Meeting of the “Blazars and Other AGNs” Science Group

August 19, 2005

Collaboration meeting, SLAC, August 29 - September 1

Tuesday August 30
1:00 PM - 4:15 PM
Catalog, Blazar, Pulsar and UnID Sources Groups: Discussion of Catalog Source Identification process

Wednesday, August 31
8:45 AM - 10:30 AM Blazar Group

2:30 PM Reports from Science Groups

4:45 PM Update on Multiwavelength Needs

Monday, September 6
Kickoff of Science Tools Checkout 3

Parallel session of the blazar group

Proposition for the agenda:

-Organization of the group, individual activity, face-to-face meeting frequency…

- DC2: goals, organization, people involved, time table, tools, simulation needs, ST Checkout 3

- Discussion: EBL, MW needs, strategy for variability analysis…

- presentations (?)

ST Checkout 3: Blazar-related data are about to produced and included in the data set made available to the collaboration.

Catalog, Blazar, Pulsar and UnID Sources Groups: Discussion of Catalog Source Identification process

We need to devise a prescription for blazar identification to be used in the context of the GLAST catalog ("operational definition of a blazar").

Romani et al. have developed a Figure of Merit based on the X-ray flux, the radio-flux at 8 GHz and the radio-index.

Giommi et al.'s method is based on a blazar region defined in the α_{ox}-α_{ro} plane.

Pros and cons for both methods?

There will be short "parallel sessions" for discussion within the different groups.

Multi Wavelength Issues

- MW Strategy

- Recommendations issued by the MW Adhoc Committee:
  comments, updates required.

- List of points of contact

- How to trigger interest in the community? (Workshop?)
  Review of recent MW campaigns:
  Ex: 3C454.3 (P. Giommi)
  Others?

Interface with other Science Groups

Calibration and Analysis Methods

Catalogs (Roger, Paolo, … ?)

Diffuse (Galactic + Extragalactic) and Molecular Clouds

Unidentified Sources, Population Studies, and Other Galaxies

Multiwavelength Coordination Group (Roger, Greg, Gino,…?)

We need to work out the interface:

respective needs, division of tasks, update on the other groups' activity…

Group members (38 people) : are we enough?

Rob Cameron
Annalisa Celotti
Alexandre Chekhtman
Andrew Chen
James Chiang
Stefano Ciprini
Lynn Cominsky
Charles Dermer
Jean Pascal Dezalay
Yasushi Fukazawa
Berrie Giebels
Paolo Giommi
J. Eric Grove
Robert Hartman
Tune Kamae
Stefan Larsson
Y. C. Lin
Benoit Lott
Pasquale Lubrano
Grzegorz Madejski
Enrico Massaro
Julie McEnery
Peter Michelson
Guy Pelletier
Carlotta Pittori
Thierry Reposeur
Luis Reyes
Steve Ritz
Roger Romani
Felix Ryde
Antonio Saggion
Jeff Scargle
Eduardo do Couto e Silva
David M Smith
David A Smith
Tadayuki Takahashi
Gino Tosti
Lawrence L. Wai

Table of anticipated papers

Category 1 papers	Category 2 papers	Data Collection
Comprehensive papers on Blazar Observation		year 1 and 5
Measurement of EBL 1		year 1-2
Detection/upper limits on radio galaxies		
Detection/upper limits on radio-quiet galaxies		
	Observation of 3C273	year 1
	Observation of 3C279	year 1
	Observation of Mkn421	year 1
	Observation of a high-redshift (Z>3) blazar	year 1
	Measurement of EBL 2	year 5
	Individual sources with simultaneous MW data	
	VLBA Survey of GLAST Blazars	

Year 1: extensive study of bright sources (ex: 3C454.3)

Goals for DC2

1. Blazar catalog, sample definition
   Source Identification in collaboration with the Catalog Group

2. Gamma-ray statistical properties of the samples
   - LogN-LogS, redshift distributions, luminosity function
   - population studies: BL Lacs and FSRQs
     bright radio galaxies
     radio_quiet galaxies

3. General properties of GLAST-detected blazars
   - spectral index
   - spectral cutoffs
   - luminosity and spectral variability
   - duty cycle…

4. Specific Properties of Individual Source
   For the brightest sources: spectral evolution with time, flux
   non-simultaneous SEDs

5. Extragalactic Background Light
   Rough estimate of EBL density (if enough bright, high-redshift, high-energy sources…)

Action items

- Devise the blazar identification prescription (All)

- Review the AdHoc MW Committee recommendations (All)

- Revise and update Dermer & Davis estimates of blazar populations (Dermer and Romani groups)

- Make Romani et al. catalog available on confluence page. (Roger)

- Develop strategies and tools (preferably) for variability analysis (All)

- EBL modeling: implement more current models (Luis, Julie, et al.)

- Define the strategy on how to study EBL effects (All)

- Light curve simulation: provide software for generating light curves (Gino, Julie…)

- Establish feasibility of studies (spectral index, cutoffs, curvature, EBL effects…) as a function of integrated flux, index, galactic latitude… (Benoit,…)