GLAST Large Area Telescope:
Collaboration Meeting
August 31, 2005

Pulsar, Supernova Remnant, Plerion Science Group Working Meeting
Agenda

Introductions

Plan papers our group might produce before launch.

Sign up for individual science topics - either literature searches or future VRVS presentations (or both). Many of these will be first-year LAT papers, so this is your opportunity to get involved early in a scientific paper.

Develop a prioritized list of the science drivers for multiwavelength needs. Pulsar timing is pretty obvious, but what we need for the SNR and PWN are not so easy.

Start collecting information about multiwavelength facilities that we might use for LAT.

Consider whether we need additional analysis tools – e.g. extended source analysis.

Plan for our group's participation in Data Challenge 2.
Multiwavelength

Pulsars – radio timing (starting ~ 1 yr. before launch) and searches for new pulsars (starting now)

Steve Thorsett – or someone to help coordinate?
Simon Johnston – ATNF – (High ν Gal center survey underway)
Andrew Lyne – Jodrell
Jim Cordes – Arecibo (searches underway)
D’Amico, Backer, Nice, others?

Follow-up multiwavelength ID of Gemingas and spectral PSR cand.

Do we need to form up teams?

SNR and Pulsar Wind Nebulae – identification, cross-mission analysis of spectra

Hard X-rays – Suzaku (Kawai), XMM (Caraveo?), others?
TeV – H.E.S.S. (Reimer?), Magic (de Angelis), VERITAS (Krawcynski), CANGAROO (Kubo)
Overlap with Other Groups

Unidentified Sources – we believe some of these are SNR, pulsars, or plerions (pulsar wind nebulae), but until we prove it they could also be considered unidentified

--- Will likely need a MW strategy to make associations

– quantitative assessment of PWN/SNR ID difficult

--- Variability may be a useful discriminator of PWN

Diffuse and Molecular Clouds – a few SNR could be extended sources, so the spatial analysis will be similar to analysis for clouds. Similar overlap with the “other galaxies” part of the Unidentified Sources group.

--- again multi-ν strategies will be key

Calibration issues – If we can adequately understand the Crab pulse spectrum (and unpulsed PWN) these can be very helpful in cross-calibration exercises
Status of Web Site

http://confluence.slac.stanford.edu/display/SCIGRPS/Pulsars%2C+SNRs%2C+and+Plerions is being used for group activities.

We do not have a public Web site yet. Maybe when we have something other than planning activities.