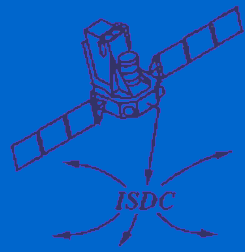
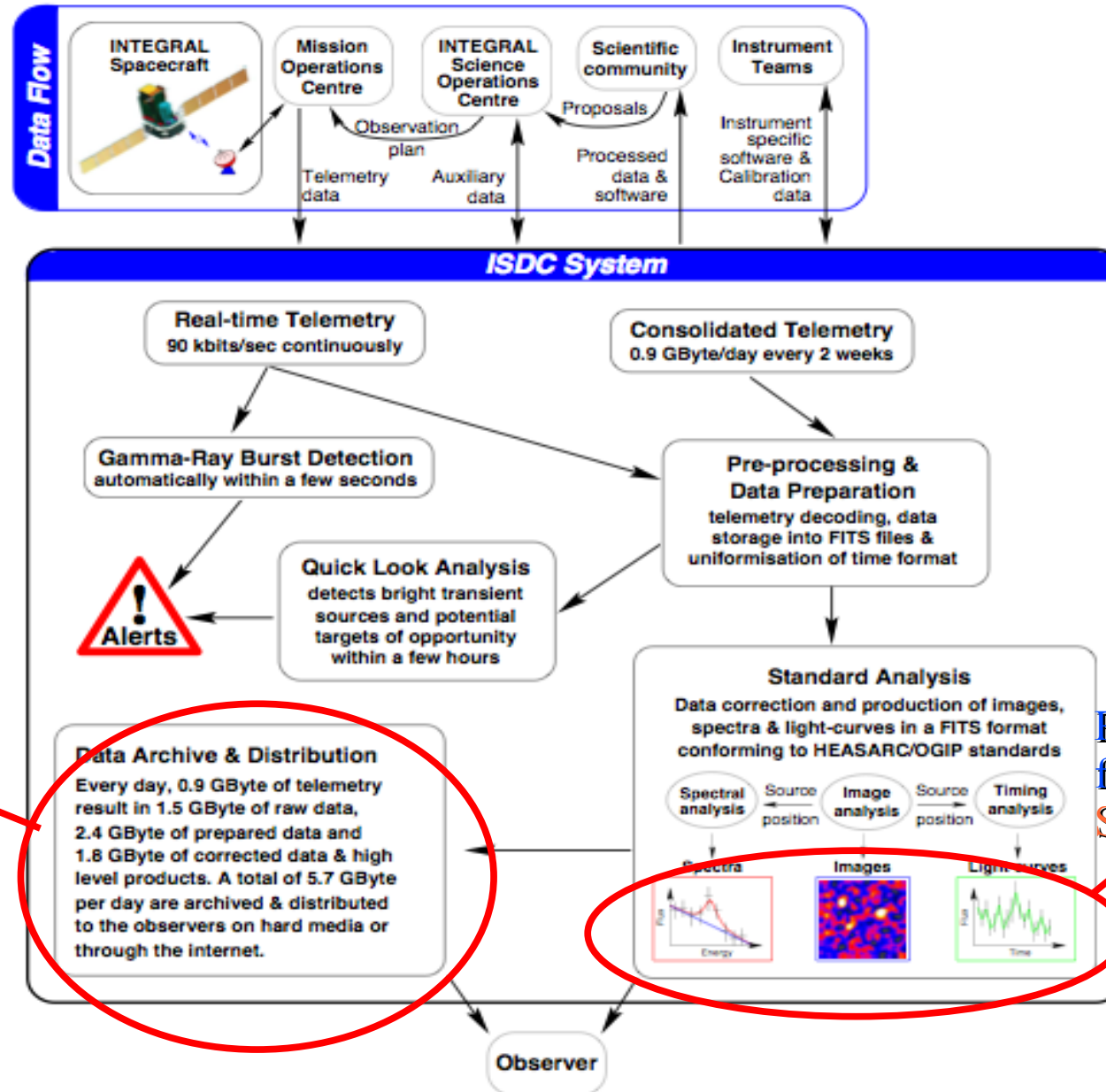
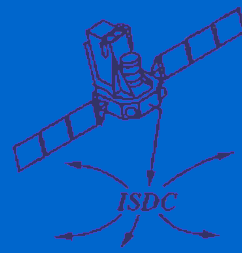


Archive and data retrieval



- What are the INTEGRAL data?
- What data do I really need?
- How to get them?
- Ready-to-use images, spectra and lightcurves for individual sources in the **INTEGRAL Source results** page
- Data selection through **Archive Browse**

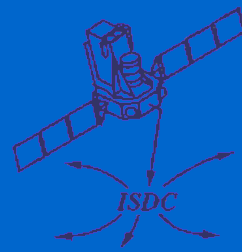
INTEGRAL data flow



Raw data and Ready-to-use data

Ready-to-use data for INTEGRAL Source Results page

Science Windows and Groups



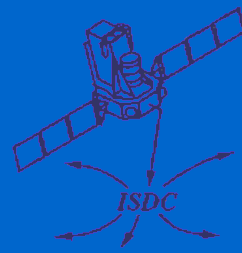
INTEGRAL observations for most of the sources are quite long (hundreds of kiloseconds), while the instrument settings change on 1-10 kilosecond scale. This determines the split of long data sets onto **Science Windows (ScW)** (intervals of data taking with the same instrument settings)

Many ScWs normally belong to e.g. one and the same observation, that is, they form an **Observation Group (OG)**. Since *INTEGRAL* is a wide field of view instrument, several observations can take place at once, so that one ScW can belong to different OGs.

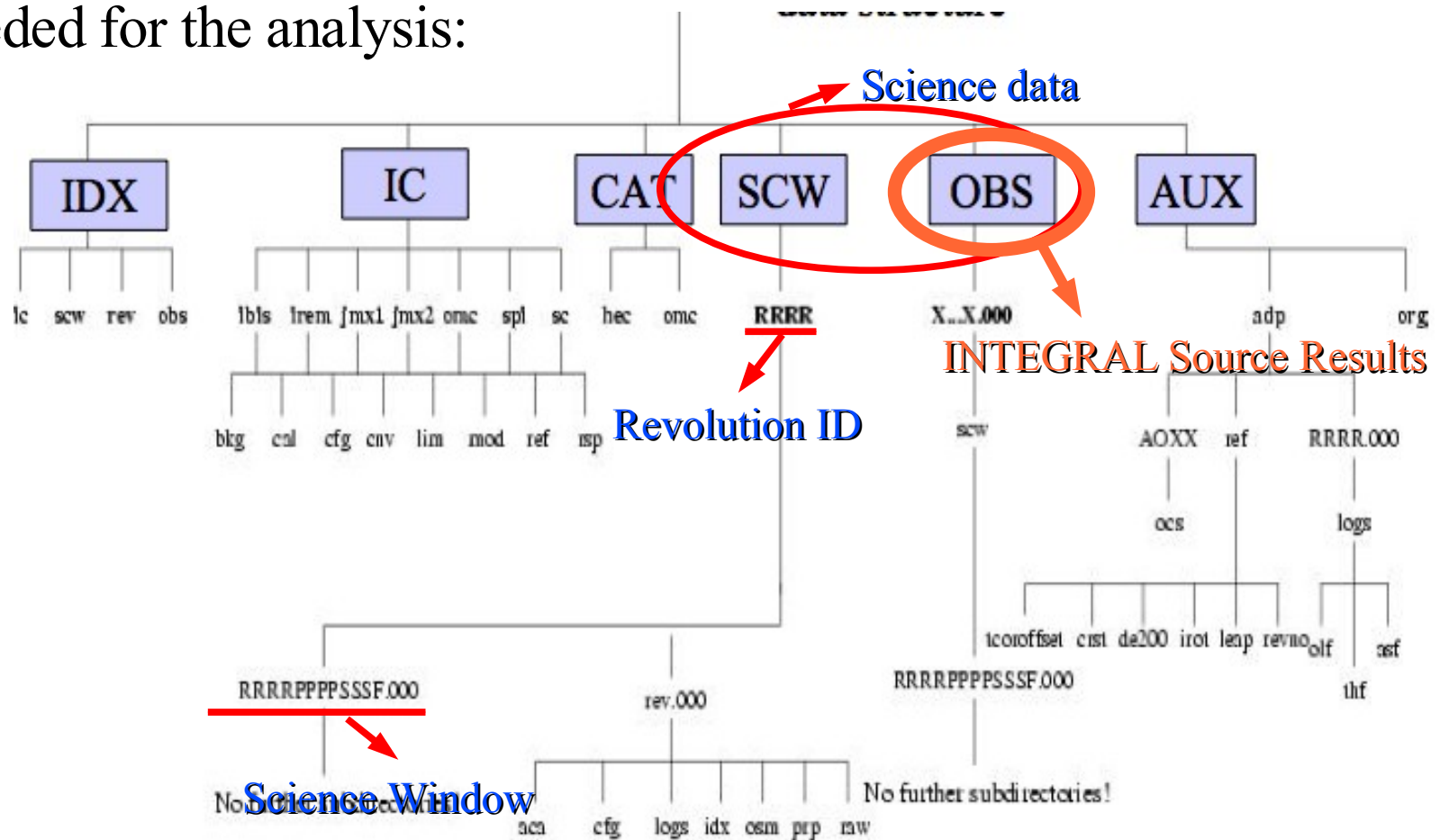
INTEGRAL has 4 instruments on board. Data of all instruments taken the same ScW form a **Science Window Group (SWG)**.

One more “instrumental” time scale for *INTEGRAL* is the 3-day orbital period, (passage through radiation belts causes natural breaks in quasi-continuous data flow) which determines one more natural “grouping” of ScWs “**per revolutions**”

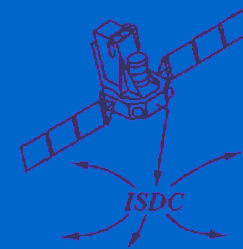
Data Archive



The Science Window data are just a “science part” of the data needed for scientific analysis. The other part (auxiliary or housekeeping data) need to be taken into account. The **INTEGRAL Data Archive** contains all the data needed for the analysis:



What data do I need?

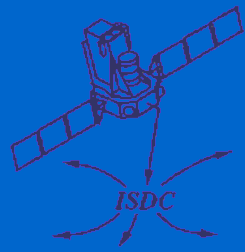


Most of the time you, as an observer, need data on a **particular source** (AGN, X-ray binary, GRB etc). With an exception of GRBs, **long data sets** composed of many ScWs are preferable, because they provide a “monitoring” of the source behaviour over months and years and enable (to study the source variability) or enable, in the case of weak sources, to increase the signal-to-noise ratio.

Large data set implies relatively **large volume** (in terms of disk space) of raw data to analyze.

It can be reasonable, before downloading the raw data, to look at the “standartized” results on your favorite source, present in the **INTEGRAL Source Results** page (the “standartized” results can be in fact sufficient for publication of e.g. multi-wavelength studies)

What data do I need?



(A) *INTEGRAL* has already detected my source of interest?
Look at the **INTEGRAL Source Results** page and check if the source is listed

No

Yes

(B) My source is at least several mCrab ($\sim 10^{-11}$ erg/(cm²s))

Yes

No

Raw Science Window data

(C) I want to know just basic properties of the source in hard X-rays (e.g. I am doing multi-wavelength study and want to put the hard X-ray data points on the broad band spectrum or I have radio/optical/TeV monitoring of the source and want to look at simultaneous hard X-ray lightcurve)

Yes

INTEGRAL Source Results page

I want to check or refine the found results for my publication

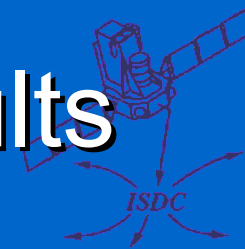
↓

↓

↓

Getting your INTEGRAL data

First look: INTEGRAL Source Results



INTEGRAL Science Data Centre

Home Outreach Newsletter Data Software Science Support Local

Documents Meetings S/W Devel. Project Ctl Config. Mgt Change Ctl Testing Operations Instrument A

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Welcome

Bienvenue

Benvenuto

Image Gallery

Visit the ISDC Consortium

Staff

INTEGRAL Teams

WWW Links

Site Map

SITE SEARCH

Sum microsystems running Solaris 8

Section contact: Marc Türler

INTEGRAL Data Analysis (OSA 5.1)

Software Download & Installation

INTEGRAL Archive Data

Data Analysis Documentation

FAQ & Helpdesk Support

Data Analysis Workshop ISDC, 18-20 October 2006

INTEGRAL is a gamma-ray mission of the European Space Agency (ESA) launched on October 17, 2002. The INTEGRAL Science Data

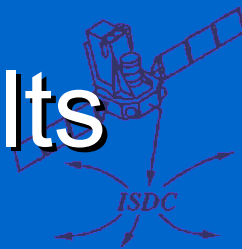
Find your source in the **INTEGRAL Source Results** page (e.g by coordinates of with “Find in this page” of your browser)

and view its images.

	EM-X 1	JEM-X 2	OMC	Type	
	↑↓	↑↓	↑↓	↑↓	
	0	0	0	X-ray star or binary	
	0	269	0	Cataclysmic variable	
I GR J00291+5934	00 29 03.1	+59 34 19	SIMBAD	1536 630 284 346 0	LMXRB
I GR J00370+6122	00 37 09.6	+61 21 36	SIMBAD	1534 636 293 343 281	HMXRB
RX J0053.8-7226	00 53 55.0	-72 26 47	SIMBAD	79 0 0 0 0	HMXRB
gam Cas	00 56 42.5	+60 43 00	SIMBAD	1520 319 195 124 0	HMXRB
SMC X-1	01 17 05.1	-73 26 36	SIMBAD	84 0 0 40 47	HMXRB
3A 0114+650	01 18 02.7	+65 17 30	SIMBAD	1479 0 0 0 23	HMXRB
H 0115+634	01 18 31.9	+63 44 24	SIMBAD	1475 0 0 0 7	HMXRB
I GR J01363+6610	01 36 18.0	+66 10 36	SIMBAD	1301 0 0 0 0	HMXRB
4U 0142+614	01 46 22.4	+61 45 03	SIMBAD	1124 0 0 0 8	Radio pulsar
RX J0146.9+6121	01 47 00.2	+61 21 24	SIMBAD	1112 0 0 0 18	HMXRB
NGC 788	02 01 06.4	-06 48 56	SIMBAD	0 0 0 0 60	Seyfert galaxy
NGC 1068	02 42 40.8	-00 00 48	SIMBAD	0 0 0 0 134	Seyfert galaxy
OSO B0241+62	02 44 57.7	+62 28 06	SIMBAD	391 0 0 0 0	Seyfert galaxy

Getting your INTEGRAL data

First look: INTEGRAL Source Results



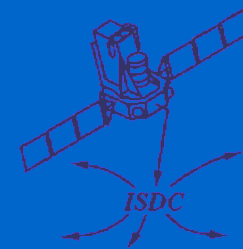
Click on source name to plot its light curve, spectrum and view its images.

Name	Ra	Dec	Links	ISGRI	JEM-X	JEM-X 1	JEM-X 2	OMC	Type
	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
IGR J00234+6141	00 23 24.0	+61 41 32	SIMBAD	1547	0	0	0	0	X-ray star or binary
V709 Cas	00 28 48.9	+59 17 22	SIMBAD	1535	0	0	0	269	Cataclysmic variable
IGR J00291+5934	00 29 03.1	+59 34 19	SIMBAD	1536	630	284	346	0	LMXRB
IGR J00370+6122	00 37 09.6	+61 21 36	SIMBAD	1534	636	293	343	281	HMXRB
RX J0053.8-7226	00 53 55.0	-72 26 47	SIMBAD	79	0	0	0	0	HMXRB
gam Cas	00 56 42.5	+60 43 00	SIMBAD	1520	319	195	124	0	HMXRB
SMC X-1	01 17 05.1	-73 26 36	SIMBAD	84	0	0	40	47	HMXRB
3A 0114+650	01 18 02.7	+65 17 30	SIMBAD	1479	0	0	0	23	HMXRB
H 0115+634	01 18 31.9	+63 44 24	SIMBAD	1475	0	0	0	7	HMXRB
IGR J01363+6610	01 36 18.0	+66 10 36	SIMBAD	1301	0	0	0	0	HMXRB
4U 0142+614	01 46 22.4	+61 45 03	SIMBAD	1124	0	0	0	8	Radio pulsar
RX J0146.9+6121	01 47 00.2	+61 21 24	SIMBAD	1112	0	0	0	18	HMXRB
NGC 788	02 01 06.4	-06 48 56	SIMBAD	0	0	0	0	60	Seyfert galaxy
NGC 1068	02 42 40.8	-00 00 48	SIMBAD	0	0	0	0	134	Seyfert galaxy
OSO B0241+62	02 44 57.7	+62 28 06	SIMBAD	391	0	0	0	0	Seyfert galaxy

WARNING! Not all the sources detected by INTEGRAL are currently listed in the [INTEGRAL Source Results](#) page.

Not all the easily obtainable results are displayed in the [INTEGRAL Source Results](#) page: clever browsing allows to extract more!

INTEGRAL Source Results: lightcurves



General behaviour of your source (as well as quality and amount of the INTEGRAL data) can be judged from the look of the lightcurves (reach them clicking on the source name in the ISR page)

choose time interval

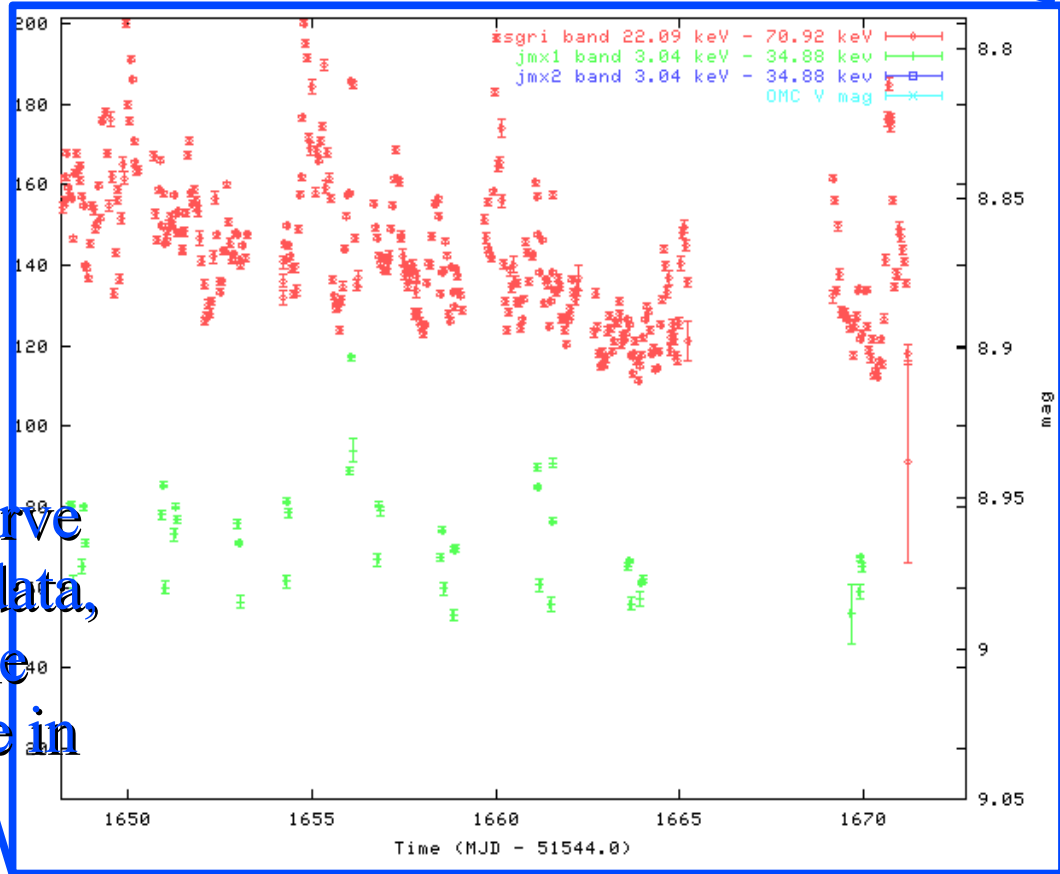
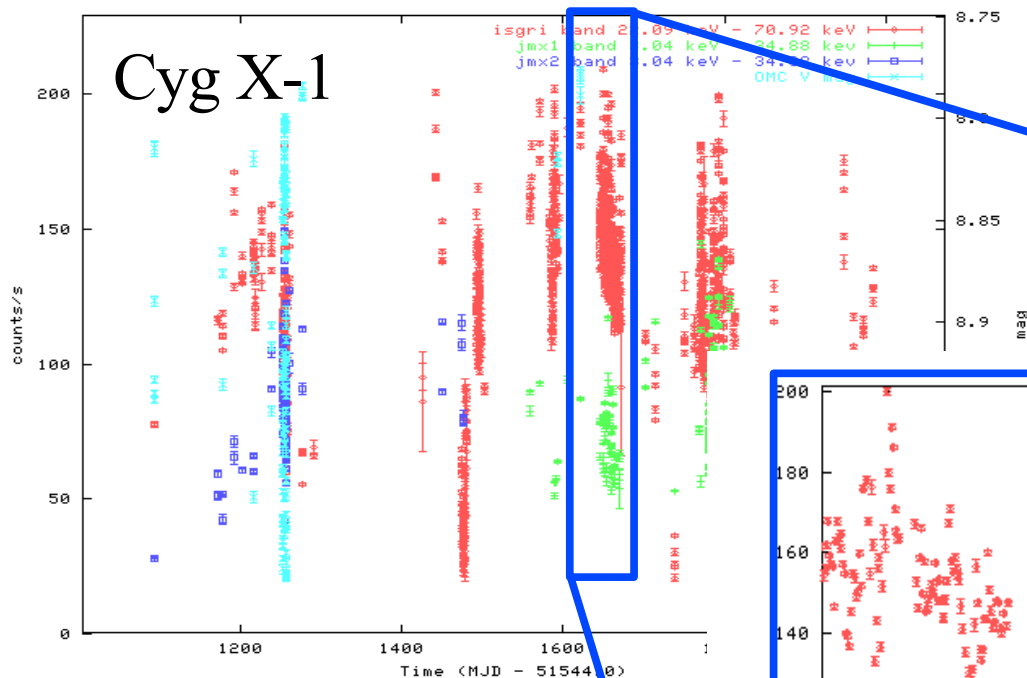
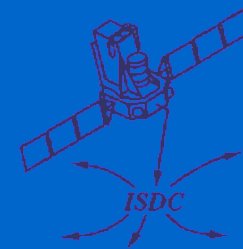
choose the instrument

choose energy band(s)

to increase the S/N ratio, produce the lightcurve in a broad energy band

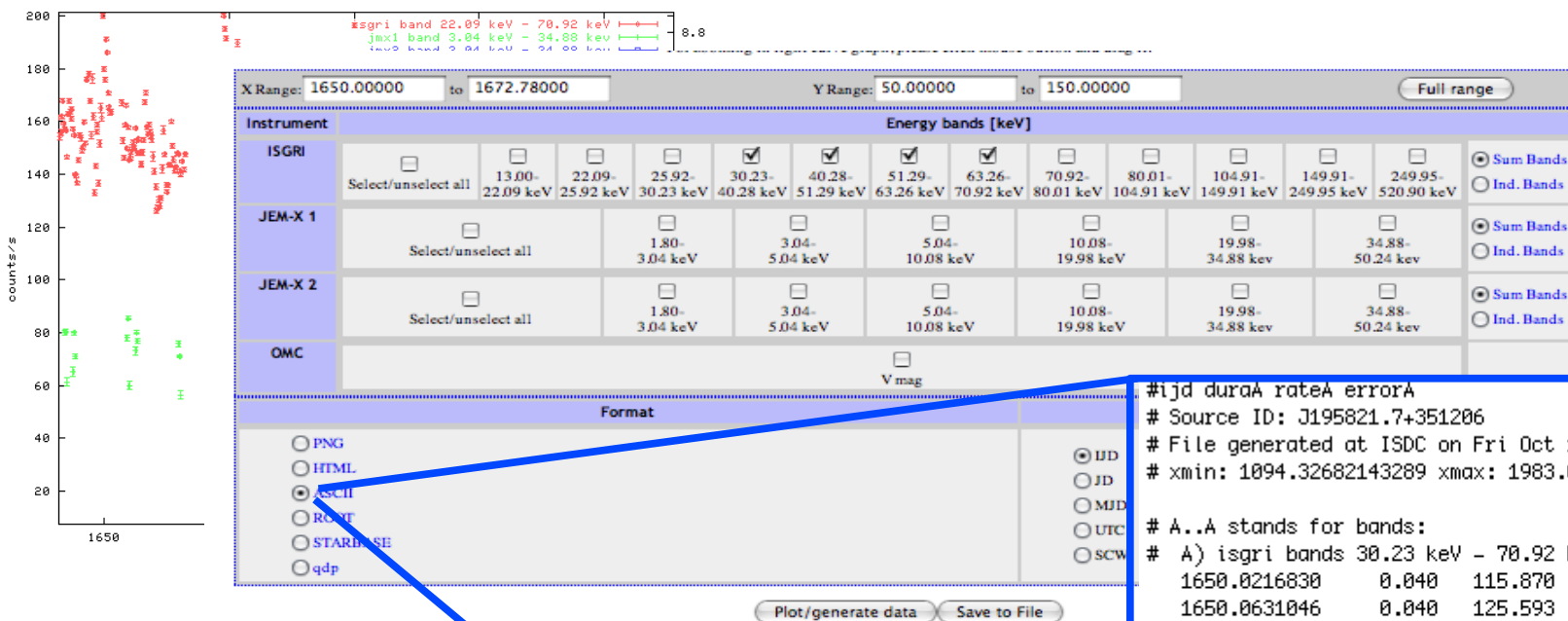
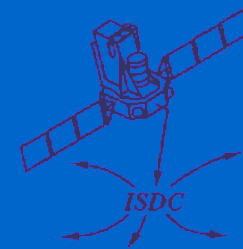
selecting the Science Window ID (SCW) as time axis, you can immediately see which ScWs you'd like to download for a more detailed analysis (e.g. those in which the source flares)

INTEGRAL Source Results: lightcurves



Once you have the total lightcurve showing all available (public) data, you can zoom on particular time interval by selecting a rectangle in the lightcurve frame

INTEGRAL Source Results: lightcurves

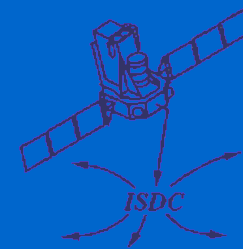


```
#ijd duraA rateA errorA
# Source ID: J195821.7+351206
# File generated at ISDC on Fri Oct 13 09:20:38 2006 UTC
# xmin: 1094.32682143289 xmax: 1983.06346040776

# A..A stands for bands:
# A) isgri bands 30.23 keV - 70.92 keV
1650.0216830 0.040 115.870 0.654
1650.0631046 0.040 125.593 0.623
1650.1096222 0.050 121.811 0.492
1650.1562367 0.040 112.332 0.550
1650.1979687 0.039 108.790 0.623
1650.2395598 0.041 108.356 0.735
1650.2779994 0.036 108.480 0.813
1650.7075428 0.039 108.332 0.982
1650.7487096 0.040 100.889 0.866
1650.7902934 0.040 96.690 0.703
1650.8317293 0.040 104.381 0.565
1650.8735681 0.039 108.967 0.498
1650.9147467 0.040 98.429 0.464
1650.9565293 0.039 103.043 0.467
1650.9980268 0.039 95.495 0.447
1651.0393096 0.040 95.405 0.515
1651.0807569 0.040 97.004 0.644
1651.1224830 0.039 97.698 0.817
1651.1639363 0.039 99.107 0.670
1651.2051094 0.040 97.632 0.524
1651.2469458 0.039 102.670 0.465
1651.2882618 0.040 99.817 0.461
1651.3298386 0.039 98.165 0.469
```

If you find an interesting behaviour of the lightcurve, you can e.g. Save the ASCII file with the data for further analysis.

INTEGRAL Source Results: lightcurves

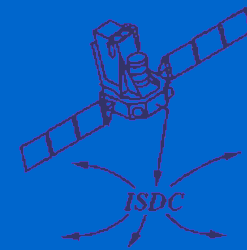


The downloaded ASCII files with lightcurves in different energy bands can be directly used for scientific analysis and publications

(see e.g. the a part of 20-250 keV lightcurve and $F_{60-250 \text{ keV}}/F_{20-60 \text{ keV}}$ hardness ratio for Cyg X-1)

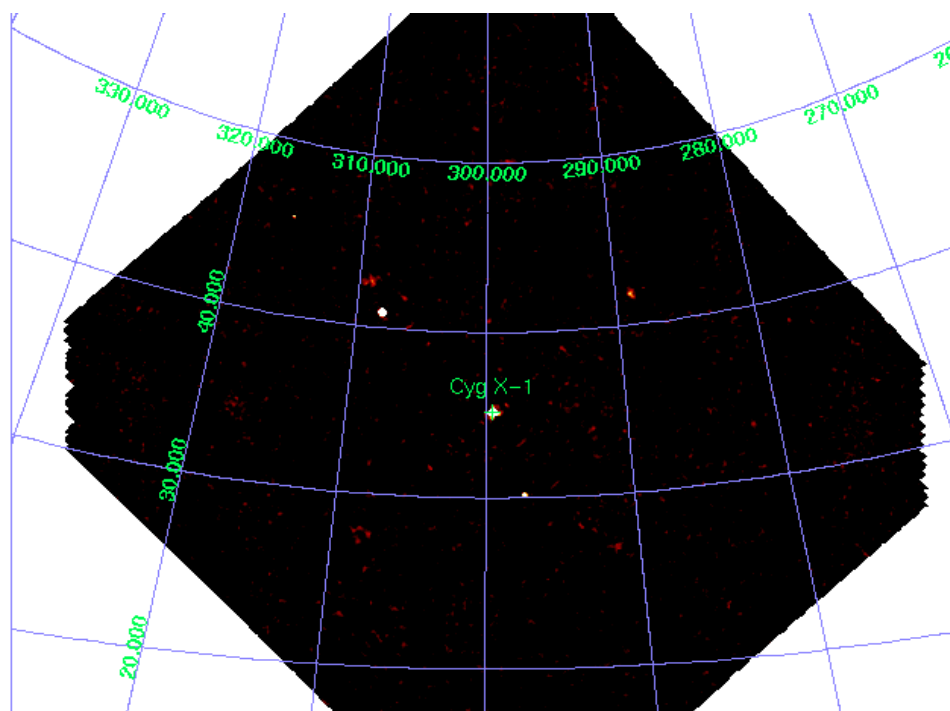
Creator:SM230

INTEGRAL Source Results: images

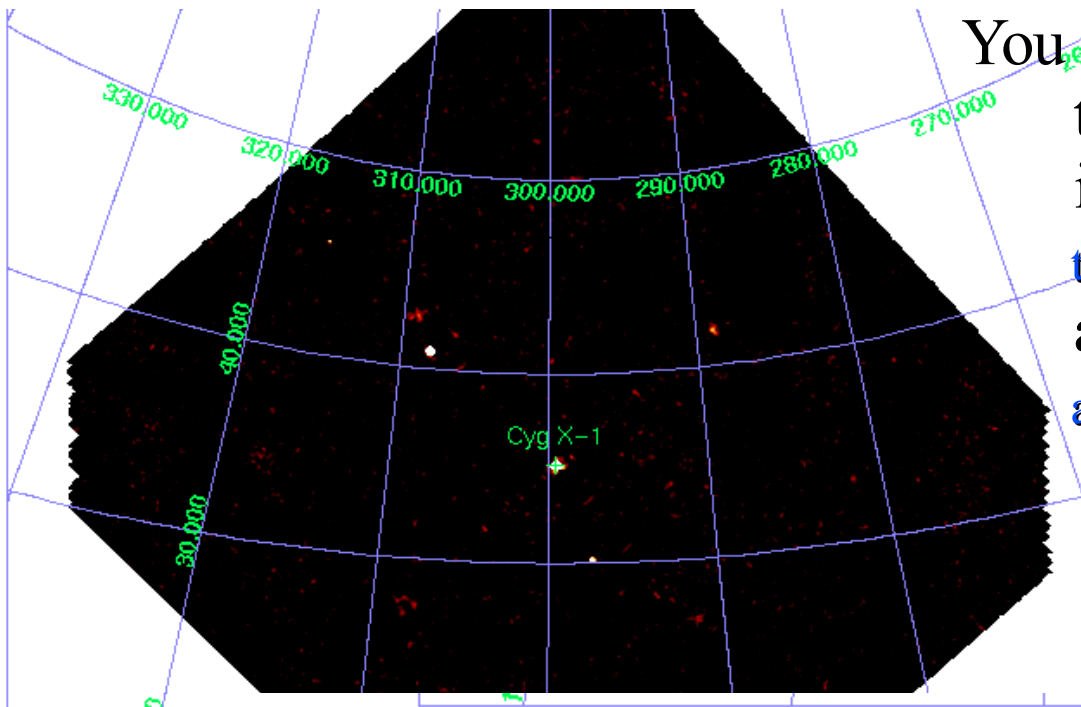
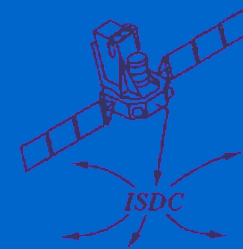


The “**Images**” section of **INTEGRAL Source Results** page is not so flexible as the lightcurve section mainly because of the large volume of image files to be stored in Archive.

Images are stored only on “per revolution” (3-day time scale), rather than “per Science Window” (several kilosecond time scale) basis.



INTEGRAL Source Results: images



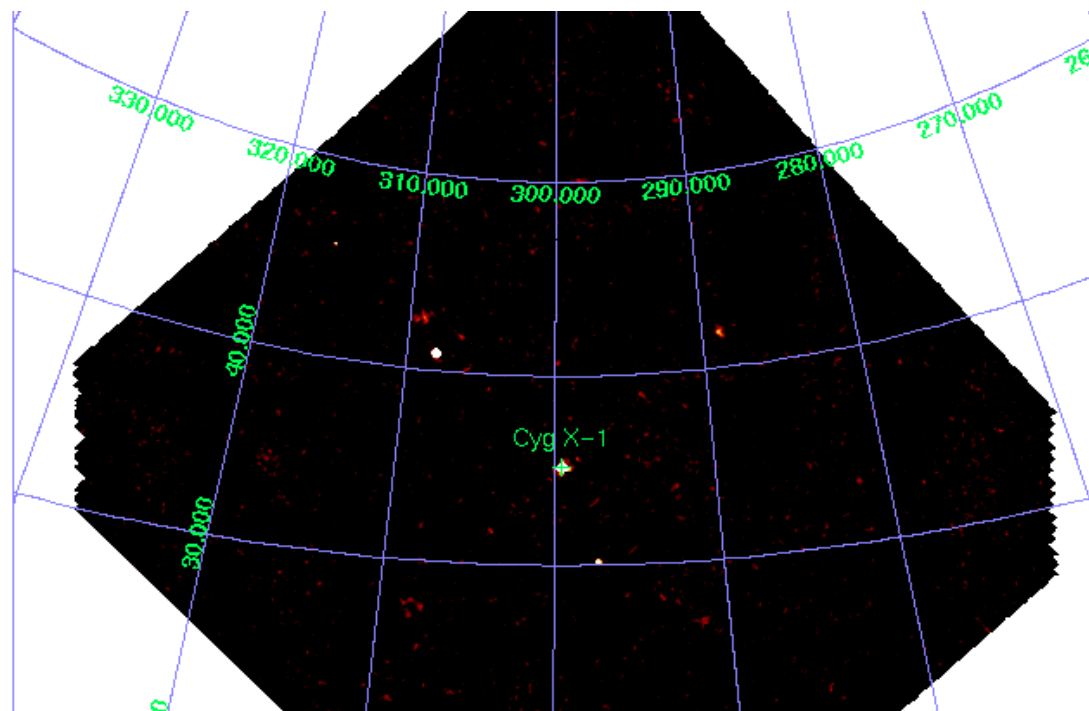
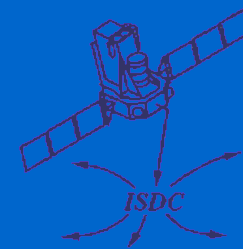
You can use the images to judge the environment of the source: is this a “solitary source” (easy to analyze with INTEGRAL) or it is in a “crowded field” (difficult to analyze with INTEGRAL).

Getting your INTEGRAL data

Satellite revolutions

Revolution	Ra	Dec	Distance (deg)	Obs duration (sec)	Obs start (MJD - 51544.0)	Obs end (MJD - 51544.0)	Images
007	19 58 44.8	+35 38 45	.45104	189707	1253.241017	1255.436701	IBIS
0080	19 56 55.6	+34 36 53	.65653	133817	1255.828287	1257.377095	IBIS
0215	20 33 44.5	+41 16 13	9.21562	230693	1659.659423	1662.329485	IBIS
0216	20 33 22.4	+41 41 44	9.43306	230772	1662.649506	1665.32048	IBIS
0218	20 32 24.6	+41 04 57	8.90263	189134	1669.113017	1671.302069	IBIS
0251	20 34 33.2	+41 43 11	9.61679	118437	1768.599832	1769.970631	IBIS
0252	20 36 49.7	+40 57 48	9.50317	215434	1770.324277	1772.817728	IBIS
0253	20 30 11.9	+40 32 55	8.24362	111450	1773.870437	1775.160368	IBIS
0255	19 58 55.6	+35 15 54	.13173	83296	1779.296204	1780.260278	IBIS
0257	19 58 53.5	+35 16 30	.13075	83232	1785.459066	1786.4224	IBIS
0257	19 47 26.4	+32 58 10	3.17709	9720	1786.50115	1786.61365	IBIS
0259	19 58 51.2	+35 16 54	.12853	84964	1791.74753	1792.73091	IBIS
0261	19 58 48.1	+35 17 34	.12809	86374	1797.674108	1798.673807	IBIS

INTEGRAL Source Results: images



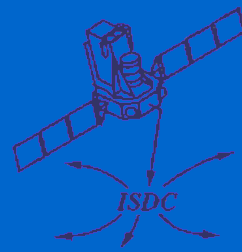
SITE SEARCH


running Solaris 8

- Spectrum file, generated from mosaic image /arc/rev_2/obs_isgri/0079.002/smii_0079_Cyg/isgri_mosa_ima.fits.gz using mosaic_spec tool
- ISGR response file
- ISGR auxiliary response file

FITS files corresponding to the images are stored in /arc/rev_2/obs_isgri/RRR.002/OBSID/isgri_mosa_ima.fits.gz. You can get them e.g. by clicking at the mosaic file name in “ISGRI spectra” section of ISR pages.

INTEGRAL Source Results: images



SITE SEARCH



running Solaris 8

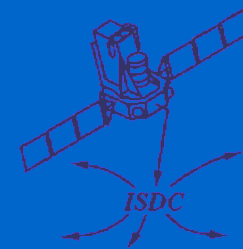
- Spectrum file, generated from mosaic image `/arc/rev_2/obs_isgri/0079.002/smii_0079_Cyg/isgri_mosa_ima.fits.gz` using mosaic_spec tool
- ISGR response file
- ISGR auxiliary response file

The 23-40 keV image shown in the “ISGRI images” page is one of the last extensions of `isgri_mosa_res.fits.gz`

`isgri_mosa_ima.fits.gz` contains a set of images both in narrow energy bands (useful for spectral analysis) and in broad energy bands (useful for analysis of weak sources)

<input type="checkbox"/> CHANMIN	<input type="checkbox"/> CHANMAX	<input type="checkbox"/> E_MIN	<input type="checkbox"/> E_MEAN	<input type="checkbox"/> E_MAX
11	11	1E	1E	1E
		keV	keV	keV
Modify	Modify	Modify	Modify	Modify
104	149	1.049100E+02	1.274100E+02	1.499100E+02
104	149	1.049100E+02	1.274100E+02	1.499100E+02
104	149	1.049100E+02	1.274100E+02	1.499100E+02
104	149	1.049100E+02	1.274100E+02	1.499100E+02
149	249	1.499100E+02	1.999300E+02	2.499500E+02
149	249	1.499100E+02	1.999300E+02	2.499500E+02
149	249	1.499100E+02	1.999300E+02	2.499500E+02
149	249	1.499100E+02	1.999300E+02	2.499500E+02
149	520	2.499500E+02	3.854250E+02	5.209000E+02
149	520	2.499500E+02	3.854250E+02	5.209000E+02
149	520	2.499500E+02	3.854250E+02	5.209000E+02
149	520	2.499500E+02	3.854250E+02	5.209000E+02
23	40	2.300000E+01	3.150000E+01	4.000000E+01
23	40	2.300000E+01	3.150000E+01	4.000000E+01
23	40	2.300000E+01	3.150000E+01	4.000000E+01
40	80	4.000000E+01	6.000000E+01	8.000000E+01
40	80	4.000000E+01	6.000000E+01	8.000000E+01
40	80	4.000000E+01	6.000000E+01	8.000000E+01
40	80	4.000000E+01	6.000000E+01	8.000000E+01

INTEGRAL Source Results: images



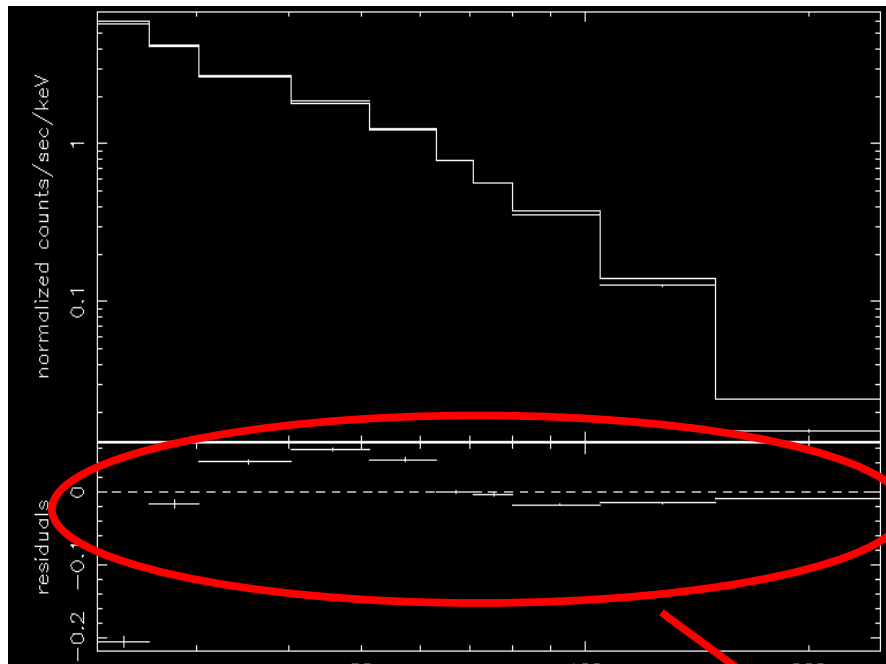
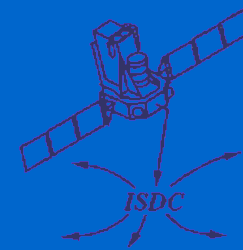
<input type="checkbox"/> CHANMIN 1I	<input type="checkbox"/> CHANMAX 1I	<input type="checkbox"/> E_MIN 1F	<input type="checkbox"/> E_MEAN 1F	<input type="checkbox"/> E_MAX 1F	
<input type="checkbox"/> CHANMIN 1I	<input type="checkbox"/> CHANMAX 1I	<input type="checkbox"/> E_MIN 1E keV	<input type="checkbox"/> E_MEAN 1E keV	<input type="checkbox"/> E_MAX 1E keV	
Modify	Modify	Modify	Modify	Modify	
	104	149	1.049100E+02	1.274100E+02	1.499100E+02
	104	149	1.049100E+02	1.274100E+02	1.499100E+02
	104	149	1.049100E+02	1.274100E+02	1.499100E+02
	104	149	1.049100E+02	1.274100E+02	1.499100E+02
	149	249	1.499100E+02	1.999300E+02	2.499500E+02
	149	249	1.499100E+02	1.999300E+02	2.499500E+02
	149	249	1.499100E+02	1.999300E+02	2.499500E+02
	149	249	1.499100E+02	1.999300E+02	2.499500E+02
	249	520	2.499500E+02	3.854250E+02	5.209000E+02
	249	520	2.499500E+02	3.854250E+02	5.209000E+02
	249	520	2.499500E+02	3.854250E+02	5.209000E+02
	249	520	2.499500E+02	3.854250E+02	5.209000E+02
	23	40	2.300000E+01	3.150000E+01	4.000000E+01
	23	40	2.300000E+01	3.150000E+01	4.000000E+01
	23	40	2.300000E+01	3.150000E+01	4.000000E+01
	23	40	2.300000E+01	3.150000E+01	4.000000E+01
	40	80	4.000000E+01	6.000000E+01	8.000000E+01
	40	80	4.000000E+01	6.000000E+01	8.000000E+01
	40	80	4.000000E+01	6.000000E+01	8.000000E+01
	40	80	4.000000E+01	6.000000E+01	8.000000E+01

To estimate the overall significance of detection of the source by INTEGRAL you can download all the “per revolution” mosaic images for a given source on your computer and “stack” them at top of each, using e.g. the [varmosaic](#) tool:

```
ls isgri_mosa_ima_*.fi s.gz >imalist
```

```
varmosaic filelist=imalist outimage=mosaic_all.fi s
```

INTEGRAL Source Results: spectra



Clicking on “ISGRI spectrum” you find the spectra of the source extracted from the mosaic images “per revolution”

Both the spectrum and a basic powerlaw fit to the spectrum are calculated “on flight” by the ISDC

This gives the first impression on the **overall flux** of the source and of the **shape of the spectrum** (from residuals to the powerlaw fit).

XSPEC spectrum details

Variances and Principal axes

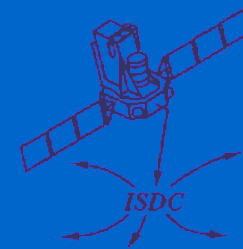
Photon Index: 2.26563 (+/- 0.145032)

Model flux 0.1838 photons (1.1225E+08 ergs)cm**2 s**-1 (20.000-100.000)

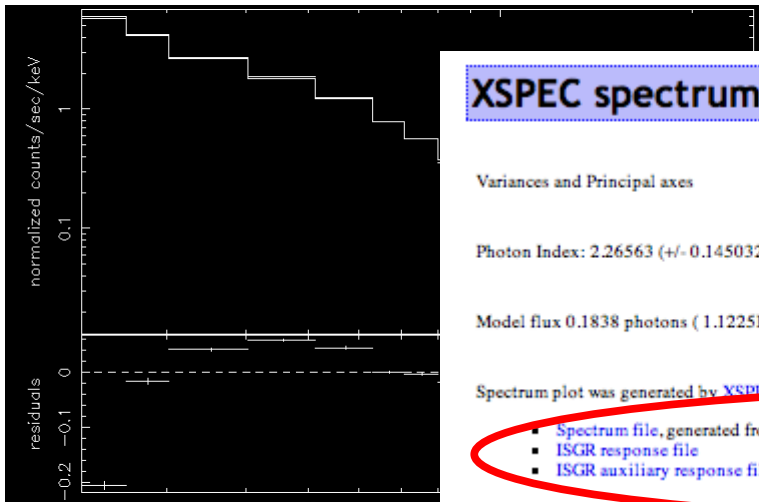
Spectrum plot was generated by XSPEC, using following data:

- Spectrum file, generated from mosaic image /arc/rev_2/obs_isgri/0079.002/smi_0079_Cyg/isgri_mosa_ima.fits.gz using mosaic_spec tool
- ISGR response file
- ISGR auxiliary response file

INTEGRAL Source Results: spectra



Getting your INTEGRAL data



XSPEC spectrum details

Variances and Principal axes

Photon Index: 2.26563 (+/- 0.145032)

Model flux 0.1838 photons (1.1225E-08 ergs)cm**2 s**-1 (20.000-100.000)

Spectrum plot was generated by XSPEC using following data:

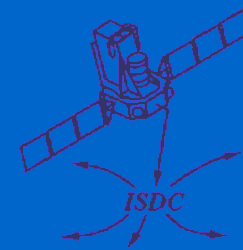
- Spectrum file, generated from mosaic image /arc/rev_2/obs_isgri/0079.002/smii_0079_Cyg/isgri_mosa_ima.fits.gz using mosaic_spec tool
- ISGR response file
- ISGR auxiliary response file

Download the spectra and instrument response files (rmf, arf) for further analysis with XSPEC (to use appropriate spectral models, to fit spectra from different revolutions simultaneously etc.

Revolutions for source

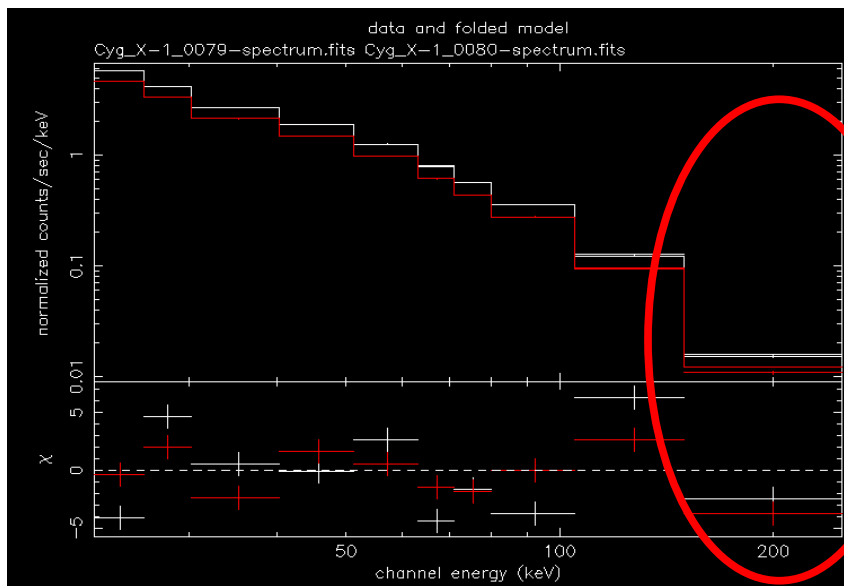
Revolution	Ra	Dec	Distance (deg)	Obs duration (sec)	Obs start (MJD - 51544.0)	Obs end (MJD - 51544.0)	Spectrum
0257	19 47 26.4	+32 58 10	3.17709	9720	1786.50115	1786.61365	ISGRI
0257	19 58 53.5	+35 16 30	.13075	83232	1785.459066	1786.4224	ISGRI
0255	19 58 55.6	+35 15 54	.13173	83296	1779.296204	1780.260278	ISGRI
0259	19 58 51.2	+35 16 54	.12853	84964	1791.74753	1792.73091	ISGRI
0261	19 58 48.1	+35 17 34	.12809	86374	1797.674108	1798.673807	ISGRI
0253	20 30 11.9	+40 32 55	8.24362	111450	1773.870437	1775.160368	ISGRI

INTEGRAL Source Results: spectra



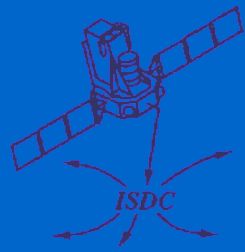
Select	CHANNEL	RATE	STAT_ERR	SYS_ERR	QUALITY	GROUPING
<input type="checkbox"/> All	1D	1D	1D	1D	1D	1D
Invert	Modify	Modify	Modify	Modify	Modify	Modify
1	0	3.832945256876E+01	5.112648945961E-02	6.130492317425E-04	0	1
2	1	1.783583284359E+01	2.766249389027E-02	7.171235021862E-04	0	1
3	2	1.435753117768E+01	2.465486739985E-02	7.943337375047E-04	0	1
4	3	2.142445503744E+01	2.874594681872E-02	6.207998202083E-04	0	1
5	4	1.625671664557E+01	2.649357316689E-02	7.542314849884E-04	0	1
6	5	1.166171486577E+01	3.043645184627E-02	1.208814161690E-03	0	1
7	6	4.687933338132E+00	2.056096064419E-02	2.031938019677E-03	0	1
8	7	3.944993331451E+00	2.134830220297E-02	2.507575146467E-03	0	1
9	8	6.865158241165E+00	2.665396324127E-02	1.799365606692E-03	0	1
10	9	4.280880730956E+00	2.693682290755E-02	2.917007286468E-03	0	1
11	10	1.088993399678E+00	3.110428735054E-02	1.324628874575E-02	0	1
12	11	3.109966045800E-02	2.975404689885E-02	4.437595259447E-02	1	1

Note that in mosaic spectra energy bins with S/N less than 4 are marked as “bad” you can manually change the “QUALITY” column value from 1 to 0 if you want e.g. the upper limits to be taken into account by XSPEC or if you fit simultaneously many spectra.



Adding up the spectra from many revolutions improves the detection significance of the source at high energies, where the photon statistics decreases.

INTEGRAL source results: spectra

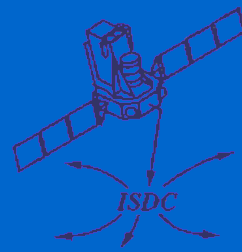


For not-too-strong sources the spectrum can not be extracted from “per revolution” mosaic images (one needs to stack images from several revolutions to really detect the source). In this case a message

SOURCE IS TOO WEAK

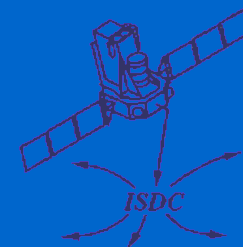
appears at the place of ISGRI spectrum. This means that for the analysis of this source you have to download and analyze the [raw ScW data](#).

INTEGRAL source results: Summary



- **INTEGRAL Source Results** pages provide an efficient way to get a “first look” at the source of interest.
- “First look” results (images, spectra, lightcurves) can be used for sensible scientific analysis and for publications (e.g. for bright enough sources, or for the hard X-ray data in the context of multi-wavelength studies of the source, for population studies etc)
- “First look” results can be used also to select the data for further analysis of the raw Science Window data for the source (e.g. the data for the periods of bright outbursts, or special spectral states)
- It is, in general, recommended to check the results found from the **INTEGRAL Source Results** pages (e.g. to apply latest knowledge of instrument calibrations and responses)

Getting the raw data



- The results present in the **INTEGRAL Source Results** pages are “standartized”. Most of the time the interesting science analysis requires modification of the standard analysis parameters to catch some source-specific effects (e.g. choose shorter time step in the lightcurves)
- The most efficient way to get the raw data related to a source it the **Archive Browse**.

[Browse Home](#) **ISDC Browse** [Known-Issues on Data!](#) [Tip Archive](#) [HELP](#)

Other Browse interfaces: [Batch](#) | [Index of all tables](#) Query File And Session Uploads

Main Search Form > Search Results > Choose Data Products

1. Do you want to search around a position ... ?
(If you want to search on parameters other than object name or coordinates, select "More Options".)

Object Name Or Coordinates: **and/or** [Select Local File:](#) no file selected

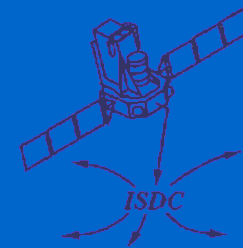
e.g. **Cyg X-1** or
12 00 00, 4 12 6 or
Cyg X-2; 12.235, 15.345
(Note use of semi-colons (;) to separate multiple object names or coordinate pairs)

Coordinate System: **Search Radius:**

Default uses the optimum radius for each catalog searched.

Enter the source name
Then go to “more options”

Getting the raw data



[Browse Home](#) ISDC Browse Known-Issues on Data? Tip Archive HELP

Other Browse interfaces: [Batch](#) | [Index of all tables](#) Query File And Session Uploads

Main Search Form > Search Results > Choose Data Products

1. Do you want to search on
(If you want to search on)

Object Name Or Sort by a column in order: 1,2,3 Sort by column in reverse

Select:	Description	Cata
<input type="checkbox"/>	Science Results per Observation	integral_re
<input type="checkbox"/>	Science Results per Pointing	integral_re
<input type="checkbox"/>	ISGRI Source Results	integral_re
<input type="checkbox"/>	JEMX Source Results	integral_re
<input type="checkbox"/>	OMC Source Results	integral_re
<input checked="" type="checkbox"/>	SCW - Science Window Data	integral_re
<input type="checkbox"/>	Observations	integral_re
<input type="checkbox"/>	Proposals	integral_re
<input type="checkbox"/>	Proposal Information and Observation Parameters	integral_re
<input type="checkbox"/>	IC - Instruments Characteristics Data	integral_re
<input type="checkbox"/>	AUX - Auxiliary Data	integral_re

All Show All Parameters: Select to display all cal

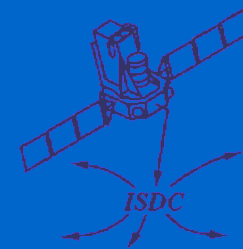
3.

Here are the images, lightcurves and spectra from the **ISR** pages discussed above (you can get them also typing the source name in Browse and checking the “Science Results per Observation” box

Raw data for any source are here. Uncheck “All” and then check only SCW box to get the raw data

To select only the data interesting from scientific point of view click on “Specify more parameters” at the bottom of the page

Getting the raw data



View	Sort Parameter (Unit)	Query Ter
<input checked="" type="checkbox"/>	<input type="radio"/> scw_id	
<input type="checkbox"/>	<input type="radio"/> scw_ver	
<input checked="" type="checkbox"/>	<input type="radio"/> scw_type	pointing
<input type="checkbox"/>	<input type="radio"/> obs_type	
<input checked="" type="checkbox"/>	<input type="radio"/> ps	public
<input type="checkbox"/>	<input type="radio"/> pi_name	
<input type="checkbox"/>	<input type="radio"/> good_spi	
<input type="checkbox"/>	<input type="radio"/> good_picsit	
<input checked="" type="checkbox"/>	<input type="radio"/> good_isgri	> 1000

Object Name Or Coordinates: (e.g. Cyg X-1 or '12;)
object names or coordinate pairs (e.g. Cyg x-2;

Coordinate System:

Search Radius:

Name Resolver:

Observation Dates: The time portion of t
with semicolons (;).
 Range operator is '..' (e.g. 2003-12-31; 1095.5; ;

IBIS foV = 9 x 9 degrees
 SPI foV = 16 degrees
 JEM-X foV = 4.8 degrees
 OMC = 5 x 5 degrees

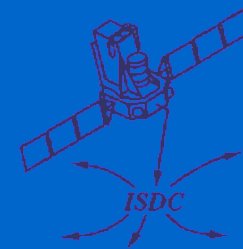
Start Sea

Most important parameters are:

- the ID of the Science Window (check the box and select the “Sort” column because the analysis software likes “ordered” ScW lists)
- the ScW type (pointing, slew)
- the public status (public, private)
- the good time for ISGRI, SPI or JEMX (normally typical ScW has > 1 ksec of data)

INTEGRAL is a wide field instrument which means that sensible data on our source of interest can be present also in observations not specially pointed toward the source. E.g. For ISGRI the sources up to within 15 degrees of-axis are still in the (partially coded) field of view.

Getting the raw data



SCW - Science Window Data (integral_rev2_scw)

Search radius used: 900.00'

Select	Services	scw id	scw type	ps	good isgrl	search offset
<input checked="" type="checkbox"/>	All					
<input checked="" type="checkbox"/>	D	002800070010	pointing	public	4209	0.023
<input checked="" type="checkbox"/>	D	002800070020	pointing	public	5456	0.023
<input checked="" type="checkbox"/>	D	002800080010	pointing	public	2553	0.031
<input checked="" type="checkbox"/>	D	002800100010	pointing	public	2201	0.031
<input checked="" type="checkbox"/>	D	002800120010	pointing	public	2136	240.013
<input checked="" type="checkbox"/>	D	002800130010	pointing	public	2113	268.410
<input checked="" type="checkbox"/>	D	002800140010	pointing	public	2090	339.682
<input checked="" type="checkbox"/>	D	002800150010	pointing	public	2034	268.410
<input checked="" type="checkbox"/>	D	002800160010	pointing	public	2072	169.761
<input checked="" type="checkbox"/>	D	002800170010	pointing	public	2083	120.012

As a result of query you get a list of “Science Windows” (intervals of continuous stable data taking by the satellite). Check the ScWs interesting for your analysis to download them to your computer or just to create the list of ScW for the analysis (if the data are already present on your computer)

Click to download the selected data

Are you interested in data products?

1. Select the checkboxes for the rows of interest above,
2. un-check any data products you are not interested in:

Data Products available for integral_rev2_scw

- All
- Science Window Data (SCW)

3. then click a button below

- data products for selected rows
- data products for selected rows
- for creation of Observation Groups

Further Actions:

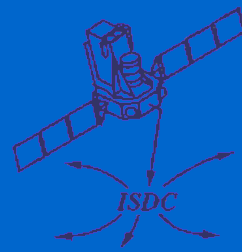
- Do you want to your integral_rev2_scw results? ([help](#))
- Do you want to your integral_rev2_scw results?
- Do you want to all the columns for the rows selected at
- Do you want to query other services for the rows selected? ([help](#))

Services:

NED
SIMBAD
SkyView:ROSAT All-Sky
SkyView:DSS
CoCo

Save the list of ScWs to give as an input for the science analysis scripts

Data Archive



Currently two versions of the Archive are supported:

- Revision 1 (/arc/rev_1/...) contains only raw data while
- Revision 2 (/arc/rev_2/...) contains raw and processed data
(from which the **INTEGRAL Source Results** are extracted)

The auxiliary data are all publicly available, but the science data are either private or public. You can browse the private data with Archive Browse, but you can not download them on your computer.

Private data become public ~ one year after they were distributed to PI of observation. **If you are interested when a particular data set will become public, look at the “Public Release Schedule in the “Data” section of ISDC web-pages**

Public Data Releases

Additional information:

- Information on the processing stages and their duration can be found [here](#).
- The list of observation targets for each revolution can be queried on the [ISOC planning page](#).
- A summary of all observations up to revolution 350 was compiled by P. Lubinski in a [PDF document](#).

Schedule of Public Data Releases:

Date	Revolutions getting public
2006 Dec 08	286, 296-299, 304-307, 365, 366, 368
2006 Nov 22	340, 346, 348, 349, 354, 357-364
2006 Oct 13	331-336, 343-345, 347, 350, 351, 353
2006 Sept 18	324, 325, 327-330, 337-339, 341, 342
2006 Aug 30	303, 322, 323, 326
2006 Jul 31	274-276, 291, 310-321
2006 Jun 23	270-273, 279-282, 287-290, 292-295, 301, 302, 308, 309

Summary

