Fermi Guest Investigator Opportunities

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Fermi GI Program Overview

• Broad community participation greatly enhances the scientific productivity of the Fermi mission
  – This is facilitated through a rigorous Guest Investigator (GI) program

• Primarily proposals for grant support
  – All science data products and basic analysis tools are publicly available through the FSSC as are proposal preparation and submission details
Program Overview (con.)

• Participants can propose:
  – Analysis of all public data products
  – Correlated observations relevant to Fermi
    • Includes opportunities to participate in joint observation programs w/NRAO, NOAO, VERITAS, TESS and INTEGRAL
    • Observation time on these facilities available through the Fermi program
  – Theoretical investigations relevant to Fermi
Program Overview (con.)

• 2-stage review process
  – The first stage is the *science review*
    • Dual-anonymous peer-evaluation process
  – Budget proposals are solicited from successful first stage proposers
    • Internal review by NASA

• Support for ~35 research programs
  – Our goal is for ~$75k average grants, although
  – Also 1+-1 new Large Projects @ ~$150k per year
Recent History: Cycle 13 Summary

- 109 proposals received, 41 selected (40 grants)
- 38% approval rate, similar to Cycle-12 and an improvement \textit{wrt} past cycles
  - Cycles 5-10 average was 22%
- Recent selection rate is \textit{~}consistent with the average for NASA GO programs
# Cycle 13 Proposal Statistics

## Requests

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<th>Total Allocation</th>
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<tr>
<td>109 proposals received, involving 344 individual investigators from 175 institutions and 25 countries</td>
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<td>41 selections, 40 grants awarded</td>
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<td>oversubscription is ~2.7X (or ~37% selection rate)</td>
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## Joint programs

| NRAO: (11/300) | (450-600 hrs on GBT, VLA & VLBA) |
| NOAO: (6/380) | (3-5% for various telescopes) |
| VERITAS: (0/0) | (120 hrs) |
| INTEGRAL: (0/0) | (250 ksec) |

## Awarded:

- 41 Programs (40 grants)
- 1 Large Project (VLBA Blazar monitoring)
- $2.85M (+ $0.15M obligations)
- Average grant: $74k

| NOAO: 3 / 250 hrs |
| NRAO: 5 / 160 (4 VLA/VLBA, 1 GBT) |
| INTEGRAL: 0/0 |
| VERITAS: 0/0 |
Topical Distribution

- ACTIVE GALACTIC NUCLEI: 17%
- Anal Methods/SW: 7%
- Binaries: 5%
- Cosmolgy: 7%
- GAMMA-RAY BURSTS: 12%
- Fermi Bubbles, CRs: 3%
- Magnetars: 5%
- Multi-Messenger: 7%
- Novae: 5%
- PULSARS: 15%
- Survey: 6%
- Stars, SNe: 3%
- Solar Flares: 2%
- CRs/ISM: 5%
- TGFs: 2%
New for Cycle-14 and Beyond

• All proposals will be evaluated in the context of a dual-anonymous peer review process
• This is the case for all NASA GO/GI programs as well as ADAP, ATP and others
What is Dual-Anonymous Peer Review?

• In dual-anonymous peer review, the reviewers do not have explicit knowledge of the identities of the proposing team during the scientific evaluation of the proposal.

• The primary intent of dual-anonymous peer review is to eliminate “the team” as a topic during the scientific evaluation of a proposal.

• This creates a shift in the review-panel discussions, away from the individuals, and towards a discussion of the scientific merit of a proposal.

• The goal is to **eliminate or at least minimize Conscious and Subconscious Bias** in the selection process.
Dual Anonymous Proposal Preparation

- Stage-I proposal submission done as before via ARK/RPS
  - Include PI and all co-I info as in the past
  - Names are known to us but hidden from reviewers
  - Numerical references, no “first person” attributions
  - Panelists may not speculate PI, co-I identities
  - Include “team identity and expertise” page
- Relaxes certain types of panelists conflicts of interest
- **After** deliberation and grading names will be revealed
  - A proposal can then be disqualified, but not re-scored
Submission of Anonymized Proposals

- Exclude names and affiliations of the proposing team, including in figures and references to personal websites.

- Do not claim ownership of past work, e.g., “my previously funded work...” or “our analysis shown in Baker et al. 2012...”

- Cite references in the passive third person, e.g., “Prior analysis [1] indicates that ...”.

- Do describe the work proposed, e.g., “We propose to do the following...” or “We will measure the effects of...”

- Include a separate not-anonymized “Expertise and Resources” document.
Example of Anonymization

• In Rogers et al. (2014), we concluded that the best explanation for the dynamics of the shockwave and the spectra from both the forward-shocked ISM and the reverse-shocked ejecta is that a Type Ia supernova exploded into a preexisting wind-blown cavity. This object is the only known example of such a phenomenon, and it thus provides a unique opportunity to illuminate the nature of Type Ia supernovae and the progenitors. If our model from Rogers et al. (2014) is correct, then the single-degenerate channel for SNe Ia production must exist. We propose here for a second epoch of observations which we will compare with our first epoch obtained in 2007 to measure the proper motion of the shock wave.

• Here is the same text, again re-worked following the anonymizing guidelines:

• Prior work [12] concluded that the best explanation for the dynamics of the shockwave and the spectra from both the forward-shocked ISM and the reverse-shocked ejecta is that a Type Ia supernova exploded into a preexisting wind-blown cavity. This object is the only known example of such a phenomenon, and it thus provides a unique opportunity to illuminate the nature of Type Ia supernovae and the progenitors. If the model from [12] is correct, then the single-degenerate channel for SNe Ia production must exist. We propose here for a second epoch of observations which we will compare with a first epoch obtained in 2007 to measure the proper motion of the shock wave.
Cycle 14 Timeline

- **Schedule**: Feb. 19, 2021 proposal due date
  - ~late April 2021; virtual review
  - Stage-I selections
  - July/August stage-II awards

- Hope to again select 30-40 programs

- No significant policy changes other than dual-anonymous review process
Additional Information

• Again, for all proposal preparation details please visit the FSSC Web site, in particular the “Proposals” page:
  ➢ https://fermi.gsfc.nasa.gov/ssc/

• Also, feel free to make use of our helpdesk with any Fermi-related questions

• **Good luck with your Fermi proposals!**