

ASI activities on GLAST (gamma-ray astronomy)

Paolo Giommi

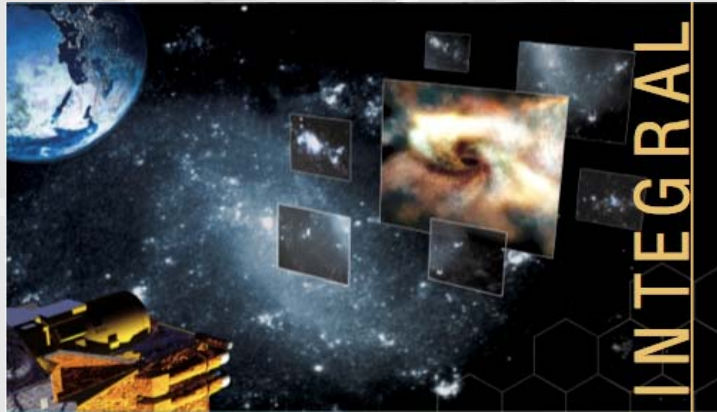
for Simonetta Di Pippo

Head of Observation of the Universe Unit, ASI

ASI activities in the field of γ -ray astrophysics



2002



2007



2008



2018

ASI activities on INTEGRAL Mission



ASI supports INTEGRAL Teams since 1994.

The end-to-end cost of the INTEGRAL Mission is about 33 Meuro.

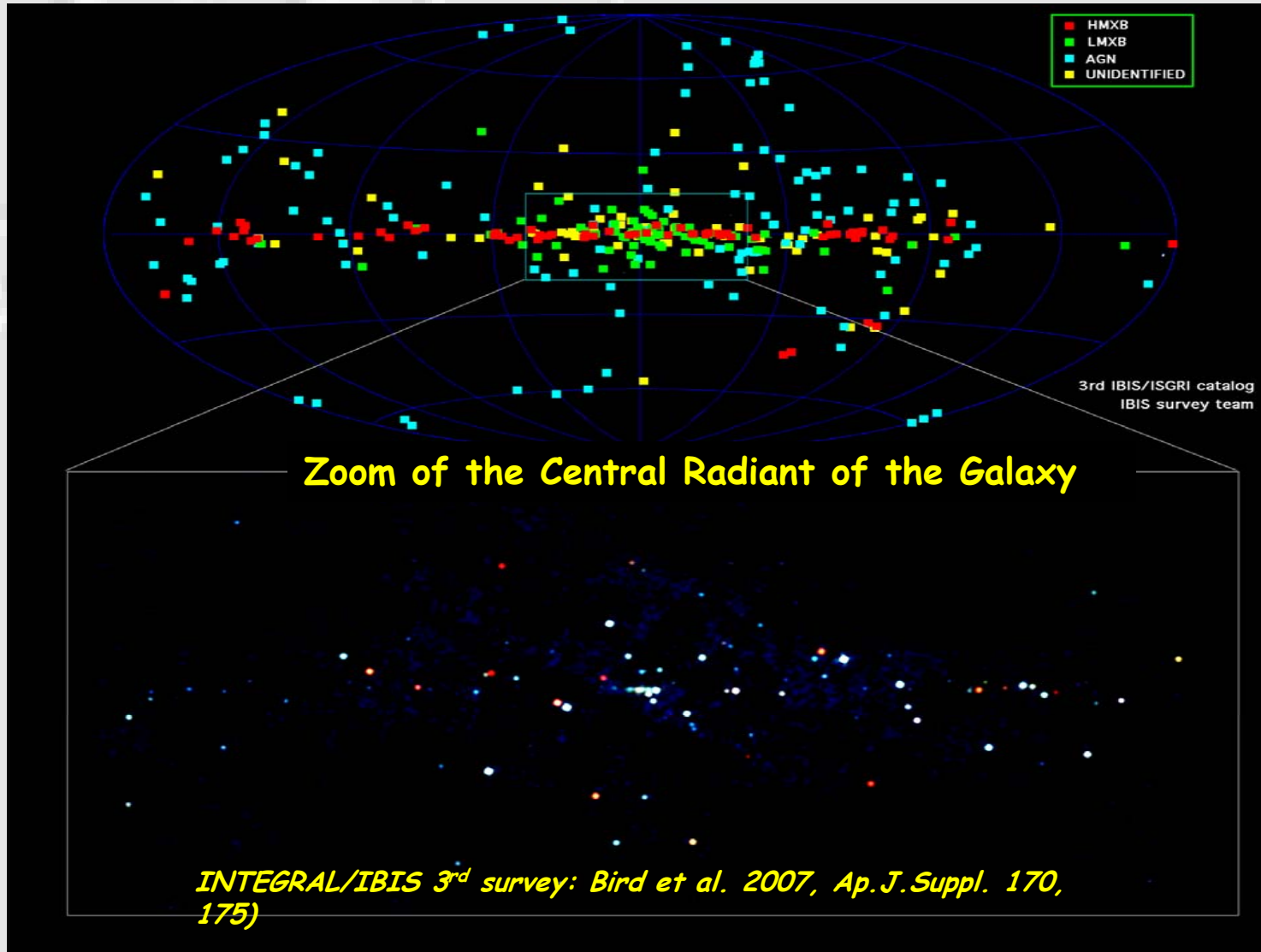
Due to its success, INTEGRAL Operative Life has been extended from 3 to 8 years. It is foreseen to operate at least until 2010.

Through ESA participation, ASI supports also the INTEGRAL Science Data Center (based in Geneve, CH)
ASI funds INTEGRAL data analysis in the Italian community

Some INTEGRAL results



The INTEGRAL Sky



Some INTEGRAL results



3rd IBIS/ISGRI soft gamma-ray source catalogue

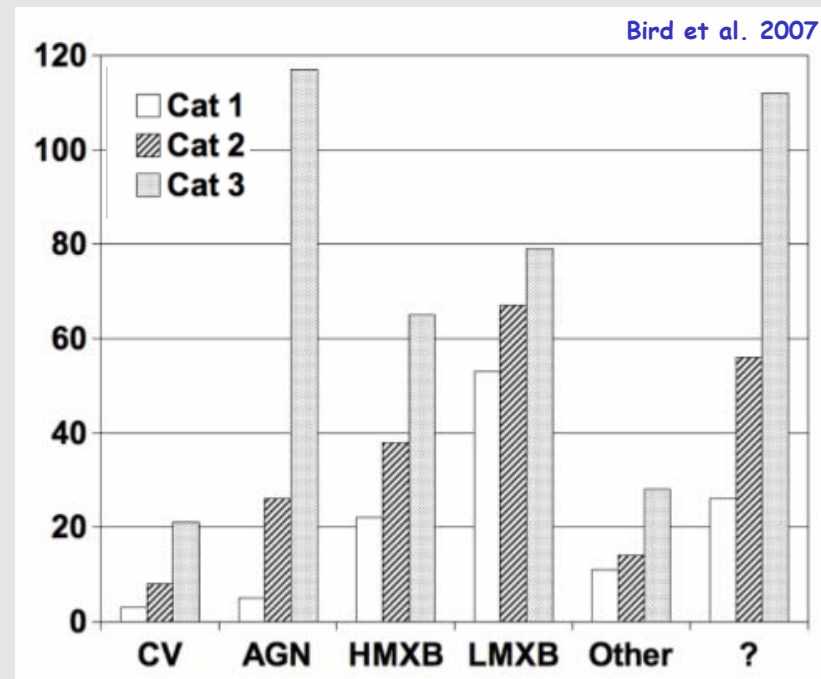
The catalogue includes 421 sources detected in the energy range 17-100 keV :

41% galactic accreting system

29% extragalactic objects

8% other types

26% not classified i.e. unknown origin

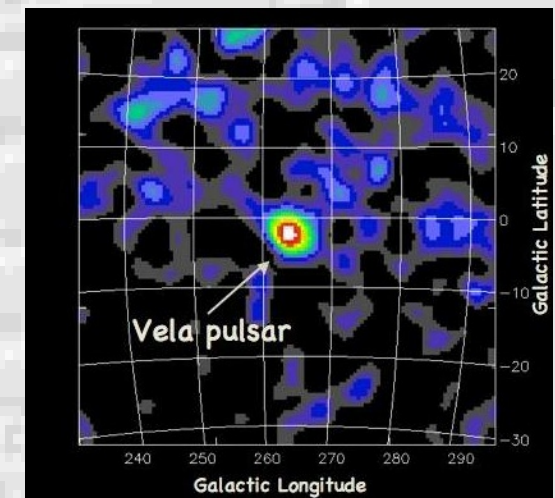
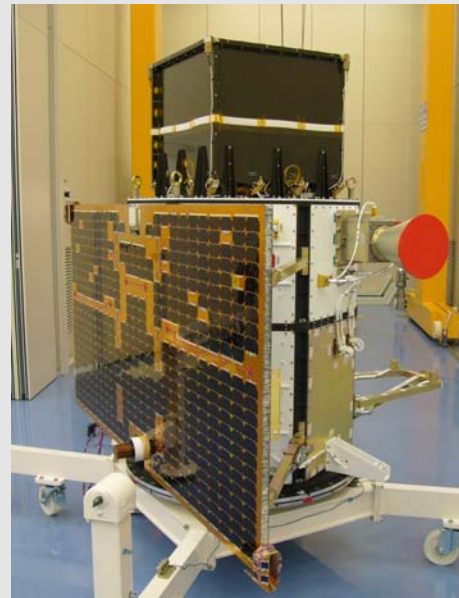


ASI activities on AGILE Mission



Italian small mission for gamma ray astronomy

ASI funds and manages the program, in collaboration with the PI (INAF) and the involved scientific community



ASI activities on AGILE Mission



AGILE at the LNF
calibration facility, Frascati

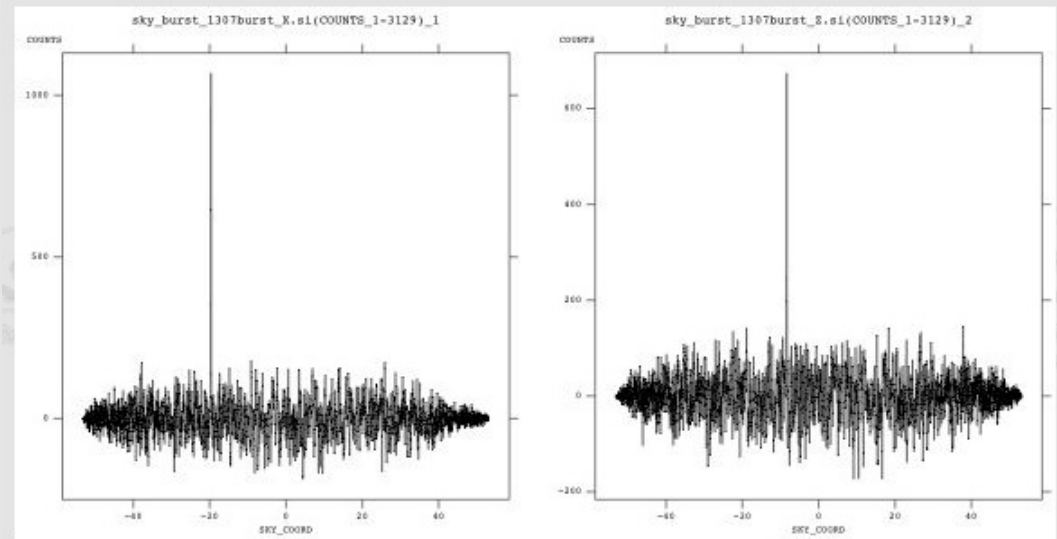
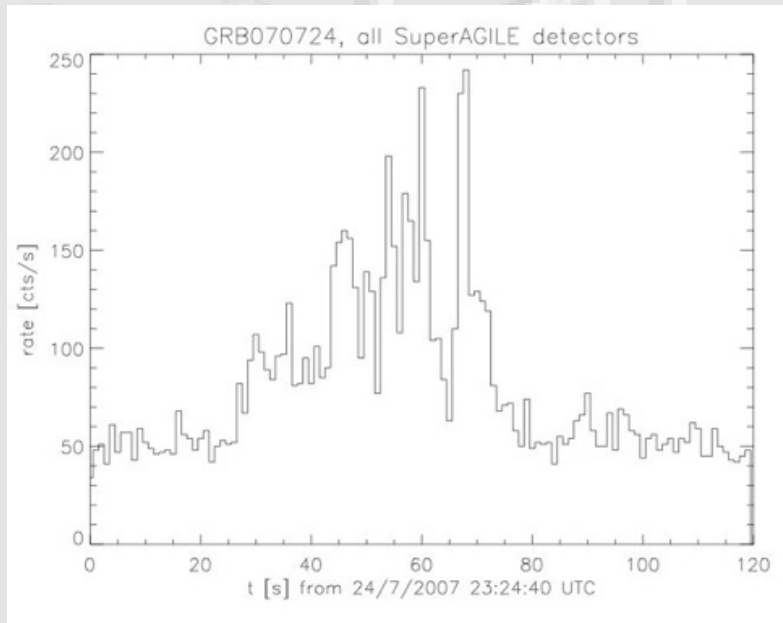
The AGILE instrument and
Payload Shell on the γ -ray photon
beam at the BTF of the INFN
Laboratories in Frascati
(November 3, 2005)



ASI activities on AGILE Mission



GRB070724b: the first SuperAGILE GRB GCN 6668 Feroci et al. 2007

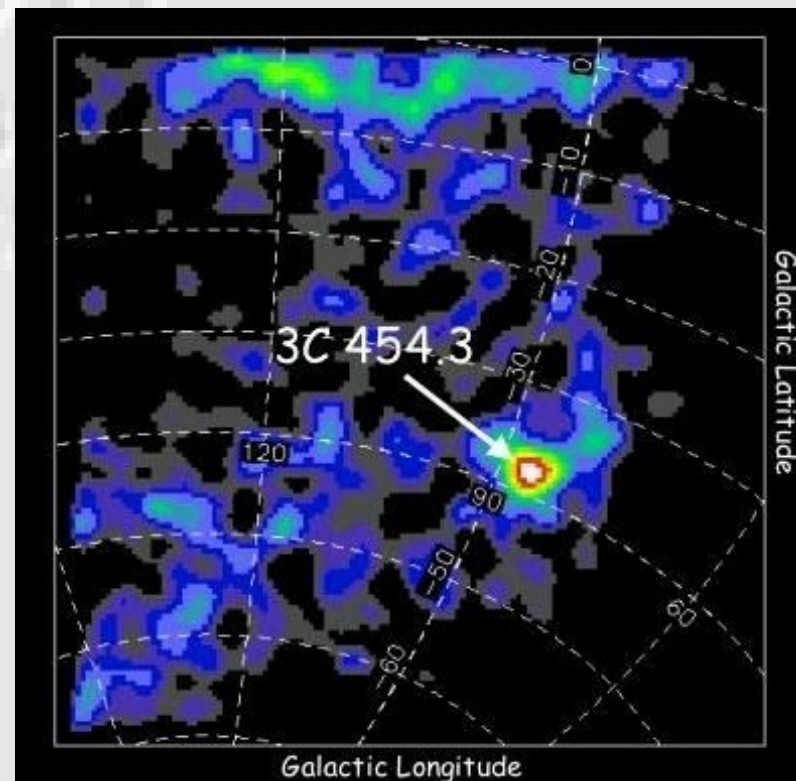


ASI activities on AGILE Mission



3C 454.3 AGILE-GRID detection of a flaring blazar

Atel #1160 Vercellone et al. 2007





ASI activities on AGILE Mission



AGILE AO-1

ASI
agenzia spaziale italiana

AGILE

ASDC
ASI Science Data Center

Astro-rivelatore Gamma a Immagini Leggero

The Italian Space Agency (ASI) announces the forthcoming release of an Announcement of Opportunity to solicit proposals for the Guest Observer Program (GOP) of the AGILE mission.

This announcement is the first for AGILE guest observations and solicits proposals for observations to be carried out during the observing time **beginning on December 1st, 2007, and lasting twelve months.** This period is referred as the "AO1" observing period.

Proposals may be submitted at any time during the period starting September 15 and ending October 15, 2007.

ASI activities on the GLAST Mission



- IFC participation
- support to the scientific community:
 - INFN Team (talk by Bellazzini)
 - INAF/University Teams (talk by Caraveo)
- ASI Science Data Center (*Giommi's presentation tomorrow*)

GLAST MoU between ASI and NASA



MEMORANDUM OF UNDERSTANDING

BETWEEN THE

UNITED STATES
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AND THE

ITALIAN SPACE AGENCY

CONCERNING THE

GAMMA-RAY LARGE AREA SPACE TELESCOPE MISSION

GLAST MoU between ASI and NASA



Article 4 - Programmatic Responsibilities of ASI

ASI shall use reasonable efforts to fulfill the responsibilities below:

- 4.1 Participate, with its related entities, in the development of the LAT tracker subsystem, build eighteen tracker towers, and provide them directly to the Stanford Linear Accelerator Center (SLAC).
- 4.2 Ensure that INFN fulfills its GLAST-related responsibilities, including the provision of the LAT tracker hardware and operations expertise, LAT science planning, and data analysis, as needed.
- 4.3 Support LAT instrument team meetings and reviews, as appropriate.
- 4.4 Establish and maintain a mirror data site of the LAT science database, participate in the development of the GLAST/LAT data analysis software, and lead the development of and make available for the use of the GLAST LAT collaboration, the software for the publication of LAT catalogs and the distribution of high level data products via the World Wide Web.
- 4.5 Provide for the necessary interfaces to allow the ASDC to serve as a mirror site for the LAT data at the LIOC.
- 4.6 Participate as members of the LAT science team and in the LAT science investigation in accordance with the data use policy as described in the PDMP.
- 4.7 Provide suggestions to NASA on candidate names of Italian scientists to participate as reviewers when the GLAST Guest Observer peer review teams are being formed.

GLAST-LAT DC2 source catalog (V1) and data access at ASDC

Available parameters

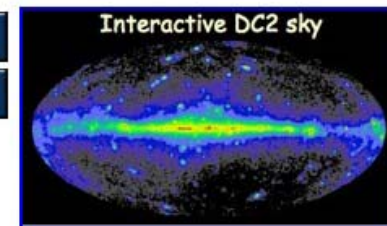
- Name
- Ra Dec
- Significance
- Flux(>100MeV)
- Radio_fl(1.4GHz)
- Class
- Other name
- sp_index
- EGRET name
- DistCounterpart
- Redshift
- XFlux Err_rad(95%)

GO

BL Lacs	FSRQS
Radio Galaxies	Pulsars
Unidentified	Reset



txt 



[Perugia Wavelet DC2 catalog at ASDC](#)

Entry number		DC2 name	RA (J2000.0) hh mm ss.d	Dec (J2000.0) dd mm ss.d	Gamma flux (ph/cm ² /s E>100 MeV) GLAST-DC2	Source classification Browse Classif	Other source names	Egret name	Redshift
Subset selection mode: inclusive		↑ ↓	↑ ↓	↑ ↓	↑ ↓ Stat	↑ ↓	↑ ↓	↑ ↓	↑ ↓ Stat
1 <input type="button" value="Select"/>	ASDC tools	MRF0021	00 10 44.5	+73 10 26.4	2.51e-7	SNR	CTA1,SNR119	3EG J0010+73	0
2 <input type="button" value="Select"/>	ASDC tools	MRF0324	00 04 58.8	-52 27 00.0	1.29e-7	Unid. radio source	-----	-----	0
3 <input type="button" value="Select"/>	ASDC tools	MRF0301	00 10 39.6	+02 47 27.5	9.62e-8	Unid. radio source	-----	-----	0

Completato

AGILE / GLAST National Workshop



Workshop Italiano su:
Astrofisica Gamma dallo Spazio
AGILE e GLAST

2 e 3 Luglio 2007

ASI Science Data Center
ESA - ESRIN
via Galileo Galilei,
00044 Frascati
Italy

Organizing Committee:
Lucio Angelo Antonelli
Guido Barbiellini
Ronaldo Bellazzini
Patrizia Caraveo
Elisabetta Cavazzuti
Paolo Giommi
Maria Elena Pennisi
Giovanna Senatore
Marco Tavani
Gino Tosti

Info:
Maria Elena Pennisi
(pennisi@asdc.asi.it)

@ ASDC

- @ 2 full days
- @ nearly 40 talks
- @ 160 participants