

JVO Portal の使い方

国立天文台 天文データセンター
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JVO Portal ではどんなことができる？

- 世界中の天文データサービスへの一つの窓口
 - どういったデータがあるのか探す
 - データを検索し取得する。
 - 取得したデータをクイックルックする
- 天文関連ツールのオンラインサービス(開発中)
 - 天体検出、…
 - Photo-Z、各種単位変換（距離、明るさ…）等
- すばる望遠鏡・ALMA の処理済みデータ取得
 - 大量の生データをダウンロードする必要がありません。
 - 簡単に画像やスペクトルデータを確認することができます。

本日の講習内容

- 目的別に手順例だけざっと説明
 - ログインの仕方
 - データサービスの検索（キーワード・カテゴリ）
 - データ検索 + 結果表示 + データのダウンロード
 - JVOspace の利用方法
 - すばる望遠鏡・ALMA データの取得
- 説明を聞きながらJVO ポータルにアクセスしていただいで結構です。
- 詳細な使い方は
 - 実習時に質問、または
 - 講習会ホームページにある資料を参照してください。

JVO ポータルアクセス方法

JVO portal にアクセスする

- ポータルアドレスを直接入力
 - <http://jvo.nao.ac.jp/portal>

- Google などの検索サービスで jvo を検索
 - JVOのプロジェクトページを表示
 - 左帯の“JVO ポータル”をクリック

Google search results for "jvo". The search box contains "jvo". The first result is "JVOプロジェクト - 国立天文台" (JVO Project - National Astronomical Observatory of Japan) with the URL "jvo.nao.ac.jp". A red box highlights the search term "jvo" and a red arrow points to the search result. Below the search results, there are links for "JVO Project", "JVO Data Search", and "JVOについて (その1) - 国立天文台".


Screenshot of the JVO Project website. The header includes the JVO logo and the text "National Astronomical Observatory of Japan". The main content area is titled "JVO Project" and contains a list of activities: "データベースを利用した天文学研究の推進", "バーチャル天文台ポータルサービスの開発", "バーチャル天文台に対応したデータサービス構築ツールキットの開発", and "大容量データに対応した分散解析システムの開発". Below this, there is a "portal運用状況" section with a link to "help_desk@jvo.nao.ac.jp". A red box highlights the "JVOポータル" link in the left sidebar, and a red arrow points to the "お知らせ" (News) section, which contains several recent announcements dated from 2014-12-16 to 2014-09-08.

Screenshot of the JVO portal service contents page. The header includes the JVO logo and the text "National Astronomical Observatory of Japan". The main content area is titled "Service Contents Help(J)" and contains several sections: "Data Search" (Quick Search, Single VO Service, Multiple VO Services, JVO Sky, JVOQL Search), "Service Search" (Keyword Search, Category Search, Category Search (Manual), Advanced Search), "JVO Space" (Home, Work), "Astro Tools" (Source Extractor, HyperZ), "ALMA", and "Registration" (Read "about registration"). A blue box with white text "ゲストアカウントで自動ログイン" (Automatic login with guest account) is overlaid on the page. At the bottom, there is a contact information section: "If you have any questions or requests on JVO, please contact us at: help_desk@jvo.nao.ac.jp".

ユーザー登録

- ゲストユーザーでもほとんどの機能が利用できます。
- ユーザー登録を行うと次の機能が利用できます
 - 検索結果等を保存しておくためのディスク領域が確保され、次回ログイン時にも参照できます。
 - すばる望遠鏡データのリダクション機能や、SExtractor 等のオンライン解析サービスが利用できます。
 - jc client を利用したコマンドラインからの利用が可能になります。
- 実習課題 A 「AGN-銀河のクラスタリング」を行う方はユーザー登録が必要となります。

ユーザー登録・ログイン

 [Top](#) | [Search](#) | [VO Services](#) | [Subaru](#) | [ALMA](#) | [Analysis](#) | [Bookmark](#) | [JVOSpace](#) [Login](#)
p00 ver.140919 [News](#) | [FAQ\(J\)](#) | [Help\(J\)](#) | [Bugs\(J\)](#) I am a guest

ユーザー登録をしたい場合はここから登録を行います。

登録済みの方はここからログインできます。

Registration

- Read "about registration".

Service Contents [Help\(J\)](#)

Data Search

- Quick Search
- Single VO Service
- Multiple VO Services
- JVO Sky
- JVOQL Search

Service Search

- Keyword Search
- Category Search (Auto)
- Category Search (Manual)
- Advanced Search

JVO Space

- Home
- Work

Subaru

- prime-Cam
- IS
- DIRCS

ALMA

- MA SV Data
- MA Archive

Surveys

- Subaru Deep Survey
- SF Survey

Login

Login ID


Password

if you forgot login ID and/or password, please contact help_desk@jvo.nao.ac.jp
if you don't have an login ID, register [HERE](#)

User Registration

Don't use Japanese characters, sorry !!

Preferred account name	<input type="text"/>	Characters that can be used are: [a-z], [A-Z], [0-9], '-', '_' and '.'. The account name must begin with an alphabet.
Your name	<input type="text"/>	<firstname> [<middle name>] <lastname>
Email	<input type="text"/>	
Country	<input type="radio"/> Japan <input type="radio"/> Others	country of your institute
Institute	<input type="text"/>	e.g. National Astronomical Observatory of Japan or NAOJ
Department	<input type="text"/>	e.g. Astronomy Data Center or ADC
Position	<input type="radio"/> Student <input type="radio"/> Professional Researcher <input type="radio"/> Others	
Passwd	<input type="password" value="●●●●●●"/>	Eight or more characters are required.
Passwd	<input type="password"/>	Enter the same password for confirmation.
Objective	<input type="radio"/> astronomical research <input type="radio"/> Others	Currently user account is issued only for a person who are going to conduct an astronomical research.

 If you have any questions or requests on JVO, please contact us at:
help_desk@jvo.nao.ac.jp

トップページ

データサービスを探したい場合はここ

データ検索を行いたい場合はここ

過去の観測結果や、portal上に保存したユーザデータを参照する場合はここ。

すばるのデータを取得したい場合はここ

天文関連オンラインツールはこちら

ALMA のデータ取得・クイックルックはここ

Top|Search|VOServices|Subaru|ALMA|Analysis|Bookmark|JVOSpa
p01 ver.130624 News | FAQ(J) | Help(J) | Bugs(J)

Service Contents Help(J)

- Data Search**
 - Quick Search
 - Single VO Service
 - Multiple VO Services
 - JVO Sky
 - JVOQL Search
- Subaru**
 - Suprime-Cam
 - HDS
 - MOIRCS
- ALMA**
 - ALMA SV Data
 - ALMA Archive
- Surveys**
 - Subaru Deep Survey
 - IRSF Survey
- Service Search**
 - Keyword Search
 - Category Search (Auto)
 - Category Search (Manual)
 - Advanced Search
- JVO Space**
 - Home
 - Work
- Astro Tools**
 - Source Extractor
 - HyperZ
- Bookmark**
 - Bookmark of VOService
 - Bookmark of JVOSpace

Vissage are open to the public (2012-11-14)

- IVOA Newsletter Vol.9 (2012-10-30)
- JVOSky updated (2012-06-30)

updated (2012-03-15)

- Registered user login is now available (2011-12-16)
- HDS archive is updated (2011-12-16)
- IVOA Newsletter Vol.7 (2011-12-16)

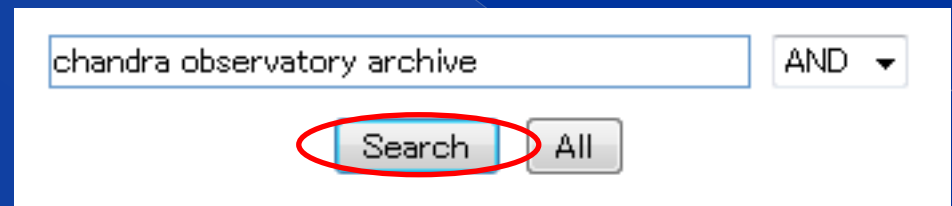
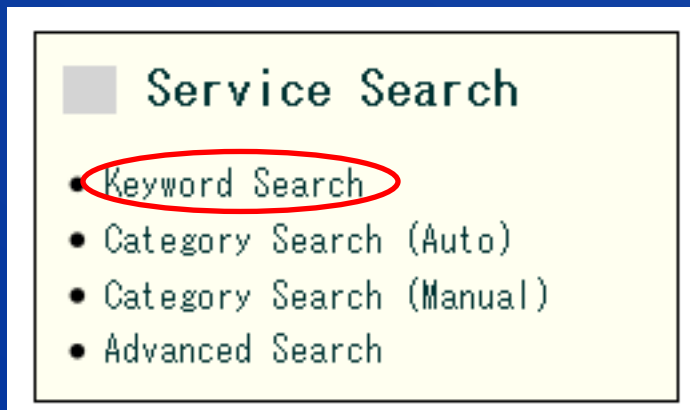
Registration

- Read "about registration".

VO サービスを検索する

Chandra データアーカイブを探そう(1/4)

- Chandra X-ray Observatory の画像データアーカイブを探してみます。
- キーワードで検索する手順を説明します。
- トップページで **“Keyword Search”** リンクをクリックします。
- キーワード **“chandra observatory archive”** で検索します。


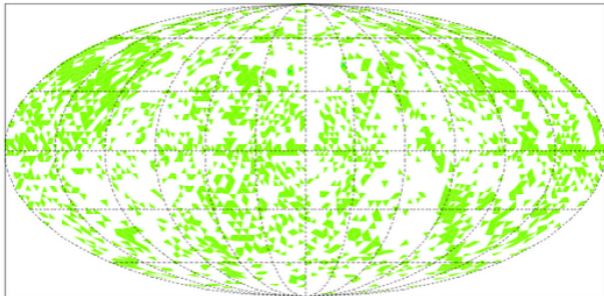


Chandra データサービスを探そう(2/4)

8	Bookmark Schema	-	More Info	Chandra Point Sources in 18 Distant Galaxy Clusters	Coord Search	active	URL	U
9	Search Bookmark Schema	-	More Info	1.4GHz and X-ray sources in 12 clusters of galaxies (Hart+, 2011)	Coord Search	active	URL	U
10	Search Bookmark Schema	-	More Info	Chandra Source Catalog	Coord Search	active	URL	U
11	Search Bookmark Schema	-	More Info	CCD UBVRiHa photometry in NGC 3603 (Sung+, 2004)	Coord Search	active		
12	Search Bookmark Schema	-	More Info	NGC 5128 Chandra X-ray point sources (Minniti+, 2004)	Coord Search	active		
13	Search Bookmark Schema	-	More Info	MYSTIX: the Chandra X-ray sources (Kuhn+, 2013)	Coord Search	inactive		
14	Search Bookmark Schema	-	More Info	MassiveYoungStar-FormingComplexStudyinIR&X-Rays:X-RaySourceCatalog	Coord Search	inactive		
15	Search Bookmark Schema	-	More Info	Multi-wavelength study of clusters of galaxies. II. (Atlee+, 2012)	Coord Search	inactive		
16	Search Bookmark Schema	-	More Info	The Chandra Archive Log (CXC, 1999-2014)	Coord Search	active		
17	Search Bookmark Schema	-	More Info	Chandra X-Ray Observatory Data Archive	Image	active		
18	Search Bookmark Schema	-	More Info	Chandra Transmission Grating Catalog and Archive Naming Authority		inactive		

Image : 画像サービス
 Spectrum : スペクトルサービス
 Coord Search : 座標検索サービス
 General : ADQL (天文用 SQL) 検索

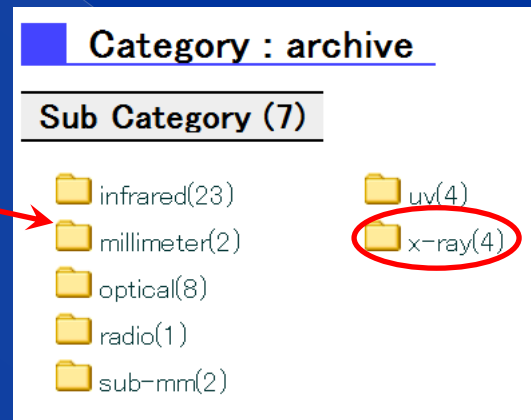
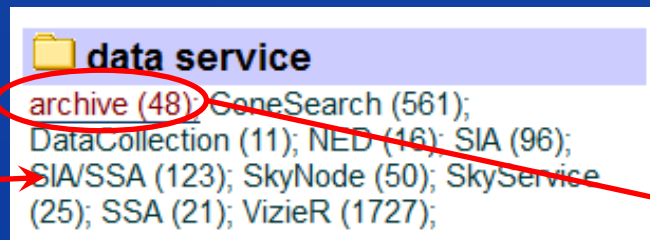
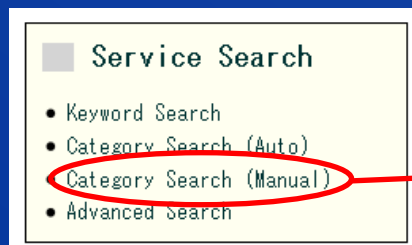
Resource Metadata

Created	2004-12-02T00:00:00Z	Updated	2011-09-14T18:12:05Z	Status	active
Identifier	ivo://cxc.harvard.edu/cda				
Short Name	Chandra				
Title	Chandra X-Ray Observatory Data Archive				
Service Type	Image				
AccessURL	http://cda.harvard.edu/siap/queryImages?				
ReferenceURL	http://cxc.harvard.edu/cda/				
Country					
Harvested from	ESAVO Registry Resource, STScI Searchable Registry				
Content Type Facility and Instrument	X-ray astronomy				
Subject	X-ray astronomy				
Contributor	Chandra X-ray Center				
Creator	Chandra X-ray Center				
Curation Date		Curation Version	DS7.4		
Publisher	Chandra X-ray Observatory				
Right					
Description	<p>The Chandra X-ray Observatory is the U.S. follow-on to the Einstein Observatory. Chandra was formerly known as AXAF, the Advanced X-ray Astrophysics Facility, but renamed by NASA in December, 1998. Originally three instruments and a high-resolution mirror carried in one spacecraft, the project was reworked in 1992 and 1993. The Chandra spacecraft carries a high resolution mirror, two imaging detectors, and two sets of transmission gratings. Important Chandra features are: an order of magnitude improvement in spatial resolution, good sensitivity from 0.1 to 10 keV, and the capability for high spectral resolution observations over most of this range.</p> <p>ivo://cxc.harvard.edu/cda: This is under development</p>				
Crawling Result					

17 番目のサービスが
 Chandra X-ray Center の
 画像データサービスです。

Chandra データサービスを探そう(3/4)

- カテゴリー検索でも見つけることができます。
- キーワードが思いつかない人むけです。
- トップページで **“Category Search (Manual)”** をクリックします。
- Data service カテゴリ中の **“archive”** をクリック
- サブカテゴリー **“x-ray”** をクリック。



注) 全てのサービスが正しくカテゴリー分けされているわけではありません。

Chandra データサービスを探そう(4/4)

詳細検索 (Advanced Search) から探せます

Title ?

Subject ?

Content Level

- General
- Elementary Education
- Middle School Education
- Secondary Education
- Community College
- University
- Research
- Amateur
- Informal Education

Content Type

- Archive
- Background
- BasicData
- Bibliography
- Catalog
- Data Collection
- EPOResource
- Education
- Historical
- Journal
- Library
- Organisation
- Outreach
- Photographic
- Press
- Project
- Registry
- Simulation
- Survey
- Transformation

Metadata name to be searched

- Facility
- Title
- Description

Telescope to be searched

- AAT : Optical-infrared telescope of Australia (Anglo-Australian Telescope)

タイトルにマッチするテキストパターン。
“%” は任意の文字列に一致
スペース区切りの単語列は論理和

20 records/page (total = 1) Skip to No. 0 Detail


No.	Action	Bookmark	ID	Title	Type	Activity	Reference URL	Access URL	Country
0	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Chandra X-ray Observatory Data Archive	Image	active	URL	URL	

- ATNF : A collection of radio astronomy observatories in Australia (Australia Telescope National Facility)
- BeppoSAX : X-ray astronomical satellite of Italian Space Agency
- CAHA : Astronomical observatory of Germany and Spain (Calar Alto Observatory)
- CFHT : Optical-infrared telescope of Canada, France and University of Hawaii (Canada-France-Hawaii Telescope)
- CGRO : Space-based Gamma Ray Observatory of NASA (Compton Gamma Ray Observatory)
- Chandra : X-ray astronomical satellite of NASA (CXC, Chandra X-ray Center, Chandra X-Ray Observatory)
- COBE : Space-based CMB observatory of NASA (Cosmic Background Explorer)
- CoRoT : Space-based telescope to search for extrasolar planets (Convection Rotation and Planetary Transits)

データを検索する

かに星雲の X 線画像を見てみよう (1/3)

- データサービス検索結果リストにある “Chandra X-ray Observatory Data Archive” の “Search Page” ボタンをクリックする。
- テーブル “VIRTUAL_TABLE” を選択し、“Select” ボタンをクリックする。

No.	Action	Bookmark	ID	Title	Type	Activity	Reference URL	Access URL	Country
0	<input type="button" value="Search"/> <input type="button" value="Bookmark"/>	-	More Info	Chandra X-Ray Observatory Data Archive	SIA	active	URL	URL	

Chandra X-Ray Observatory Data Archive

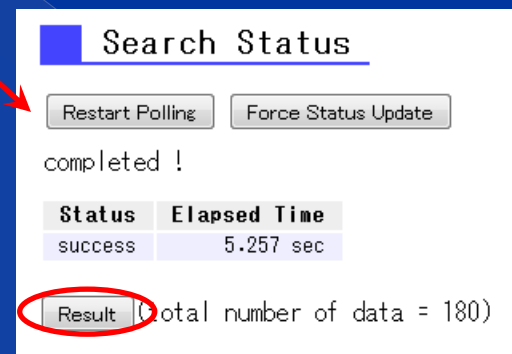
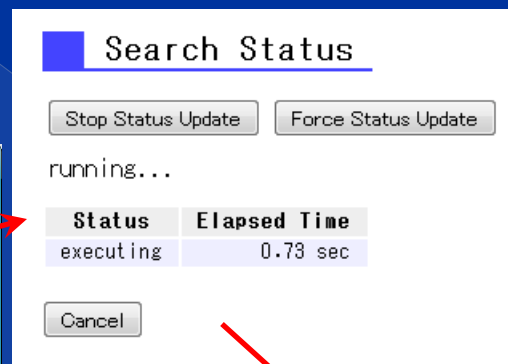
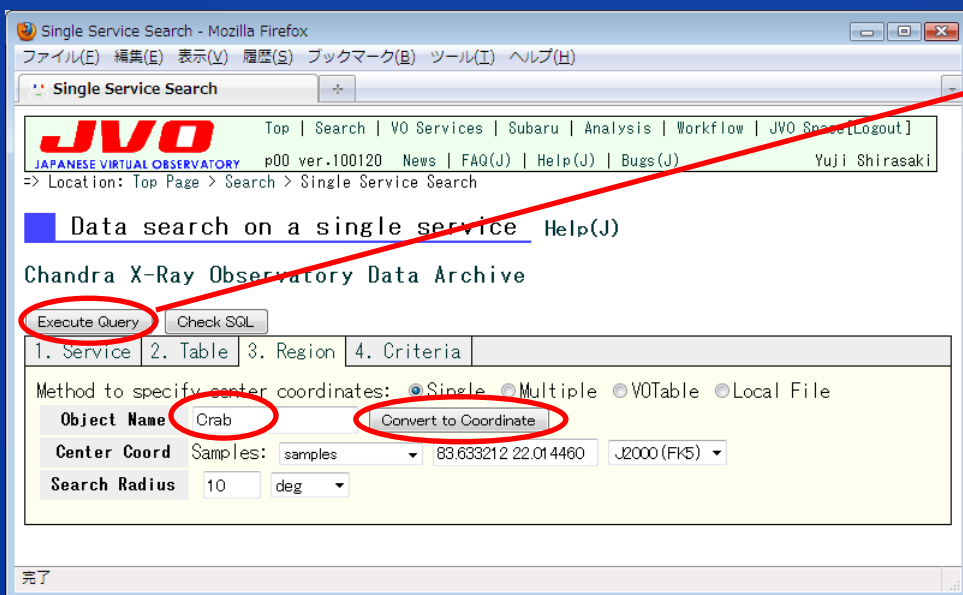
1. Service 2. Table 3. Region 4. Criteria

Table is not selected.

select	table name	description
<input type="radio"/>	VIRTUAL_TABLE	The Chandra X-ray Observatory is the U.S. follow-on to the Einstein Observatory. Chandra was formerly known as AXAF, the Advanced X-ray Astrophysics Facility, but renamed by NASA in December, 1998. Originally three instruments and a high-resolution mirror carried in one spacecraft, the project was reworked in 1992 and 1993. The Chandra spacecraft carries a high resolution mirror, two imaging detectors, and two sets of transmission gratings. Important Chandra features are: an order of magnitude improvement in spatial resolution, good sensitivity from 0.1 to 10 keV, and the capability for high spectral resolution observations over most of this range.

かに星雲の X 線画像を見てみよう (2/3)

- ✓ Object Name 欄に “Crab” と入力し、“Convert to Coordinate” ボタンをクリックします。
- ✓ Center Coordinate に、かに星雲の座標が自動入力されます。
- ✓ Execute Query ボタンをクリックして検索を実行します。



かに星雲の X 線画像を見てみよう (3/3)

- 上から 2 番目のデータのチェックボックスをチェック
- Graphic タブをクリックし、Image ボタンをクリック

Save/Download | Filter | Metadata | **Graphic** | Add Column | Appearance

Quick Look | **Image** | Spectrum | JVO Plot | SED Plot

Applet: VOPlot | Aladin | VOSpec

Alias Name	_pkey	C0	C1	C2	C3	C4	
check	download	record <small>sort</small>	NAME <small>sort</small>	INSTRUMENT <small>sort</small>	DATE_OBS <small>sort</small>	RA <small>sort</small>	DEC <small>sort</small>
<input type="checkbox"/>	Download	0	CRAB NEBULA	ACIS-S	51896.9934000927024	83.6312847047435639	22.0123394854734791
<input checked="" type="checkbox"/>	Download	1	CRAB NEBULA	ACIS-S	51896.9934000927024	83.6312847047435639	22.0123394854734791
<input type="checkbox"/>	Download	2	CRAB NEBULA	ACIS-S	51896.9934000927024	83.6312847047435639	22.0123394854734791
<input type="checkbox"/>	Download	3	CRAB NEBULA	ACIS-S	51896.9934000927024	83.6312847047435639	22.0123394854734791
<input type="checkbox"/>	Download	4	Crab Pulsar	ACIS-S	54134.6950919019073	83.6312734826770452	22.0130457413989689
<input type="checkbox"/>	Download	5	Crab Pulsar	ACIS-S	54134.6950919019073	83.6312734826770452	22.0130457413989689
<input type="checkbox"/>	Download	6	Crab	ACIS-S	55576.0356846208306	83.6302469119366521	22.0127712868253909
<input type="checkbox"/>	Download	7	Crab	ACIS-S	55576.0356846208306	83.6302469119366521	22.0127712868253909
<input type="checkbox"/>	Download	8	Crab	ACIS-S	55576.0356846208306	83.6302469119366521	22.0127712868253909
<input type="checkbox"/>	Download	9	Crab	ACIS-S	55576.0356846208306	83.6302469119366521	22.0127712868253909

Image Control | Zoom: 1 | Scale: Log | zlow: 0%

Action: center | Update

Zone: 2 x 1

Title: CRAB NEBULA

OK



Display Image

CRAB NEBULA



複数天体同時検索

複数天体を一度に検索する (1/2)

- 複数の天体を一度に検索することができます。
- “Hubble Space Telescope Press Release Image Archive” というデータサービスで “crab”, “M82”, “Cas A” の検索

data type

catalog (463); **image (109)**; light curve (12);
Observation (64); observation data (118);
simulation (7); spectrophotometry (12);
spectrum (212);

Category : image

Sub Category (27)

2MASS(4)	CDF-N(0)	Einstein(0)
Akari(0)	CDF-S(1)	Gemini(1)
ALADIN(0)	CFHT(1)	HST(23)
archive(14)	Chandra(2)	IRSF(0)
ASCA(0)	COSMOS(0)	Keck(0)

Hubble Space Telescope Press Release Image Archive

Execute Query Check SQL

1. Service 2. Table 3. Region 4. Criteria

Method to specify center coordinates: Single Multiple VOTable Local File

Object Name Convert to Coordinate

Center Coord

Samples: select a sample

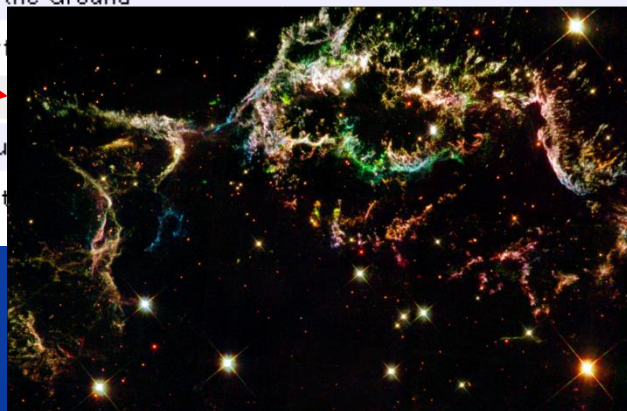
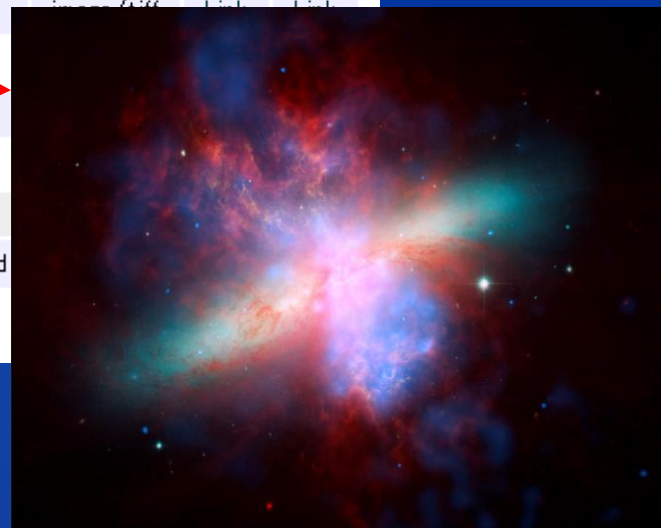
Search Radius 10 arcmin

0	Search Bookmark	-	Schema							
1	Search Bookmark	-	Schema							
2	Search Bookmark	-	Schema							
3	Search Bookmark	-	Schema							
4	Search Bookmark	-	Schema							
5	Search Bookmark	-	Schema							
6	Search Bookmark	-	Schema							
7	Search Bookmark	-	Schema							
8	Search Bookmark	-	Schema	Info	CADC/HST CAS A service	Image	active	URL	URL	🇺🇸
9	Search Bookmark	-	Schema	More Info	Hubble Space Telescope Press Release Image Archive	Image	active	URL	URL	🇺🇸
10	Search Bookmark	-	Schema	More Info	HST Archival Pure Parallels Project	Image	active	URL	URL	🇺🇸
11	Search Bookmark	-	Schema	More Info	Space Telescope Imaging Spectrograph	Coord Search	active	URL	URL	🇺🇸
12	Search Bookmark	-	Schema	More Info	Hubble Space Telescope Preview Images	Image	active	URL	URL	🇺🇸
13	Search Bookmark	-	Schema	More Info	HST-ACS GOODS data within Chandra Deep Field South (CDFS)	Image	active	URL	URL	🇮🇹
14	Search Bookmark	-	Schema	More Info	CADC/HST Image Search	Image	active	URL	URL	🇨🇦
15	Search Bookmark	-	Schema	More Info	HST Galaxy Evolution from Morphology and SEDs	Image	active	URL	URL	🇺🇸
16	Search Bookmark	-	Schema	More Info	HST Hubble HELIX Observations	Image	active	URL	URL	🇺🇸

複数天体を一度に検索する (2/2)

- 画像データは tiff 形式。Tiff を表示できるアプリで開いてください。ブラウザでは表示できないようです。

check	download	_record	
<input type="checkbox"/>	Download	0	Peering into the Heart of the Crab Nebula
<input type="checkbox"/>	Download	1	Combined X-Ray and Optical Images of the Crab Nebula
<input type="checkbox"/>	Download	2	A Giant Hubble Mosaic of the Crab Nebula
<input type="checkbox"/>	Download	3	Crab Nebula: a Dead Star Creates Celestial Havoc
<input type="checkbox"/>	Download	4	Starburst Galaxy M82
<input type="checkbox"/>	Download	5	The Heart Starburst Galaxy M82
<input type="checkbox"/>	Download	6	Happy Sweet Sixteen, Hubble Telescope!
<input type="checkbox"/>	Download	7	Chandra/Hubble/Spitzer X-ray/Visible/Infrared Image of M82
<input type="checkbox"/>	Download	8	M81 and M82 from the Ground
<input type="checkbox"/>	Download	9	Cassiopeia A: Color
check	download	_record	
<input type="checkbox"/>	Download	10	Full Mosaic With Ou
<input type="checkbox"/>	Download	11	Supernova Remnant



複数サービス同時検索

銀河中心のデータを全サービスから取得 (1/2)

- 銀河中心のデータについて、すべての VO サービスに対して検索実行してみましよう。
- 座標 “0 0” を入力し、座標系 “Galactic” を選択し、半径は 60 arcmin として検索を実行

Data Search

- Quick Search
- Single VO Service
- **Multiple VO Services**
- JVO Sky
- Xmatch Search
- JVOQL Search

Coordinates or Object Name

0 0

Search Clear

Target Service: all selected (0) Edit

Galactic Radius: 60 arcsec

Samples: 34.5 -5.0

銀河中心のデータを全サービスから取得 (2/2)

- 約10分で検索終了
- ~12000 件のサービスに問い合わせ、~154 件のサービスから結果が得られました。
- Result リンクをクリックして結果を表示。
- 右ボタンクリックで、「リンクを新しいタブで開く」を選択すると、ステータス画面が消えないので便利

completed !

Status	Elapsed Time	Progress
success	649.23 sec sec	searching=0 finished=12598 waiting=0 found=154 nodata=12406 failed=38

Service Name	Data Type	Table Name	# of result	result
XMM-NewtonMasterLog&PublicArchive	catalog		10	Result
Chandra Observations	catalog		7	Result
Swift Master Catalog	catalog		8	Result
Fermi GBM Trigger Catalog	catalog		1	Result
ISO (Infrared Space Observatory) Observation Log	catalog		1	Result
XTE Target Index Catalog	catalog		267	Result
IUE (International Ultraviolet Explorer) Final Merged Observation Log	catalog		4987	Result
Suzaku Master Catalog	catalog		1	Result
Master Radio Catalog	catalog		1	Result
Faint Images of the Radio Sky at Twenty cm (FIRST)	catalog		1	Result
Swift XRT Instrument Log	catalog		21	Result
HST Planned and Archived Observations	catalog		541	Result
HST Archived Exposures Catalog	catalog		213	Result
CGRO/BATSE Trigger Data	catalog		11	Result
XTE Archived Public Slew Data	catalog		4	Result
Copernicus Satellite	catalog		9	Result
XTE Master Catalog	catalog		506	Result
Swift BAT Instrument Log	catalog		10000	Result
BeppoSAX NFI Archive and Observation Log	catalog		117	Result
INTEGRAL Science Window Data	catalog		2	Result
Visual Double Stars in Hipparcos (Dommanget+, 2000)	catalog		3	Result
The GSC 2.2 Catalogue (STScI, 2001)	catalog		1	Result
The APM-North Catalogue (McMahon+, 2000)	catalog		4	Result
The Ultraviolet Imaging Telescope (UIT) (1990, 1995)	catalog		1	Result
Isaac Newton Telescope Wide Field Survey (CASU 2002)	catalog		8	Result
Final Merged Log of IUE Observations (NASA-ESA, 2000)	catalog		28	Result

検索結果をプロットしてみる

星の HR 図を作成する (1/4)

- Hipparcos カタログを使って星の HR 図を作成してみます。
- Category (Manual) ページを開き、カテゴリ “observatory” 中の Hipparcos をクリックします。
- “The Hipparcos Main Catalogue” “General” の Search Page ボタンをクリックします。

observatory
2MASS (88); AAT (1); Akari (20); ALMA (6); ANS (15); Arecibo (27); Ariel 5 (1); ASCA (22); ATNF (6); BATSE (12); BeppoSAX (25); CAHA (2); CFHT (14); CGRO (37); Chandra (365); COBE (6); COMPTEL (1); CoRoT (39); CTIO (3); Einstein (79); ESO (2); EUVE (19); EXOSAT (29); Fermi (32); FUSE (15); GALEX (43); Gemini (6); Ginga (5); GRANAT (5); HEAO-1 (2); Herschel (13); H.E.S.S. (8); Hinode (7); **Hipparcos (51)**; HST (245); HUT (3); INTEGRAL (59); IRAS (160); IRSF (3); IRTF (2); IRTS (1); ISO (47); IUE (28); JCMT (5); Keck (23); Kepler (45); Kiso/0.3m (0); Kiso/Schmidt (0); Kitt Peak (7); La Silla (1); LaSilla/1.5m (0); LaSilla/2.2m (0); LaSilla/3.6m (0); LBT (2); LT (3); Magellan (1); MAGIC (4); MMT (1); MSX (20); Nobeyama (0); NTT (7); OAO-2 (2); OAO-3 (4); Planck (31); ROSAT (268); RXTE (13); SDSS (404); Siding Springs (1); SkyMapper (1); SMM (1); SOHO (7); Spitzer (127); STEREO (3); Subaru (44); Suzaku (5); Swift (51); TD-1 (0); TNG (7); Uhuru (4); UIT (10); WISE (24); XMM-Newton (10); XRT (1); XUS (1); Yebes (1); ZTF (1)

11	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Bp-Ap stars HR-diagram from Hipparcos data (Gomez+ 1998)		active	URL	URL	
12	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	A Hipparcos study of the Hyades cluster (de Bruijne+, 2001)		active	URL	URL	
13	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Hipparcos binaries (Mason+, 1999)	Coord Search	active	URL	URL	
14	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Hipparcos Variability-Induced Movers (Pourbaix+, 2003)	Coord Search	active	URL	URL	
15	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Hipparcos variable stars (Adelman+, 2001)	Coord Search	active	URL	URL	
16	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Hipparcos Input Catalogue, Version 2 (Turon+ 1993)	Coord Search	active	URL	URL	
17	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Tycho Input Catalogue, Revised version (Egret+ 1992)	Coord Search	active	URL	URL	
18	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	The Hipparcos Main Catalogue	General	active	URL	URL	
19	<input type="button" value="Search"/> <input type="button" value="Bookmark"/> <input type="button" value="Schema"/>	-	More Info	Hipparcos catalogue		inactive	URL		

星の HR 図を作成する (2/4)

- テーブル “hip_main” を選択します。
- 検索条件 “PLX > 50” を指定します。
 - PLX は星の年周視差です。
 - 近傍の星を選択する条件です。
- 検索実行します。

The screenshot shows the 'Criteria' tab selected in the search interface. The 'Execute Query' button is circled in red. Below the 'Limit and Offset' section, the 'Parameter List' table is visible. The 'Other Criteria' section shows a search condition: 'PLX' (circled in red) with the operator '>' (circled in red) and the value '50' (circled in red). The 'Add Condition' button is also visible.

Parameter	I/O	Data type	Arraysize	Unit	UCD	Description
HIP	IO	int	1			
PROXY	IO	char	*			
RAHMS	IO	char	*			
DEDMS	IO	char	*			
VMAG	IO	float	1			
VARFLAG	IO	int	1			
R_VMAG	IO	char	*			
RA	IO	double	1			
DEC	IO	double	1			
ASTROREF	IO	char	*			

The screenshot shows the 'Table' tab selected in the search interface. The 'Execute Query' button is circled in red. Below the 'Table is not selected.' message, the 'Select' button is circled in red. The table below shows the 'hip_main' table selected (radio button circled in red).

select	table name	description
<input checked="" type="radio"/>	hip_main	The Hipparcos Main Catalogue
<input type="radio"/>	tyc_main	The main part of Tycho Catalogue

星の HR 図を作成する (3/4)

- 結果を表示し、Graphic タブの “JVO Plot” ボタンをクリックします。
- JVO Plot ページの XY expr. タブで X軸に “C35”, Y軸に “C4-5*log(1000/C10)+5” と指定します。
- それぞれ、カラー (B-V) と 絶対等級 (年周視差と見かけの V バンド等級から計算) です。

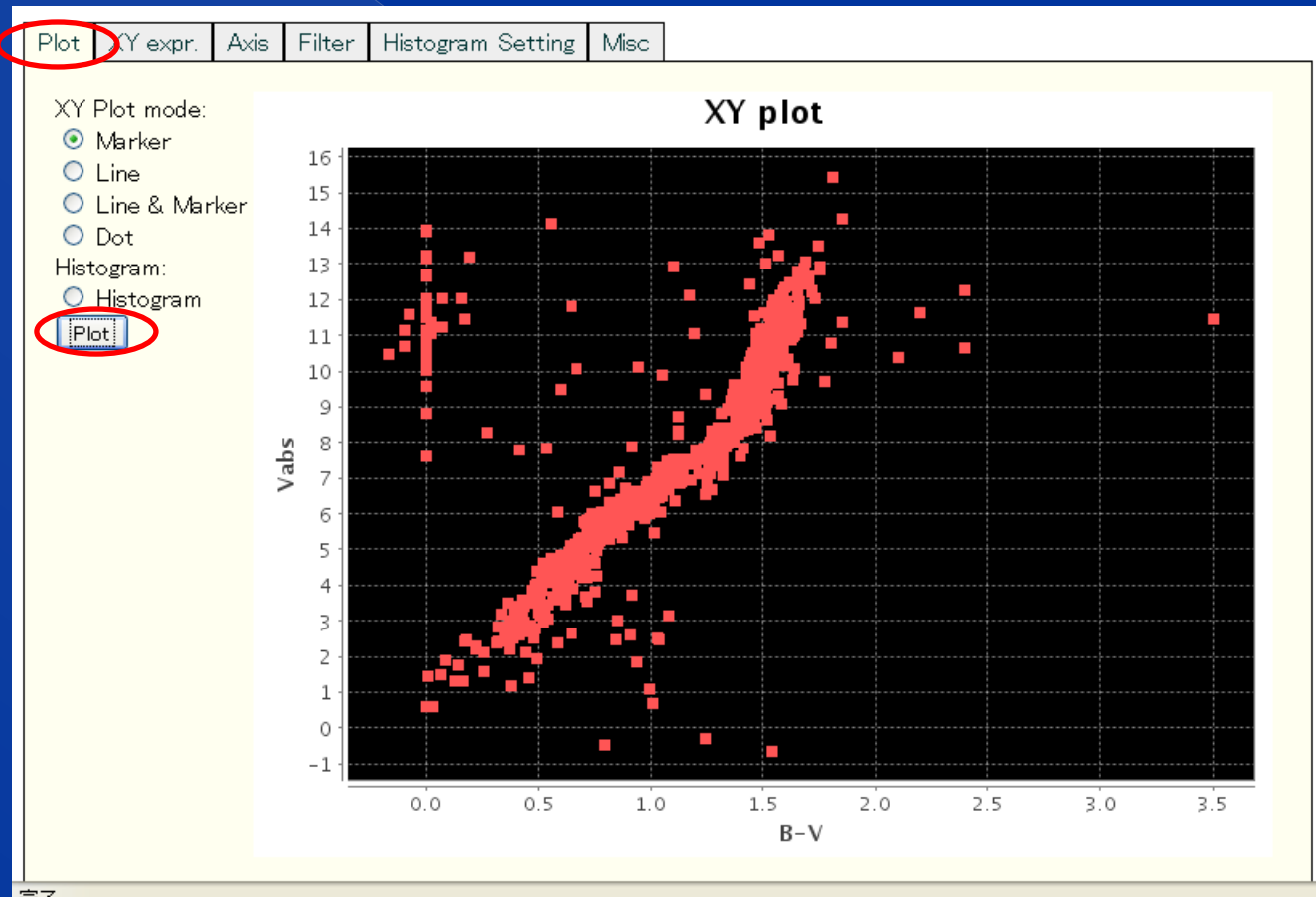
The screenshot shows the JVO Plot interface. The "XY expr." tab is active, with "C36" selected for the X-axis and the expression "C5-5*log(1000./c11)+5" for the Y-axis. The X-axis label is "B-V" and the Y-axis label is "Vabs=Vmag". A data table is visible on the left, and a parameter list is on the right.

Alias Name	record	C0	C1	C2	C3
check download	record sort	T.ASTROREF sort	T.B_V sort	T.BD sort	T.BT sort
<input type="checkbox"/>	0	A	1.39		10.8
<input type="checkbox"/>	1		0.69	B+26 4734	0
<input type="checkbox"/>	2		1.472	B+44 4548	11.7
<input type="checkbox"/>	3		1.076		9.86
<input type="checkbox"/>	4		1.462		10.3
<input type="checkbox"/>	5	A	1.41	B+45 4408	9.95
<input type="checkbox"/>	6		1.55		0
<input type="checkbox"/>	7		0.752	B+28 4704	7.00
<input type="checkbox"/>	8		0.38	B+58 3	2.72

C0	ID	integer		
C1	HIP	integer		HIP Identifier
C2	PROXY	varchar		Proximity flag
C3	RAHMS	varchar		Right ascension in h m s, ICRS (J1991.25)
C4	DEDMS	varchar		Declination in deg ' ", ICRS (J1991.25)
C5	VMAG	real	mag	Magnitude in Johnson V
C6	VARFLAG	integer		Coarse variability flag
C7	R_VMAG	varchar		Source of magnitude
C8	RA	double	deg	alpha, degrees (ICRS, Epoch=J1991.25)
C9	DEC	double	deg	delta, degrees (ICRS, Epoch=J1991.25)

星の HR 図を作成する (4/4)

- Plot タブを開き “Plot” ボタンをクリックすると、図のようなグラフが表示されます。



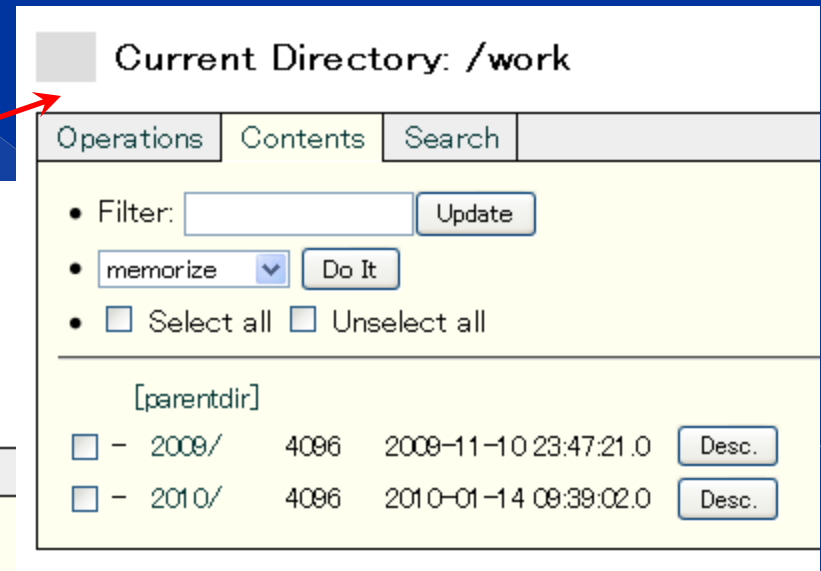
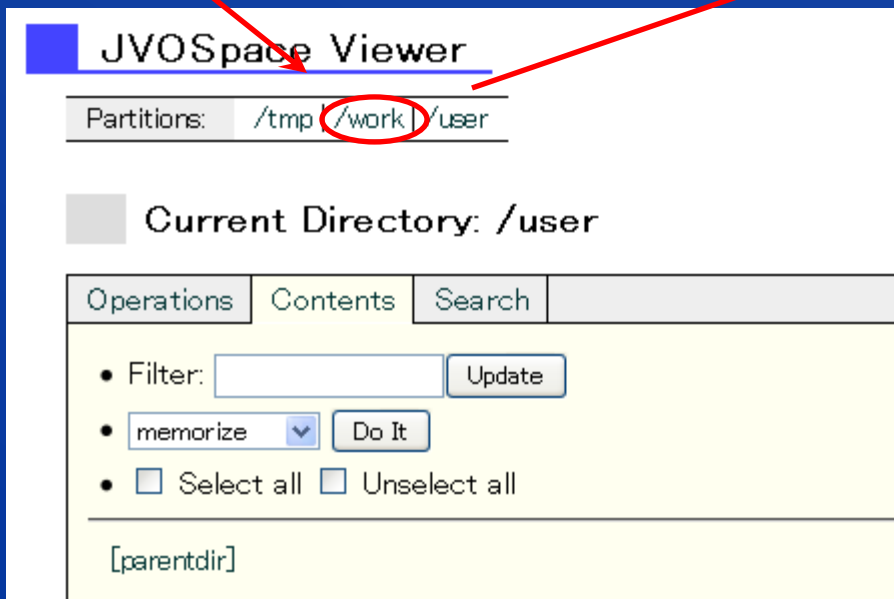
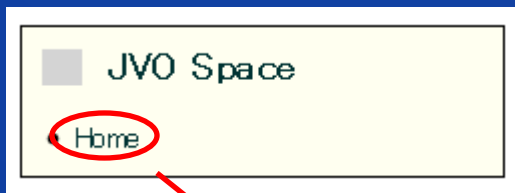
ユーザ用ファイル保存領域

JVOSpace

の使い方

検索結果を後で再び参照する (1/2)

- 検索結果はログアウト後も見ることができます。
- JVO Space の Work パーティションに、日付別のディレクトリに保存されています。
- ゲストアカунツの場合は保存されません。



検索結果を後で再び参照する (2/2)

- 検索実行した日付のディレクトリへ移動します。
 - 例えば、2010 → 01 → 23。
- single-search_2010012313410135
 - 2010年1月23日13:41に実行した Single Service 検索の結果
- result_*.xml が検索結果です。

Current Directory: /work/2010/01/23/single-search_20100123134101355

Operations Contents Search

Filter: Update

memorize

Select all Unselect all

[parentdir]

<input type="checkbox"/>	- concurrent_votable0	14908	2010-01-23 13:41:03.0	Desc.
<input type="checkbox"/>	- concurrent_votable1	27880	2010-01-23 13:41:05.0	Desc.
<input type="checkbox"/>	- concurrent_votable2	17420	2010-01-23 13:41:06.0	Desc.
<input type="checkbox"/>	result_votable0.xml	55810	2010-01-23 13:41:06.0	Desc.
<input type="checkbox"/>	- single-search_20100123134101355.groovy	14523	2010-01-23 13:41:01.0	Desc.
<input type="checkbox"/>	- single-search_20100123134101355.log	75	2010-01-23 13:41:07.0	Desc.
<input type="checkbox"/>	- single-search_20100123134101355.xml	3899	2010-01-23 13:41:06.0	Desc.

JVO JAPANESE VIRTUAL OBSERVATORY p01 ver.100122 News | FAQ(J) | Help(J) | Bugs(J) Yuji Shirasaki

Top | Search | VO Services | Subaru | Analysis | Workflow | JVO Space[Logout]

⇒ Location: Top Page > VOTable Viewer

Save/Download Filter Metadata Graphic Add Column Appearance

Total 28 records page: 1

Alias Name	_record	C0	C1	C2	C3	C4	C5	
check	download	_record sort	AREA_NUM sort	CONDITION sort	RA_CENTER sort	DEC_CENTER sort	SEARCH_REGION sort	
<input type="checkbox"/>	Download	0	1	Region('CIRCLE 83.633212 22.01446 10.0)	83.633212	22.01446	10	Peering into the Heart of the Crab Nebula 83
<input type="checkbox"/>	Download	1	1	Region('CIRCLE 83.633212 22.01446 10.0)	83.633212	22.01446	10	DSS-I 97

すばる望遠鏡データの検索

すばる望遠鏡のデータを取得 (Suprime-Cam)

- Suprime-Cam, MOIRCS, HDS については専用のページが用意されています。
 - 観測ターゲット名 (OBJECT 名)で選択する方法、
 - 天球マップから選ぶ方法などがあります。

Subaru

- Suprime-Cam
- HDS
- MOIRCS

Suprime-Cam Help(J)

Object Name Date Coords Photo Cal. Reduction Job Status Command Queue

Alphabetic: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0

20 Update

Total Object Number 80 Back Next

#	ObjectName	W-J-B	W-J-V	W-C-RC	W-C-IC	W-S-I+	W-S-Z+	W-J-U	W
1	CFH D2	0	0	0	0	0	0	0	0
2	CFH D3	0	0	0	0	0	0	0	0
3	CFHQ5	0	0	0	0	10	22	0	0
4	CFHQ5J1641	0	0	0	0	0	2	0	0
5	CL0016-E	5	8 (14)	6	0	3 (16)	5	0	0
6	CL0016-NE	5	6 (11)	3	0	6 (13)	5	0	0
7	CL0016-NW	0	3 (12)	0	0	3 (14)	0	0	0
8	CL0016-SE	0	3 (11)	0	0	3 (11)	0	0	0
9	CL0016-SW	0	3 (10)	0	0	3 (11)	0	0	0
10	CL0016-W	0	6 (13)	0	0	6 (15)	0	0	0
11	CL0024	3 (9)	0	11 (10)	0	0	8 (9)	0	0
12	CL1315+51	8 (9)	0	5 (6)	0	0	0	0	0
13	CL1320+70	0	0	6 (8)	0	0	0	0	0
14	CL1324	0	0	12 (4)	0	0	25 (4)	0	0
15	CL1520-R	0	0	5 (6)	0	0	0	0	0
16	CL1604	0	36 (13)	0	2 (9)	0	15 (12)	0	0
17	CL1604_0	1 (11)	0	11 (11)	2 (9)	0	26 (11)	0	0
18	CL1604_1	1 (11)	0	4 (12)	4 (10)	0	3 (12)	0	0
19	CL1604_2	1 (8)	0	4 (8)	4 (6)	0	0	0	0
20	CL1604_3	1 (9)	0	3 (9)	5 (7)	0	0	0	0

- リンク文字となっている数値は観測数です。
- 括弧内の数値はモザイクデータ数です。

CL1604 W-J-V Help(J)

Mosaic Raw Data Exposure Flat

Object Info ページ

Mosaiced Datasets

Reduction ID	Title	Objects	Coadd Type	Coadded Frames	Calc Date	Version
120218_194235_grid94_1	J160444.9+431423.5 (W-J-V)	CL1604_gto_1_gto_2_gto_3_gto_4_gto_5_gto_7	ALL	306	2012-02-18	0.36
120218_194238_grid90_2	J160434.0+425625.2 (W-J-V)	CL1604_gto_1_gto_5_gto_6_gto_7_gto_8	ALL	275	2012-02-18	0.36
120218_194244_grid02_3	J160332.6+432653.1 (W-J-V)	CL1604_gto_3_gto_4_gto_5	ALL	217	2012-02-18	0.36
120218_224849_grid02_5	J160607.9+431949.0 (W-J-V)	CL1604_gto_1_gto_2_gto_3	ALL	194	2012-02-18	0.36
120219_054444_grid93_12	J160719.3+430713.4 (W-J-V)	CL1604_gto_1_gto_2_gto_7_gto_8	ALL	124	2012-02-19	0.36
120219_060425_grid93_8	J160209.9+432120.7 (W-J-V)	CL1604_gto_3_gto_4_gto_5	ALL	33	2012-02-19	0.36
120219_061729_grid94_14	J160311.7+425055.5 (W-J-V)	CL1604_gto_5_gto_6_gto_7	ALL	65	2012-02-19	0.36
120219_062720_grid00_19	J160545.3+424353.2 (W-J-V)	CL1604_gto_1_gto_7_gto_8	ALL	110	2012-02-19	0.36
120219_075203_grid93_11	J160619.3+433746.9 (W-J-V)	CL1604_gto_1_gto_2_gto_3	ALL	99	2012-02-19	0.36
120219_085501_grid03_21	J160159.7+430321.5 (W-J-V)	CL1604_gto_5_gto_6_gto_7	ALL	33	2012-02-19	0.36
120219_121848_grid02_52	J160707.7+424916.0 (W-J-V)	CL1604_gto_1_gto_7_gto_8	ALL	76	2012-02-19	0.36
120219_212620_grid00_13	J160343.4+434451.8 (W-J-V)	CL1604_gto_3_gto_4	ALL	31	2012-02-19	0.36

OK

すばる望遠鏡のデータを取得 (Suprime-Cam)

- Object Info ページで Reduction ID リンクをクリックするとモザイク画像データのページへ遷移します。
- モザイク画像は半径 0.2~0.3 度程度の範囲のデータから作成しています。
- Download タブ中の“Download” ボタンをクリックしてデータをダウンロードできます。

J160444.9+431423.5 (W-J-V) [Help\(J\)](#)

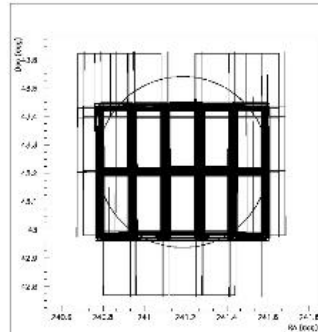
Summary **Download** Exposures

■ Process ID	120218_194235_grid94_1	■ Title	J160444.9+431423.5 (W-J-V)	
■ OBJECTS	CL1604,gto_1,gto_2,gto_3,gto_4,gto_5,gto_7	■ Filter	W-J-V	
■ Command	sup-combine.sh --ra 241.187229 --dec 43.239878 --size 0.301841 -f W-J-V --use-reduced			
■ Start of Process	2012-02-18T19:42:35	■ End of Process	2012-02-19T00:22:46	
■ Total frames	387	■ Combined frames	306	
■ Status	1 mosaic image(s) is (are) created		■ Version	0.36

More

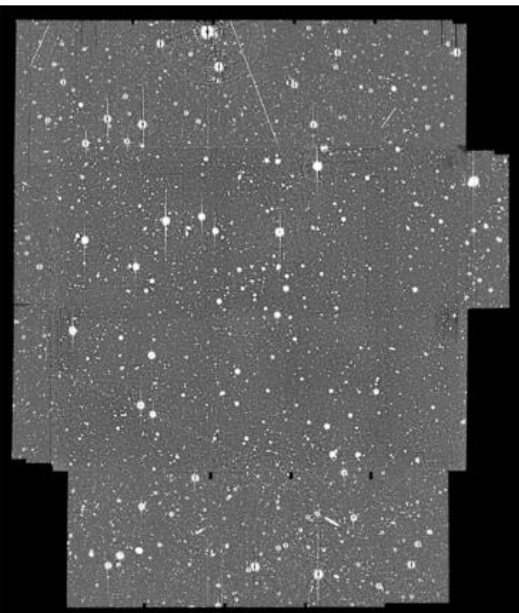
Summary **Download** Exposures

■ **Map of the combined frames**



The circle is a search region to retrieve ccd frames to combine.

■ **Quick look combined image**



Mosaic frame: SUPM09A7B02B0720100

[Download](#) 852.25 MB

すばる望遠鏡のデータを取得 (HDS)

- リンク文字の数値は観測回数を表し、観測情報ページへ遷移します。
- リンク文字 "P" は処理済みデータがある場合に表示されます。
- クリックすると右側に処理済みデータ一覧が表示されます。
- ProcID をクリックすると処理済みデータ詳細情報ページへ

遷移します。

The screenshot displays the HDS web interface. At the top, there are filters for Object Name, Date, Coord., Reduction, and Job Status. Below this is an alphabetical search bar and a dropdown menu set to '20' with an 'Update' button. A section labeled 'B' shows 'Total Number 128' with 'Back' and 'Next' buttons. The main table lists objects with columns for '#', 'ObjectName', 'count of exposures and link to the processed dataset', and 'P' (processed status). A red circle highlights the 'P' in the row for 'BD+04 2621'. A red arrow points from this 'P' to a detailed view of the object. The detailed view shows a table of 'Reduced 1D Spectra for BD+04 2621' with columns for Proc ID, Version, Date of Obs., and Count. A red circle highlights the Proc ID '111130_MI_00051511'. Another red arrow points from this Proc ID to a 'Download' button. Below the table is a 'Summary' section with various parameters like Process ID, Frame ID, Exposure, Object, Coordinate, SN at t, OBS data/time, Local sidereal time, Filter, Collimator / Cross Disperser, Slit Width / Length, Binning, Minimum wavelength, Maximum wavelength, Processed Date, Version, and Creator. At the bottom, there are download options for PDF, FITS (2D), TAR (FITS 1D), and TAR (TEXT 1D) in two columns. A red circle highlights the 'TAR (FITS 1D) 855360 Byte' option in the left column.

#	ObjectName	count of exposures and link to the processed dataset	P
1	B1152+199	8	P
2	BA289	11	
3	BA379	7	
4	BD+03 0740	6	P
5	BD+2 4651	3	P
6	BD+42 3607	3	P
7	BD-13 3442	6	P
8	BD+01 3070	1	P
9	BD+02 3375	4	
10	BD+03 2782	1	
11	BD+03 740	11	P
12	BD+04 2466	1	P
13	BD+04 2621	3	P
14	BD+04.2466	1	
15	BD+06 648	2	P
16	BD+06.648	1	P
17	BD+09 2870	2	P
18	BD+09 3223	2	P
19	BD+09.3223	1	P
20	BD+1 2916	2	P

Proc ID	Version	Date of Obs.	Count
111130_MI_00051511	0.1	2008-07-27 06:05:55.77	3
111130_ML_0051512	0.1	2008-07-27 06:05:55.77	3

Download

処理済みデータ詳細ページ

Process ID: 111130_MI_00051511 | Frame ID: HDSA00051511 | Exposure: 900C
OBJECT: BD+04 2621 | Coordinate: 12h28m45.2 +04d01m30.9 (187.1887 4.0253) | SN at t: 3119
OBS data/time (start): 2008-07-27 06:05:55.77 | Local sidereal time (start): 16:05:11.212
Filter in turret 1 / 2: FREE / FREE | Collimator / Cross Disperser: RED / RED
Slit Width / Length (mm): 0.35 / 2.0 | Binning (XxY): 2x2
Minimum wavelength (nm): 547.9 | Maximum wavelength (nm): 665.63
Processed Date: 2011/11/30 | Version: 0.1
Creator: Ishigaki, M | # of apertures: 22

PDF | FITS (FITS 2D) 201600 Byte | TAR (FITS 1D) 855360 Byte | TAR (TEXT 1D) 1740800 Byte

すばる望遠鏡データ 座標検索

- JVOSky で座標または天体名でデータを探すことができます。
- 通常の VO サービスと同じように検索することもできます。
- 情報ウィンドウからデータのダウンロードページへリンクされています。

The screenshot shows the JVOSky web interface. At the top, the search bar contains 'Coordinate or ObjectName: M33' and a 'Go' button. Below the search bar, there are buttons for 'Search', 'Clear', and 'OK'. The zoom level is set to 8, and the coordinates are displayed as (ra, dec)=(22.374, 30.136)=(1h29m29.68s, 30d08m9.96s). A text box explains that triangular regions represent data regions and numbers in triangles indicate the number of data points. The main display is a star field with red triangular regions overlaid. A pop-up window shows details for a selected region: category: Suprime-Cam, id: 2445300002775, title: J012938.5+301934.6 (W-J-B), target: M33_B6/M33_B8, type: image, center: 22.704661204004644 30.371942160886174, band center: 674533030500000, band name: em.opt.B, band unit: Hz, Access URL: [Download], HTML page: [More Info]. A 'Quick look combined image' button is visible. The left sidebar shows a list of instruments, with 'Suprime-Cam' selected. The bottom right shows a 'Mosaic frame: SUPR09AAC1C20341800' with a 'Download' button and file size '1342.99 KB'.

Suprime-Cam Help(J)

Object Name Date **Coords**

- Search by Coordinate
- **JVOSky**
- Metadata List

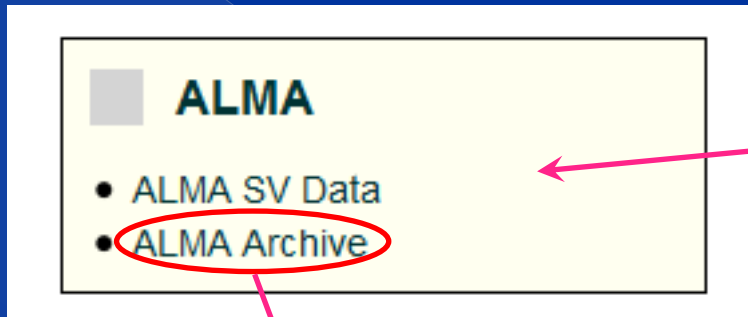
Data Search

- Quick Search
- Single VO Service
- Multiple VO Services
- **JVO Sky**
- Xmatch Search
- JVOQL Search

前半ここまで

アルマ望遠鏡データの検索

アルマ望遠鏡データの取得 (1/3)



トップ画面の ALMA セクションから検索ページへ行きます。

Science Verification (SV) データと共同利用観測データ (Archive) は別々の検索ページとなっています。

ALMA Archive

Using the data for publication

The following statement should be included in the acknowledgment of papers using the ALMA datasets obtained from the JVO portal:
"This paper makes use of the following ALMA data: ADS/JAO.ALMA#<Project code>. ALMA is a partnership of ESO (representing its member states), NSF (USA) and NINS (Japan), together with NRC (Canada) and NSC and ASIAA (Taiwan), in cooperation with the Republic of Chile. The Joint ALMA Observatory is operated by ESO, AUI/NRAO and NAOJ."

You can find the project code (e.g. 2011.0.01234.S) on the dataset info page where you download the data.

Please also include the following sentence on the title page as a footnote to the title or in the acknowledgment of the paper.
"[Part of] the data are retrieved from the JVO portal (<http://jvo.nao.ac.jp/portal>) operated by the NAOJ"

Target Name Project Code Coords Desktop Viewer

Sort by: target coordinates

#	Target Name	Coords	# of Data
1	2MASS_0444+2512	04h44m27.149158 +25d12m16.13999	3
2	30 Doradus	05h38m47.434695 -69d04m42.31289	16
3	ADFS01	04h42m55.832390 -53d45m06.20523	24
4	AGN1	22h17m36.518666 +00d16m22.77001	1
5	AGN2	22h17m39.048667 +00d13m29.97001	1
6	AGN3	22h17m09.648667 +00d18m00.56999	1
7	AGN4	22h17m20.248668 +00d20m18.97001	1
8	AGN5	22h17m35.868667 +00d15m58.97002	1
9	AGN6	22h17m59.198666 +00d15m29.27002	1
10	AGN7	22h17m16.168666 +00d17m45.66998	1
11	AGN8	22h17m32.008666 +00d16m55.47000	1
12	ARP220	15h34m57.105089 +23d30m10.93000	8
13	ALM...	20h45m09.772709 -21d20m21.83900	2

ALMA Archive のメインページでは、天体名またはProject Code 毎にデータが分類されている他、座標（天体名）による検索も行えます。

アルマ望遠鏡データの取得 (2/3)

#	Target Name	Coords	# of Data
1	2MASS_0444+2512	04h44m27.149158 +25d12m16.13999	3
2	30 Doradus	05h38m47.434695 -69d04m42.31289	16
3	ADFS01	04h42m55.832390 -53d45m06.20523	24

ALMA Archive : Target Info

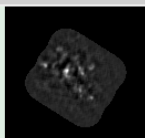
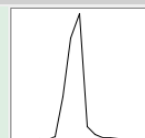
Target Name: 30 Doradus

#	dataset id	ra/dec (J2000)	size (arcmin2)	band	freq. range (GHz)	data type	3rd axis	Cube size (XxYxF) ?	image resol (arcsec)	freq. resol (MHz)	obs date	original fits name
1	ALMA01000331	05h38m47.8-69d04m48	2.13x2.13	Band6	220.185 -- 220.222	intensity cube	frequency	256x256x17x1	0.50	2.197	2011-12-31	X228_3.fits
2	ALMA01000332	05h38m47.8-69d04m48	2.13x2.13	Band6	230.313 -- 230.350	intensity cube	frequency					
3	ALMA01000333	05h38m47.8-69d04m48	2.13x2.13	Band6	220.185 -- 220.222	intensity cube	frequency					
4	ALMA01000334	05h38m47.8-69d04m48	2.13x2.13	Band6	220.185 -- 220.222	intensity cube	frequency					
5	ALMA01000335	05h38m47.0-69d04m36	2.40x2.40	Band3	85.947 -- 99.391	intensity map	frequency					
6	ALMA01000336	05h38m47.0-69d04m36	2.40x2.40	Band3	97.886 -- 97.915	intensity cube	frequency					

ALMA Archive : Dataset Info

Summary Binning Data Desktop Viewer Using the data

Target	30 Doradus	Dataset ID	ALMA01000331
Coord. (RA/DEC J2000)	05h38m47.8-69d04m48	Date of Observations	2011-12-31
Image Size (arcmin2)	2.13x2.13	Image Resol. (arcsec)	0.50
Band Name	Band6	Data Type	intensity cube
Freq. Range. (GHz)	220.185 -- 220.222	Spectrum Resol. (MHz)	2.197
Cube Pix ?	256x256x17x1	Original Filename	X228_3.fits
3rd(4th) Axis	frequency	Project Code	2011.0.00471.5

data id	image	spect	file size (byte)	Download	Web QL	Readme
ALMA01000331			4,515,840	Download	Web QL	Readme

ALMA Science ポータルから取得できるデータの内、FITS と README のみを配信している。

アルマ望遠鏡データの取得 (3/3)

#	Project Code	# of Data	Title
1	2011.0.00010.S	16	The Physics and Chemistry of Gas in Centaurus A and its Host v0.6
2	2011.0.00017.S	12	Expanding the frontiers of chemical complexity with ALMA
3	2011.0.00020.S	24	Molecular line flux ratios and AGN feedback in gas/dust-rich galaxies
4	2011.0.00028.S	2	The Effect of Extreme Environment on Protoplanetary Disks in Orion
5	2011.0.00034.S	2	CO in the Ultraluminous Galaxv IRAS F00183-7111
6	2011.0.00039.S	3	The ALMA view of the c
7	2011.0.00046.S	1	The first insight into the 980425 v1.3
8	2011.0.00059.S	6	GG Tau: the Ringworld i
9	2011.0.00061.S	10	Imaging study of molecu galactic nucleus and sta CH3CN
10	2011.0.00064.S	6	Clustered Massive Galax
11	2011.0.00083.S	14	The footprints of SF and
12	2011.0.00087.S	2	Structure of the beta Pi
13	2011.0.00097.S	88	Evolution of the ISM Co
14	2011.0.00099.S	40	Reformation of Cold Mo
15	2011.0.00101.S	2	Shedding Light on Dista
16	2011.0.00108.S	24	X-ray irradiated dense n
17	2011.0.00115.S	2	Demonstrating Early AL
18	2011.0.00120.S	8	Discovered at the Redst
19	2011.0.00121.S	14	The earliest stages of s
			Search for Submillimeter H2O Maser Towards Active Galactic Nuclei

Target Name | Project Code | **Coords** | Desktop Viewer

1. Center Coords or Target Name: J2000 (FK5) ▾
Sample Format: ▾

2. Search Radius: ▾

#	Target Name	Coords	# of Data
1	M83	13h37m05.636238 -29d51m44.22696	4

Project コード や座標 (天体名)、観測周波数による検索も可能です。

ALMA WebQL (1/6)

- ALMA**
- ALMA SV Data
 - ALMA Archive

#	Target Name	Coord
1	Antennae	12h01m54.030704 -1
2	BR1202-0725	12h05m23.136019 -0
3	Centaurus A	13h25m27.050183 -4
4	Ephemeris	07h32m50.308321 +1
5	HD163296	17h56m21.284956 -2
6	HL Tau	04h31m38.434203 +1
7	HL_Tau	04h31m38.426601 +1
8	IRAS 16293-2422-a	16h32m23.004650 -2
9	IRAS16293-2422-a	16h32m22.744416 -2
10	M100	12h22m54.842258 +1
11	mira	02h19m20.801767 -02d58m43.01581
12	NGC3256	10h27m51.669397 -43d54m18.75001
13	NGC4038 - Antennae North	12h01m52.973858 -18d52m03.13500
14	Orion KL	
15	SDP.81	
16	SgrA	
17	TW Hya	
18	Vy CMA	

ALMA SV Data : Target Info

Target Name: NGC4038 - Antennae North

#	dataset id	ra/dec (J2000)	size (arcmin2)	band	freq. range (GHz)	data type	Cube size (XxYxF) ?	image resol (arcsec)	freq. resol (MHz)	obs date	original fits name
1	ALMA00000001	12h01m52.9-18d52m03	1.08x1.08	Band7	343.610 -- 344.418	intensity cube	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.fits
2	ALMA00000002	12h01m52.9-18d52m03	1.08x1.08	Band7	344.025 -- 344.037	velocity	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits
3	ALMA00000003	12h01m52.9-18d52m03	1.08x1.08	Band7	344.037 -- 344.025	velocity	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits
4	ALMA00000004	12h01m52.9-18d52m03	1.08x1.08	Band7	344.037 -- 342.993	intensity cube	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits
5	ALMA00000005	12h01m52.9-18d52m03	1.08x1.08	Band7	344.835 -- 229.085	intensity cube	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits
6	ALMA00000051	12h01m52.9-18d52m03	1.50x1.50	Band6	229.623 -- 229.377	intensity cube	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits
7	ALMA00000052	12h01m52.9-18d52m03	1.50x1.50	Band6	229.392 -- 229.377	intensity cube	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits
8	ALMA00000053	12h01m52.9-18d52m03	1.50x1.50	Band6	229.392 -- 228.364	intensity cube	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits
9	ALMA00000054	12h01m52.9-18d52m03	1.50x1.50	Band6	230.206 -- 230.206	intensity cube	500x500x70x1	0.13	11.534	2011-05-28	Antennae_North_CO3_2Line_Clean_pcal1.image.pca1.weighted_coord.fits

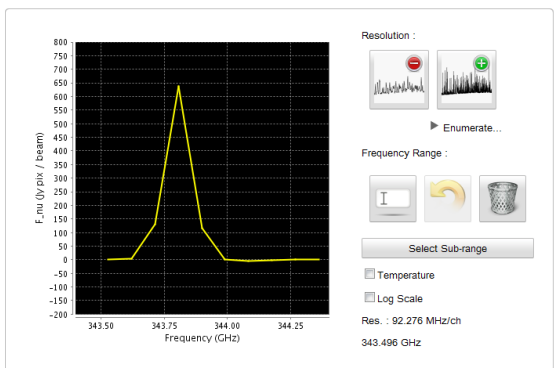
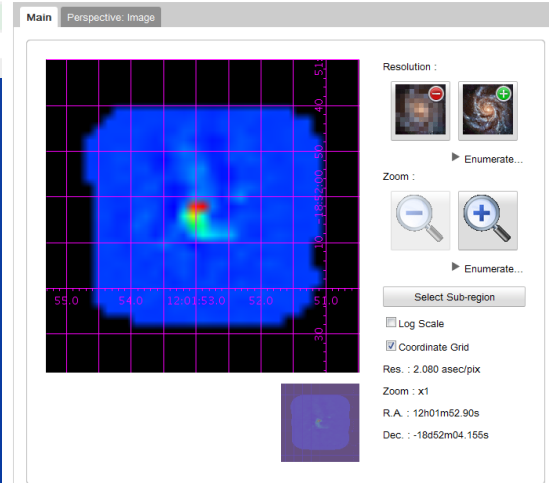
ALMA SV Data : Dataset Info

Summary | Binning Data | Desktop Viewer | Using the data

<p>Target NGC4038 - Antennae North</p> <p>Coord. (RA/DEC J2000) 12h01m52.9-18d52m03</p> <p>Image Size (arcmin2) 1.08x1.08</p> <p>Band Name Band7</p> <p>Freq. Range. (MHz) 343,610.200 -- 344,417.616</p> <p>Cube Pix ? 500x500x70x1</p>	<p>Dataset ID ALMA00000001</p> <p>Date of Observations 2011-05-28</p> <p>Image Resol. (arcsec) 0.13</p> <p>Data Type intensity cube</p> <p>Spectrum Resol. (MHz) 11.534</p> <p>Original Filename Antennae_North_CO3_2Line_Clean_pcal1.image.fits</p>
--	--

Data Information

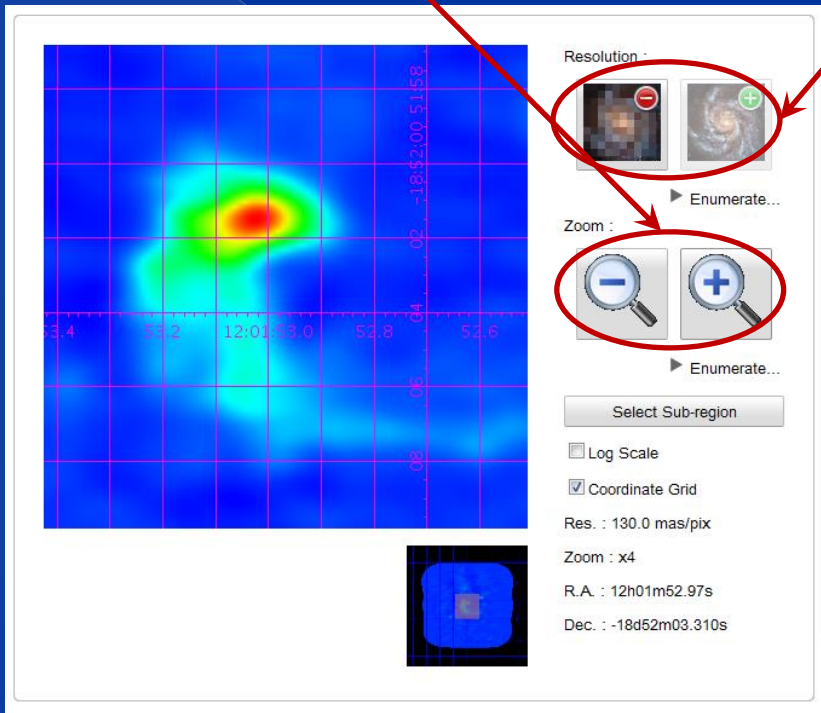
Data Set ID	Object Name	R.A.	Dec.	Observation Date (UTC)
ALMA00000001	NGC4038 - Antennae North	12h01m52.90s	-18d52m02.075s	2011-06-28T10:47:32.999Z



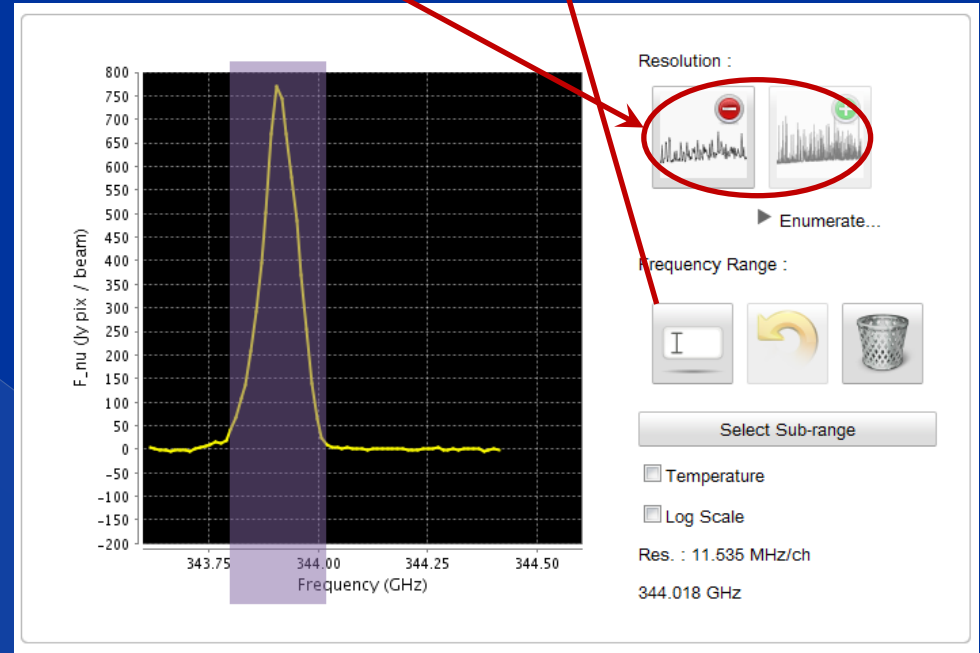
data id	image	spect	file size (byte)	Download	Web QL
			110,720	Download	Web QL

ALMA WebQL (2/6)

拡大・縮小



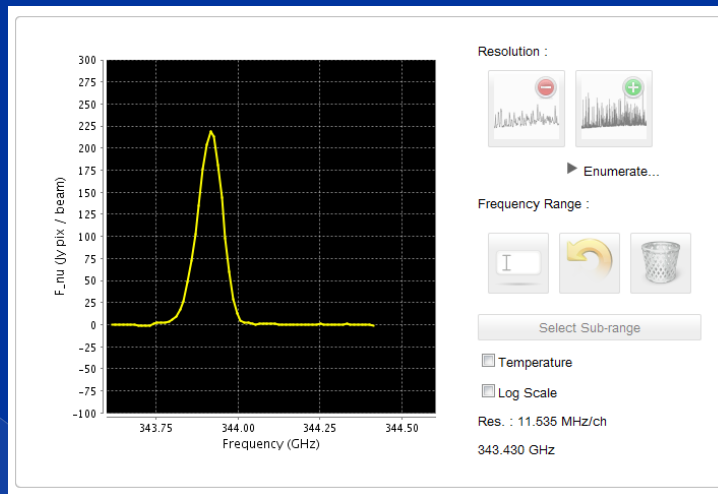
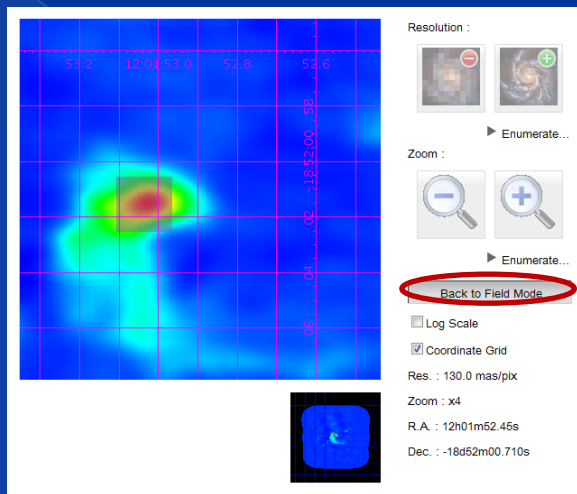
解像度の変更



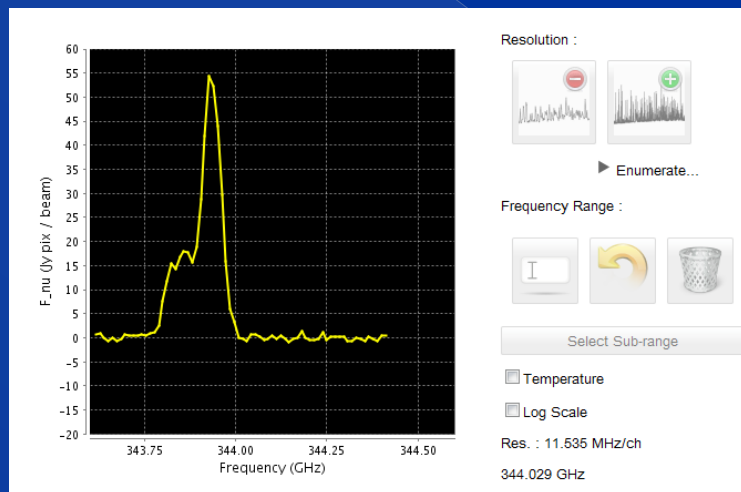
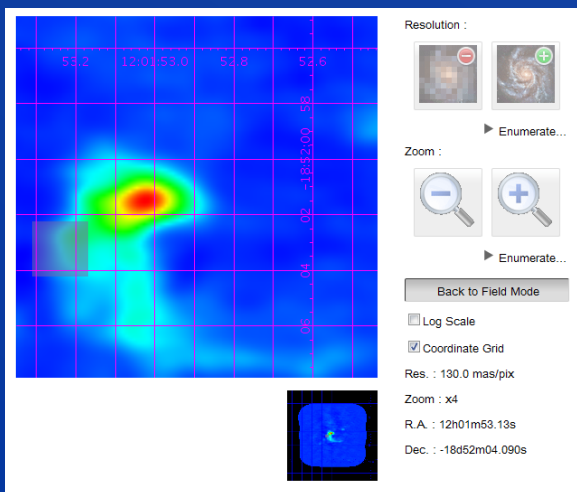
画像上でマウス左クリックした状態でマウスを動かすことにより中心位置を変更できる。

- 画像表示領域全体のスペクトル
- マウス操作で波長域を選択すると表示領域が変更される。
- 画像もその波長域での強度分布に更新される。

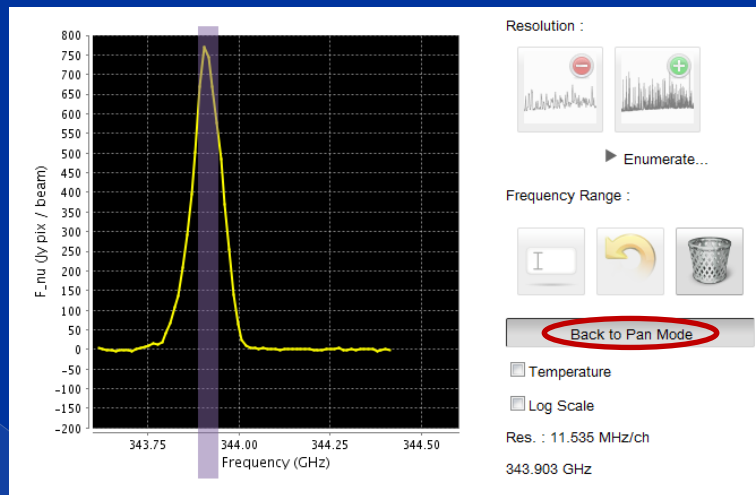
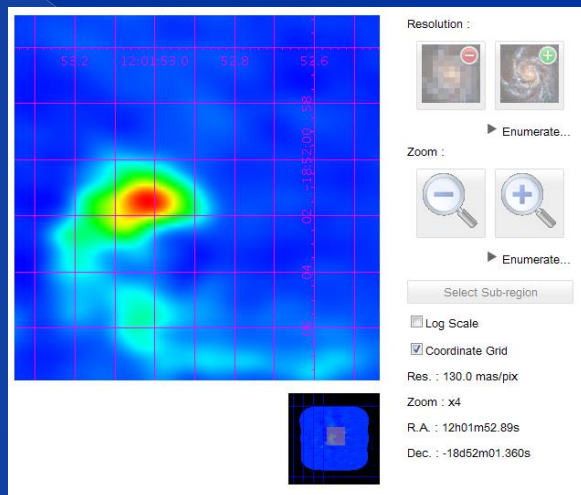
ALMA WebQL (3/6)



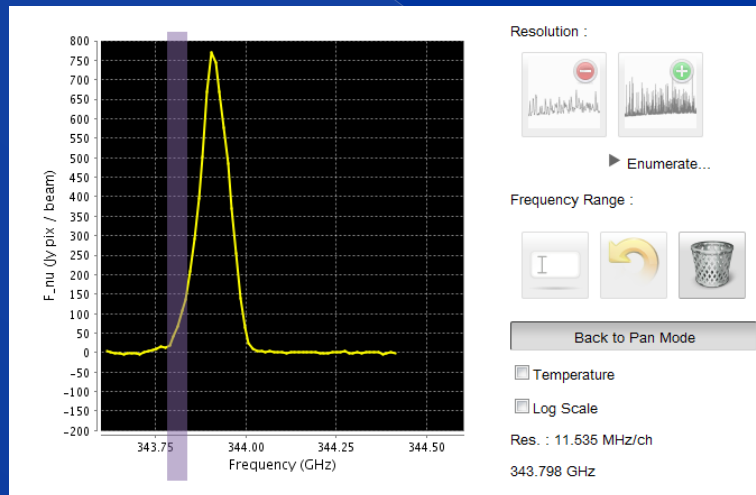
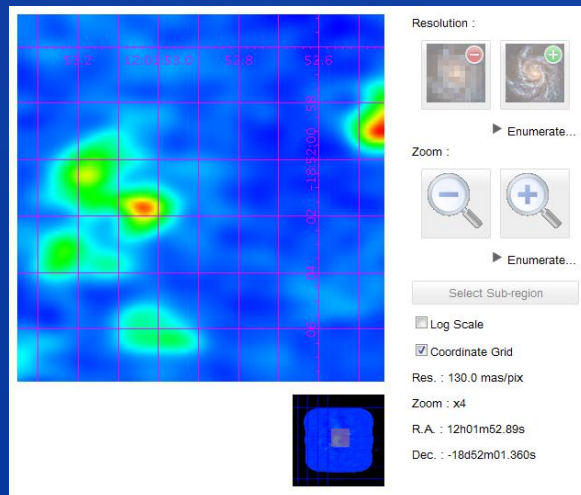
- 画像横の “Select Sub-region” ボタンをクリック
- 画像の任意に領域をマウスで選択
- その領域のスペクトルが表示される。



ALMA WebQL (4/6)



- スペクトル横の “Select Sub-range” ボタンをクリック
- スペクトルの任意に範囲をマウスで選択
- そのスペクトル範囲の強度分布（画像）が表示される。



ALMA WebQL (5/6)

The interface is divided into two main panels. The left panel displays a spectral image of a source, showing a bright central region with a surrounding structure. The image is overlaid with a coordinate grid. The right panel shows a spectrum plot with a prominent emission line. The plot axes are labeled 'F_nu (Jy/pix / beam)' and 'Frequency (GHz)'. Both panels include control buttons for resolution, zoom, and sub-region selection, as well as checkboxes for 'Log Scale' and 'Coordinate Grid'.

File Information

• Original File Size 66.86 MB
• Estimated Download File Size 2.67 MB

Force Reload Print **Download Viewing FITS** **Back to Information Page**

ALMA SV Data : Dataset Info

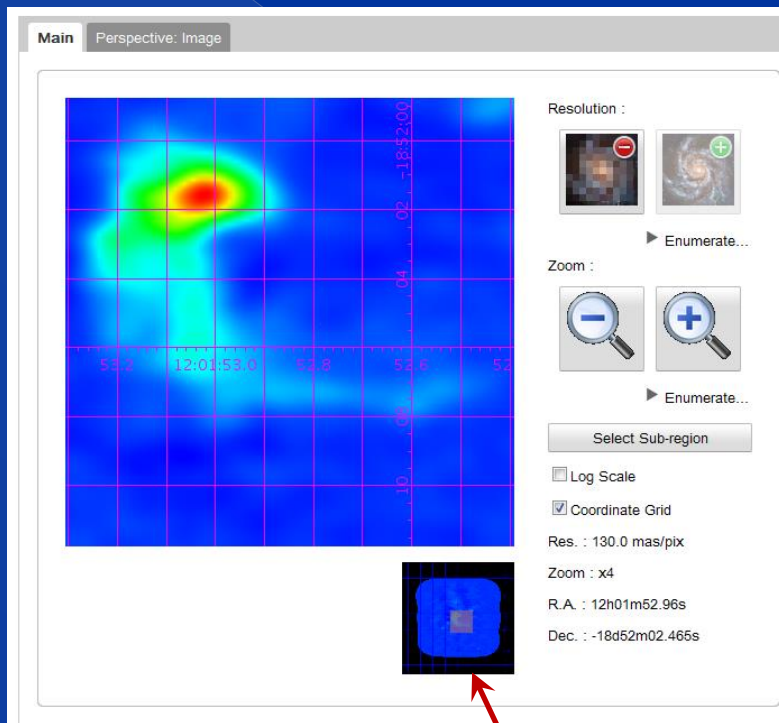
Summary Binning Data Desktop Viewer Using the data

■ Target NGC4038 - Antennae North
■ Dataset ID ALMA00000001
■ Coord. (RA/DEC J2000) 12h01m52.9-18d52m03
■ Date of Observations 2011-05-28
■ Image Size (arcmin2) 1.08x1.08
■ Image Resol. (arcsec) 0.13
■ Band Name Band7
■ Data Type Intensity cube
■ Freq. Range. (MHz) 343,610.200 -- 344,417.616
■ Spectrum Resol. (MHz) 11.534
■ Cube Pix ? 500x500x70x1
■ Original Filename Antennae_North_C03_2Line_Clean_pcal1_image.fits

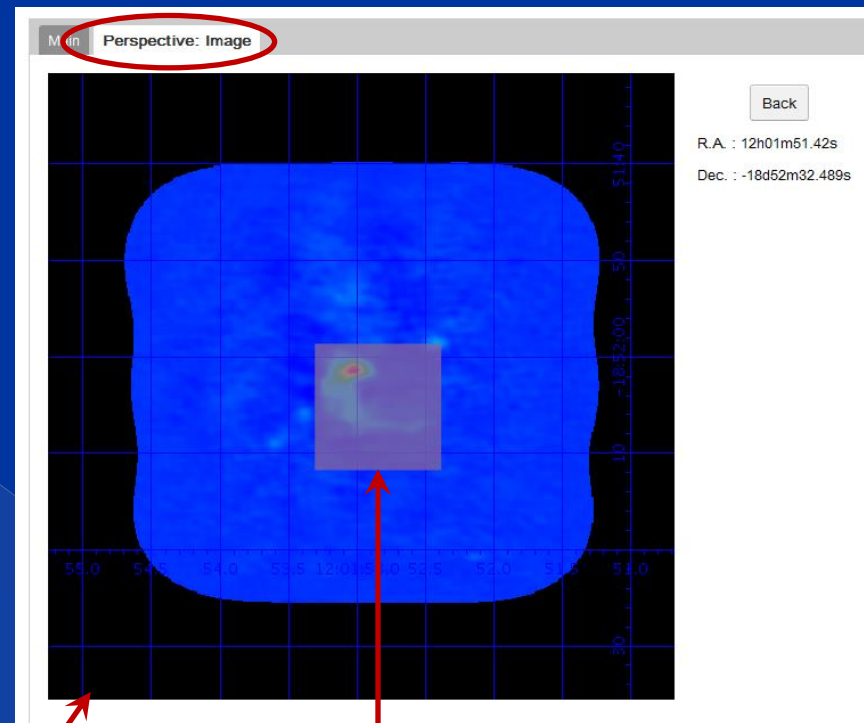
data id	image	spect	file size (byte)	Download	Web QL
ALMA00000001			70,110,720	Download	Web QL

表示している領域、周波数範囲のキューブデータを表示中の解像度でダウンロード。

ALMA WebQL (6/6)



全体画像のうち表示中の領域
をハイライト



ハイライトされた領域を移動させること
で、Main Windows
中の表示領域も移動

jc client

- JVO portal の機能をコマンドラインから利用できるようにするアプリケーション
- JVO command (jc) サービスのクライアントツール。
- JVO portal と通信して実行されるので、ネットワークに接続している必要があります。
- JVO portal のアカウントを発行する必要があります。
- 機能
 - データ検索機能、サービス検索機能、
 - JVOspace へのファイルアップロード・ダウンロード

jc client 使い方 (1/2)

```
[yshirasa@pooh ~]$ jc --help
usage: jc [GLOBAL_OPT] ... COMMAND [COMMAND_OPT] ... COMMAND_ARG ...
GLOBAL_OPT:
  --help      show this help
  -v,--verbose  increase verbosity
COMMAND:
  abort      abort executing tool
  conf       configure account
  copy2l     download files from VOSpace
  copy2v     upload files to VOSpace
  delete     alias of remove
  dummy      print informations for debug
  get        alias of copy2l
  join       join votable file
  list       list VOSpace nodes
  ls         alias of list
  passwd     alias of conf
  ps         search exec tool
  put        alias of copy2v
  registry   service search
  remove     remove VOSpace nodes -- ALPHA VERSION
  resume     resume executing tool
  rm         alias of remove
  rsync2l    search for updated files and download them
  rsync2v    search for updated files and upload them
  run        run command with toolName
  search     data search
  select     display file
  suspend    suspend executing tool
  union      union file
  version    show latest version of this tool
  vot2xsv
```

JVOSpace と local
ディスク間でファイル
のやり取り。

JVOSpace 上のファ
イルのリスト表示
パスワード設定

サービス検索

データ検索

jc client 使い方 (2/2)

```
$ jc search -i search.sql -o result.xml
```

```
$ cat serch.sql
```

```
SELECT ra, dec, z
```

```
FROM ivo://jvo/agn:veron2012
```

```
WHERE z >= 0.1 AND z < 0.2
```

```
$ jc vot2xsv -i result.xml -F, -o result.csv
```

```
# ...
```

```
23.4, -34.2, 0.14
```

```
134.2, +13.4, 0.18
```

```
....
```