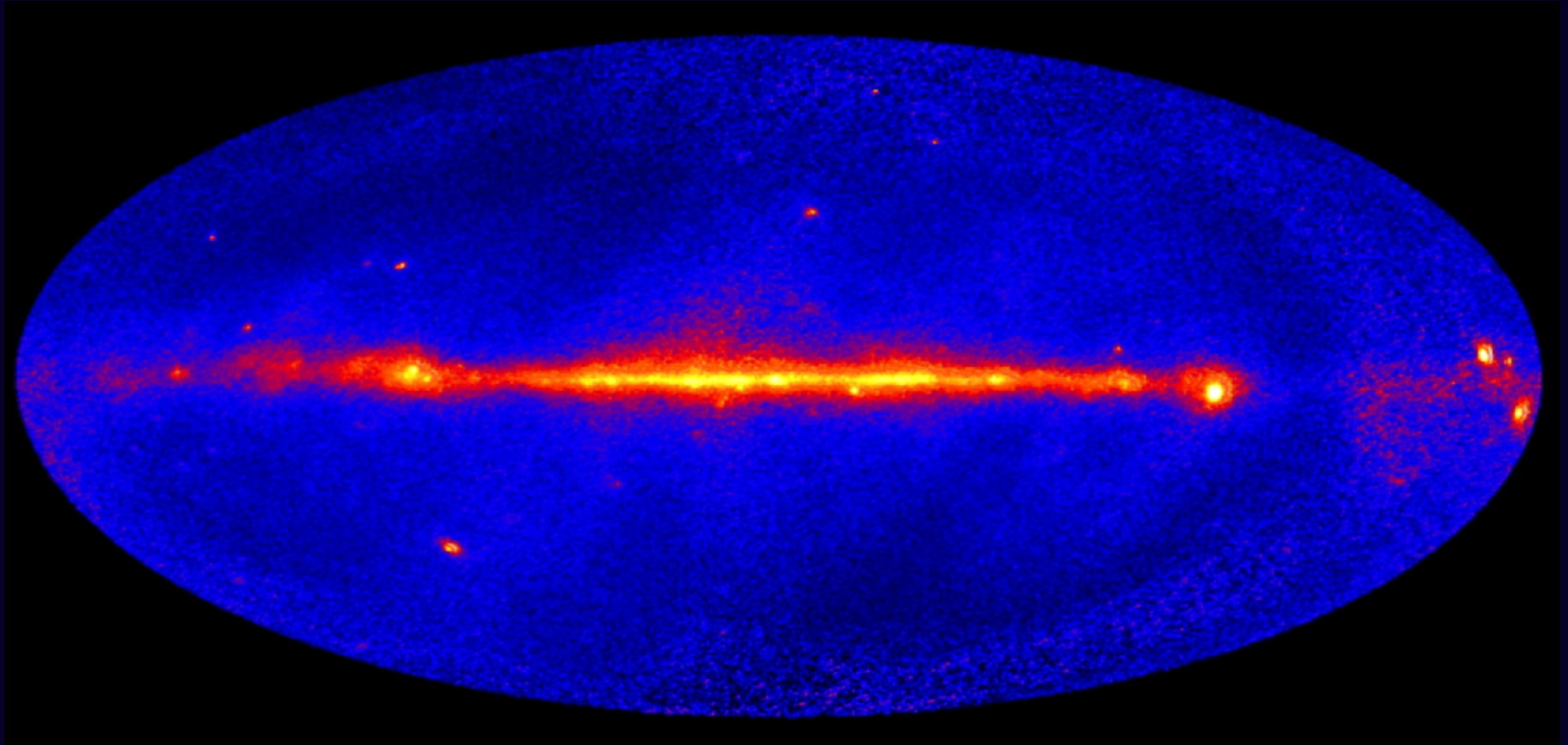


The AGILE Data Center and the First AGILE Catalog



Carlotta Pittori, on behalf of the ADC

7th Agile Meeting & The Bright Gamma-Ray Sky
Frascati, 29 September - 1 October, 2009

GPS satellite

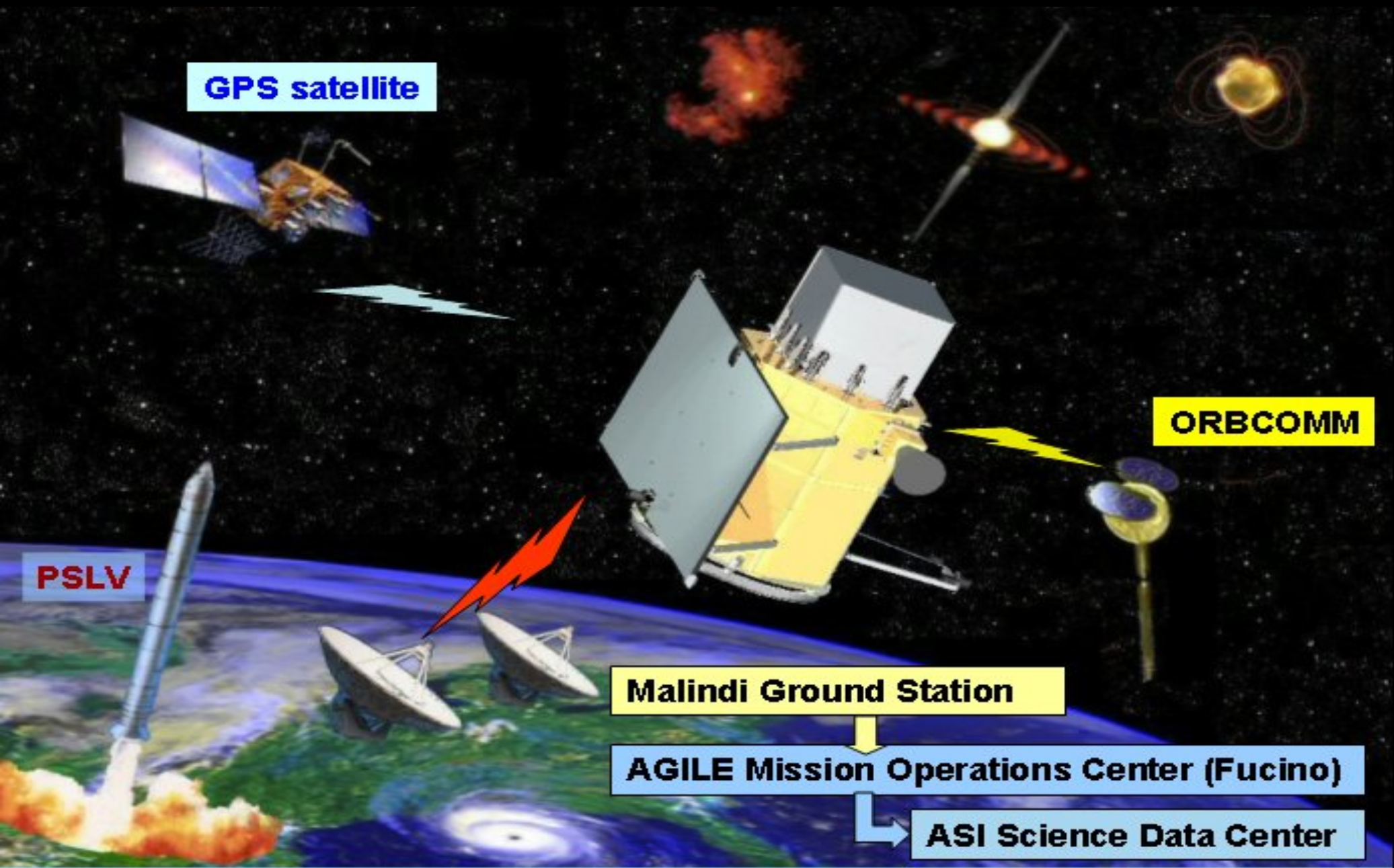
ORBCOMM

PSLV

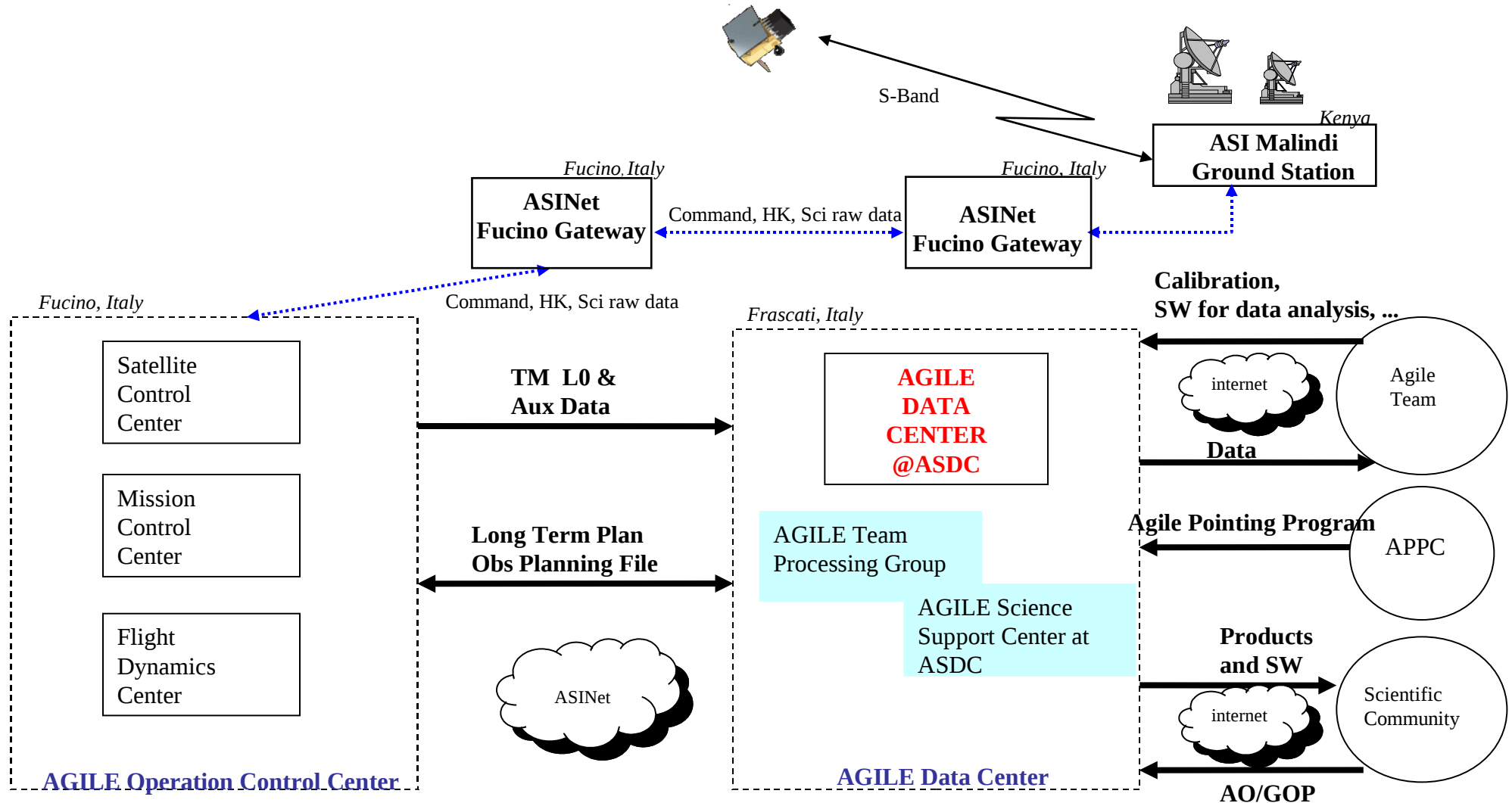
Malindi Ground Station

AGILE Mission Operations Center (Fucino)

ASI Science Data Center



AGILE GS Architecture

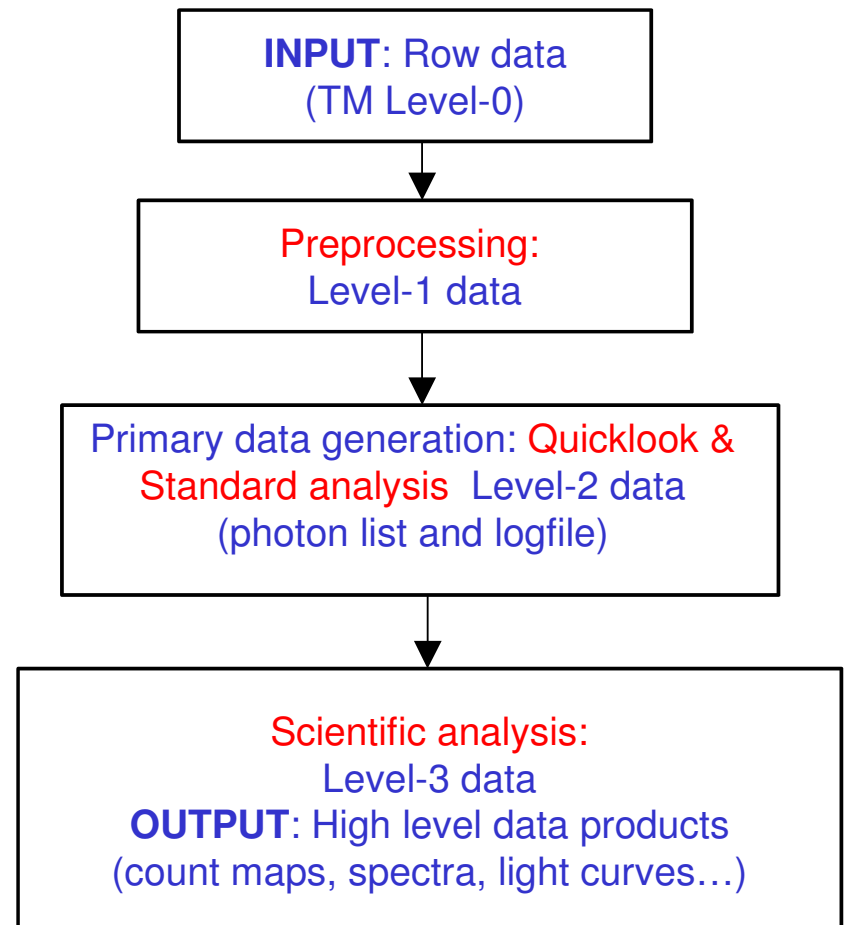


The AGILE Data Center at **ASDC** – ESRIN

- The ADC, based at ASDC-ESRIN, is in charge of **all the scientific oriented activities related to the analysis and archiving** of AGILE data:

From scientific telemetry (TM) Level-0:

- ✓ Preprocessing → Level-1 data
- ✓ Quick-Look Analysis (transient detection)
- ✓ Standard analysis → Level-2 data (photon list)
- ✓ Scientific analysis (source detection, diffuse gamma-ray background)
- ✓ Archiving and distributing **all scientific AGILE data**



Summary of ASDC activities for AGILE:

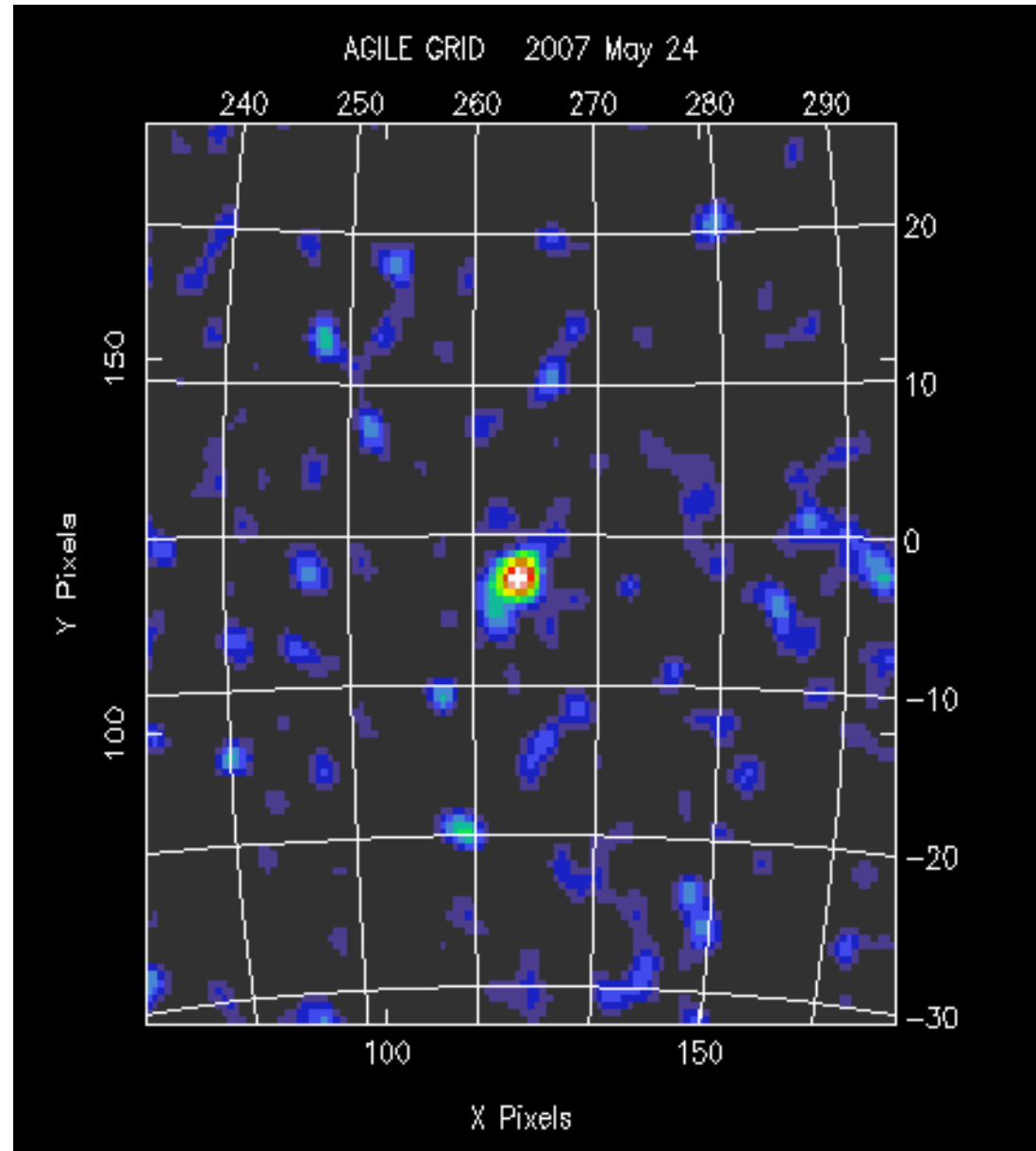
(from Agile Science Management Plan)

- Running the **Quick Look** Analysis
- Running the **standard data reduction** Analysis
- Performing, when necessary, the **Interactive** data Analysis
- Managing **Announcement of Opportunities**
- Contributing to the management of the **AGILE Pointing Program**
- **Archiving** all the data (raw, cleaned and calibrated, scientific)
- **Distributing** the data to the scientific community
- Providing scientific **support** to the users community
- Officially interface the project for both data and proposals via dedicated **web pages**
- Providing the standard **software support** for the data analysis

**First AGILE GRID light
ADC 24/5/2007**

**Commissioning Phase:
AGILE Vela PSR Count Map**

(~ 20000 s)

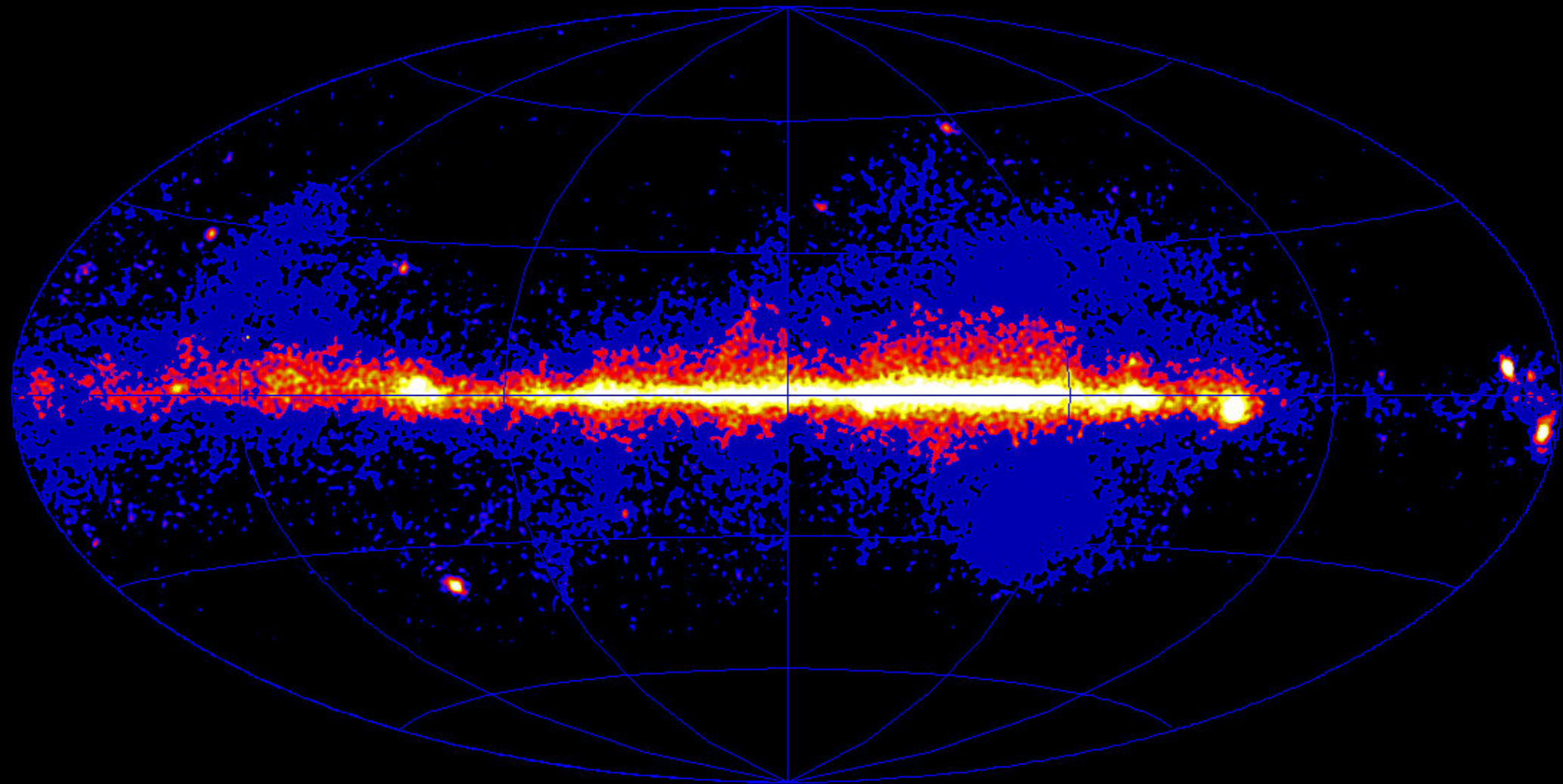


AGILE: ~ 2.4 years in orbit

- AGILE demonstrates for the first time the covering of ~ 1/5 of the entire gamma-ray sky (FoV ~ 2.5 sr) with excellent angular resolution and competitive sensitivity.
- AGILE shows for the first time an optimal performance of its gamma-ray and hard X-ray imagers.
- > 12550 orbits, September 28, 2009 (~ 94% Fine Pointings)
- Very good scientific performance, especially at ~ 100 MeV
- Guest Observer Program open to the scientific community:
Cycle-1 completed, Dec. 1, 2007 – Nov. 30, 2008
Cycle-2: on-going, Dec. 1, 2008 – Nov 30, 2009

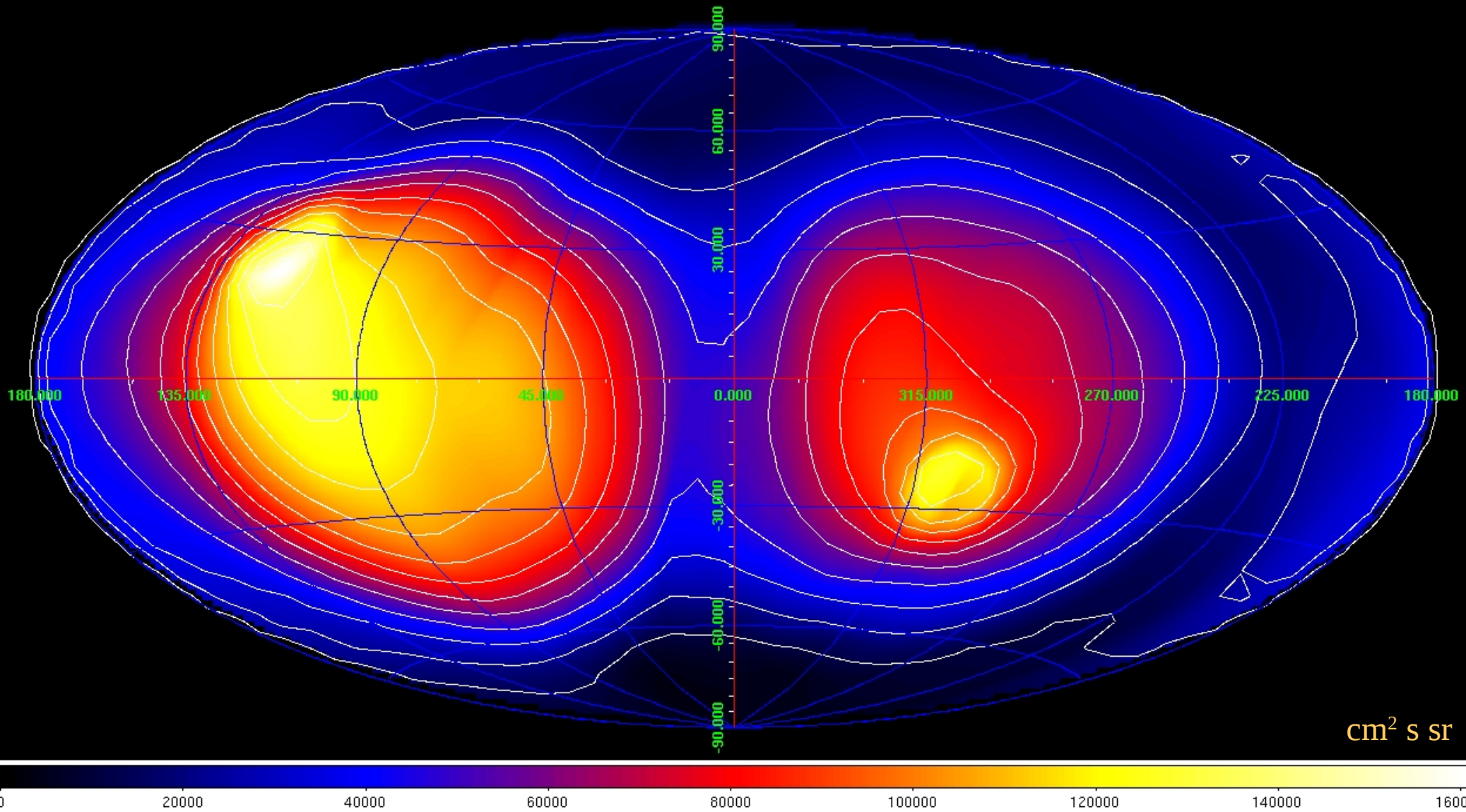
AGILE 1 year COUNT MAP

(July 2007- June 2008)

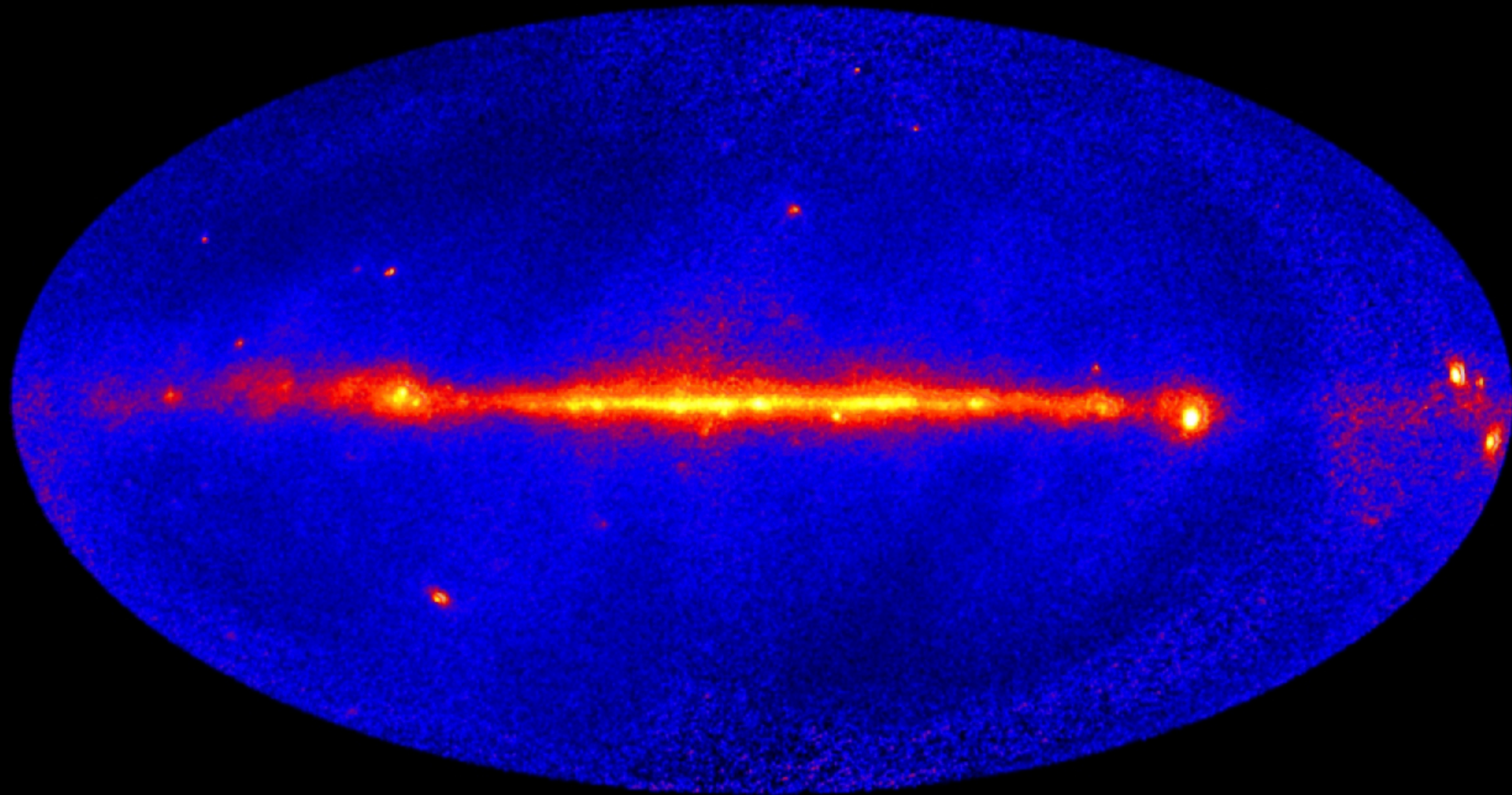


AGILE 2-years EXPOSURE MAP

(July 2007- March 2009)



AGILE 2.4 years INTENSITY MAP



First AGILE Catalog: data analysis

AGILE pointings: predefined long exposures (10 - 30 days) drifting of about 1 degree per day with respect to the starting boresight direction to match solar panels constraints.

For the first AGILE catalog we adopted a **conservative analysis**, with a high-quality gamma event filter (filter F4 with relatively low effective area), optimized to select gamma-ray events within the central zone of the Field of View (radius of 30 degrees).

Merge of the entire “cleaned” dataset with healpix sky pixellisation.

AGILE source detection methods use a Maximum Likelihood (ML) analysis to derive the best parameters estimate for candidate sources, such as source significance, flux, and location.

High confidence detection:

- two independent automatic source detection strategies in cross-correlation
- statistical significance above 4 sigma
- manual refined analysis performed with a multi source likelihood analysis task

⇒ **47 validated, high confidence AGILE sources**

First AGILE Catalog of High Confidence Gamma-Ray Sources

- **First year of scientific operations:** observations from July 9, 2007 to June 30, 2008

47 high confidence sources $E > 100$ MeV:

- 21 confirmed and candidate **Pulsars**,
- 13 **Blazars** (7FSRQ, 4BL Lacs, 2 unknown type),
- 2 possible **HMXRBs**,
- 2 possible **SNRs**,
- 1 **Colliding-wind Binary System** (Eta-Car)
- 8 **Unidentified** sources.

Interactive on-line version of the the First AGILE-GRID Catalog from ADC web page <http://agile.asdc.asi.it/>

The First AGILE GRID Catalogue of γ -ray Sources

Period July 2007 -- June 2008

Pulsars

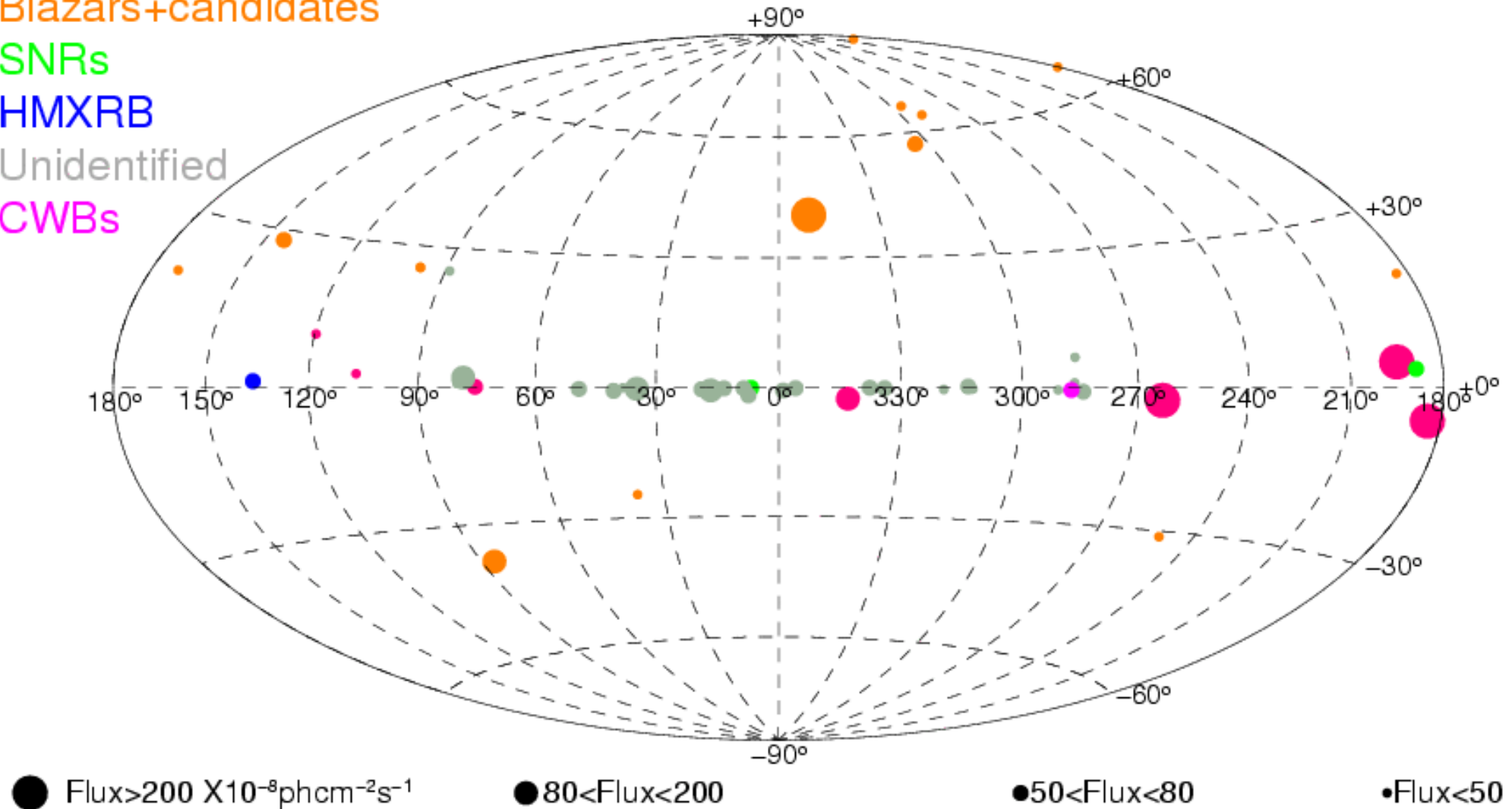
Blazars+candidates

SNRs

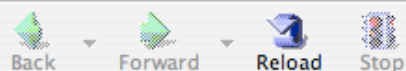
HMXRB

Unidentified

CWBs



C. Pittori et al., 2009, to appear in A&A - arXiv:0902.2959

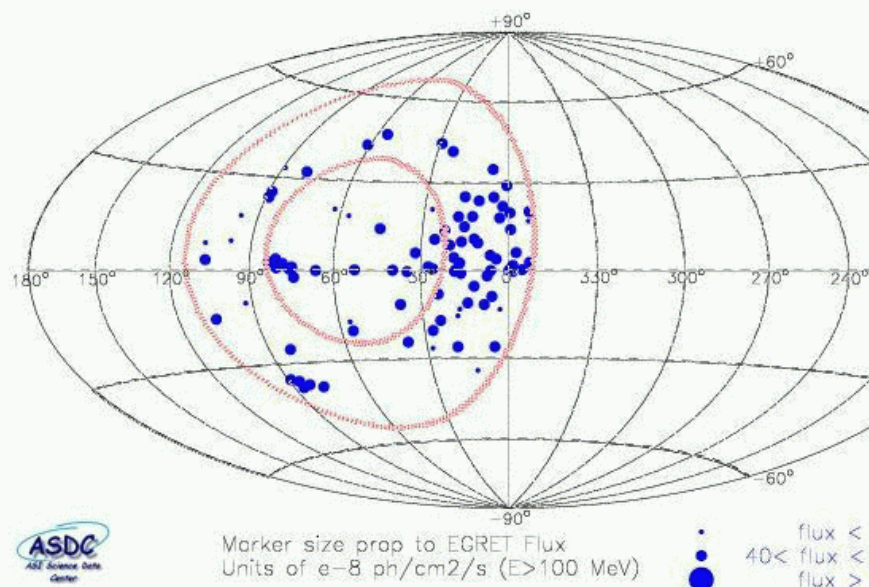

<http://www.asdc.asi.it/agilebrightcat/>

[Home](#) | [Bookmarks](#) | [Google](#) | [AGILE](#) | [GLAST](#) | [ASDC](#) | [WEBMAIL @ Roma2.i...](#) | [ASDC ASI Webmail](#) | [Libero](#) | [INFN - Istituto Nazio...](#) | [Dipartimento di Fisi...](#)

The First AGILE-GRID Source ...

Entry number		AGILE Name	RA (J2000) hh mm ss.d	Dec (J2000) dd mm ss.d	Position Error 95% (deg)	sqrt(TS)	Mean Flux E>100MeV (10 ⁻⁸ ph/cm2/s)	Mean Ring Exposure (cm2 day)	Classification	Confirmed Counterpart
Subset selection mode:										
<input type="text" value="inclusive"/>					Stat	Stat		Stat		
1 <input type="button" value="Select"/>	Data Explorer	1AGL J0006+7311	00 06 34.2	+73 11 06.6	0.63	5.1	23 +/- 5	3486	GammaPulsar*	CTA1
2 <input type="button" value="Select"/>	Data Explorer	1AGL J0242+6111	02 42 13.6	+61 11 06.7	0.64	5.3	54 +/- 12	1356	HMXRB	LSI+61303
3 <input type="button" value="Select"/>	Data Explorer	1AGL J0535+2205	05 35 05.9	+22 05 41.7	0.09	47.2	220 +/- 15	3229	Pulsar	Crab
4 <input type="button" value="Select"/>	Data Explorer	1AGL J0538-4424	05 38 29.6	-44 24 17.8	0.5	5.9	43 +/- 10	934	Blazar-BLLac	PKS0537-44
5 <input type="button" value="Select"/>	Data Explorer	1AGL J0617+2236	06 17 21.7	+22 36 14.2	0.27	9.9	69 +/- 9	3229	Unclassified	---
6 <input type="button" value="Select"/>	Data Explorer	1AGL J0634+1748	06 34 15.8	+17 48 27.7	0.05	63	320 +/- 10	3229	Pulsar	GEMINGA
7 <input type="button" value="Select"/>	Data Explorer	1AGL J0657+4554	06 57 29.2	+45 54 14.5	0.55	5.8	31 +/- 6	2288	Blazar*	---
8 <input type="button" value="Select"/>	Data Explorer	1AGL J0714+3340	07 14 29.4	+33 40 37.3	0.85	4.2	18 +/- 5	2978	Blazar*	---
9 <input type="button" value="Select"/>	Data Explorer	1AGL J0722+7125	07 22 22.9	+71 25 31.1	0.37	10.9	68 +/- 9	1614	Blazar-BLLac	S50716+71
10 <input type="button" value="Select"/>	Data Explorer	1AGL J0835-4509	08 35 13.3	-45 09 09.0	0.09	41.7	780 +/- 32	933	Pulsar	VelaPSR
11 <input type="button" value="Select"/>	Data Explorer	1AGL J1022-5822	10 22 08.8	-58 22 17.0	0.36	10.1	59 +/- 7	5616	Unclassified	---

Move mouse on a source and click



Gal. Center II 359.978 0.627 265.781 -2

Anti-Center I 192.637 8.109 100.944 21

SA Crab (8,24) 188.961 16.996 108.283 28

SA Crab (15,26) 183.008 22.203 111.762 35

Anti-Center II 197.296 15.717 110.404 20.758

→ Vulpecula Field 53.039 6.474 286.259 20.819

North Gal Pole 104.852 35.439 250.075 72.497

ASDC + VO
Catalogs

Interactive Data Access
at ASDC

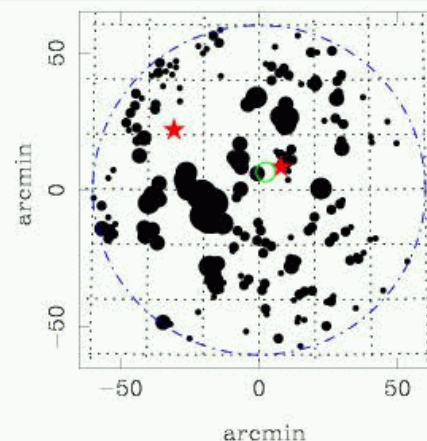
Spectral Energy
Distribution

Error circle
EXPLORER

Full Entry
Details



Entry ---
with sky coordinates Ra= 20 21 00.0 Dec=+40 17 59.9, L=78.05 b=2.00



Zoom

30



Current position R.A.=20 21 00.0 Dec.=+40 17 59.9, L=78.05 b=2.00

Multi-λ measurements
via ASDC Browse

Multi-λ measurements
via VO interface

Opt-DSS from eso

Image size 3 arcmin

Search radius 0.2 arcmin

STSCI MAST

GSC2

2MASS

NED

SIMBAD

HEASARC(X-R-G)

VIZIER(X-R-G)

ASDC-R

ASDC-X

SDSS

SDSS DR6 Navigate tool

NVO

0.000

2008-04-08 12:00 2008-04-10 12:00

2008-04-10
12:00

2008-04-30
12:00

2008-04-30
12:00

2008-05-10
12:00

AGILE

Remarks on AGILE First Catalog :

- The AGILE First Catalog includes only high-significance sources characterized by a prominent mean gamma-ray flux above 100 MeV when integrated over the total exposure period 2007 July - 2008 June and it is not a complete sample due to the non-uniform first year sky coverage.
- The AGILE-GRID spatial resolution reached with long exposures is substantially better than that of EGRET, and the total exposure accumulated by AGILE in several sky regions during the first year, particularly near the Galactic plane, is comparable with that obtained by EGRET in 6 years effective time.
- Cat-1 exposure mostly in the Carina-Crux and in the Cygnus regions, with relatively low exposure at the Galactic center. This explains the relatively small number of sources in the Galactic center region included in this First Catalog.

- With the one-year long integration time scale only sources with “steady” flux values above $\sim 20 \times 10^{-8} \text{ ph cm}^{-2} \text{ s}^{-1}$ are detected over 4 sigma. Source detections during flaring state and determination of peak fluxes are not included in this Catalog and will be the subject of a forthcoming publication.
- This should be taken into account when comparing with the results of the Third EGRET Catalog which includes detections over 4 sigma in each of the EGRET viewing periods during its effective 6-year lifetime.
- A variability study of the sources of the First AGILE Catalog over different timescales is in progress (F. Verrecchia et al. 2009).

The X-ray imager SuperAGILE: public source list from interactive pages at ADC:

<http://agile.asdc.asi.it/>

SuperAGILE Source Catalog
(Webpage updated twice a day)

Available parameters
☒ name ☒ ra ☒ dec ☒ dateobs ☒ flux ☒ err_flux ☒ sign ☒ exposure ☒ orbit

[TXT](#)

[NOTE for the proper user of the data contained on this Webpage](#)

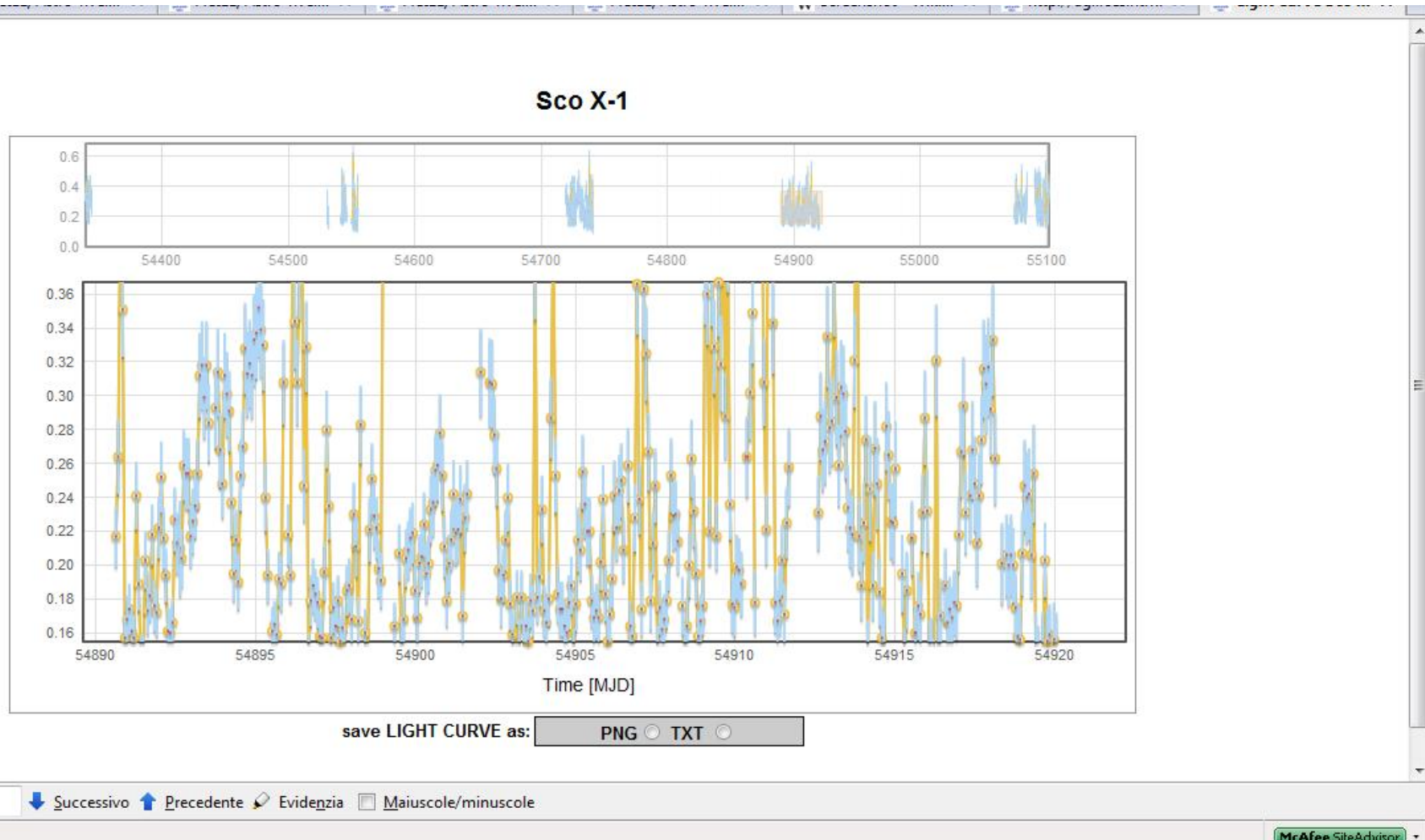
Entry number		Light Curve	Target Name	RA (J2000) hh mm ss.d	Dec (J2000) dd mm ss.d	Latest Observation Time	Flux (cts cm ⁻² s ⁻¹)	Flux error (cts cm ⁻² s ⁻¹)	Detection Significance	Exposure (sec)	Orbit number
Subset selection mode:				★ ★	★ ★		★ ★ <input type="button" value="Stat"/>	★ ★ <input type="button" value="Stat"/>	★ ★ <input type="button" value="Stat"/>	★ ★ <input type="button" value="Stat"/>	★ ★ <input type="button" value="Stat"/>
1 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	4U 1700-377	17 03 56.8	-37 50 38.4	2009-09-27T16:38:25	0.03	0.0069	4.68	3541	012539
2 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	Ginga 1826-24	18 29 28.0	-23 47 49.2	2009-09-27T16:38:25	0.017	0.0042	4.17	3429	012539
3 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	Sco X-1	16 19 54.9	-15 38 24.0	2009-09-27T16:38:25	0.444	0.0378	34.19	3429	012539
4 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	HETE J1900.1-2455	19 00 08.6	-24 55 12.0	2009-09-27T14:56:15	0.018	0.0042	4.46	3601	012538
5 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	GX 17+2	18 16 01.4	-14 02 09.5	2009-09-27T14:56:15	0.014	0.0033	4.31	3569	012538
6 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	GX 9+1	18 01 32.3	-20 31 44.3	2009-09-27T11:32:14	0.02	0.0045	4.66	3883	012536
7 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	GRS 1758-258	18 01 12.2	-25 44 34.7	2009-09-27T09:50:19	0.02	0.0042	5.26	3997	012535
8 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	SWIFT J1753.5-0127	17 53 28.3	-01 27 07.1	2009-09-27T06:26:13	0.026	0.0062	4.42	3917	012533
9 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	4U 1820-303	18 23 40.5	-30 21 39.6	2009-09-26T13:26:14	0.014	0.0036	4.02	3769	012523
10 <input type="button" value="Select"/>	ASDC Data Explorer	<input type="button" value="Show"/>	GX 5-1	18 01 08.1	-25 04 44.4	2009-09-25T05:07:47	0.022	0.0033	7.61	3627	012504

× Trova: car ☐ Maiuscole/minuscole

Completato McAfee SiteAdvisor

46 X-ray validated sources up to now (18-60 keV)

SuperAGILE detected sources and public light curves (webpage updated twice a day)





Agile Helpdesk



The table provides the coordinates of the relative centroids at the beginning of the relative period

Cycle-1 GOP Schedule

AGILE AO1: completed

Submitted proposals: 29

Approved/P. Approved: 24

Requested Targets: 122

Approved Targets: 100

Pulsars: 39

AGN: 31

3EG sources: 30

- SW build GO 1.0 + test dataset: *released on May 22, 2008*
- Cycle-1 data distribution:
 - *first delivery (17 OBs) on June 5, 2008*
 - *second delivery (3 OB) on July 17, 2008*
 - *last complete data release on Dec 23, 2008*

Agile Services



agenzia spaziale italiana ASI Science Data Center

[Guest Observer Program](#) [Back to Agile home page](#)

Session	Documentation	Tools
Login	Agile AO1 Approved Targets	Visibility & Flux Limit Computation
	Letter by ASI-OSU Announcing AO1	AO1 Pointings and 3EG sources in the AGILE f.o.v.
	Agile AO1 Policies and Procedures	
	Agile AO1 Pointing Plan	
	AGILE Team Source List	
	Template for the Scientific Justification	
	Proposal Generation Tool Manual	

AGILE AO2:

**Submitted/Approved
proposals: 15**

14 PI, 74 co-PI

**Requested/Approved
Targets: 93**

Pulsars: 21

AGN: 62

3EG sources: 10

AGILE SW & AO2 Data Distribution Schedule

- First public SW build + test dataset: **delivered on May 22, 2009**
- New SW release (4.0) ready: will be delivered **on October 6, 2009**
- AO2 (+ AO1 reprocessed) GO data packets ready: will be delivered **on October 6, 2009**

Agile AO2 Approved Targets - Mozilla Firefox

File Modifica Visualizza Cronologia Segnalibri Strumenti ?

http://agile.asdc.asi.it:8080/proposalAO2_view.php

Più visitati Come iniziare Ultime notizie Tangenziali - Infotrafic... OCTO Telematics - m... AGILE, Astro-rivelatore... ASDC

Gmail - Paper SA su A&A... AGILE, Astro-rivelatore Gam... AGILE, Astro-rivelatore Gam... AGILE, Astro-rivelatore Gam... Agile AO2 Approved Targ... W/ Screenshot - Wikipedia

Legenda

[Jump to page bottom](#)

[Approved Targets](#) [Show as PDF in a new window](#)

Target Name	RA (J2000)	Dec (J2000)	RA (J2000)	Dec (J2000)	l	b	PI Name	Proposal ID	TargetClass	Title
3EG J0010+7309	0h 9m 36.72s	73 10' 58.80"	2.403	73.183	119.870	10.560	Diego Torres	57	3EG Sources	AGILE GRID observations of Unidentified EGRET sources likely related to supernova
JVAS J0010-1724	0h 10m 34.7s	17 24' 18.00"	2.642	17.405	109.233	-44.377	Stefano Vercellone	49	Active Galactic Nuclei	Study of the gamma-ray properties of a sample of high-energy blazar candidates
J0030-0451	0h 30m 27.35s	4 51' 39.59"	7.614	4.861	113.141	-57.611	Andrea Possenti	52	Pulsars	Investigating the gamma-ray properties of a sample of northern radio pulsars
GC 0109+224	1h 12m 5.76s	22 44' 38.39"	18.024	22.744	129.142	-39.879	Alessandro Paggi	55	Active Galactic Nuclei	SSC: the end of the tether?
J0205+6449	2h 5m 37.92s	64 49' 44.39"	31.408	64.829	130.719	3.085	Andrea Possenti	52	Pulsars	Investigating the gamma-ray properties of a sample of northern radio pulsars
PKS 0208-512	2h 10m 46.31s	-51 1' 1.20"	32.693	-51.017	276.101	-61.778	Elena Pian	45	Active Galactic Nuclei	Multiwavelength Variability of Gamma-Ray-Loud Blazars
HB89 0212+735	2h 17m 30.72s	73 49' 33.59"	34.378	73.826	128.927	11.964	Filippo D'Ammando	56	Active Galactic Nuclei	AGILE observation of 4 high-redshift MeV blazars
J0218+4232	2h 18m 6.24s	42 32' 16.79"	34.526	42.538	139.508	-17.527	Andrea Possenti	52	Pulsars	Investigating the gamma-ray properties of a sample of northern radio pulsars
3C 66A	2h 22m 40.8s	43 2' 9.60"	35.667	43.036	140.144	-16.766	Elena Pian	45	Active Galactic Nuclei	Multiwavelength Variability of Gamma-Ray-Loud Blazars
RBS 0315	2h 25m 4.55s	18 46' 48.00"	36.289	18.780	151.788	-38.789	Filippo D'Ammando	56	Active Galactic Nuclei	AGILE observation of 4 high-redshift MeV blazars
1ES 0229+200	2h 32m 48.72s	20 17' 16.80"	38.203	20.288	152.942	-36.807	Alessandro Paggi	55	Active Galactic Nuclei	SSC: the end of the tether?
AO 0235+164	2h 38m 38.87s	16 36' 57.69"	39.662	16.616	156.771	-39.110	Alessandro Paggi	55	Active Galactic Nuclei	SSC: the end of the tether?
NGC 1358	3h 33m 38.39s	-5 5' 23.99"	53.410	-5.090	190.589	-45.564	Francesco Longo	54	Active Galactic Nuclei	Search for gamma-ray emission from UHECR candidate sources
3EG J0348+3510 (Per OB2)	3h 48m 0.0s	35 12' 0.00"	57.000	35.200	159.031	-15.014	Elena Orlando	58	3EG Sources	Search for gamma-ray emission from star-forming regions
PSR J0358+5413	3h 58m 53.75s	54 13' 11.99"	59.724	54.220	148.190	0.811	Teresa Mineo	48	Pulsars	AGILE-GRID observation of Radio Pulsars
WMAP3 J0403-3604	4h 3m 52.79s	-36 4' 47.99"	60.970	-36.080	237.737	-48.486	Carlotta Pittori	59	Active Galactic Nuclei	Blazar duty cycle from the microwave to gamma-ray slope
WMAP3 J0423-0120	4h 23m 14.40s	-1 20' 24.00"	65.810	-1.340	195.284	-33.144	Carlotta Pittori	59	Active Galactic Nuclei	Blazar duty cycle from the microwave to gamma-ray slope
PKS 0422+004	4h 24m 46.79s	0 36' 7.19"	66.195	0.602	193.586	-31.777	Alessandro Paggi	55	Active Galactic Nuclei	SSC: the end of the tether?
PKS 0521-365	5h 22m 58.8s	-36 27' 32.40"	80.742	-36.459	240.608	-32.716	Elena Pian	45	Active Galactic Nuclei	Multiwavelength Variability of Gamma-Ray-Loud Blazars
J0538+2817	5h 38m 24.95s	28 17' 9.60"	84.604	28.268	179.718	-1.688	Andrea Possenti	52	Pulsars	Investigating the gamma-ray properties of a sample of northern radio pulsars
PKS 0537-441	5h 38m 49.91s	-44 5' 9.59"	84.708	-44.088	250.083	-31.091	Elena Pian	45	Active Galactic Nuclei	Multiwavelength Variability of Gamma-Ray-Loud Blazars
PKS 0537-286	5h 39m 54.23s	-28 39' 57.60"	84.976	-28.666	232.940	-27.293	Filippo D'Ammando	56	Active Galactic Nuclei	AGILE observation of 4 high-redshift MeV blazars
3EG J0542+2610	5h 42m 0.0s	26 0' 0.00"	85.500	26.000	182.081	-2.222	Diego Torres	57	3EG Sources	AGILE GRID observations of Unidentified EGRET sources likely related to supernova
PKS 0548-322	5h 50m 40.80s	-32 16' 19.19"	87.670	-32.272	237.568	-26.144	Alessandro Paggi	55	Active Galactic Nuclei	SSC: the end of the tether?
PSR J0614+2229	6h 14m 17.28s	22 30' 36.00"	93.572	22.510	188.768	2.400	Teresa Mineo	48	Pulsars	AGILE-GRID observation of Radio Pulsars
3EG J0631+0642	6h 31m 39.36s	6 43' 42.00"	97.914	6.695	204.720	-1.320	Diego Torres	57	3EG Sources	AGILE GRID observations of Unidentified EGRET sources likely related to supernova

x Trova: car

Successivo Precedente Evidenza Mouscle/minuscule

Completato

McAfee SiteAdvisor

Agile AO2 Approv... 7th AGILE Works... RICA09_pittori.1... Download 7th AGILE Worksh... Immagine - Paint IT

AGILE Public Data Distribution

Publication of Cycle-1 data:

- **First public delivery (17 OBs): June 5, 2009**
- **Second public delivery (3 OBs): July 17, 2009**
- **Publication of a reprocessed Cycle-1 (20 OB) dataset: October, 2009**
- **Complete Cycle-1 public data release: Dec 23, 2009**

The screenshot shows the ASDC Multi-Mission Interactive Archive website. At the top, there is a navigation bar with links: Home, About ASDC, News, Events, Multimission Archive, ASDC Catalogs, Tools, ASI Headquarters, Related Sites, and Helpdesk/Feedback. Below this is a banner featuring images of various space missions: AGILE, SWIFT, FERMI, HERSCHEL, BeppoSAX, NUSTAR, OLIMPO, and S. Below the banner is a category bar with 'Astrophysics and Cosmology' selected, and 'Exploration of the Solar System' and 'Astroparticle Physics' also visible. The main title 'ASDC Multi-Mission Interactive Archive' is centered. On the left, there is a sidebar with 'Mission Selected' set to 'AGILE' and 'Search Type' options: 'Coordinates' (selected), 'Time', and 'Parameter'. The main content area has a search form with the label 'Enter source name or coordinates:' and a text input field. Below the input field, there are radio buttons for 'RA, DEC' (selected), 'L, B', and 'Equinox' set to '2000'. There is also a 'Radius' dropdown set to '30' and a 'Max lines retrieved' dropdown set to '300'. At the bottom, there is a 'Submit' button.

Home About ASDC News Events Multimission Archive ASDC Catalogs Tools ASI Headquarters Related Sites Helpdesk/Feedback

AGILE SWIFT FERMI HERSCHEL BeppoSAX NUSTAR OLIMPO S

Astrophysics and Cosmology Exploration of the Solar System Astroparticle Physics

ASDC Multi-Mission Interactive Archive

Mission Selected
AGILE

Search Type
Coordinates
Time
Parameter

Enter source name or coordinates: ☒ RA, DEC ☐ L, B
(e.g. CYGX-1 or 19 58 21.7, +35 12 05.8 or 299.590333, 35.201611 or 71.334960, 3.066917)

Radius (degrees) Output sorted by ☒ RA ☐ DEC

Max lines retrieved Equinox ☒ 2000 ☐ 1950

Submit

ANNOUNCE:

We offer the possibility of a tutorial on AGILE data analysis with the new SW packet (delivery 4.0). There will be two parallel tutorial sessions of 1 hour each: today and tomorrow at 14h30.

Interested participants should sign-up at the secretary desk.

THANK YOU!