
Update on Multiwavelength Planning

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Agenda

Overview - Dave Thompson

GLAMCOG

Wavelength-oriented groups

TeV connection

Prioritized needs

Upcoming proposals

Example Coordinated Observation Programs

Optical – Gino Tosti

IR – Jay Norris

VIPS (radio) – Roger Romani

**Advertisement: Disks, Winds, and Jets Conference in Canberra, Australia.
First week of December. See Rita Sambruna for more information.**

GLAST LAT Multiwavelength Coordinating Group

GLAMGOG is an informal group with the purpose of optimizing LAT multiwavelength efforts

Derived from the Ad Hoc Multiwavelength Observation Planning Group with the addition of some volunteers

Rob Cameron	Greg Madejski	Rita Sambruna
Patrizia Caraveo	Julie McEnery	David Smith
Jennifer Carson	Peter Michelson	Dave Thompson
Seth Digel	Olaf Reimer	Steve Thorsett
Paolo Giommi	Takashi Ohsugi	Gino Tosti
Isabelle Grenier	Roger Romani	Kent Wood

These names are somewhat arbitrary. The group does not have meetings (yet).

Confluence page is <https://confluence.slac.stanford.edu/display/GLAMCOG/>

Wavelength-Oriented Groups

Julie McEnery started a discussion group for LAT-TeV interests. They now have 49 members and have been quite active. Their Confluence Web page is <http://confluence.slac.stanford.edu/display/GLAMCOG/The+TeV+Connection>

With this as a prototype, we started as a trial three other wavelength-oriented groups:

1. **X-Ray Discussion Group** – Rita Sambruna, Greg Madejski and Luigi Foschini have been particularly active among the 22 current members. Group met on Monday. Plan was developed for some X-ray telescope proposals.
2. **IR/Optical/UV Discussion Group** – Gino Tosti expressed particular interest. 15 current members.
3. **Radio Discussion Group** – smaller group (13). No volunteer leader yet. Interested?

All groups have Confluence pages linked from the GLAMGOG main page and mailing lists maintained by Pat Nolan.

These are intended as self-organizing groups, not as a formal LAT structure. If they find common interests, such as multiwavelength proposal planning, they will continue. If not, we will let them expire.

The TeV Connection

- **H.E.S.S. – Peter Michelson and Werner Hoffmann, the H.E.S.S. PI, agreed to set up a small group to plan coordinated activities. LAT members are Dermer, Longo, Reimer, and Thompson. We are in the process of exchanging “wish lists” of what each group would like from the other, as a starting point for discussions.**
- **MAGIC – Working with de Angelis, Torres, and Longo on Memorandum of Understanding, possibly based on a similar “wish list” idea as a start.**
- **VERITAS – continued ongoing discussions**
- **CANGAROO – e-mail exchanges with them that need follow-up.**

Prioritized List of MW Needs

Where are we as a team currently putting our financial and manpower resources? This list evolved from the Ad Hoc Committee report, plus inputs from science groups last year.

- **Wider and deeper surveys for molecular clouds – needed for diffuse model – CfA CO telescope; NANTEN**
- **Expanded blazar catalogs through analysis and observations – needed for EBL and jet studies – Giommi, Romani groups**
- **Pulsar timing information – needed for pulsar analysis - many**
- **Multiwavelength monitoring of blazars – needed for detailed modeling of jet physics – GTN, Owens Valley, others**

Two major needs that will need work (but did not before now):

- **Re-confirm our links to the gamma-ray burst community to cooperate with the network of Swift studies – work with GBM team**
- **Define strategies and resources for source identification and detailed study, e.g. deep X-ray studies, optical variability**

Proposing for Time on Other Telescopes

The time has come! Proposals due in the next six months will cover the early phase of the GLAST mission. See the GLAMGOG Confluence page for more information.

Facility and Cycle	Proposal Deadline	When Observations Scheduled	Notes
Swift Cycle 3	28 July, 2006 - PASSED	April, 2007 - April, 2008	TOO Proposals only. Blazar TOO proposal submitted
NRAO Large Proposals	2 Oct., 2006	May, 2007 – March, 2008	GBT, VLA, VLBA - Includes VIPS and MOJAVE blazar studies
XMM AO-6	6 Oct., 2006	May 2007 - April 2008	
INTEGRAL Key Programme - AO5	17 Nov., 2006	Aug. 2007 - Aug. 2008	Large Requests, see Announcement
Suzaku Cycle 2	1 Dec. 2006	April, 2007 - April, 2008	NOI due 15 Sept., 2006
RXTE Cycle 12 (last?)	26 Jan., 2007	Summer, 2007 – February, 2009	NOI due 27 Nov., 2006
Spitzer Cycle 4	14 Feb. 2007	July, 2007 - June, 2008	One cycle after this before cryogen runs out
Chandra Cycle 9	March, 2007	Dec. 2007 - Dec. 2008	Coordinated Observation Programs?
NRAO Regular Programs	1 Feb., 1 June, 1 Oct.	Trimester after deadline	
NOAO Regular Programs	30 Sept., 31 March	Feb.-July, Aug.-Jan.	
NOAO Survey Programs	15 March		

Multiwavelength Proposals – Work in Progress

NRAO large proposals, emphasizing VLBA blazar work – LAT is participating in VIPS. We need an approach to support other programs like MOJAVE and Alan Marscher's work.

XMM – TOO or coordinated MW blazar campaigns. Planning is in progress (X-Ray Discussion Group)

INTEGRAL key programme – no obvious LAT proposal. Regular INTEGRAL cycle comes in the Spring. TOO for blazars

Suzaku – TOO or coordinated MW blazar campaigns. Planning is in progress (X-Ray Discussion Group)

RXTE – pulsar timing (if needed). Blazar TOO or coordinated MW campaigns. This is likely to be the LAST RXTE AO.

NRAO and ATNF regular proposals – pulsar timing. We are working on a letter of support.

Others? Details for these?

Please post planned/suggested proposal topics to the GLAMCOG Web page.

Multiwavelength Proposals and Data - Policies

Some Suggested Guidelines – see document distributed by Peter

Why? What do we want these guidelines/policies to achieve?

The principal goal should always be to maximize the scientific return from GLAST and the LAT. That goal will be achieved by the LAT team making the greatest possible effort to be inclusive of MW efforts.

Beyond that overarching principle, the policies we adopt can have other effects:

1. They can foster collaborative work within the LAT team, both in the preparation of proposals and in the resulting data analysis.
2. They can encourage cooperation between LAT team members and non-LAT people. As we look beyond the first year, when the LAT data are public, such cooperation will be vital to all of us.
3. They can promote fairness to team members in distribution/assignment of lead authorship, proposal PIship etc.

Multiwavelength Proposals and Data

Guideline One – Multiwavelength proposals should originate with the science groups

The Multiwavelength Coordinating Group (GLAMCOG) can provide support

Guideline Two – Multiwavelength proposals are distinct from scientific papers

We need to be fair to proposers and to those who focus on LAT analysis

Guideline Three – Multiwavelength proposals by LAT collaboration members are LAT team proposals in most cases

Guideline Four – Authorship of multiwavelength proposals should take into consideration differing needs

Proposals for data vs. proposals for money

Guideline Five - Multiwavelength collaborations should always be done on a non-exclusive basis

IMPORTANT – THESE ARE DRAFT GUIDELINES, NOT RIGID RULES

SEND QUESTIONS, COMMENTS, COMPLAINTS, OR POSSIBLE ADDITIONS TO DAVE THOMPSON AND PETER MICHELSON.

SUMMARY

- **GLAST science will be maximized by MW studies carried out cooperatively between the instrument teams and the rest of the scientific community.**
- **We need to be writing proposals for MW data now!**
- **The suggested MW proposal and data guidelines are intended to encourage the best science while being fair to the individual scientists.**

Multiwavelength Proposals and Data

Guideline Two – Multiwavelength proposals are distinct from scientific papers

Some LAT papers may require input from multiple MW sources, and some MW proposals may provide information for multiple LAT papers. Writing proposals and obtaining MW data that will enhance the scientific return from the LAT data is a valuable contribution to the collaboration. While those who write MW proposals should have a stake in scientific papers, it should not be exclusive.

Suggested policies:

- 1. Proposals submitted on behalf of the LAT collaboration will be archived and made available to anyone in the collaboration.**
- 2. MW data obtained by LAT collaborators through a successful proposal, or any other means, are treated as LAT data and will be made openly available to the LAT collaboration.**
- 3. There should not be a direct relationship between PI /co-I on proposals and authorship of the resulting LAT paper. In other words being PI of a proposal is not a guarantee of lead authorship of the paper. The proposing PI should not become the arbitrator of who write the papers.**
- 4. The contributions of MW proposers will be considered in determining scientific paper authorship.**

Multiwavelength Proposals and Data

Guideline Three – Multiwavelength proposals by LAT collaboration members are LAT team proposals in most cases

We note two cases:

1. Any proposal submitted by a PI who is a LAT collaborator (full or affiliated) that proposes for observations to support LAT data is deemed to be on behalf of the LAT collaboration and should state that explicitly. Exceptions to this may be made on a case-by-case basis at the discretion the LAT PI.
2. There may be cases where the PI and most of the co-Is of a proposal are not LAT collaborators. In these cases the MW coordinator should be notified of the proposal, but the resulting data and papers are not automatically treated as LAT owned. An example of this would be a large proposal with several goals, only one of which is related to GLAST. We note that any scientific papers that result from these observations will follow the standard LAT publication policy.

Multiwavelength Proposals and Data

Guideline Four – Authorship of multiwavelength proposals should take into consideration differing needs

Different opportunities are available in different countries. In some cases it is not necessary to submit a proposal to gain access to data (e.g. Swift Target of Opportunities) – the proposal is essentially for financial support. In other cases, a proposal may provide data but no financial support (e.g. RXTE pointings). Many U.S. investigators in particular face a need to propose for financial reasons. In cases of dispute, the PI of a LAT multiwavelength proposal will be selected by the multiwavelength coordinator or the LAT PI, after consultation with the proposal co-I's and the co-leads of the relevant science groups.

Guideline Five - Multiwavelength collaborations should always be done on a non-exclusive basis

Specifically, such proposals, whether formal or informal, should not restrict collaborating groups from publishing their own data nor restrict the LAT team from publishing LAT results. Only the combined work requires joint authorship.