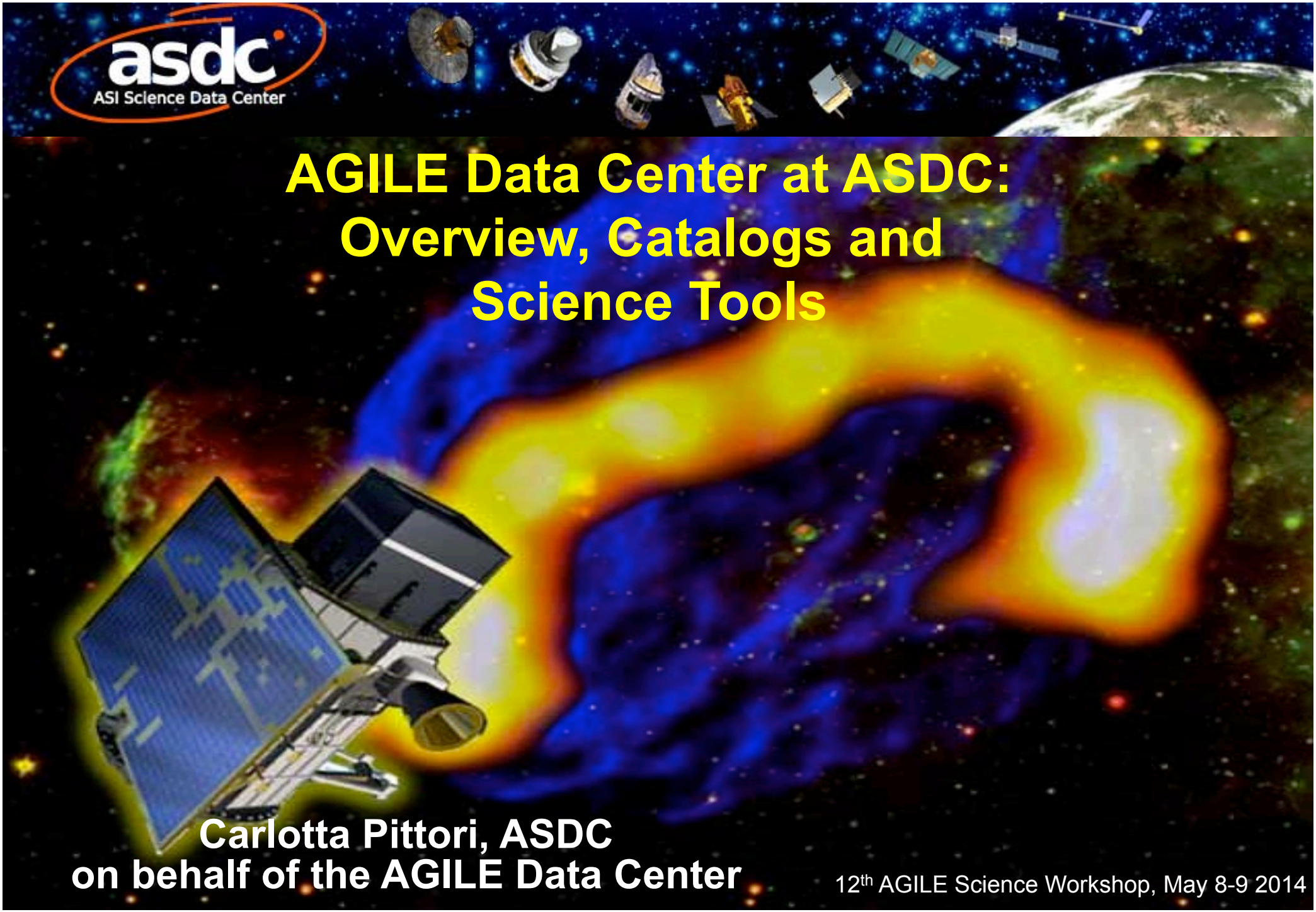


AGILE Data Center at ASDC: Overview, Catalogs and Science Tools

Carlotta Pittori, ASDC
on behalf of the AGILE Data Center

12th AGILE Science Workshop, May 8-9 2014


agile
Astro-rivelatore Gamma a Immagini LEggero
April 23, 2007: Launch!
Equatorial orbit: 550 Km, < 3º inclination angle

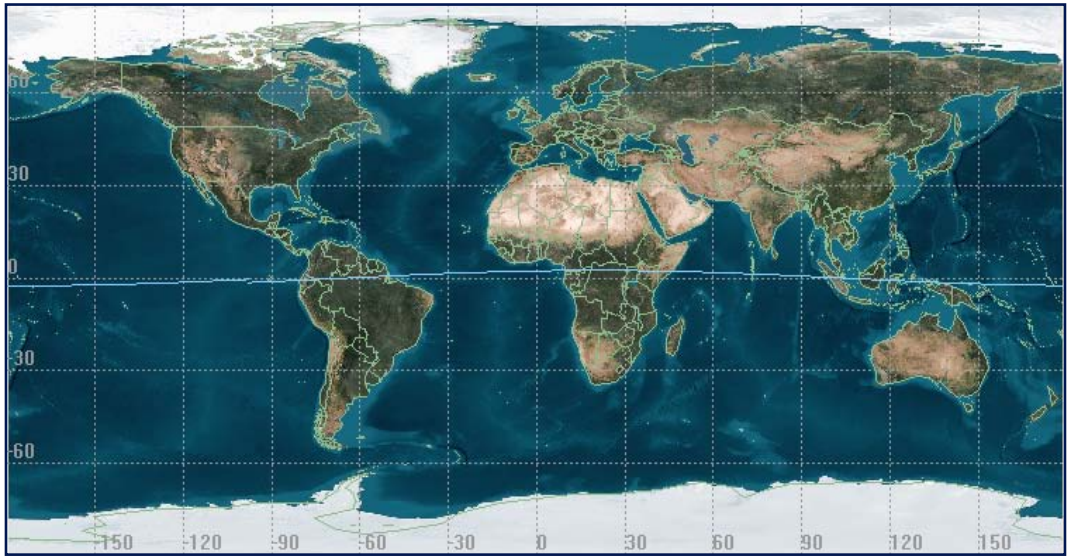
AGILE orbital parameters

Baseline equatorial orbit: 550 Km, 3º inclination

Semi-major axis: 6922.5 km (± 0.1 km)
Requirement: 6928.0 ± 10 km

Inclination angle: 2.48° (±0.04°)
Requirement: < 3°

Eccentricity: 0.002 (±0.0015)
Requirement: < 0.1°



Satellite-AGILE - 28 Mar 2013 10:08:13

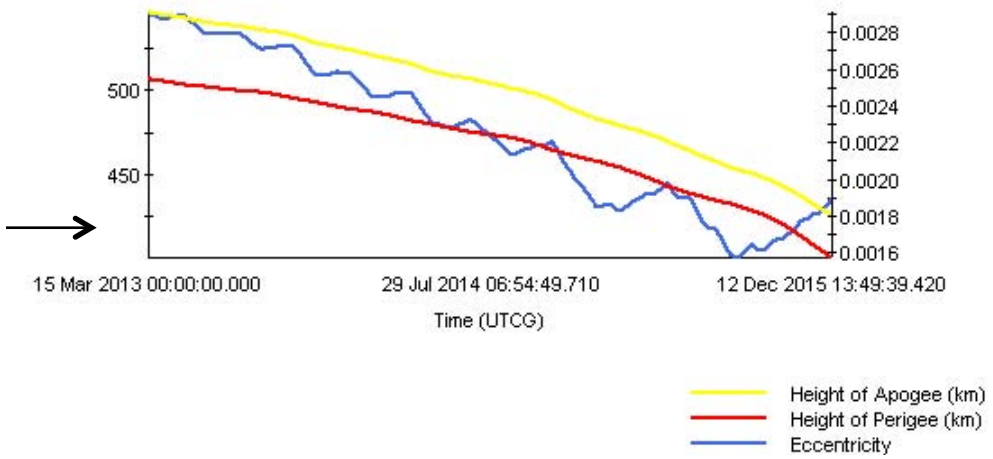
TPZ orbital decay estimate:

Height < 400Km on **20/04/2017**

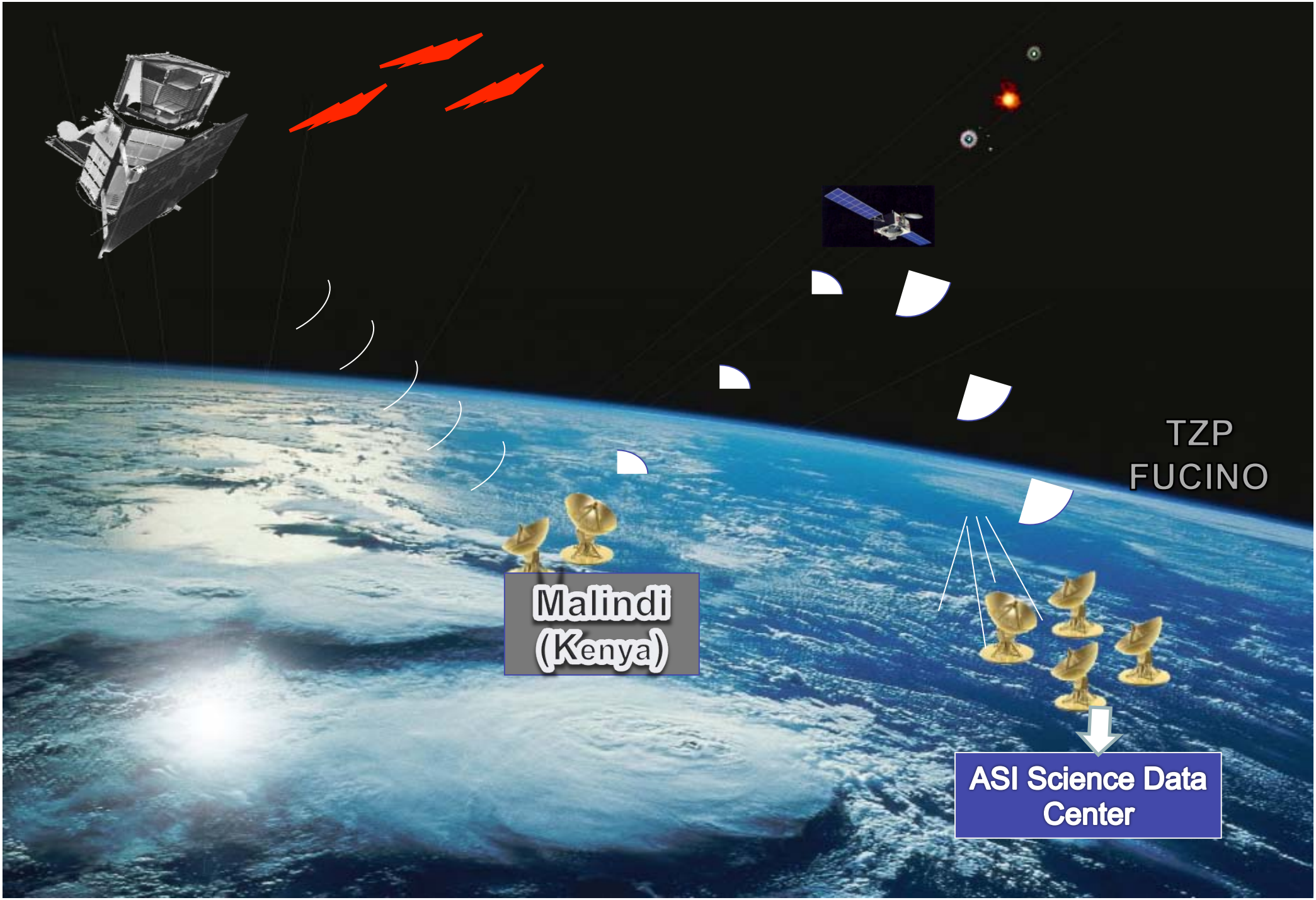
(A/M=0.009 sqm/Kg)

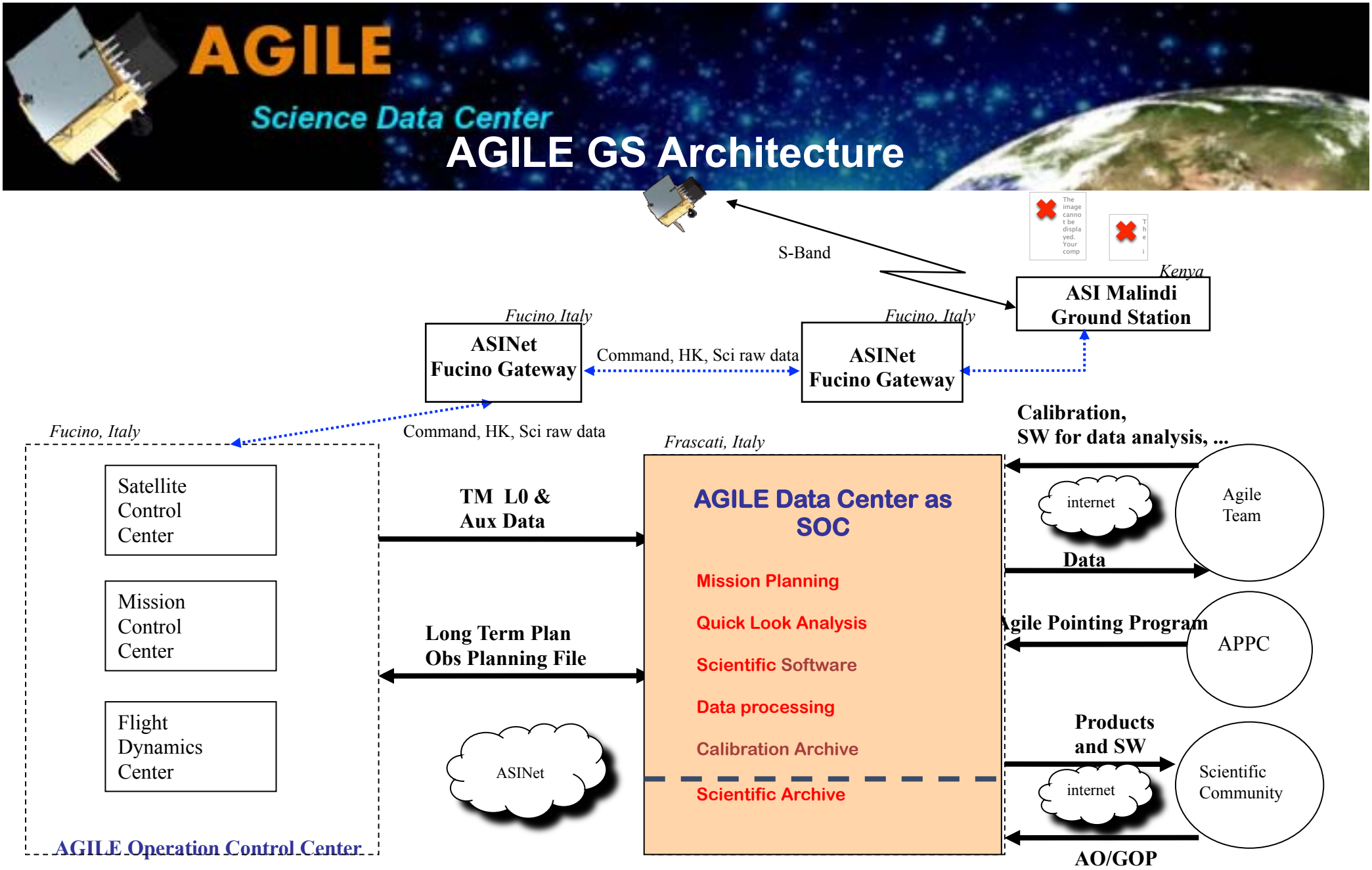
Worst case (A/M=0.012 sqm/Kg)**: 02/11/2015**

Best case (A/M=0.006 sqm/Kg): 29/04/2023

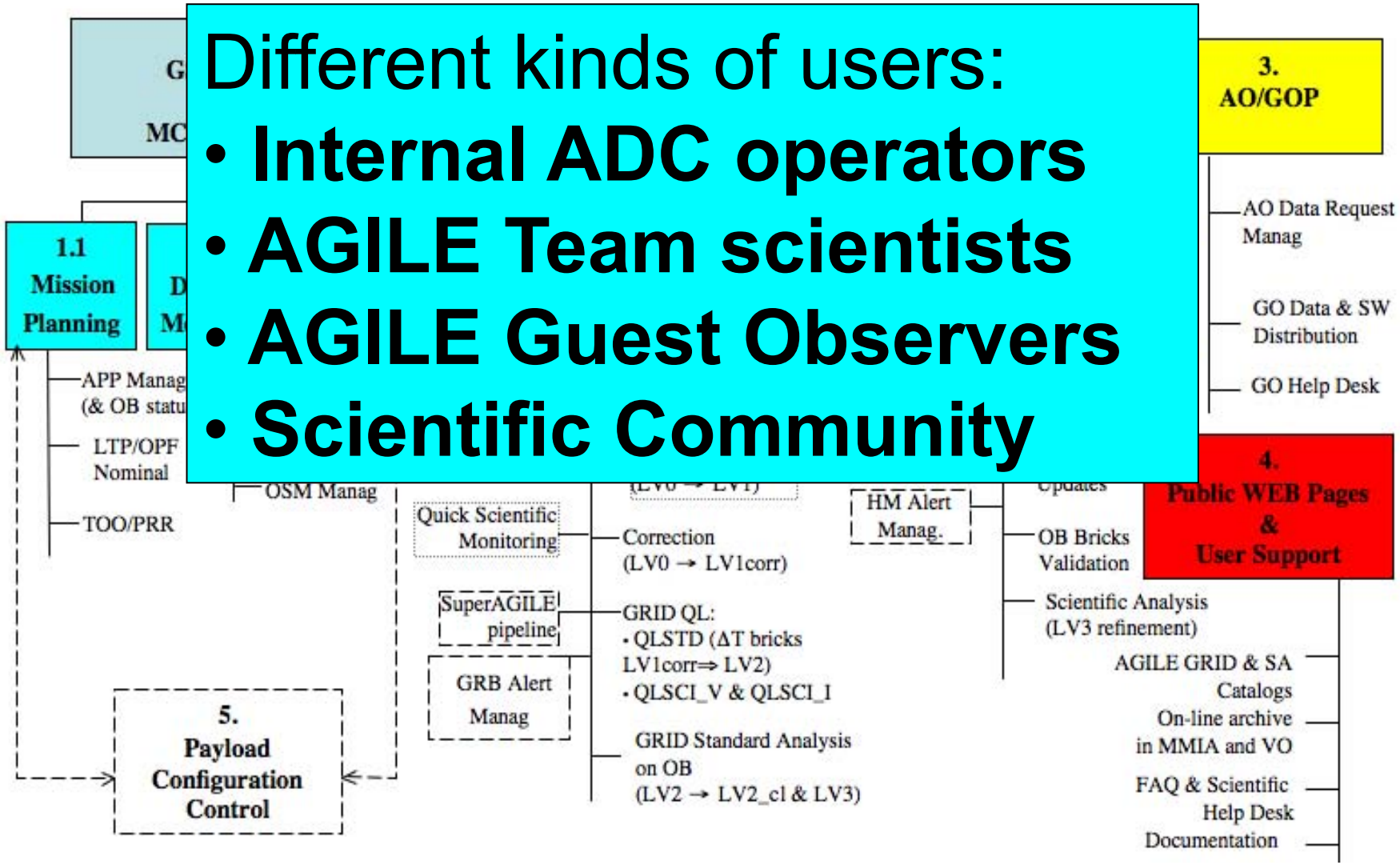


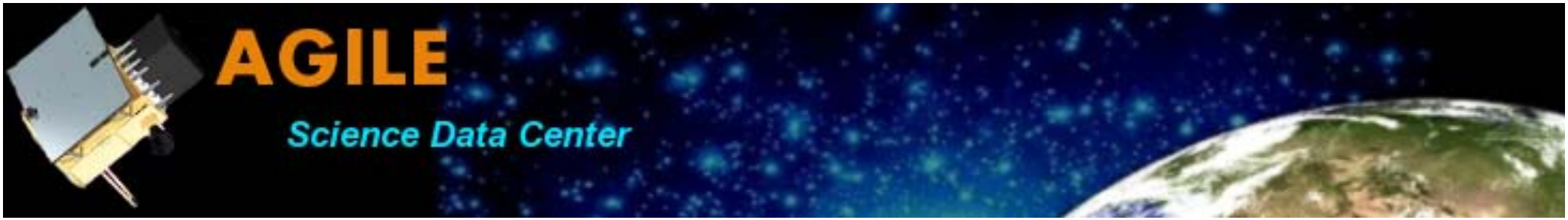
(March 2013 updated estimate, using recent solar flux “Schatten” forecasts + 2σ)


TZP
FUCINO
Malindi
(Kenya)
ASI Science Data
Center


AGILE
Science Data Center
AGILE GS Architecture
S-Band
Kenya
ASI Malindi
Ground Station
Fucino, Italy
ASINet
Fucino Gateway
Command, HK, Sci raw data
Fucino, Italy
ASINet
Fucino Gateway
Fucino, Italy
Command, HK, Sci raw data
Calibration,
SW for data analysis, ...
Frascati, Italy
Satellite
Control
Center
Mission
Control
Center
Flight
Dynamics
Center
AGILE Operation Control Center
TM L0 &
Aux Data
Long Term Plan
Obs Planning File
ASINet
AGILE Data Center as
SOC
Mission Planning
Quick Look Analysis
Scientific Software
Data processing
Calibration Archive
Scientific Archive
internet
Agile
Team
Data
Agile Pointing Program
APPC
Products
and SW
internet
Scientific
Community
AO/GOP

ADC operation scheme:

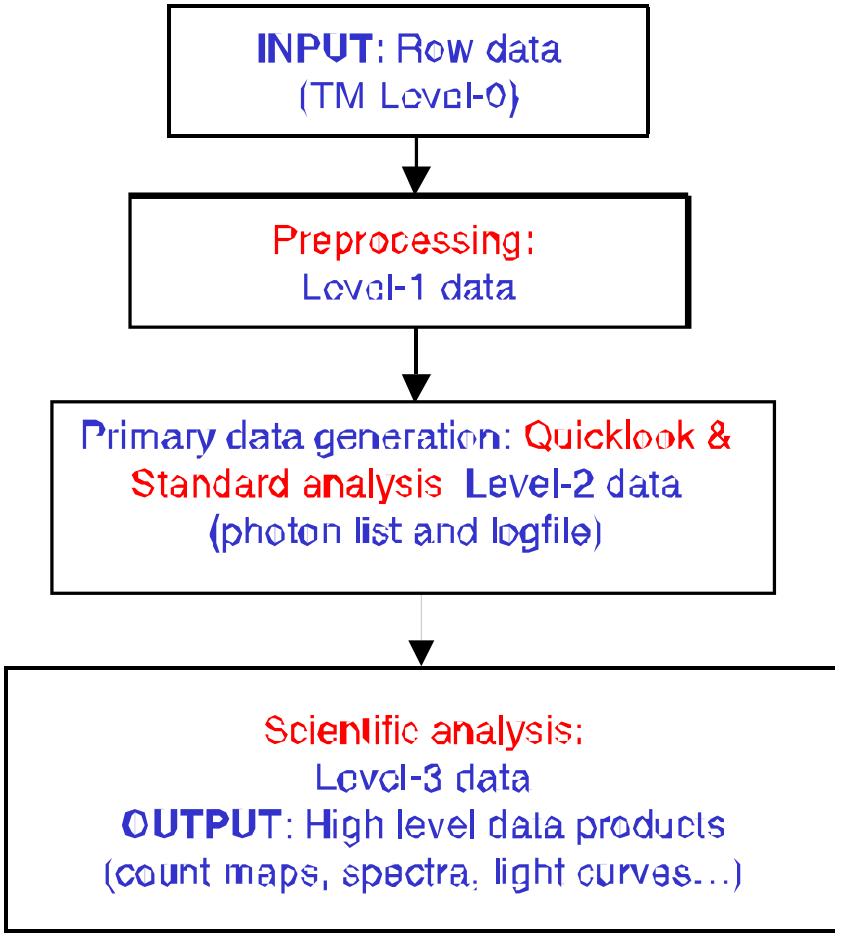




- The ADC, based at ASDC-ESRIN, is in charge of all the scientific oriented activities related to the analysis and archiving of AGILE data:

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



AGILE Data Center at ASDC (up to June, 2012):

Carlotta Pittori *coord.*, Patrizia Santolamazza, Francesco Verrecchia, Fabrizio Lucarelli (INAF), G. Fanari, S. Stellato (TPZ-SERCO)

Paolo Giommi
ASDC Director

F. Tamburelli

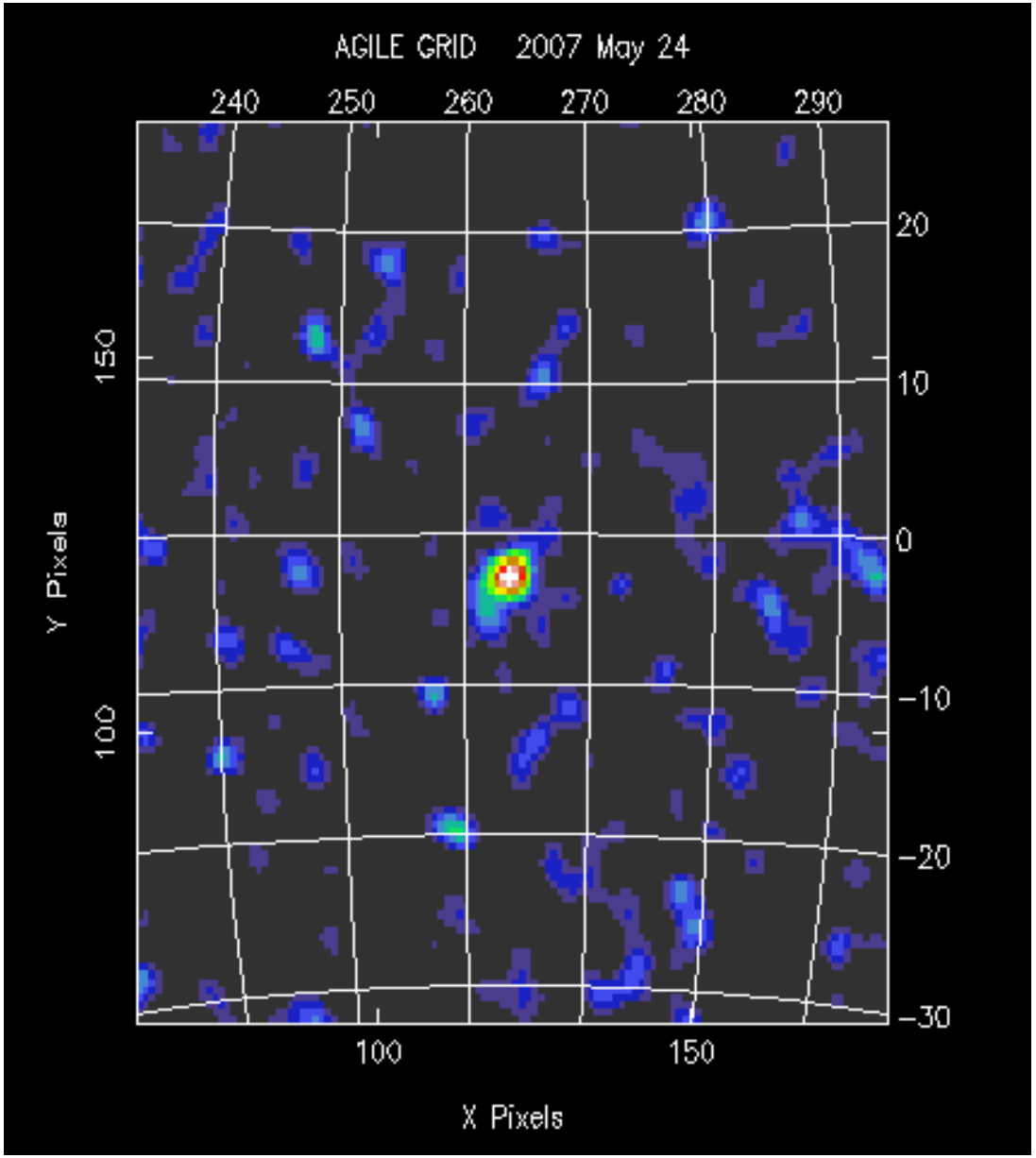
(AGILE in calibrazione @ LNF)

First AGILE GRID light
ADC 24/5/2007

Commissioning Phase:

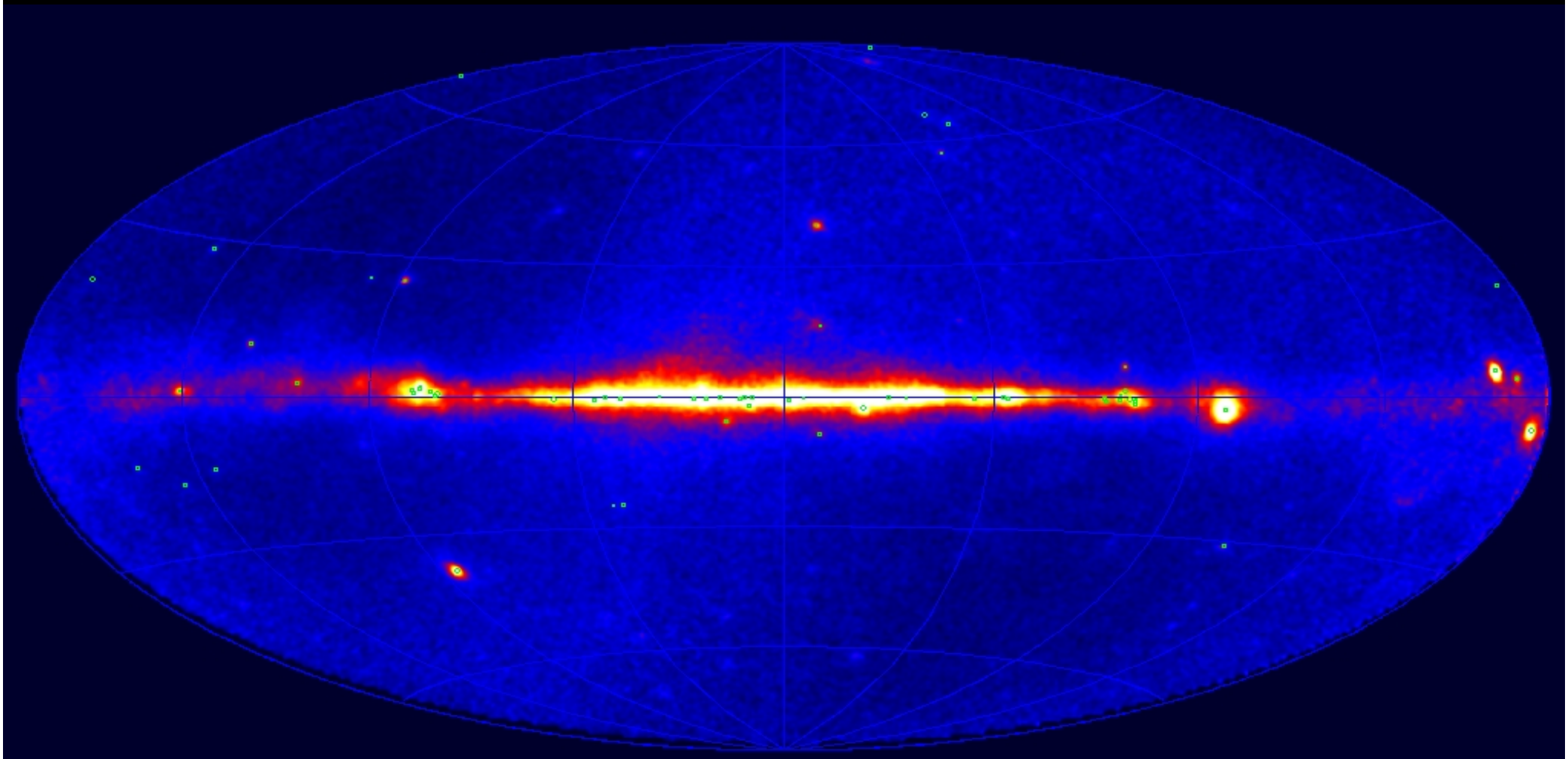
AGILE Vela PSR Count Map

(~ 20000 s)

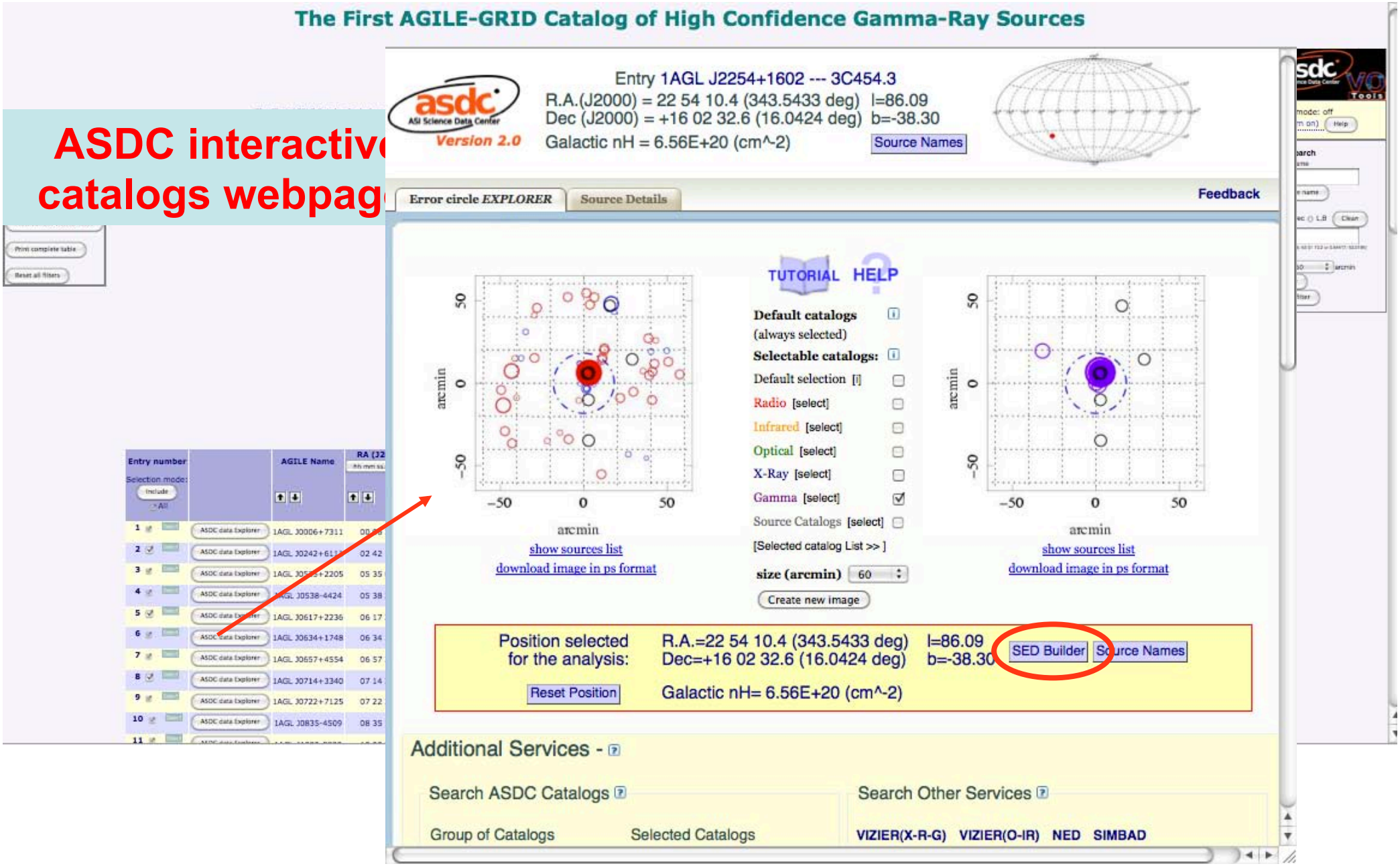


AGILE Total Intensity Map (E > 100 MeV)

Pointing + Spinning (up to Dec 25, 2012)



"The First AGILE-GRID Catalog of High Confidence Gamma-Ray Sources"
C. Pittori et al., A&A 506, 2009 (green circles, first year of operations)



ASDC Data Explorer Tool

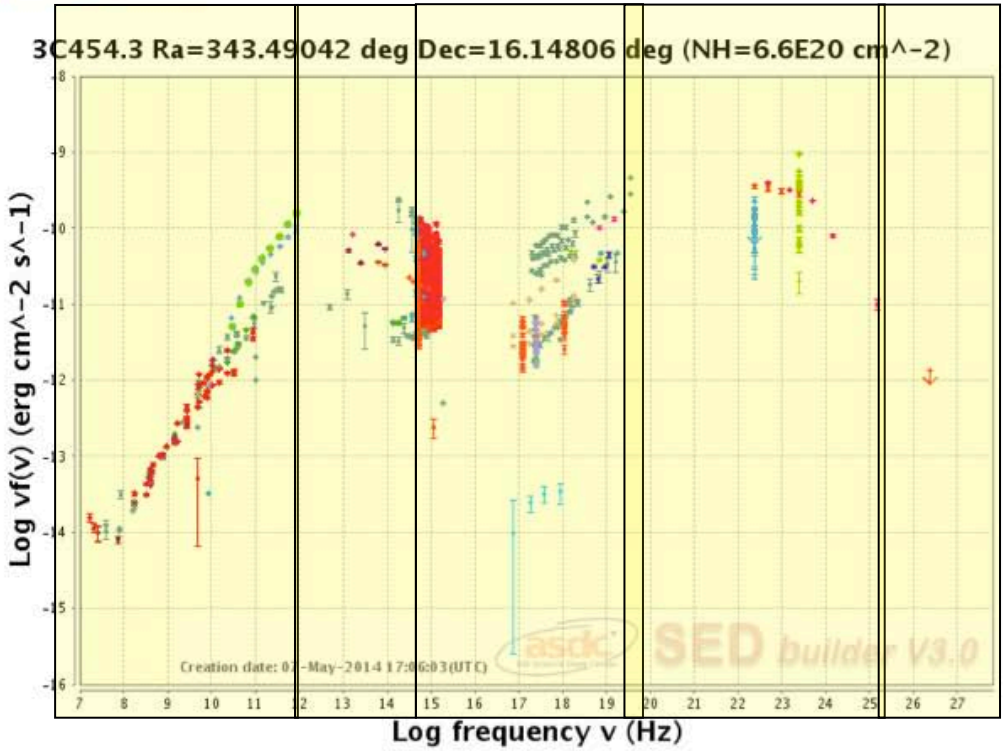
The new ASDC SED Builder

VO tools and TIME domain

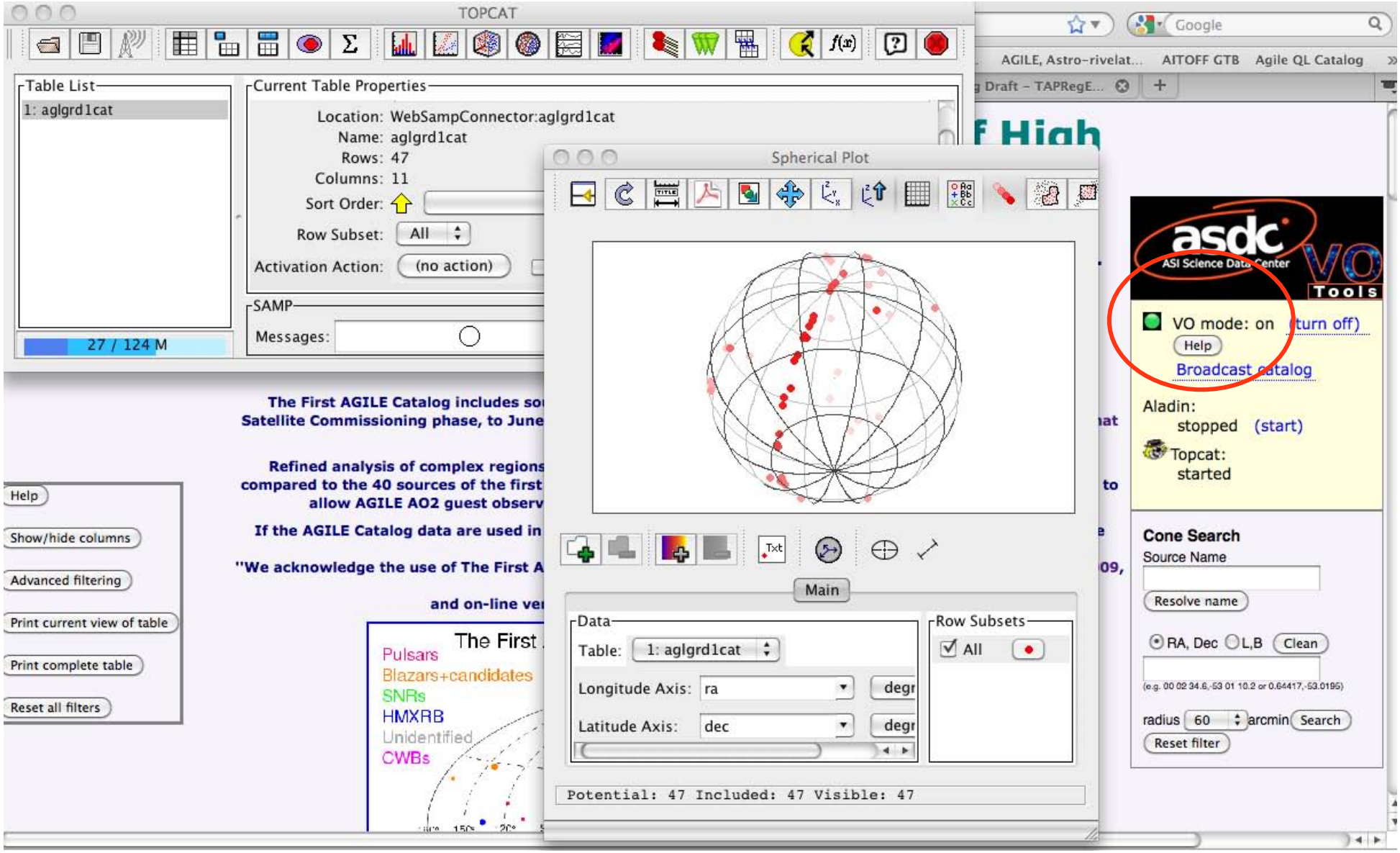
SED(t) builder V3.0

Radiotelescopes and Planck AGILE and Fermi Swift TEV/IACTA

A tool to build and handle Spectral Energy Distributions, time-resolved SEDs and multi-frequency light-curves



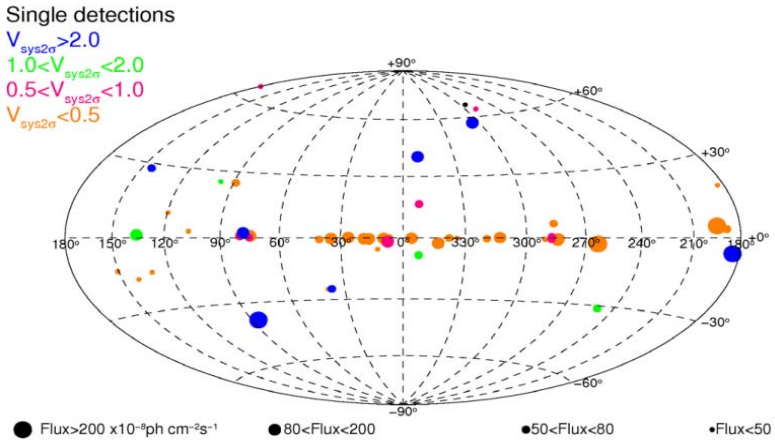
Virtual Observatory Standards (*in progress*) and Tool for OPerations on Catalogues And Tables (**Topcat**)



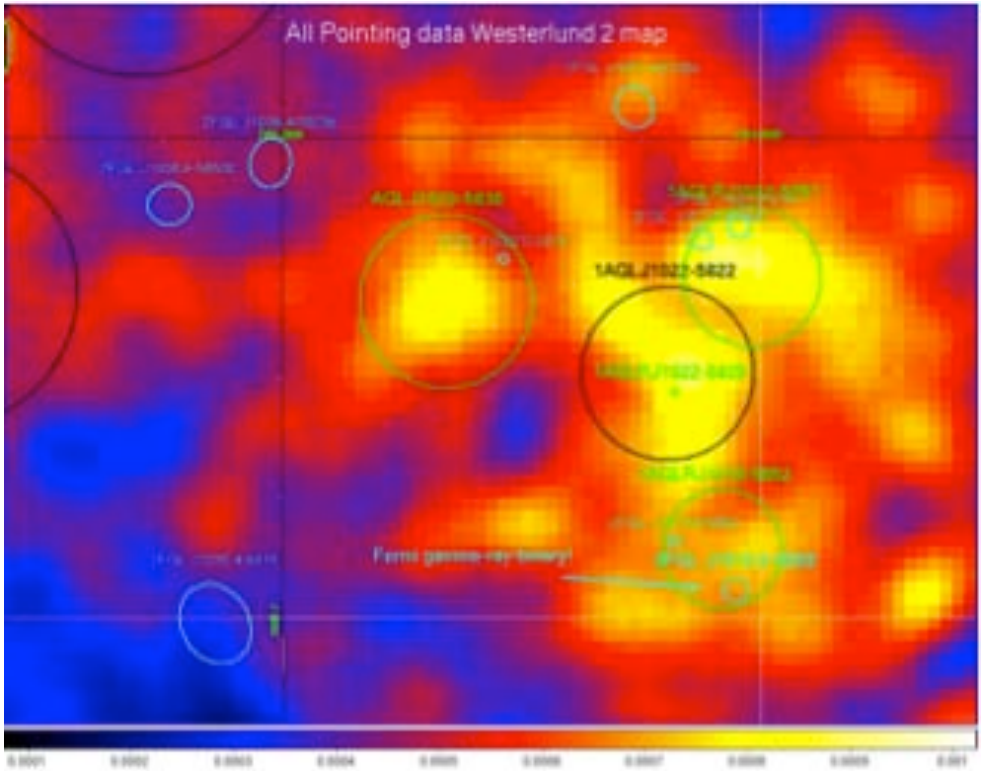
NEW AGILE CATALOGS:

- **An updated list of AGILE bright γ-ray sources and their variability in pointing mode: "1AGLR Catalog"**
  (F. Verrecchia et al., A&A, 558, A137, 2013)

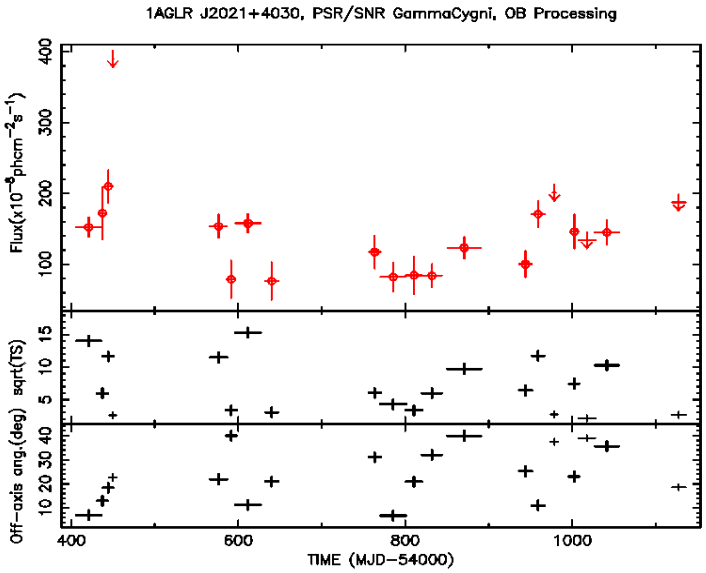
Variability study of an improved 1AGL source list (54 sources) on the timescale of the AGILE pointed observations (Observation Blocks)



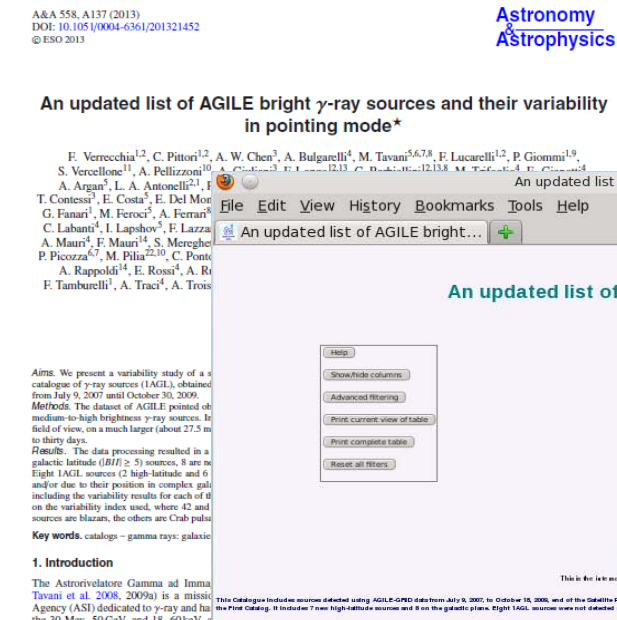
Refined positioning of some 1AGL sources: the Carina region →



OB timescale light curves →



1AGLR Catalog interactive web page
http://www.asdc.asi.it/agile1rcat


A&A 558, A137 (2013)
DOI: 10.1051/0004-6361/201321452
© ESO 2013

Astronomy & Astrophysics

An updated list of AGILE bright γ-ray sources and their variability in pointing mode*

F. Verrecchia[1,2], C. Pittori[1,2], A. W. Chen[3], A. Bulgarelli[4], M. Tavani[5,6,7,8], F. Lucarelli[1,2], P. Giommi[1,9], S. Vercellone[11], A. Pellizzoni[10], A. Argan[5], L. A. Antonelli[2,1], T. Contessi[5], E. Costa[5], E. Del Mon[5], G. Fanari[1], M. Feroci[5], A. Ferrari[8], C. Labanti[4], I. Lapshov[5], F. Lazza[5], A. Mauri[4], F. Mauri[14], S. Mereghe[4], P. Picozza[6,7], M. Pilia[22,10], C. Ponte[4], A. Rappoldi[14], E. Rossi[4], A. R[4], F. Tamburelli[1], A. Traci[4], A. Trois[4]

Aims. We present a variability study of a s catalogue of γ-ray sources (1AGL), obtained from July 9, 2007 until October 30, 2009.
Methods. The dataset of AGILE pointed ob medium-to-high brightness γ-ray sources. It field of view, on a much larger (about 27.5 m to thirty days.
Results. The data processing resulted in a galactic latitude ($|B|I| \geq 5$) sources, 8 are n Eight 1AGL sources (2 high-latitude and 6 and/or due to their position in complex gal including the variability results for each of th on the variability index used, where 42 and sources are blazars, the others are Crab pulsa

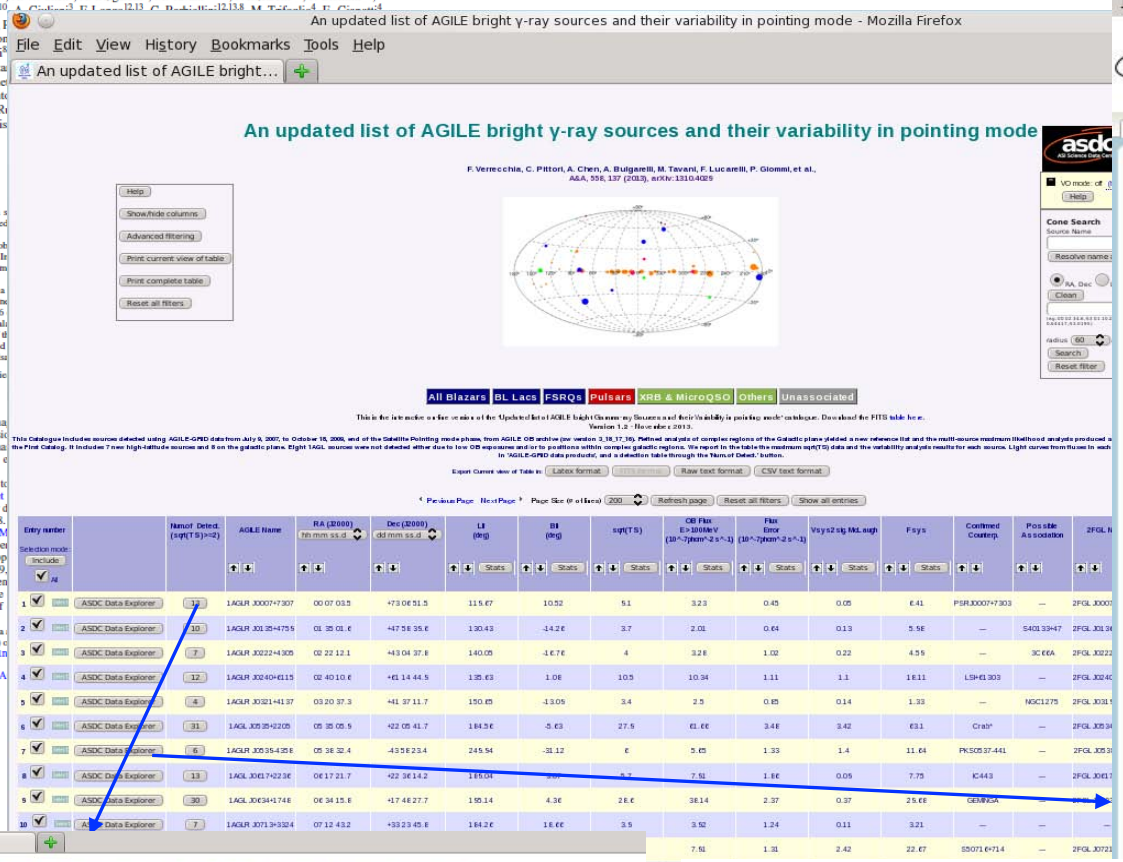
Key words. catalogs – gamma rays: galaxie

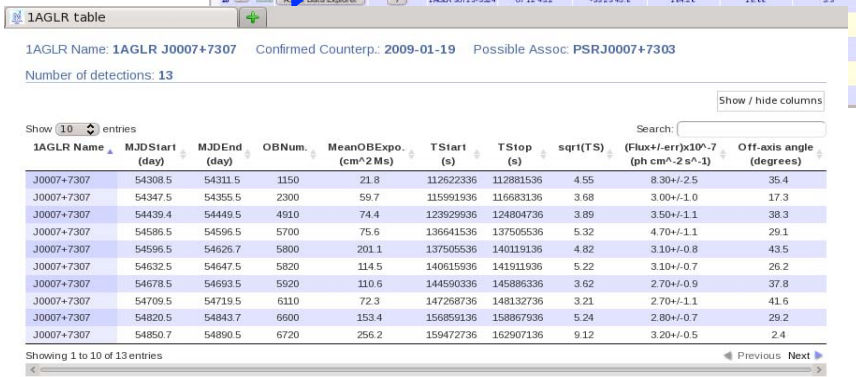
1. Introduction

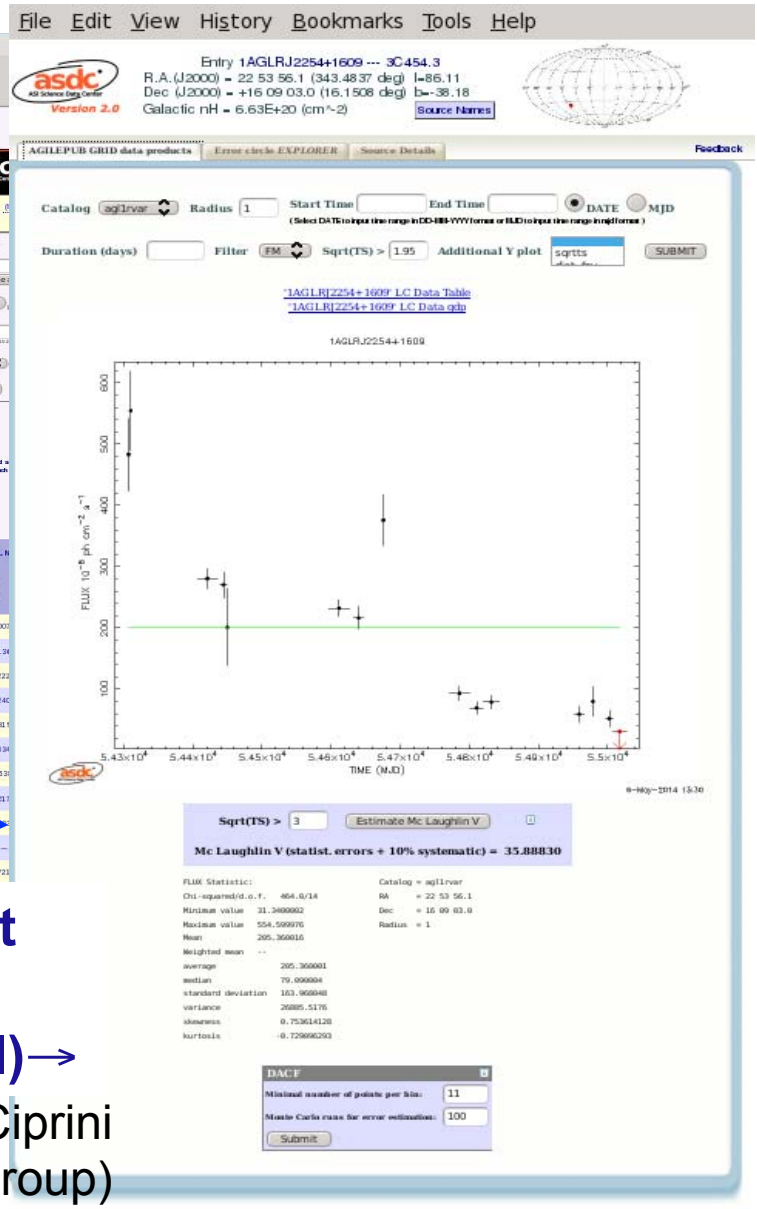
The Astrorivelatore Gamma ad Imma Tavani et al. 2008, 2009a) is a missi Agency (ASI) dedicated to γ-ray and ha the 30 MeV–50 GeV and 18–60 keV e on April 23, 2007.

AGILE is the first γ-ray mission t the end of the EGRET (Thompson et and has been the only mission entirely d astrophysics above 30 MeV till 2008. *Fermi* Gamma-Ray Space Telescope (M et al. 2009) was launched, which is oper AGILE. The AGILE spacecraft had op mode since launch until October 2009. ings or observation blocks (OBs). Then spacecraft reaction wheel, the attitude configured and the scientific mode of

* Table 5 is only available at the CDS via cdsarc.u-strasbg.fr (130.79.128.5) e http://cdsarc.u-strasbg.fr/viz-bin







New ASDC Light Curve Explorer Tool (ALCE Tool)→

(In collab. with S. Ciprini and ASDC-Fermi group)

NEW AGILE CATALOGS:

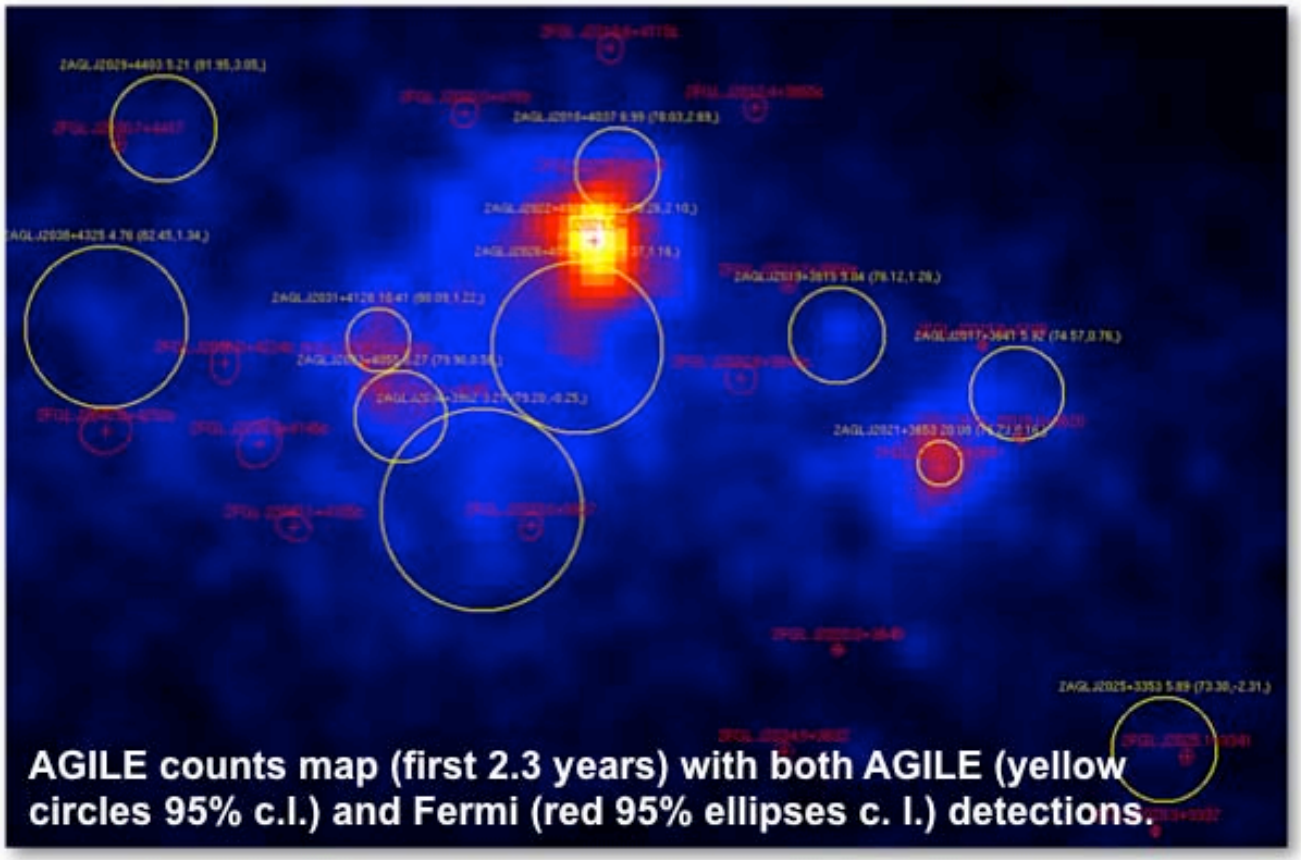
- **The second AGILE Catalog: 2AGL *in progress* (A. Bulgarelli et al.,)**
  See POSTER (Bulgarelli et al., preliminary results)

New AGILE-GRID source catalog over the whole period of AGILE **pointed observations** (first 2.3 years), with improved event filter and updated calibrations.

More than 180 sources on the galactic plane only.

The Cygnus region →

Galactic Center region: very complicate data analysis, *in progress*. See Fioretti's POSTER



AGILE counts map (first 2.3 years) with both AGILE (yellow circles 95% c.l.) and Fermi (red 95% ellipses c. l.) detections.

NEW: MCAL GR
(M. Galli et al., 2
ADC interactive
www.asdc.asi.it/

The AGILE MCAL Gamma-ray Burst Catalog

GRB observed from An

The Mini-Calorimeter (MCAL) of the AGILE

Entry number		GRB Name
Selection mode: Include / All		Stats
58	GRB Explorer	090328
59	GRB Explorer	0903288

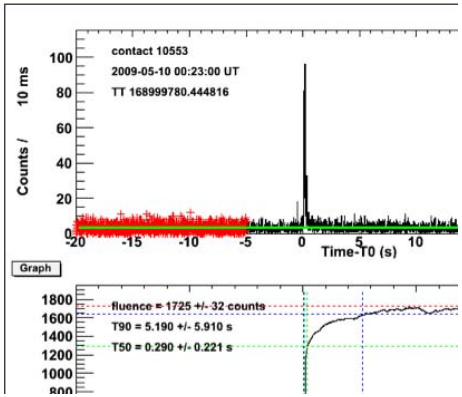
ASDC AGILE Science Data Center

Ent
R.A.(J2000) = 22 14 12
Dec (J2000) = -26 36 0
Galactic nH = 1.66E+2

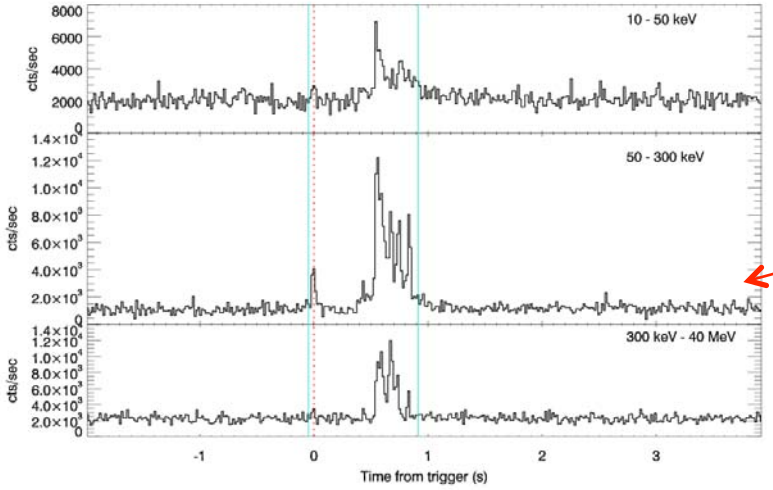
AGILE MCAL Data Products | GRB EXPLORER | Source Details

Standard Products

Light Curve 10ms binning
Light Curve broader binning (20-200 msec)
Energy Spectrum



090510016



Swift-XRT light curves of GRB 090510

Last updated after receiving ObsID 00351588001, version 19

Related pages: Burst Analyser | Enhanced position | Spectrum | GRB Region information | XRT Catalogue entry | Download obs data | GCN Notices | GCN Circulars

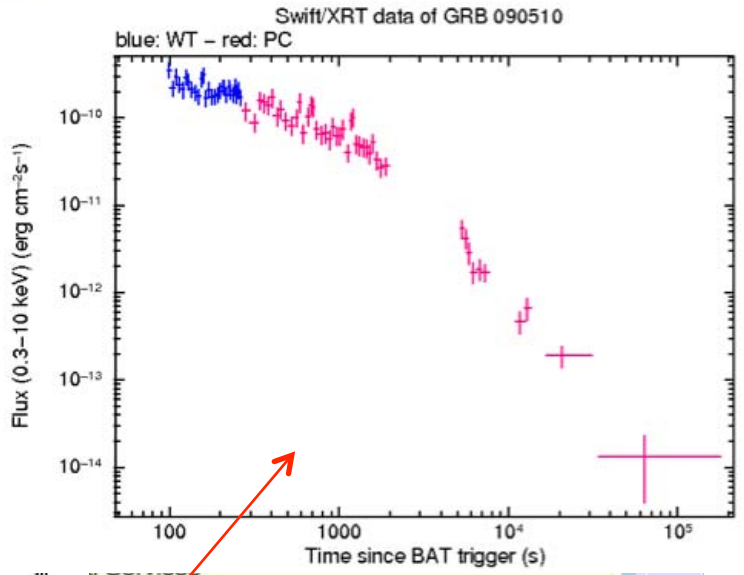
Rebin this light curve | About these products.

Flux Light Curve

For this burst, 1 count = 4.0 x 10^{-11} erg cm^{-2} (observed flux) (Automatic spectrum).

Note that this is an average conversion factor: the true value may evolve with time.

Rescale fluxed light curve.



Products

Swift-XRT light curve repository at Leicester

Swift-BAT

Quicklook GBM lightcurve

GCN

Blog for Gamma Ray Bursts

Articles

SAO/NASA Astrophysics Data System

GRID

SA

SA

NEW: MCAL TGF Catalog (M. Marisaldi et al., 2013)
ADC interactive webpag
www.asdc.asi.it/mcaltgf

Properties of Terrestrial Gamma-Ray Flashes detected by AGILE MCAL below 30 MeV

TGF (5 <30 MeV) observed from March 2009 to July 2012

This is the online version of the AGILE Terrestrial Gamma-ray (TGF) catalog below 30 MeV detected by the Minicalorim

The interactive web table includes 308 TG
Thanks to its very low inclina

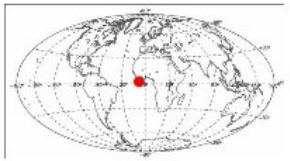
M. Marisaldi et al. 2013, Journal of

‹ Previous Pag

Entry number		TGF ID	GeoLon	Geo
Selection mode: Include All		Stats	Stats	
1	TGF LC	090302.71821	17.42	-1.
2	TGF LC	090308.40378	110.96	-2.
3	TGF LC	090308.61530	106.13	-1.
4	TGF LC	090309.25894	136.68	-1.
5	TGF LC	090309.37239	-6.65	1.8
6	TGF LC	090309.37239	-6.65	1.8
7	TGF LC	090315.25166	-8.08	1.7
8	TGF LC			

asdc ASI Science Data Center

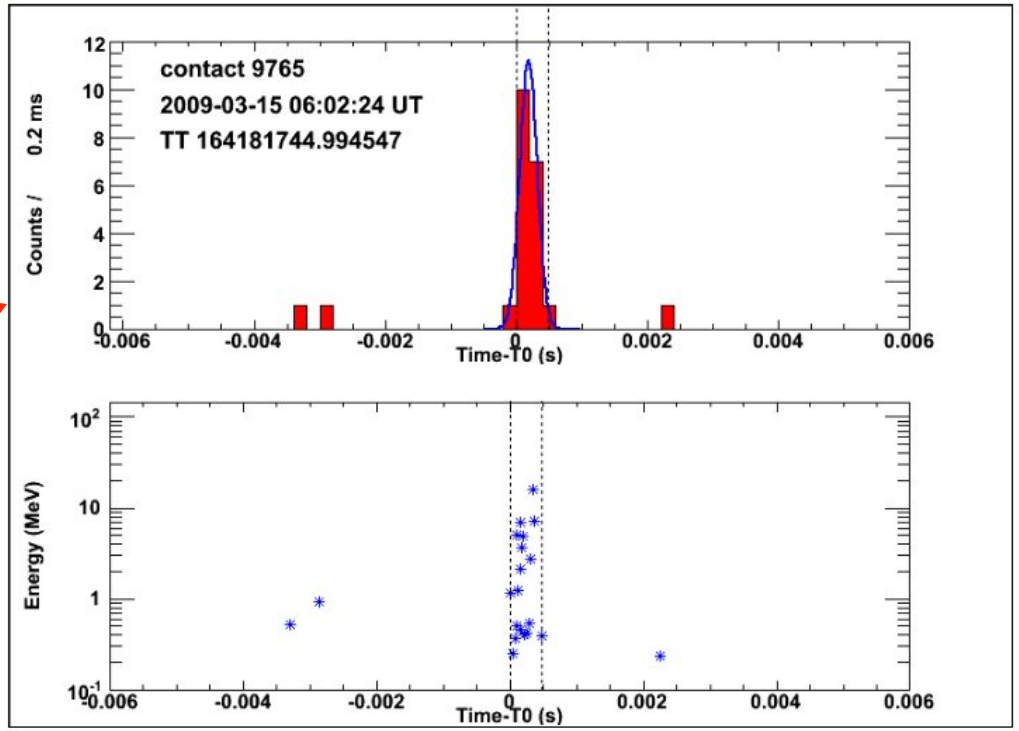
Entry 090315
GeoLong. = -8.08
GeoLat. = 1.73



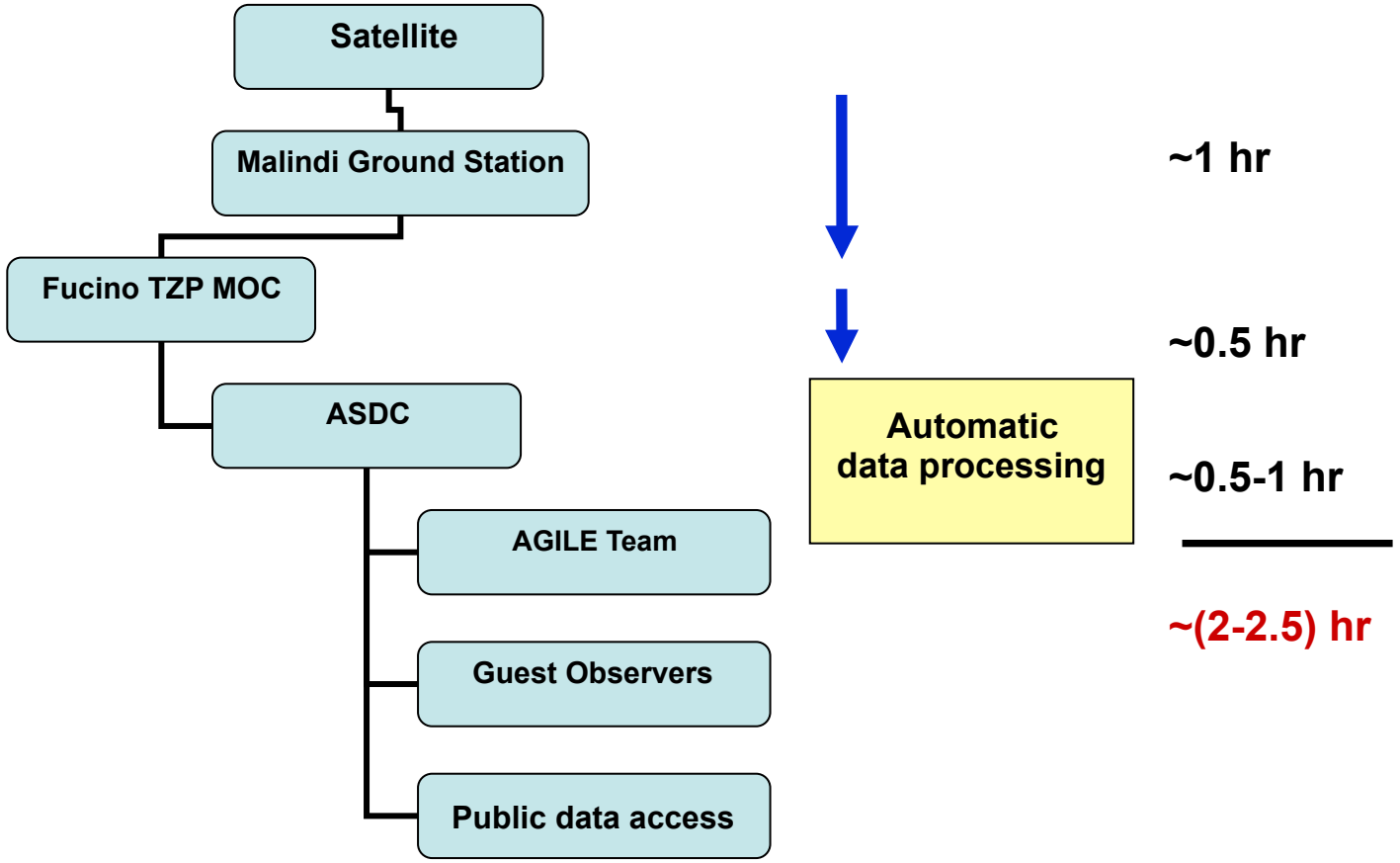
AGILE MCAL Data Products | Source Details

Standard Products

Light Curve broader binning (200 microsec)



AGILE: “very fast” Ground Segment (with contained costs)



Record for a gamma-ray mission!

AGILE Science Alert System

- The system is distributed among the ADC @ ASDC and the AGILE Team Institutes (Trifoglio, Bulgarelli, Gianotti et al.)
- Automatic Alerts to the AGILE Team are generated within **T_0 + 45 min (SA) and T_0 + 100 min (GRID)**
- GRID Alerts are sent via email (and sms) both on a contact-by-contact basis and on a daily timescale
- Refined manual analysis on most interesting alerts performed every day (daily monitoring)
- **108 ATel** (48 in pointing + 60 in spinning) and **43 GCN** published up to May, 2014

AGILE
Science Data Center

Welcome to the AGILE Data Center Home Page at ASDC

These pages provide updated information and services in support to the general scientific community for the mission AGILE, which is a small Scientific Mission of the Italian Space Agency (ASI) with participation of INFN, IASF/INAF and CIFS .

AGILE is devoted to gamma-ray astrophysics and it is a first and unique combination of a gamma-ray (AGILE-GRID) and a hard X-ray (SuperAGILE) instrument, for the simultaneous detection and imaging of photons in the 30 MeV - 50 GeV and in the 18 - 60 keV energy ranges.

The AGILE Mission Board (AMB) has executive power overseeing all the scientific matters of the AGILE Mission and is composed of:

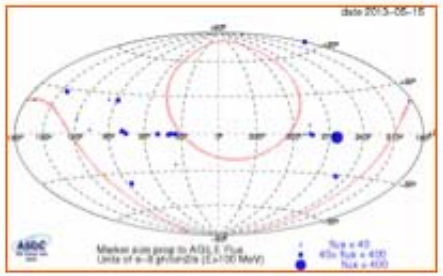
- AGILE Principal Investigator: Marco Tavani, INAF/IASF Rome (Chair)
- ASI Project Scientist: Paolo Giommi, ASDC
- ASI Mission Director: Giovanni Valentini, ASI
- Former ASI Mission Director: Luca Salotti, ASI (up to September 20, 2010)
- AGILE Co-Principal Investigator: Guido Barbiellini, INFN Trieste
- 1 ASI representative: Elisabetta Tommasi di Vignano
- Former ASI representative: Sergio Colafrancesco (up to June, 2010)

As specified in the Announcement of Opportunity Cycle-4, it is not possible to propose for ToO observations in response to AGILE Announcement of Opportunity.

Latest Agile Top Results

AGILE current spinning sky view

(Click here for previous pointing details)



Click here to access to AGILE Spinning FOV plotter

AGILE Events

Latest AGILE News

- **(Apr 30, 2013)** GRB 130427A: high energy gamma-ray detection by AGILE and Fermi
- **(Apr 11, 2013)** AGILE-MCAL Gamma-ray Burst Catalog on-line at ASDC
- **(Mar 28, 2013)** GRB 130327B: gamma-ray detection by AGILE
- **(Mar 12, 2013)** Sustained gamma-ray emission from the Crab Nebula and hard X-ray and Optical follow up reported

ADC Quick-Look Interface

(from AGILE Services restricted area)

Agile Services: user pittori

Agile Servic

Data Coverage Monitoring

Legenda

Processamenti QL Scientif

Back to last menu | Logout | Jump to page bottom

Quick Access to QL Data Results

R.A. or Gal. Longitude:	
Dec or Gal. Latitude:	
Equinox:	⊙ J2000 ○ B1950
Coordinates:	⊙ Celestial (RA-Dec) ○ Galactic (lii-bii)
	Submit Reset

Declination and Galactic coordinates can be entered either as degrees and decimal fraction (format ddd.ddd), or as degrees, minutes, seconds (dd mm ss.ss format).
Right ascension can be entered either as degrees and fraction (ddd.ddd), or as hours, minutes, seconds (hh mm ss.ss format).

Record List for AgileQLCat

Config ID	Config Name	Duration	Run Status	Start	Stop	QL Imag								
337	Global_Ximage AM	2	Actual	2011-12-09 01:00:00	2011-12-11 01:00:00		TBD	File Log	Data File	OK	QL_V	FM	2011-12-11 05:30:49	2011-12-11 06:06:45
328	B19 QLV Spinning (80,0) Cygnus FM	2	Actual	2011-12-09 02:31:00	2011-12-11 02:31:00		QL Catalog Link	File Log	Data File	OK	QL_V	FM	2011-12-11 05:32:23	2011-12-11 05:38:06
304	B19 QL_V Spinning FM 2dd R29 - bis_1	2	Actual	2011-12-09 02:40:00	2011-12-11 02:40:00		QL Catalog Link	File Log	Data File	OK	QL_V	FM	2011-12-11 05:32:55	2011-12-11 05:38:58
310	B19 QL Variabilita' Spinning FT3ab TEST (190,0)	2	Actual	2011-12-09 02:46:00	2011-12-11 02:46:00		QL Catalog Link	File Log	Data File	OK	QL_V	FT3ab	2011-12-11 05:33:27	2011-12-11 05:38:59
311	B19 QL Variabilita' Spinning FM TEST (190,0)	2	Actual	2011-12-09 02:46:00	2011-12-11 02:46:00		QL Catalog Link	File Log	Data File	OK	QL_V	FM	2011-12-11 05:38:08	2011-12-11 05:44:17
307	B19 QL Variabilita' Spinning FT3ab TEST (290,-85)	2	Actual	2011-12-09 02:48:00	2011-12-11 02:48:00		QL Catalog Link	File Log	Data File	OK	QL_V	FT3ab	2011-12-11 05:38:59	2011-12-11 05:47:48
				2011-12-09	2011-12-11		QL Catalog						2011-12-11	2011-12-11

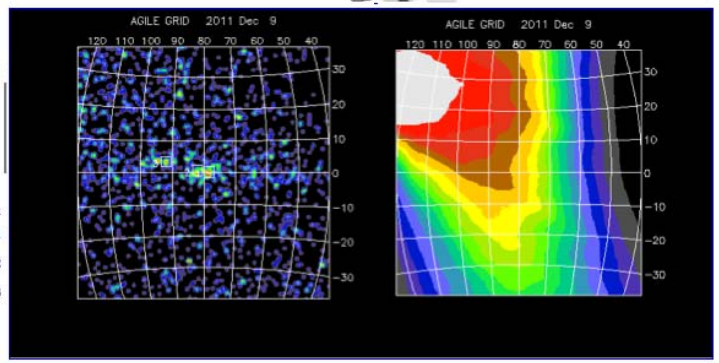
AGILE Quick Look catalog (Test) at ASDC

Variability 11-12-09 02:31 11-12-11 02:31 FM

Available parameters

Name
Ra Dec
Gal Iso
Cnts Cnts
Err
Sqrt(TS)
XimageId
Flux Flux
Err
Distance from FOVCent.
Ximage SNR
Sp_Index
Err_sp_index
Other_name1
Other_name2
Other_name3
GO

Reset



Entry number		AGILE name	RA (J2000.0) hh mm ss.d	Dec (J2000.0) dd mm ss.d	Gal	Iso	Cnts	Sqrt(TS)	Flux
Selection mode: inclusive									
1	ASDC Data Explorer	AGL J2030+3929	20 30 02.4	+39 29 16.8	0.484	9.53	19.5	2.65	244
2	ASDC Data Explorer	AGL J2039+4242	20 39 15.1	+42 42 25.2	0.975	0.744	4.08	0.59	50
3	ASDC Data Explorer	AGL J2104+5207	21 04 39.4	+52 07 44.4	0.572	7.09	8.43	1.61	97

ASDC Data Explorer

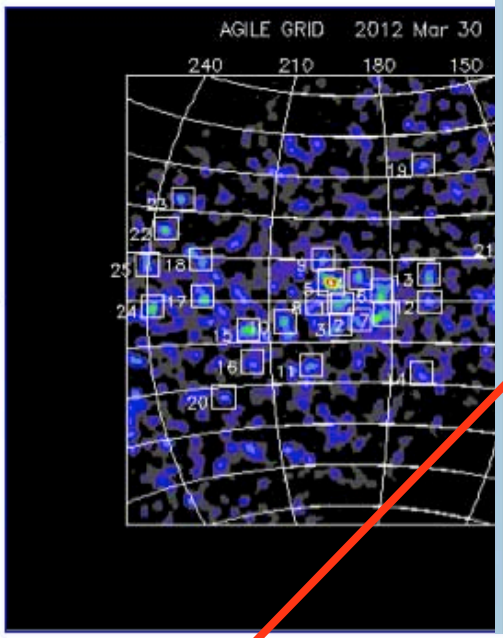
Quick Look AGILE da

Variability

Available parameters

- Name
- Ra Dec
- Gal Iso
- Cnts Cnts Err.
- Sqrt(TS)
- XimageId
- Flux Flux Err
- Distance from FOVCent.
- Ximage SNR
- Sp_Index
- Err_sp_index
- Other_name1
- Other_name2
- Other_name3

GO



The ASDC Multi-frequency Data Explorer: Web and VO data access and tools

http://www.asdc.asi.it/showEntry.php#

asdc ASI Science Data Center

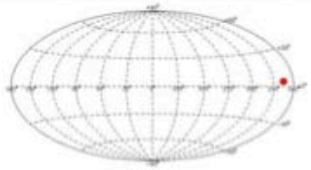
Entry ---

R.A.(J2000) = 06 34 44.2 (98.6842 deg) l=194.77

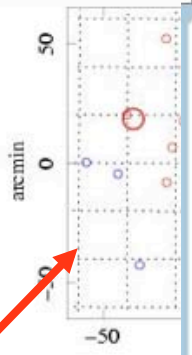
Dec (J2000) = +18 16 07.5 (18.2688 deg) b=4.67

Galactic nH = 3.32E+21 (cm^-2)

Source Names



Access to agile data products | Error circle *EXPLORER* | Source Details



Positio
for the

Res

Access to agile grid data products | Error circle *EXPLORER* | Source Details

Catalog agilqlvrcat Radius 90 Start Time End Time DATE MJD

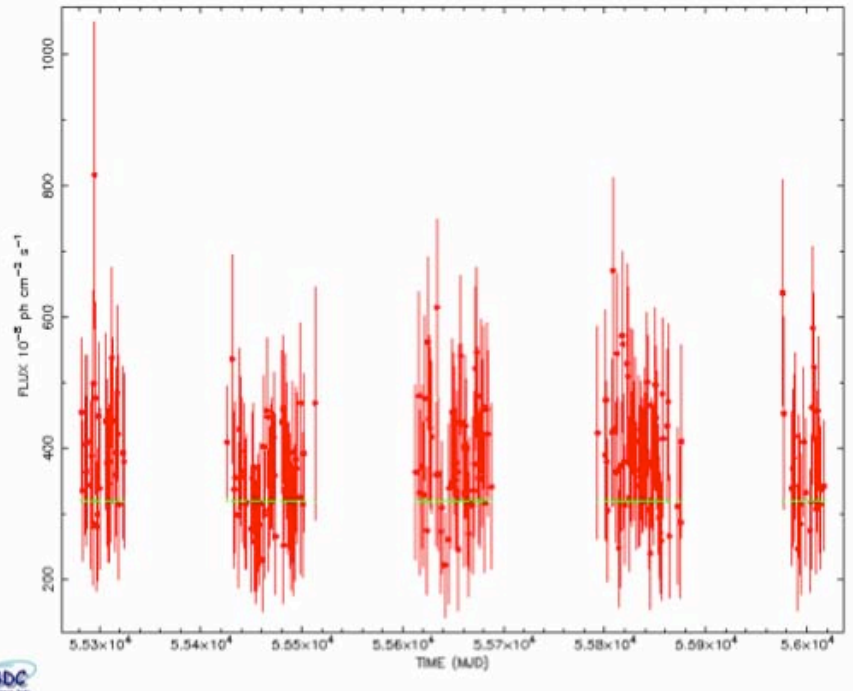
(Select DATE to input time range in DD-MM-AAAA format or MJD to input time range in mjd format)

Duration (days) 2 Filter FM Sqrt(TS) > 4 Additional Y plot sqrtts SUBMIT

'AGL J0634+1816' LC Data Table

'AGL J0634+1816' LC Data qdp

AGL J0634+1816

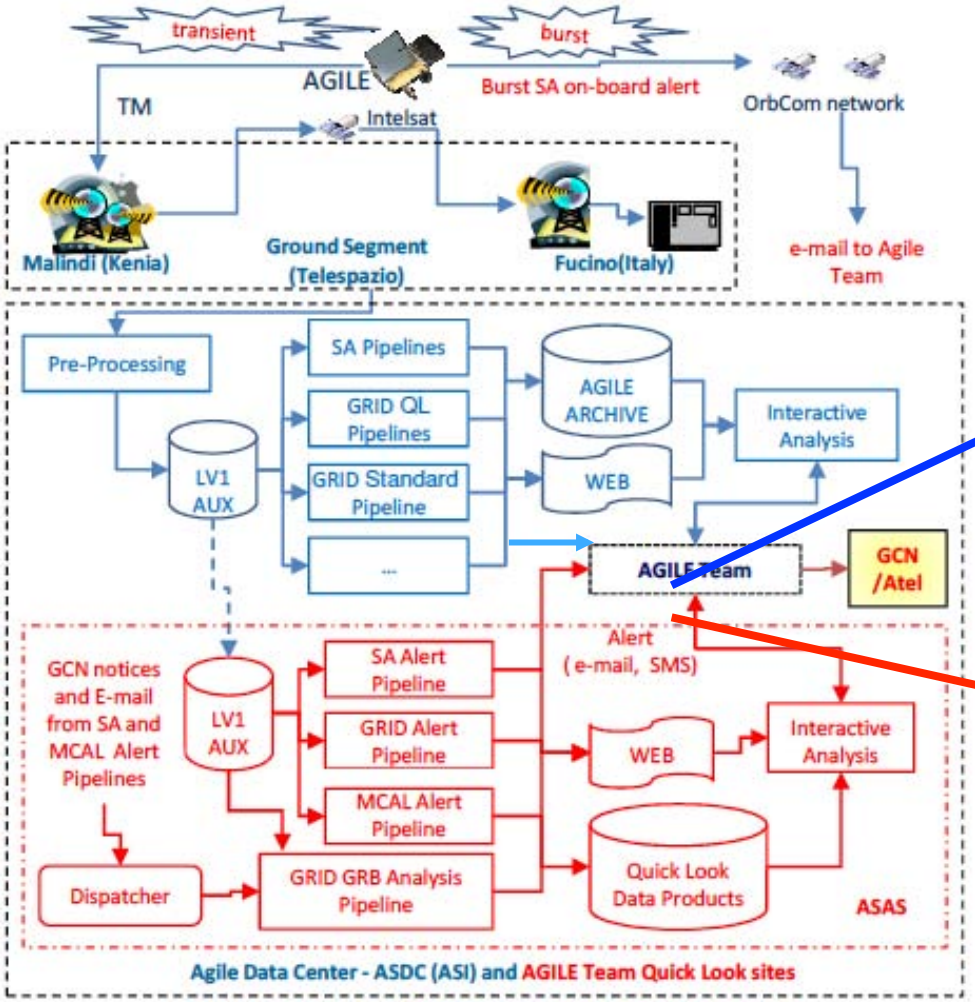


ASDC

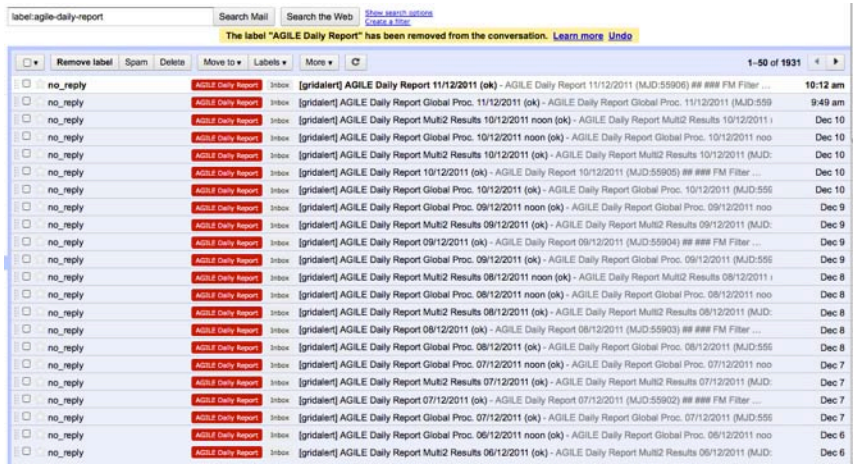
1-Apr-2012 20:35

Entry number		AGILE name	RA (J2000.0) LII	Dec (J2000.0) BII	
Selection mode: Inclusive					
1 Select	ASDC Data Explorer	AGL J0634+1816	194.78	4.67	0.
2 Select	ASDC Data Explorer	AGL J1049+8055	128.53	34.83	
3 Select	ASDC Data Explorer	AGL J0832-1236	236.49	15.76	1

Selected **alerts** sent via email, sms

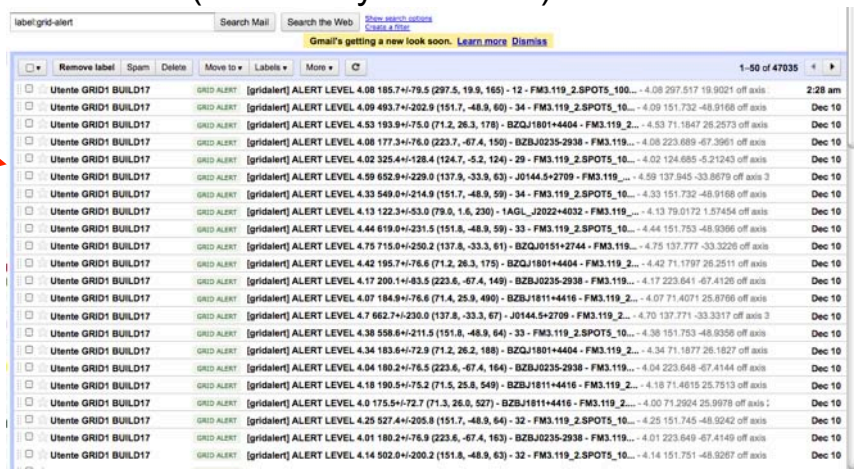


(Figure adapted from M. Trifoglio et al.)



Daily reports on a 48h time scale (sent twice a day) FAST

Contact-by-contact alerts on a 48h time scale (sent every ~100 min) VERY FAST

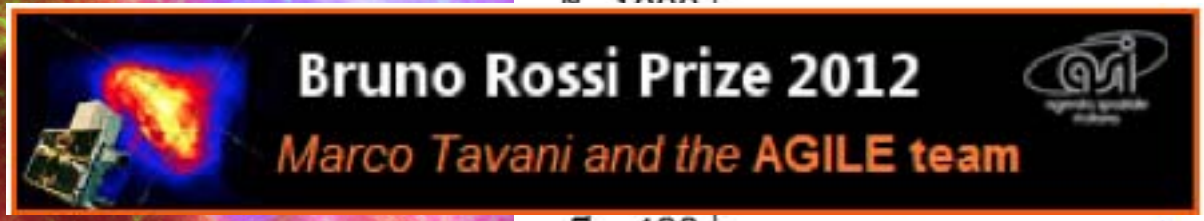


New: App for mobile devices!

See Andrea Bulgarelli's talk and poster 2

The variable Crab Nebula!

FIRST PUBLIC ANNOUNCEMENT
Sept. 22, 2010: AGILE issues the Astronomer's Telegram n. 2855



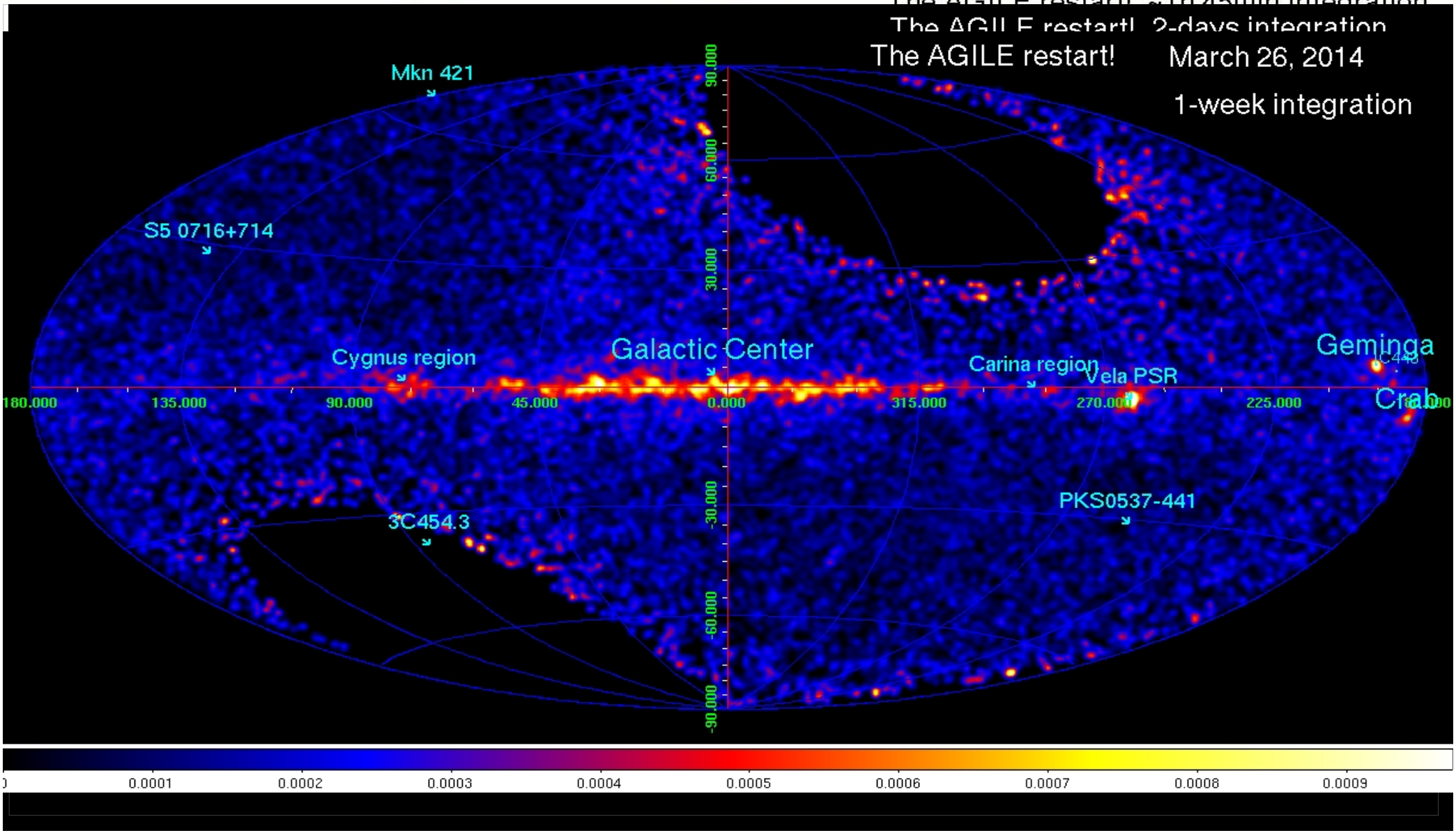
***Science Express* (6 January 2011)**

AGILE: 7th year in orbit

- AGIL… of the entire …ngular resoluti…
- AGIL… of its gamma…
- **> 356…**
- **Poi…** and **spinni…**
- **Very …**
- **Gues…ty:**
  - **4 AS…**
  - **Cycl…**
  - **Cycl…**

The AGILE restart: data acquisition animation

(1 day final integration, the 2d and 1week)

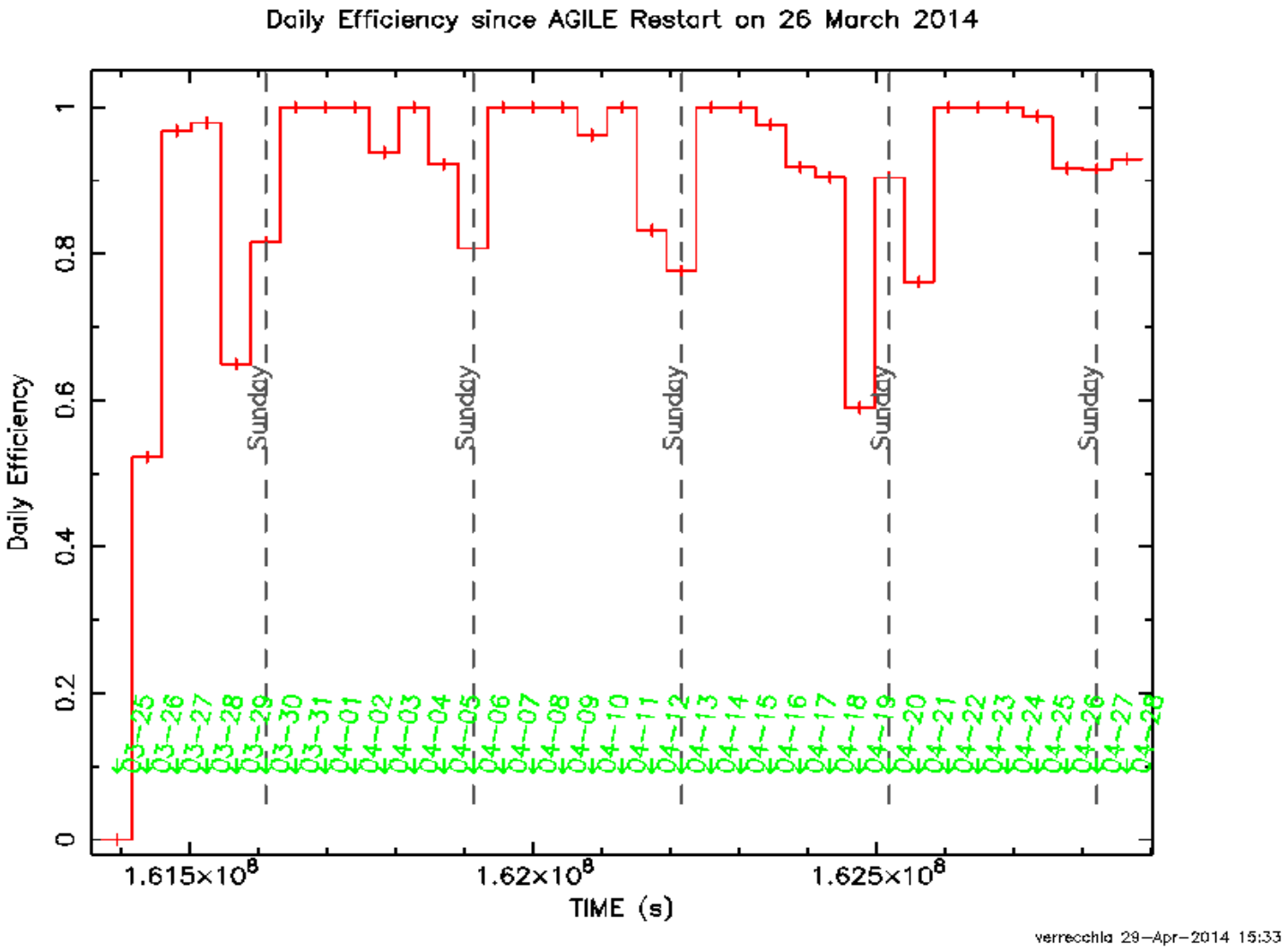


ADC Data Monitoring: Daily Efficiency since restart

- **Monitoring of GRID data acquisition: daily efficiency (time loss >= 1000s)**

Reduced data acquisition efficiency due only to Malindi Ground Station unavailability

All AGILE functions are NOMINAL

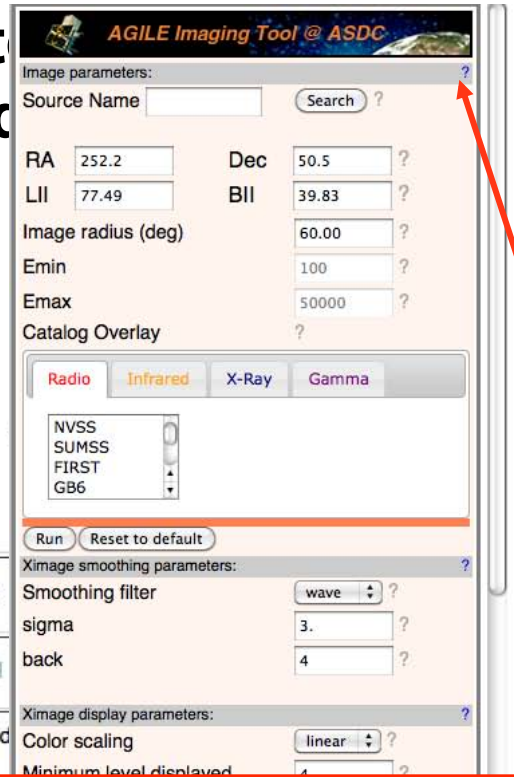


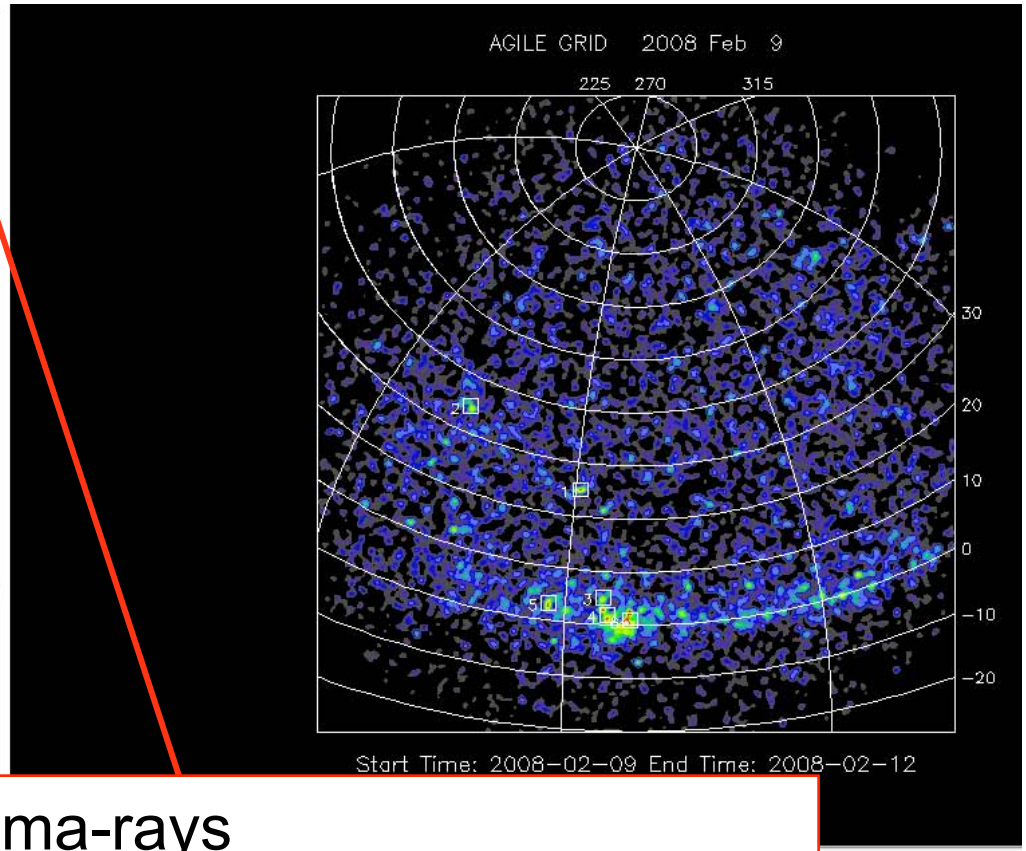
AGILE Public Data Distribution from the ASDC MMIA

- ***First Cycle-1 public delivery*** *(17 OBs)*: ***Jun 10, 2009*** *(data_release_note_v1)*
- ***Sec***
- ***Pul***
(data
- ***Co***
(data
- ***Cyc***
2010
- ***Complete Cycle-1 and Cycle-2 (pointing) reprocessed data release: Dec 21, 2010*** *(data_release_note_v5)*
- ***Cycle-3, 4 and 5 (spinning) public deliveries: Nov 9 - Dec 21, 2011 and Nov 21, 2012, Sep 30 and Nov 22, 2013*** *(data_release_note_v6, v7, v8 and v8.1)*

The public AGILE archive now contains all data from Dec 2007 up to Nov 2012 (from Cycle 1 to Cycle 5)

Int
developed





Available parameters

OB Number OB Name RA_PNT ERR_RAP DEC_PNT ERR_DECP RA_SUN (degrees) ERR_RAS DEC_SUN (degrees) ERR_DECS GRID Data Retrieval GRID Interactive Archive OB start date OB end date Processing version Mean OB Exposure (cm² s) Related SuperAGILE Entries Notes

GO

Ximage sw package adapted to gamma-rays

Public tool allows web users to have a preview of the AGILE public data fields and perform an interactive preliminary analysis around a chosen sky position.

Entry number		OB Number	OB Name									
Selection mode: inclusive												
1 Select	ASDC Data Explorer	4900	Cygnus Field 1									ToO
												Baseline
												Baseline
												Baseline
7 Select	ASDC Data Explorer	5210	TOO MKN 421	16 48 48.0	+50 30 00.0	-	-	Public access	On-line Analysis	2008-02-09 09:00:00	2008-02-12 12:00:00	5703449	ToO
8 Select	ASDC Data Explorer	5220	South Gal Pole Resumed	04 27 12.0	-35 48 00.0	-	-	Public access	On-line Analysis	2008-02-12 12:00:00	2008-02-14 12:00:00	3398061	Baseline

Warning: use imaging tool only as a preview of the AGILE γ-ray field.
To perform your own scientific analysis, up to now please **download data and official public AGILE software** available at:
http://agile.asdc.asi.it/public/ following the AGILE Software User Manual

Index of /public/AGILE_SW_5.0_SourceCode

Icon	Name	Last modified	Size	Description
[DIR]	Parent Directory		-	
[ ]	AGILE-IFC-OP-009 Build-21.pdf	22-Nov-2011 18:24	928K	
[ ]	BUILD GRID 5.0.tgz	22-Nov-2011 16:56	121M	
[TXT]	SoftwareReleaseNote 5.0.txt	25-Nov-2011 16:01	16K	
[TXT]	readme 5.0.txt	22-Nov-2011 16:57	5.2K	
[ ]	test dataset 5.0.tgz	22-Nov-2011 16:57	346M	

Apache Server at agile.asdc.asi.it Port 80

NEW: web interface for official interactive on-line ML analysis on AGILE on legacy (LV3) data archive under construction!

Working prototype
(password restricted access)

Mission
active Archive

Mission Selected
AGILE-LV3
AGILE-LV3 Tutorial

Enter source name or coordinates: PKS 1510-089 ◉ RA, DEC ○ L, B ○ Lon, Lat
(e.g. CYGX-1 or 19 58 21.7, +35 12 05.8 or 299.590333, 35.201611 or 71.334960, 3.066917)

Name Resolver: ☑ Local ☑ SIMBAD ☑ NED

Start Date: 01-12-2007 (dd-mm-yyyy) **End Date:** 07-05-2014 (dd-mm-yyyy)

Duration: 28 Day(s) **Min EXP:** 100 (cm² s sr)

Max lines retrieved: 1000 **Equinox:** ◉ 2000 ○ 1950

Submit

Duration:
1, 2, 7, 28 days

AGILE-LV3 Data

Query results for: PKS1510-089(LOCAL)

Details: query by **COORDINATE** & **TIME** with **RA** = 228.210417; **DEC** = -9.100000; **L** = 351.289081; **B** = 40.138799; **Lon** = 228.293839; **Lat** = 8.496066; **EQUINOX** = 2000; **RADIUS** = 30 degrees; **Start date** = 01-12-2007; **End date** = 07-05-2014; **Duration** = 28 day(s); **Min EXP** = 100 cm² s sr; sort by **START DATE**; max lines retrieved 1000;

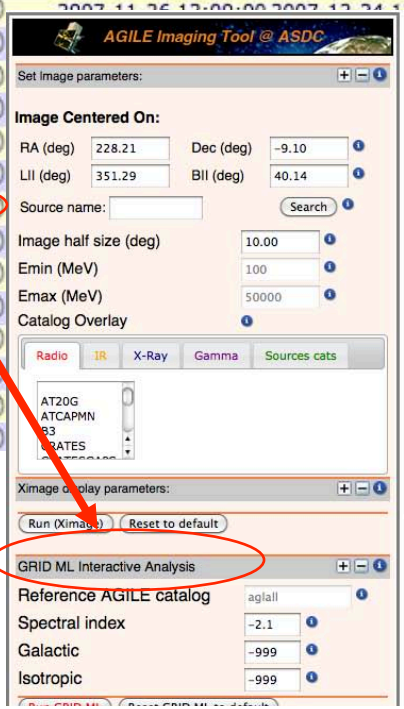
hide columns | ed filtering | urrent view of table | omplete table | ll filters

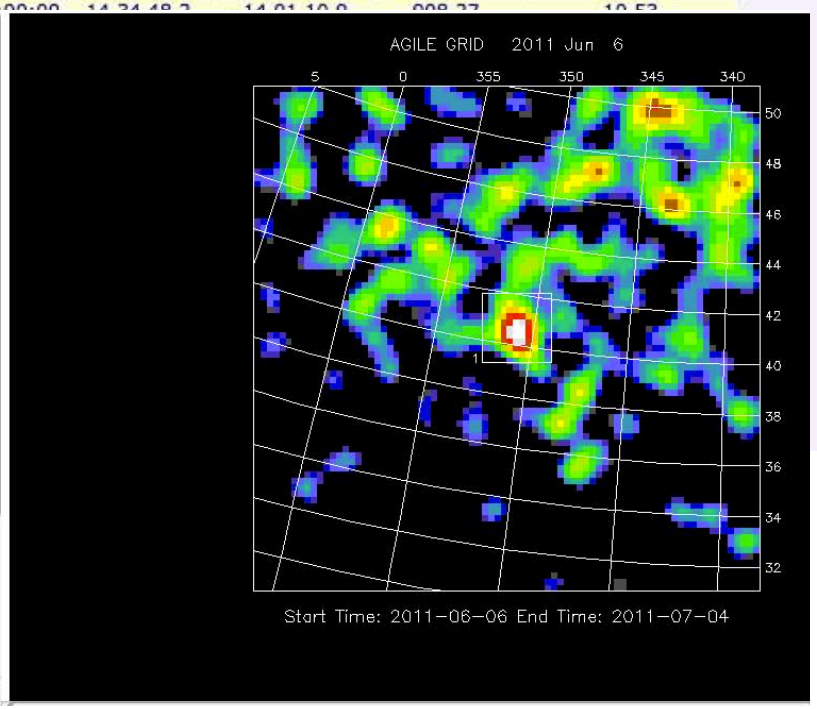
Make Light Curve: LC likelihood

Export Current view of Table in: Latex format | FITS format | Raw text format | CSV text format

Previous Page | Next Page | Page Size (# of lines) 200 | Refresh page | Reset all filters | Show all entries

Entry number Selection mode: Include, All		GRID LV3 data retrieval	GRID Interactive Analysis	START DATE	STOP DATE	RA (J2000) hh mm ss.d	DEC (J2000) dd mm ss.d	EXP (cm² s sr) Stats	Dist. from searched position degrees
1	ASDC Data Explorer	Data Access	Interactive Analysis						
2	ASDC Data Explorer	Data Access	Interactive Analysis						
3	ASDC Data Explorer	Data Access	Interactive Analysis						
4	ASDC Data Explorer	Data Access	Interactive Analysis						
5	ASDC Data Explorer	Data Access	Interactive Analysis						
6	ASDC Data Explorer	Data Access	Interactive Analysis						
7	ASDC Data Explorer	Data Access	Interactive Analysis						
8	ASDC Data Explorer	Data Access	Interactive Analysis						
9	ASDC Data Explorer	Data Access	Interactive Analysis						
10	ASDC Data Explorer	Data Access	Interactive Analysis						
11	ASDC Data Explorer	Data Access	Interactive Analysis						
12	ASDC Data Explorer	Data Access	Interactive Analysis						
13	ASDC Data Explorer	Data Access	Interactive Analysis						
14	ASDC Data Explorer	Data Access	Interactive Analysis						





Official AGILE GRID Maximum Likelihood analysis

On-line science ready ML results
(no need to install any software)

2) Source light curve in few

484bbaf2138d5e8b1d947c7efd6e749f/1AGLRJ1513-0906-ORIG.out

AG_Multi4 1.4 - Wed May

Input

Psf	/data/agile/agile3/pa
Raeff	/data/agile/agile3/pa
Edp	/data/agile/agile3/pa

Gal Mode	Iso Mode	Radi
1	1	10

Map	Name
1	/data/agile/agile3/lv3

Map	Counts	Date start
1	5933	2011-06-06 1

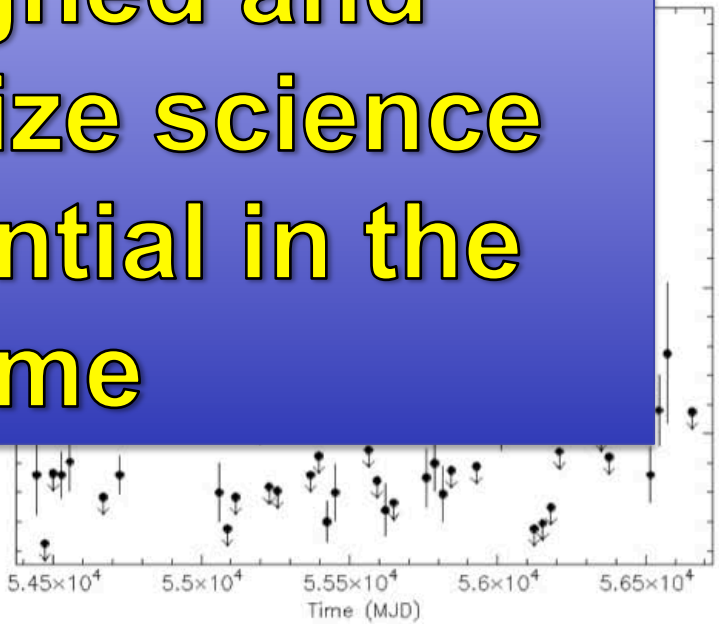
Source
1AGLRJ1513-0906-ORIG

Output

DiffName	Coeff	Err
Galactic	0.7	0
Isotropic	13.8561	0.8887

SrcName	sqrt(TS)	L	B	Radius	Exp	Counts	Err	Flux	Err	Flux UL	Index	Err
1AGLRJ1513-0906-ORIG	4.89402	351.373	40.091	0	2.26688e+07	41.3843	11.6043	1.82561e-06	5.11906e-07	2.95956e-06	2.1	0

AGILE Legacy Archive and online tools designed and mantained to optimize science and discovery potential in the years to come



DOWNLOAD: 1AGLRJ1513-0906-ORIG_28dd-timebin_input_for_SED.dat

Total number of GOOD bins in the lightcurve: 45/69

Download GRID ML results

ASDC SED Builder access:
(click below to include SED data points)

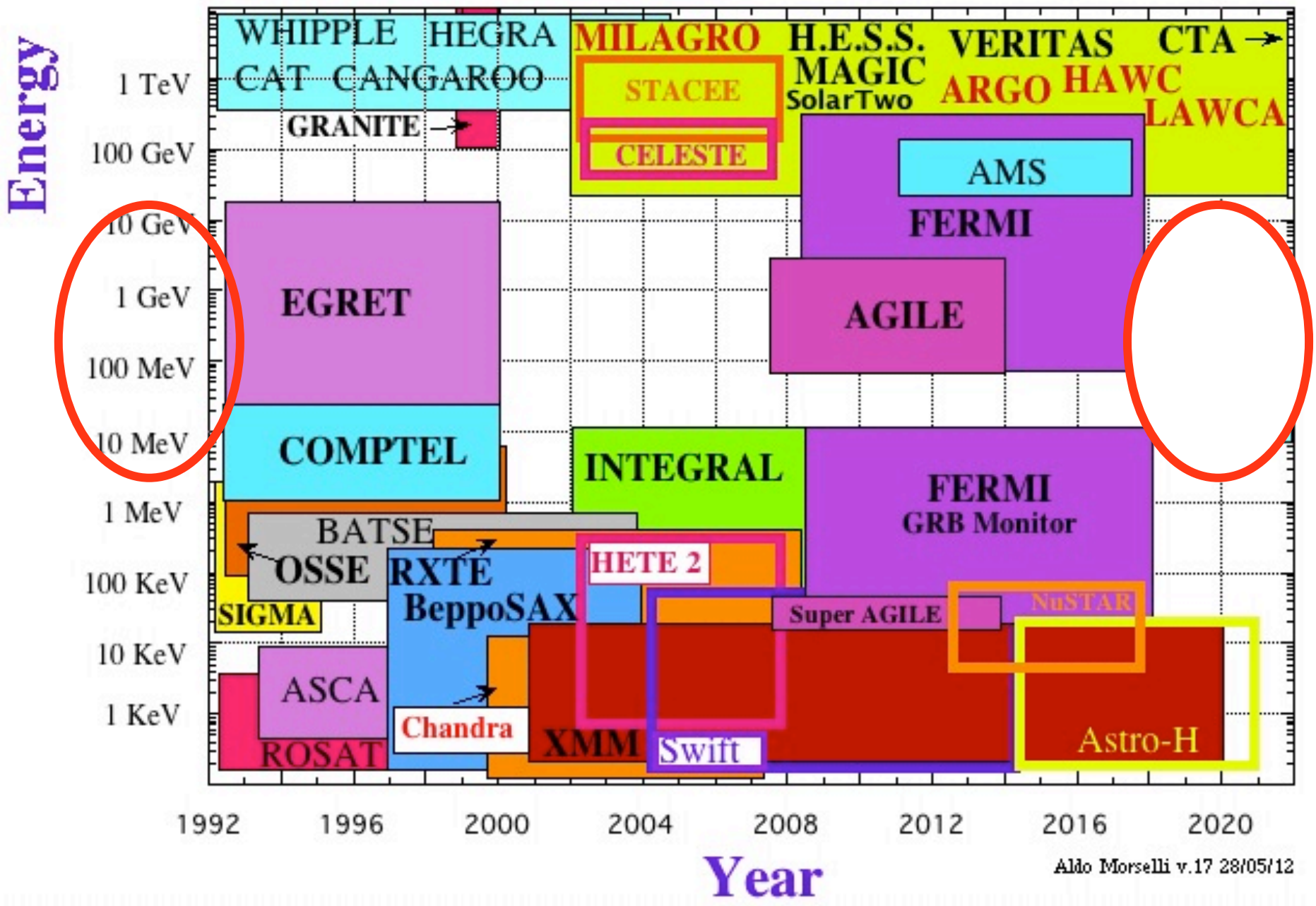
Add data to SED

1) Source detection significance, average gamma-ray flux (or flux upper limit) in the chosen timebin in few seconds (html format)

Backup slides

Table 3: AGILE Scientific Performance

Gamma-ray Imaging Detector (GRID)		
Energy Range	30 MeV – 50 GeV	
Field of view	~ 3 sr	
Sensitivity at 100 MeV (ph cm^{-2} s^{-1} MeV^{-1})	6×10^{-9}	(5σ in 10^6 s)
Sensitivity at 1 GeV (ph cm^{-2} s^{-1} MeV^{-1})	4×10^{-11}	(5σ in 10^6 s)
Angular Resolution at 1 GeV	36 arcmin	(68% cont. radius)
Source Location Accuracy	$\sim$5–20 arcmin	S/N$\sim$10
Energy Resolution	ΔE/E$\sim$1	at 300 MeV
Absolute Time Resolution	$\sim 1\,\mu$s	
Deadtime	$\sim 200\,\mu$s	
Hard X–ray Imaging Detector (Super-AGILE)		
Energy Range	10 – 40 keV	
Field of view	107°$\times$68°	FW at Zero Sens.
Sensitivity (at 15 keV)	$\sim$5 mCrab	(5σ in 1 day)
Angular Resolution (pixel size)	~ 6 arcmin	
Source Location Accuracy	$\sim$2-3 arcmin	S/N$\sim$10
Energy Resolution	ΔE$<$4 keV	
Absolute Time Resolution	$\sim 4\,\mu$s	
Deadtime (for each of the 16 readout units)	$\sim 4\,\mu$s	
Mini-Calorimeter		
Energy Range	0.3 – 200 MeV	
Energy Resolution	~ 1 MeV	above 1 MeV
Absolute Time Resolution	$\sim 3\,\mu$s	
Deadtime (for each of the 30 CsI bars)	$\sim 20\,\mu$s	


Energy
1 TeV
100 GeV
10 GeV
1 GeV
100 MeV
10 MeV
1 MeV
100 KeV
10 KeV
1 KeV
WHIPPLE
HEGRA
CAT
CANGAROO
GRANITE
MILAGRO
H.E.S.S.
MAGIC
SolarTwo
VERITAS
CTA
ARGO
HAWC
LAWCA
STACEE
CELESTE
AMS
FERMI
EGRET
AGILE
COMPTEL
INTEGRAL
FERMI
GRB Monitor
BATSE
OSSE
RXTE
BeppoSAX
HETE 2
SIGMA
Super AGILE
NuSTAR
ASCA
Chandra
XMM
Swift
Astro-H
ROSAT
1992
1996
2000
2004
2008
2012
2016
2020
Year
Aldo Morselli v.17 28/05/12