"The Extreme Universe in the Suzaku Era", 2006 December, Kyoto, Japan

Suzaku Archives at ISAS/DARTS

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Abstract

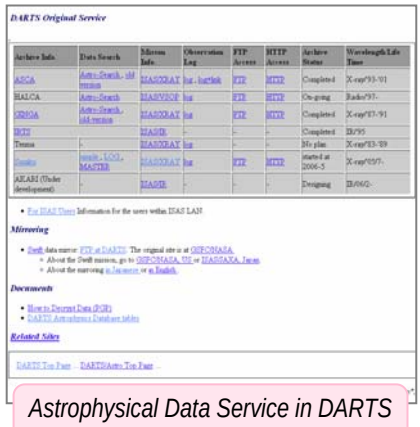
The Suzaku science data are archived at ISAS/DARTS in Japan and at NASA/HEASARC in US. The Suzaku archives in DARTS is explained in this poster. The system provides three functionalities: (1) data distribution to the public archive users and guest observers via FTP, (2) data query service based on the observation-log or processing-log tables via web interface, and (3) supply archive related information. The DARTS data are also mounted on the ISAS work stations (analysis servers) and external subnets of several universities, so that users of these computer systems may directly access the DARTS data.

Please remember the DARTS/Suzaku URL: **http://darts.isas.jaxa.jp/astro/suzaku**

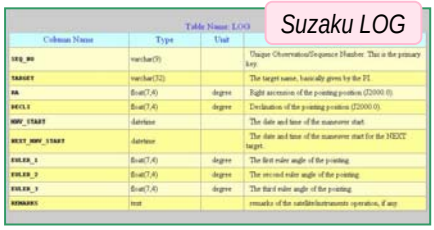
Suzaku Tables

(1) **LOG**: A basic log of every pointing/sequence starting from the initial check-out phase. Information is derived from the operation command log. 'Remarks' is added if there is an unusual event during the observation (such as safe-hold).
(2) **MASTER** : A master table for archive data for each sequence. The information are derived from the data processing and/or from the Suzaku Observation Data Base (ODB). The main purpose of the table is to provide archive users with useful information. The master table records telescope pointing, instrumental operational modes, observation status, basic proposal information, data status, etc. The table will be created by the Suzaku processing/archive team and used commonly in both HEASARC and ISAS (the Suzaku MASTER table is called *suzamaster* at HEASARC).

Suzaku MASTER (a.k.a. suzamaster)



Astrophysical Data Service in DARTS
http://darts.isas.jaxa.jp/astro/



Suzaku LOG

ARCHIVE HISTORY/STATUS

- Data distribution has started on 2006-5-30 (ver. 1.0).
- From the 1st observation on 2005-8-12 to 2006-11-23, 503 pointing sequences have been observed.
- Out of 503, 311 sequence data were processed with ver. 1.2 processing and are on-line at DARTS.
- 26 sequence data (SWG phase, AO1/CAL, ToO) are already public. Other data are encrypted.

Use cases - Suzakulog –

Q. How can I list up all the available data?
A.[Maximum number of output rows] = 10000,
[Target Name or Coordinate] = off
As of 2006-11-1, 537 records are returned. You can save a wget script for your data download.

Q. How can I search for Crab observations?
A. [Maximum number of output rows] = 10000,
[TargetName or Coordinate] = on (left side check box),
[Search Radius] = 30',
[Target Name] = on , 'Crab'
or [Pattern Match] = on (other check box are off),
[TARGET] =Crab
As of 2006-11-1, 26 records are returned. Instead of 'Crab', you can query by any text such as Abell, RXJ1, HESS, 1060, and so on.

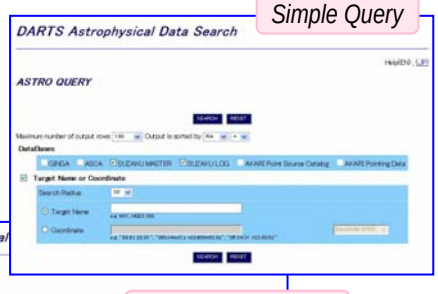
Q. I would like to search available data around the Galactic Center.
A. [Maximum number of output rows] = 10000,
[Target Name or Coordinate] = on (left side check box),
[Search Radius] = 90',
[Coordinate] = on (left side check box), '0 0',
select[Galactic II]
As of 2006-11-1, 26 records are returned.

Q. I would like to know all the observed data in 2005-8.
A. Select [Observation Date] check box and input the date range.
As of 2006-11-1, 71 records are returned.

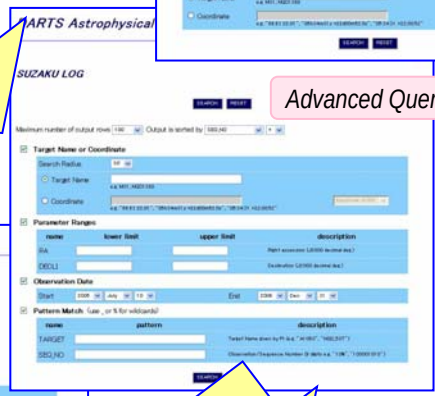
Development of Query Applications

- A set of query/search web applications is the primary service of DARTS.
- We have developed these applications based on Java-Server-Pages/Struts frameworks. We also developed a new framework, *TSUNAGI*, for general Web-database systems at the PLAIN center/ISAS in collaboration with SEC cooperation. TSUNAGI enable us to develop and maintain web applications very efficiently. TSUNAGI has been also adopted for HINODE and AKARI DARTS.
- We use MySQL for the main database management system.
- These applications are on Solaris and Linux servers.
- All DARTS data is stored on a Storage Area Network system (SAN).
- We use the SIMBAD WebService for resolving target names and obtain coordinates.

DARTS / Suzaku Top Page

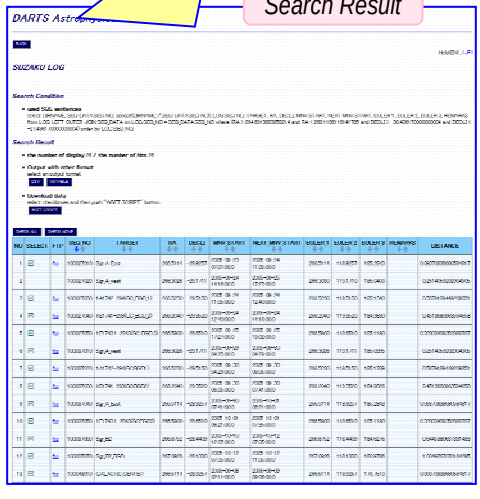


Simple Query



Advanced Query (1)

Advanced Query (2)



Search Result