Group Contributions to Collaboration meeting

https://confluence.slac.stanford.edu/display/SCIGRPS/LAT+Science+Group+Coordinator+Meeting+Agendae

F-2-F: August 28, Afternoon (1:30-4:30)

GLAST LAT Collaboration Meeting Agenda (Preliminary)
Stockholm, August 28 – September 1, 2006

Wednesday, August 30:

9:00 am	Reports from Diffuse Group	S. Digel, I. Grenier, organizers
10:30 am	break	
10:45 am	Reports from Blazar/AGN group	P. Giommi, B. Lott, organizers
12:15 pm	lunch	
1:30 pm	Reports from Pulsar and SNR group	D. Thompson, R. Romani, organizers
3:00 pm	break	

Thursday, August 31:

3:50 pm	Multiwavelength coordination reports	D. Thompson, organizer

Proposal: Contributions to DC2
Future activities - DC3
Science goals
Contribution to LAT paper
MW needs

Contribution to LAT comprehensive paper

Science Group Contributions: Blazars and Other AGNs

Figures

1) Observation time required to reach a given accuracy (10%, 20%) in the determined flux as a function of flux (B. Lott). This figure could be included in the "LAT performance" section of the paper.
2) Predicted number of blazars detected by the LAT, from Chuck Dermer's recent paper.
3) Example of a light curve for a flaring blazar, as seen by the LAT (J. McEnery)
4) Examples of SEDs for a radio-galaxy, a FSRQ, a BLLac (3 panels) (S. Ciprini-G. Tosti)
5) Illustration of EBL studies with the LAT (A. Chen, L. Reyes, S. Ritz paper)(?)

Overview of the contents of the blazar section

A) Population studies - test for models of blazar formation rate.
Contribution of AGNs to extragalactic diffuse background.

B) Issues regarding the blazar phenomenon on which the LAT data will shed light (motivating MW observations).

i) What is the structure (ingredients/content) of the jet in blazars and radio galaxies?
- -content of innermost part of the jet(e -, baryon load, poynting flux)
- -composition of gamma ray emitting part of jet (e -, pe or UHECRs, magnetic field)

ii) How are the X-/gamma-rays flares produced in blazars and radio-galaxies?
- - importance of external photon fields (BLR, accretion disk, torus, CMB, ...) for X- & g-ray production
- - relation between flares to dissipation of magnetic energy

iii) Where are X-/gamma-rays produced?
- - photon production sites of low & high energy (HE) component, energization sites

C) Using Blazar SEDs to determine the EBL density

Wavelength-Oriented Groups within LAT

Peter suggested that the success of the TeV group that Julie is coordinating would be a good model for other wavelength-oriented groups. Here is a draft note that he or Dave Thompson will send to the collaboration inviting members to join such groups:

Colleagues,

Multiwavelength (MW) studies will be an important part of the LAT science program. In addition to the MW work within science groups and the MW Coordination Group, one successful effort has been the TeV discussion group organized by Julie McEnery. This group has focused on all aspects of scientific interests involving LAT and the TeV community. They are providing useful contacts and information to help enhance the LAT/TeV connection.

Other wavelength-oriented groups within the LAT Collaboration can serve a similar purpose. We have many scientists within the Collaboration who have experience and contacts in other spectral bands. For this reason, I propose to form some additional groups, under the auspices of the MW Coordination Group. I invite you to join (or even lead) one of the following groups:

Radio
Infrared/Optical/UV
X-ray

Each group has a Confluence page set up under the Multiwavelength page,
https://confluence.slac.stanford.edu/display/GLAMCOG/GLAST+LAT+Multiwavelength+Coordinating+Group

Mailing lists have been established by Pat Nolan. Here is his note:
We have three new GLAST/LAT mailing lists. They are companions to the TeV list for discussions of science related to other wavelength bands. The names are
radiolist@glast.stanford.edu radio astronomy
xraylist@glast.stanford.edu x-ray astronomy
opticallist@glast.stanford.edu optical/uv/ir astronomy

As usual, the gateway to the lists is http://www-glast.stanford.edu/protected/mail

These groups will be venues for wavelength-oriented discussions in support of LAT science. They should help identify areas where the LAT team needs to take action in order to maximize the MW science.

Sincerely,

Brief Notes

- The MW group has a poster that Olaf Reimer will carry to the Barcelona meeting. We will plan to have some sort of contribution to the HEAD meeting. Are there other meetings where LAT MW presence is particularly important?
- Dave Thompson met with Werner Hoffman and Stefan Wagner of the HESS team. The LAT-HESS subcommittee will be putting together a "wish list" of what the two observatories can provide each other. No input yet from the LAT side.
- Discussions with the radio astronomers, including Steve Thorsett (IDS), about pulsar timing are continuing. We are trying to invite some of them to the Aug. 28 Stockholm meeting.
- Spitzer is using less cryogen than expected. It should operate through mid-2009, giving more overlap with GLAST.