Since cycle 10, success rates for male and female proposers statistically indistinguishable. Underlying trends for senior women to do less well than male peers apparent in data.

Downtick in female success rate for Cycle 23

Small number statistics - 7 more successful proposals necessary to bring numbers up to 30%

Fewer junior and mid-career women applying — impact of pandemic?

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Plans for Cycle 24

Continue with ~4 Ms to Big Project Panel and ~11.5 Ms to topical panels.

Note that additional time may become available if not all Joint Time allocated. Historically this allocated to the BPP due to oversubscription

Keep Very Large Projects, requirement ≥ 1 Ms

High Ecliptic Latitude (HEL) time will be limited.

Give Joint Partner Observatories an allocation of HEL time and Resource Costs.

Plans for Cycle 24

Continued thermal restrictions => more splits

Some splits are 10-20 ks, can be spread over long time period (months).

In order to better manage splits:

A new flag for phase constrained observations: do unique parts of the phase need to be covered if the observation is split, and the splits are placed in different phase windows?

A new split constraint: if this observation is split, the splits must be completed within N days, where N is specified by the proposer in CPS.

Item in CfP "what's new" emphasizing the likelihood that longer observations will be split

Cycle 24 and Beyond

Chandra's orbit evolving into another "low perigee" season as was the case in ~Cycles 12-14.

Additional observing time will be available in the next ~3 Cycles.

Total increase per year varies from ~600 ks to ~1 Ms - not enough for an XVP program.

LP/VLP oversubscription has historically been higher than that for shorter proposals.

Allocate extra time to these programs?

Final decision should be based on the actual oversubscription for received proposals.

CUC input welcome

Summary

First DAPR peer review went well.

Very successful Data Science workshop in August.

No major changes for Cycle 24:

 New constraints for managing split observations.
 Allocations of HEL time and RC to our JPOs

Increased science time for the next ~3 cycles.
Allocation will depend on oversubscription but
historical trends indicate most extra time will go to the
BPP.