



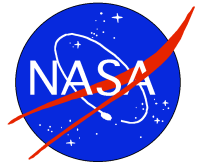
GLAST

Guest Investigator Opportunities

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GLAST Cycle-1 GI Program



- ***ROSES NRA release in February, 2007***
 - *Includes GLAST Cycle-1 GI program description & call for proposals*
- ***Yearly cycles, beginning ~2 months after launch.***
- ***Funding (approximate & subject to change)***
 - *typically \$50-100K per investigation.*
- ***Cycle 1 (first year) expect:***
 - *~50 proposals accepted;*
 - *subsequent years ~100 proposals accepted*
- ***Actual numbers could differ significantly***



GLAST Cycle-1 GI Program

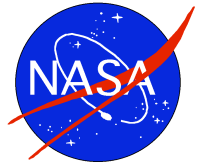


Cycle 1 funding for:

- *Analysis of released GLAST data products*
- *Correlated multi- λ observations.*
- *GLAST-related theory.*
- *GLAST-relevant data analysis methodology.*
- *Subsequent mission cycles:*
 - *All the above plus detailed analysis of LAT event lists & pointed observation requests.*



Cycle-1 Schedule



- **Proposal aids on GSSC website: March, 2007**
- **Notice of Intent due (optional): April, 2007**
- **Two stage proposal process**
 - *Separate science & budget evaluations*
- **Stage 1 proposals due: **June 15, 2007****
- **Stage 1 evaluations released: October, 2007**
- **Launch: **November 2007****
- **Stage 2 proposals due: November, 2007**
- **Cycle 1 notifications released
November/December, 2007**
- **Cycle 1 begins: Dec 2007/Jan 2008**

For more info: <http://glast.gsfc.nasa.gov/ssc/proposals/>



Planning a GLAST Proposal



Cycle 1:

- **What data products are available**
 - *Data for about 20 sources to be posted*
 - http://glast.gsfc.nasa.gov/ssc/data/policy/LAT_Monitored_Sources.html ➤
 - *Energy-dependent light curves*
 - *Photon model fits*
- **Additional sources w/ $> \sim 2 \times 10^{-6} \text{ cm}^{-2} \text{ s}^{-1}$ likely to be added**
- **Project is open to consideration of user requests for additional sources**
 - *e.g. based on radio or optical variability*
- **However, not all such requests can be accommodated**



How to Plan a Proposal

- **Online documents & tools:**
 - *How much exposure will be accumulated?*
 - *Full sky every ~3 hr; nominal ~1/6X duty cycle*
 - *What S/N per time, energy interval can I anticipate?*
- **Sensitivity estimation: gtsens**
 - *WWW based interface*
 - *Input source & background parameters, exposure*
 - *Computes significance estimate (Test Statistic), or needed exposure*
- **Simple spectral model simulations**
 - *WebSpec: GLAST-specific implementation*
 - *Entails certain simplifying assumptions*
- **Cycle 2 & Beyond: more rigorous simulations can be done within GLAST SAE**



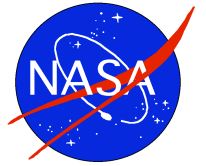
How to Submit a Proposal



- ***Two stage proposal process:***
 - *Stage 1—scientific justification submitted through RPS (now called “AKBAR”).*
 - *Simple & intuitive www-based system*
 - *Highly familiar to high-E astrophysics community*
 - *Stage 2—funding request for successful stage 1 proposals, submitted through NSPIRES.*
 - *WWW-based facility familiar to astrophysics community*



Peer Review Process (Stage 1)



- **NASA HQ has final oversight**
 - *GSSC will manage reviews*
- **GLAST will follow general OGIP model**
 - *Topically focused committees*
 - *Primary/secondary reviews of each proposal + panel discussion*
 - *Committees deliver ranking + written evals to NASA*
- **What are the evaluation criteria?**
 - *Scientific excellence (in accordance w/NASA mission statements)*
 - *Pertinence to GLAST mission objectives*
 - *Deemed likelihood of success*
 - *Impact on project resources (Stage 2)*



Stage-2 Proposals



- **Successful Stage-1 proposers invited to request grant support**
- **Institutional budgets and associated justification materials peer-reviewed by a subset of Stage-1 panelists**
 - *Purpose is to broadly assess level of effort & resource requirements*
 - *NOT to micro-manage budgets*
 - *Avoid bias against “expensive” institutions*
- **Paperless submission through NSPIRES**
- **NASA HQ makes final funding decisions**



Stage-2 Proposals

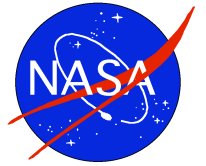


Typical stage-2 evaluation criteria:

- ***Do manpower estimates approximately match the anticipated scope of work?***
- ***Role of Co-I institutions requesting funding well defined? Are travel & equipment costs reasonable?***
- ***Is GLAST the most appropriate funding source (as evident from the “Current & Pending NASA Support” summary provided***



Grant Administration



- ***Revised budgets solicited as warranted***
- ***Grant contracts initiated through GSFC but managed by centralized NASA grants office***
- ***Release of funds contingent upon acquisition of relevant data***
 - *Generally not an issue for GLAST, except e.g. pointed observations*
- ***Latency of ~2 weeks – to 2 months***



Data Analysis Support



- **GSSC has scientists at GSFC and both instrument team sites**
- **General “help desk” facility supported via GSSC web site**
 - <http://glast.gsfc.nasa.gov/ssc/help/>
- **Also, proposer’s guide and other GLAST documentation available thru the GSSC**
- **GSSC plans to conduct data analysis workshops and demonstrations**
 - *Schedules, specific venues tbd (e.g. Jan 2008 AAS)*



Analysis Tools

- **GLAST “Software Analysis Environment” (SAE) results from collaborative effort between GSSC and instrument teams**
- **Will be distributed as an “FTOOLS” package**
 - *Adherence to broader HEASARC standards*
 - *“Atomic” executable modules, FITS I/o, IRAF style parameter files*
 - *Scriptable, easy GUI implementation*
- **GBM related tools to be released prior to Cycle 1**
 - *Full set of LAT tools prior to Cycle 2*
- **LAT analysis has some unique complexities associated with energy dependent PSF, backgrounds, and scanning**
 - *Useability and viability have been demonstrated to 1st order*
 - *Data challenges (GLAST collaboration)*
 - *Beta testing (GLAST Users Committee)*