



**STScI** | SPACE TELESCOPE  
SCIENCE INSTITUTE

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

# HST Cycle 32: Dual Anonymous Peer Review (DAPR)

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# Why Dual Anonymous Proposal Review?

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Primary objective of peer review process:

**Best-Justified Science**

**Anonymising proposals:**

Places focus directly on **Science**

Removes focus from **Team**



# DAPR: What it is and what it isn't.

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## What it is:

- Proposing team identity ambiguous.
- Removes focus from team, encourages focus on **science**.

## What it isn't:

- Completely anonymous (eliminating all possibly-identifiable information).
- A **challenge** or **test** for reviewers.



# Why do this? Does it work?

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Why do this?

**Human brains are biased.**

Does it work?

**Yes!**



# Unconscious Bias

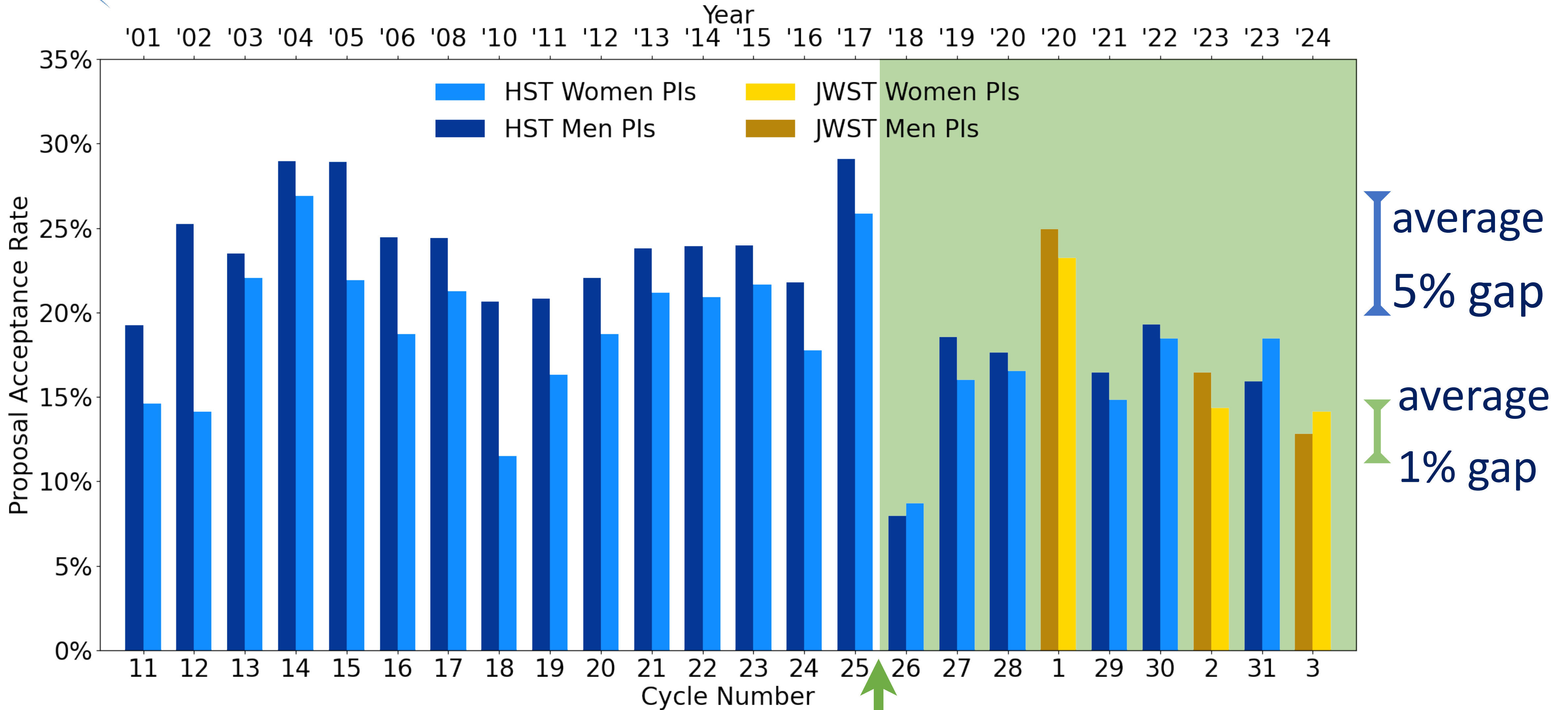
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- Human brains make shortcuts.
- When training data is biased, shortcuts are biased too.
- Leads to **unconscious** biases, even for people who are not **consciously** biased.
- Unintended consequences, e.g., ability to identify best scientific merit.
- **Lasting negative effects** on careers, particularly women and other underrepresented groups in STEM.
  
- DAPR is designed to help **mitigate** biases, it is **not *bias-free***.
- We encourage you to seek formal unconscious bias training.



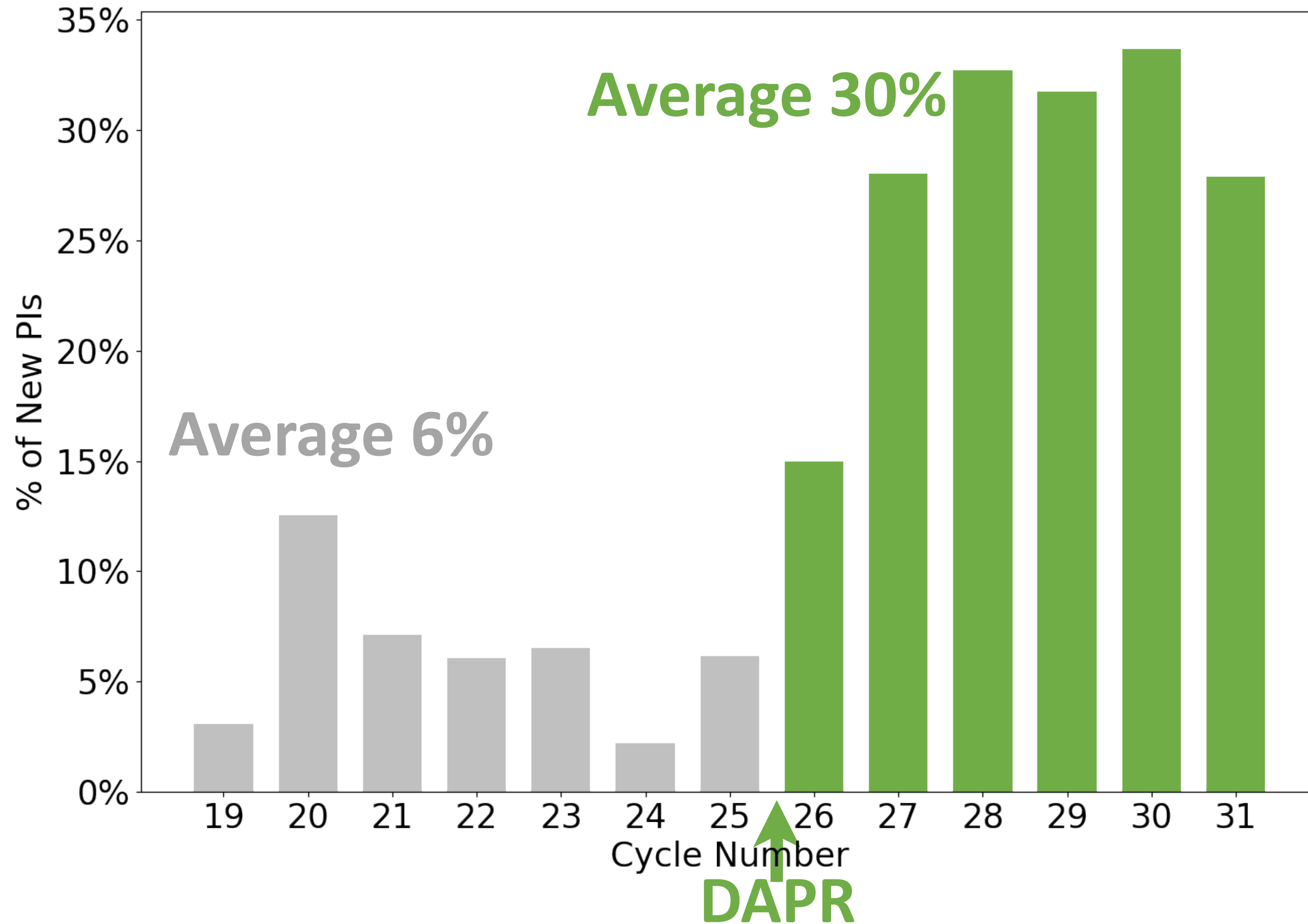
# Impact: Decreasing the Gap in Gender Bias

*We acknowledge the limitations and exclusive nature of binary gender statistics.*





# Impact: Enticing New Proposers





# Caution



HST binary  
gender award  
gap

Various other  
inequities due to  
conscious and  
unconscious  
identity biases





# DAPR for **Proposers**: The Do Nots

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- ✘ Names of proposing team
  
- ✘ Affiliations of proposing team
  
- ✘ Links to personal websites, ADS libraries
  
- ✘ Claims of ownership:
  - *In **our** recent analysis, **we** showed ... (Cannon et al. 2015).*
  - *Combined with data from **our** JWST Cycle 1 program (GO-1234), we will....*
  - ***We** have discovered 5 new candidates (Tinsley et al., in prep)....*
  - *We will use **our** proprietary software tool MySuperPipeline to perform...*



# DAPR for **Proposers**: The Dos

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- ✓ Focus on work proposed.
  - *We propose to... This program will measure the effects of...*
- ✓ Provide all relevant information needed to assess scientific merit.
- ✓ **Fully and properly cite relevant work. (DAPR is *not* an excuse to skip citations.)**
  - *In a recent analysis, Cannon et al. (2015) showed....*
  - *We will supplement this with data from JWST Cycle 1 program GO-1234 to....*
  - *Recently, 5 new candidates were discovered (Tinsley, **private communication**)...*
  - ***By prior agreement** with the developers, we will use *proprietary* MySuperPipeline to perform...*
- ✓ Proprietary data and software should also be cited.
  - *private communication, by prior agreement, in prearranged collaboration*



# DAPR for Reviewers: The Do Nots

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- ✘ Do not try to guess the proposing PI or team!
- ✘ This is **not** a challenge or a test.
- ✘ Do not comment on the experience and expertise of the team.

Guesses are  
often **wrong!**



## DAPR for **Reviewers**: The Dos

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- ✓ Focus on the **scientific merit** of the work proposed.
- ✓ Comments refer to the **proposal** not the **proposers**.
- ✓ Assume the team can do the work.
- ✓ *Private communication* is **not** code for “hey, we’re the team”. It can (and often does!) mean information was communicated privately.



# Non-Compliant Proposals

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⚠ Egregious breaches of anonymity or minor accidental slip-ups.

✓ **Report** any cases to your **PSS** and your **SPG manager**.

✓ Not sure? **Report** it anyway.

*Major violations, we will probably:*

✗ Remove from consideration. Disqualify.

*Minor slip-ups, we will probably advise you to:*

✓ Ignore the instance and proceed with your review of the **scientific merit**.

✓ Highlight anonymity concern in feedback comments.

⚠ If you find you can't ignore it, **report** again.



# Team Members & Team Expertise Statements

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⚠️ **You will not see these.**

⚠️ **Not** anonymous.

❌ **Not** considered during scientific merit review.

✅ If you have serious concerns about expertise for extremely complex or exceptionally high-risk programs, leave a comment in the *Technical Notes* section. (We expect these comments to be rare.)

⚠️ Comments to proposers should be based on the **scientific merits**, not on the team or their expertise.



# Summary of Key DAPR Points

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- ✓ Focus on the **scientific merit** of the proposals.
  
- ✗ Do not try to guess the proposing team.
  - Proposals should not include identifying information, but should cite relevant work.
  
  - **Report** non-compliant proposals to your PSS and SPG manager.
  
- ⚠ DAPR **mitigates** bias, but is *not bias-free*.