

# 電波アーカイブの報告

## Nobeyama-45m / ASTE Science Data Archive

### Overview

This site, Nobeyama 45m and ASTE Science Data Archive, provides public science data obtained at the Nobeyama 45m radio telescope at Nagano, Japan and the ASTE telescope at Atacama, Chile.

See more »



### Misc Info

Known Bug of NOSTAR and NEWSTAR

Known Bug of CASA

### News

2024/12/10

This archive service will stop on 2024/12/14 9:00-14:00 UT (0:00-5:00 JST) because of disconnection of our network circuit. Sorry for inconvenience.

2024/10/23

This archive service will stop from 2024/11/8 to 2024/11/11 because of our planned electric outage.

### Archived Observation Range at Present

- NRO-45m:
  - NOSTAR or NEWSTAR: 2013-07-16 to 2024-08-20
  - MS2: 2017-09-29 to 2023-04-28
  - FITS: 2017-09-29 to 2023-04-28
- ASTE:
  - NOSTAR or NEWSTAR: 2019-06-18 to 2019-09-27

### Data Policy

- The data distributed by this site is open to the public 18 months after the observation for the

### To use all functions

User ID:

nishimura

Password

.....

Login

You can search public data but cannot download them if you do not have user account.

Sign Up , if you do not have user account yet.

Reset Password , if you forgot your password.

To delete your account: See [Help page](#).

Contact [Helpdesk](#), if you need more help.

西村淳  
(野辺山宇宙電波観測所)

小杉城治  
(ALMA / ADC)

南谷哲宏  
(チリ観測所)

他、開発・運用メンバー

# 電波アーカイブの位置付け

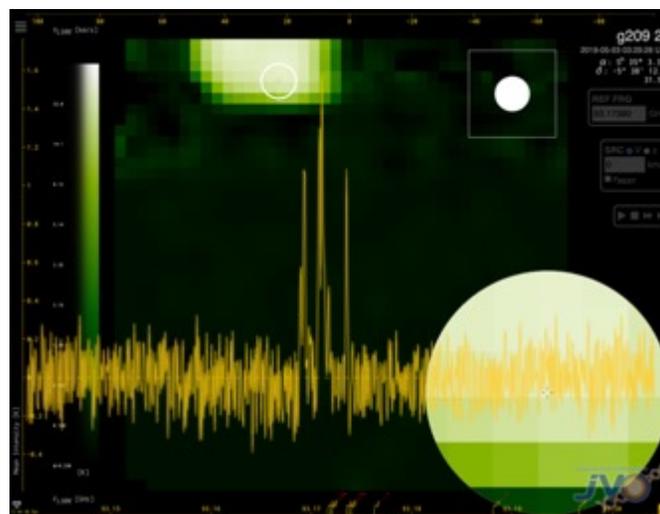
## 電波アーカイブ

- NRO45, ASTE

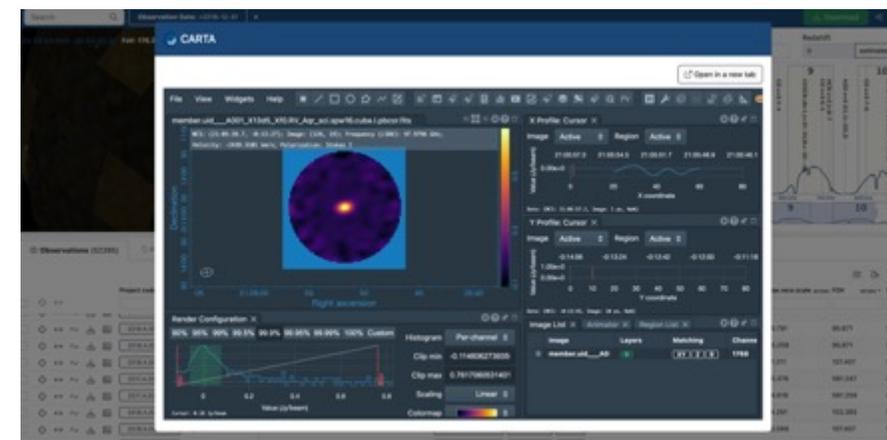
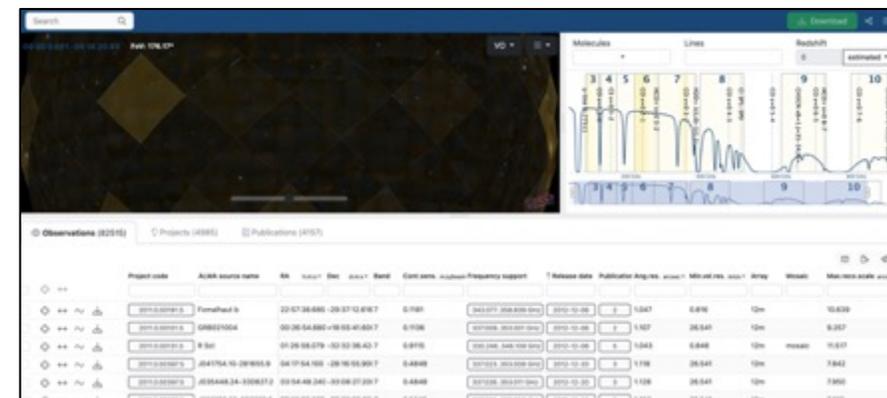


Obs.ID	QuickLook	JVO	TargetName	RA(J2000)	DEC(J2000)	Telescope	Obs. Status	Freq.Range (GHz)
20180429142953		JVO	g209.29	05:34:54	-05:45:52	NRO45m	OTF	81.47 - 93.90
20180429144055		JVO	g209.29	05:34:54	-05:45:52	NRO45m	OTF	81.47 - 93.90
20180502143854		JVO	g209.29	05:34:54	-05:45:52	NRO45m	OTF	81.47 - 93.90
20180502143331		JVO	g209.29	05:34:54	-05:45:52	NRO45m	OTF	81.47 - 93.90
20180502123626		JVO	g209.29	05:35:00	-05:45:00	NRO45m	OTF	81.47 - 93.90
20180502132633		JVO	g209.29	05:35:00	-05:45:00	NRO45m	OTF	81.47 - 93.90
20180502142454		JVO	g209.29	05:35:00	-05:45:00	NRO45m	OTF	81.47 - 93.90
20180502132335		JVO	g209.29	05:35:00	-05:45:00	NRO45m	OTF	81.47 - 93.90
20180527198223		JVO	whina	05:35:08	-05:54:42	NRO45m	OTF	108.77 - 113.29
20180527104212		JVO	whina	05:35:08	-05:54:42	NRO45m	OTF	108.77 - 113.29

JVO



## ALMA Science Archive



## ALMA

→ ALMA Science Archive

<https://almascience.nao.ac.jp/>

→ JVO - ALMA FITS Archive

<https://jvo.nao.ac.jp/portal/alma/archive.do>

## 野辺山レガシー

• FUGIN, COMING, StarFormation

→ JVO

<https://jvo.nao.ac.jp/portal/nobeyama/>

## 野辺山・ASTE

→ 電波アーカイブ

<https://nobeyama-archive.nao.ac.jp/>

## 提供機能

- 検索
- データダウンロード
  - FITS, MS2, nostar, newstar
- JVO へのリンク (2017秋以降)
- 専有期間後、誰でもアクセス可

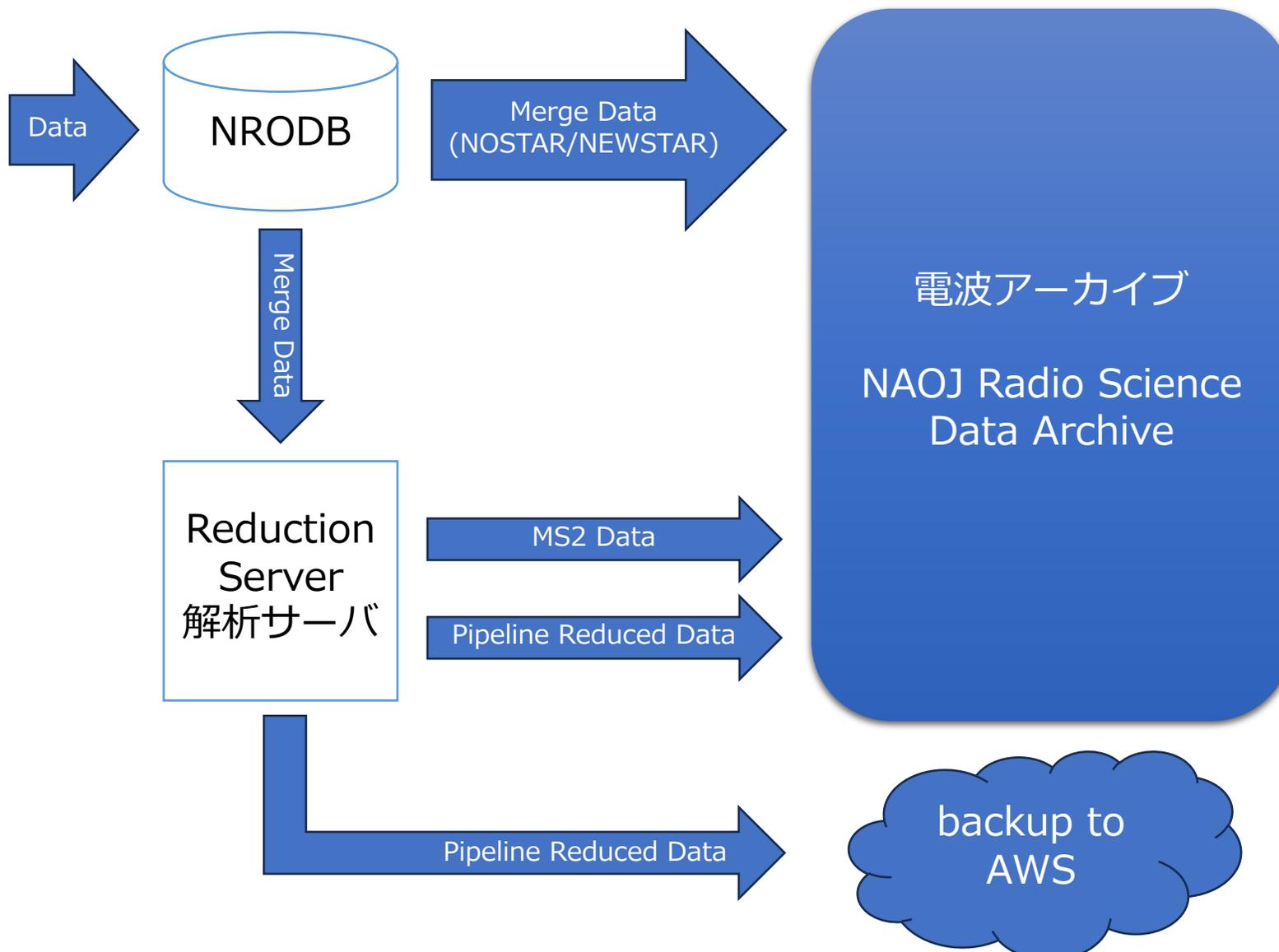
## データ範囲

- NRO 45m
  - 2013.7.16 – 2024.8.20
- ASTE
  - 2019.6.18 – 2019.9.27

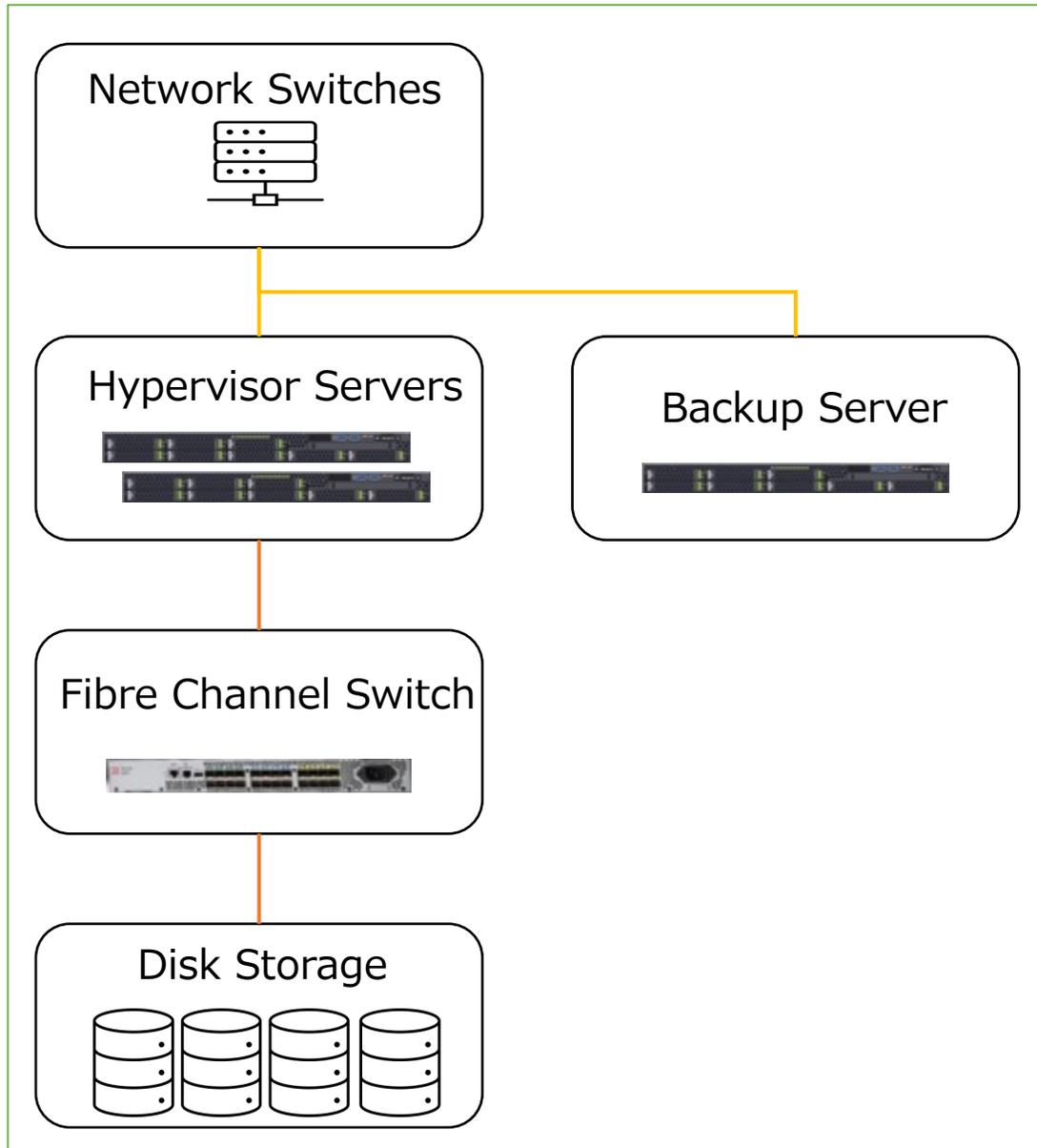
# 電波アーカイブの統計

Data	<p>サイズ：74.4 TB、データセット数：61562 (パイプライン実施率 10.0%)</p> <ul style="list-style-type: none"><li>• newstar: 0.2 TB, 47,337 set</li><li>• nostar: 12.6 TB, 14,225 set</li><li>• ms2: 11.4 TB, 5,857 set</li></ul> <p>10-15 TB/年 で増加している (過去データのPipeline処理と処理済みデータ公開も進めているため、実際の新規観測データ量より多くなっている)</p>
ダウンロード状況	1,160 ファイル、990 GB (年平均; 2019-2024)
Publication	<p>有意な統計が無く、実数は不明</p> <p>ただし、野辺山の論文数 35 本/年のうち 70 % (24本程度) はアーカイブ利用と予想される</p>
設置場所	ADC レンタルサーバー上の仮想マシンに実装 (135 TB)
運用経費	<p>ADC レンタルサーバー費用： (詳細は見積もり中)</p> <p>AWS 維持費： ~12 万円/年</p> <p>人員体制： 0.8 FTE (6名：ADC, NRO, ALMA)</p>

# Data flow



# Common Virtualization Infrastructure in ADC



Several archive-related systems and components are consolidated into a Common Virtualization Infrastructure in ADC rental system.

NAOJ Radio Science Archive is operated on the Virtualization Infrastructure.

Specification:

Allocated Disk Space: 135 TB

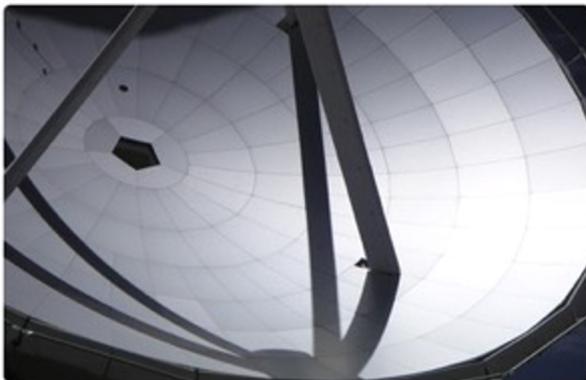
# NAOJ Radio Science Data Archive (Top)

[Home](#)[Search Data](#)[Download List](#)[History](#)[My Page](#)[Help](#)[Logout](#)

## Nobeyama-45m / ASTE Science Data Archive

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### Misc Info

[Known Bug of NOSTAR and NEWSTAR](#)[Known Bug of CASA](#)[Note of NRO Data](#)[Quality of NRO Data](#)

### News

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- ASTE:
  - NOSTAR or NEWSTAR: 2019-06-18 to 2019-09-27

### Data Policy

- The data distributed by this site is open to the public 18 months after the observation for the Nobeyama open use (~2022 May) and the ASTE open use, and three years after the observation for the Nobeyama charged telescope time (2022

# NAOJ Radio Science Data Archive (Search)

Home Search Data Download List History My Page Help Logout

## Nobeyama-45m / ASTE Science Data Archive

**Input Search Condition**   (Red Items: Mandatory / The Others: Optional)

**Data Status:**  
 Public Data  Only My Observation Data (for PI)

**File Type:**  
 Reduced data (set of FITS and auxiliary files)  
 MS2 format  
 NOSTAR/NEWSTAR format

**Telescope + Spectrometer:**  
 Nobeyama45m  SAM45  
 ASTE  MAC  WHSF

**Object Type (Solar System or Non-Solar System):**  
[Non-Solar System] (Some objects are not opened to the public while PI's occupation term.)

**Search Area:**  
**From Object Name:**

**Center Position:**  
**Coordinate System:**   
**Longitude/RA:**   
(0-360[deg] or 0-24[hour])  
**Latitude/DEC:**

**Observation Date Range (UTC):**  
**From**  - **To**

**Frequency Range:**  
**From**  - **To**   
GHZ GHZ  
**Fill above range by Line:**  
   
**with Recession Velocity:**  km/s  
**with Extension:**  $\pm$   GHz  
**or by Receiver:**

**Resolution Range:**  
 Frequency (kHz)  Velocity (km/s)  
**From**  - **To**

**Observation Mode:**

**System Temperature (Tsys):**

# NAOJ Radio Science Data Archive (Search Results)

results

[To Input Search Condition](#) [To Download List \(items:0\)](#)

Show  entries Search:

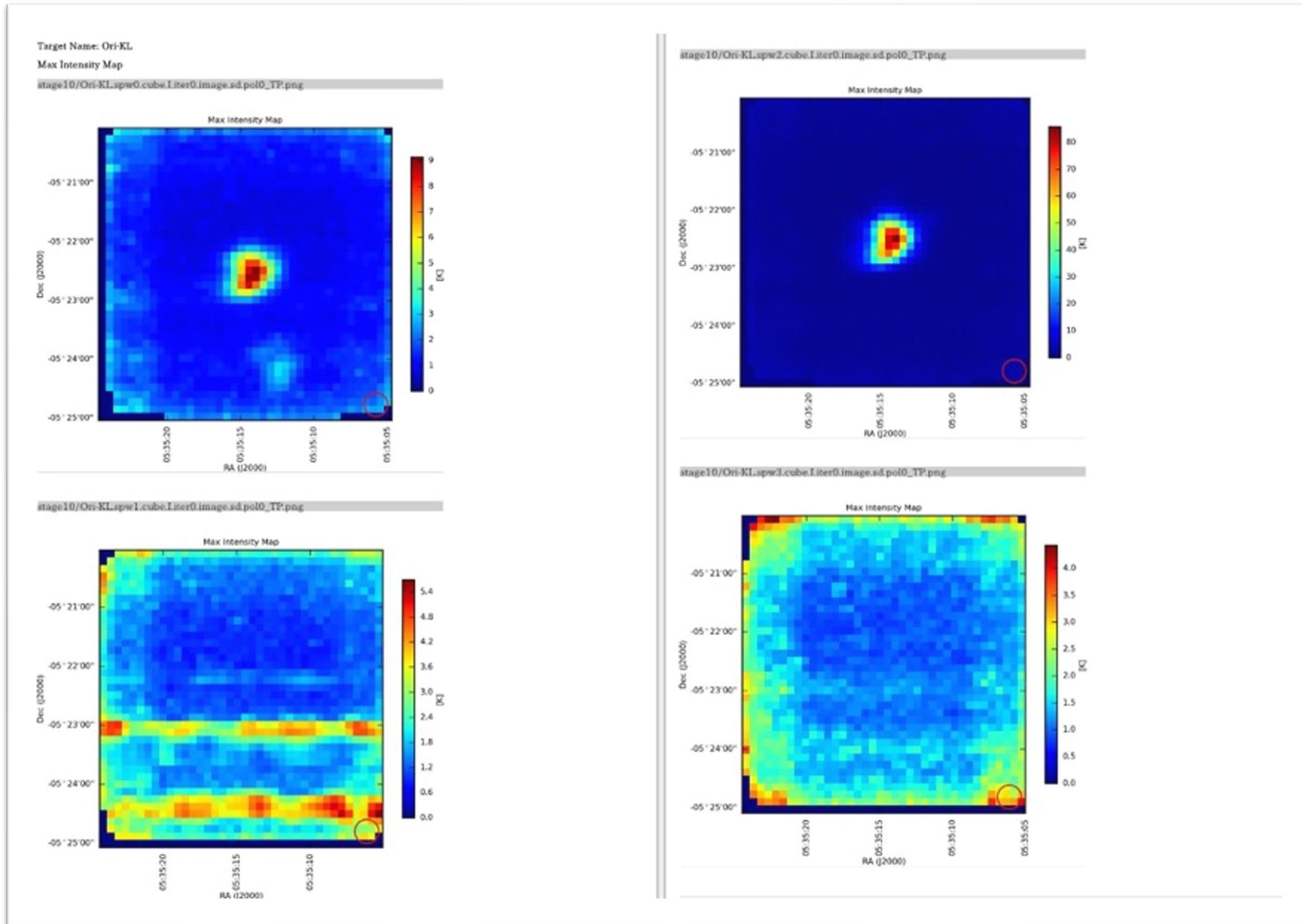
<input type="checkbox"/>	Obs.ID	<a href="#">QuickLook</a>	<a href="#">JVO</a>	<a href="#">TargetName</a>	<a href="#">RA:J2000</a>	<a href="#">DEC:J2000</a>	<a href="#">Telescope</a>	<a href="#">Obs. Mode</a>	<a href="#">Freq.Range (GHz)</a>	<a href="#">Obs. (arc)</a>
<input type="checkbox"/>	20171009014927			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009015940			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009025258			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009034054			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">42.76 - 43.18</a>	
<input type="checkbox"/>	20171009035512			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009044331			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009053056			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">42.76 - 43.18</a>	
<input type="checkbox"/>	20171009053911			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009062405			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171013231702			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">42.76 - 43.18</a>	

Total 252 entries, showing 191 to 200  
Total size of selected files: 0.0000 GB

Previous 1 ... 19  21 ... 26 Next

[Add Selected to Download List](#) [Export Whole Table\(CSV\)](#)

# NAOJ Radio Science Data Archive (Pipeline Summary 1)



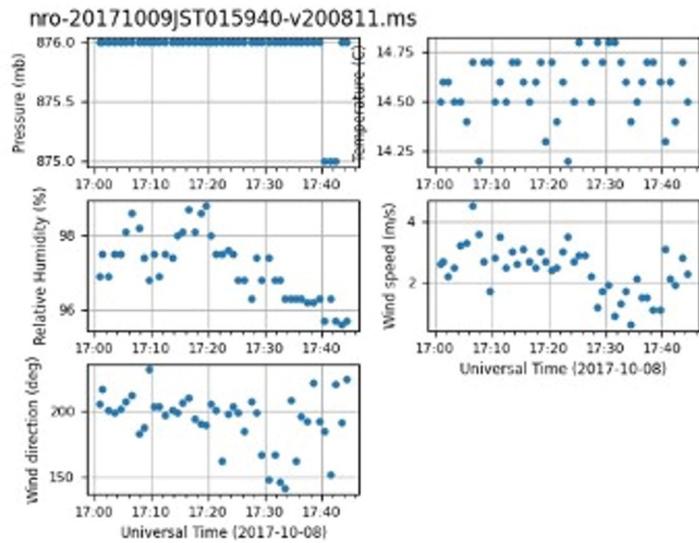
# NAOJ Radio Science Data Archive (Pipeline Summary 2)



# NAOJ Radio Science Data Archive (Pipeline Summary 3)

## Weather Plot

sessiondefault/nro-20171009JST015940-v200811.ms/weather.png



## Overview

### Observation Overview

Project	csv17/spw
Principal Investigator	csv17
Observation Start	2017-10-08 17:00:49 UTC
Observation End	2017-10-08 17:44:32 UTC

### Pipeline Summary

Pipeline Version	2020.1.0.36
CASA Version	6.1.1.10 (environment)
Pipeline Start	2021-07-09 10:43:10 UTC
Execution Duration	1:14:56

### Observation Summary

Measurement Set	Receivers	Num Antennas	Time (UTC)		Baseline Length				Merge2	Version
			Start	End	On Target	Min	Max	RMS		
Scheduling Block ID: N/A										
Session: default										
nro-20171009JST015940-v200811.ms (s2-1.html?sidebar=sidebar_nro_20171009JST015940_v200811.ms)	Unknown	4	2017-10-08 17:00:49	2017-10-08 17:44:32	0:07:50	0.0	0.0	0.0	1.2	2020/08/11/00:11:19

# NAOJ Radio Science Data Archive (Search Results)

results

[To Input Search Condition](#) [To Download List \(items:0\)](#)

Show  entries Search:

<input type="checkbox"/>	Obs.ID	QuickLook	JVO	TargetName	RA:J2000	DEC:J2000	Telescope	Obs. Mode	Freq.Range (GHz)	Obs. (arc)
<input type="checkbox"/>	20171009014927			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009015940			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009025258			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009034054			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">42.76 - 43.18</a>	
<input type="checkbox"/>	20171009035512			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009044331			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009053056			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">42.76 - 43.18</a>	
<input type="checkbox"/>	20171009053911			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171009062405			Ori-KL	05:35:15	-05:22:30	NRO45m	OTF	<a href="#">84.98 - 86.91</a>	
<input type="checkbox"/>	20171013231702			Ori-KL	05:35:15	-05:22:30	NRO45m	PSW	<a href="#">42.76 - 43.18</a>	

Total 252 entries, showing 191 to 200  
Total size of selected files: 0.0000 GB

Previous 1 ... 19  21 ... 26 Next

[Add Selected to Download List](#) [Export Whole Table\(CSV\)](#)

# NAOJ Radio Science Data Archive (JVO)

 p20 ver.241212 News I am a g...

Location: [Top Page](#) > [Nobeyama](#) > [Archive](#)

## NRO FITS Archive

NOTE:

This page provides FITS images of open-use observation data by accepted proposals, obtained at the Nobeyama 45m radio telescope at Nagano, Japan. The FITS images provided at this site are identical to the Nobeyama 45m data available at [Nobeyama-45m / ASTE Science Data Archive](#), where you can obtain complete data set including beam images, weight images, calibration tables, web log files, and so on.

For notes on data usage please see [Help page](#), [Error report](#), [Quality indicator](#), and [Contents of reduced data at Nobeyama-45m / ASTE Science Data Archive](#). You should check QuickLook file (for each Dataset ID), which is reorganized from the original data, to see the quality.

**Acknowledgement Information:**

When you publish an academic paper using the data obtained with the 45-m telescope of the Nobeyama Radio Observatory, we appreciate if you include one of the following sentences in the main text, in the acknowledgement, or in the footnote in your paper:

Based on observations at the Nobeyama Radio Observatory (NRO)\* (in the main text),  
Nobeyama Radio Observatory is a branch of the National Astronomical Observatory of Japan, National Institutes of Natural Sciences.\*\* (in the footnote),

The 45-m radio telescope is operated by the Nobeyama Radio Observatory, a branch of the National Astronomical Observatory of Japan.\*\* (in the footnote or the acknowledgement).

Researchers are also asked to cite the appropriate instrumentation papers following [this page](#).

When you retrieved the data at JVO portal and when you find it helpful for your research work, the following acknowledgment would be appreciated:  
Part of the data were retrieved from the JVO portal (<http://jvo.nao.ac.jp/portal/>) operated by ADC/NAOJ.\*\*

**Dataset List** | [Download](#) | [Change Log](#)

To download the data: Click the "download" button at the row of data you want to download. By clicking the "download" button at the header of the table, you can download all the checked data.

To quick-look at the data: Click the "WebQL" button at the row of data you want to look at.

To filter the data: Enter filtering condition at the header of the corresponding column. Some of the text field accept a regular expression.

How to use regular expressions:

- \* "abc" -> matches any string which contains 'abc',
- \* "\*" -> matches any length of characters,
- \* "a\*" -> matches any string which starts with 'a',
- \* "a\$" -> matches any string which ends with 'a' ...

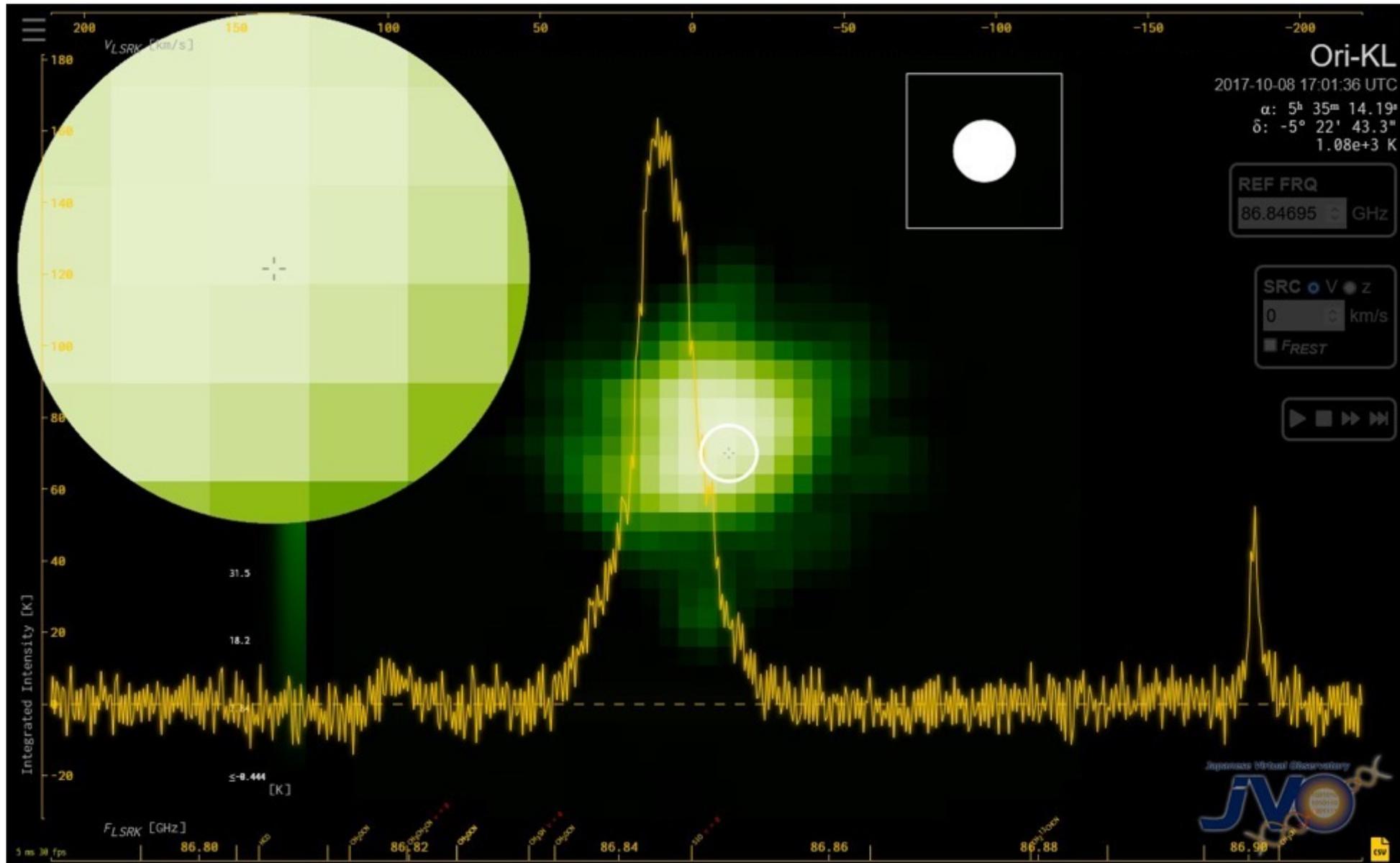
More information about the syntax of regular expression is found in [help page](#).

Number of data : 8  
Order by : data\_id asc  
Condition : dataset\_id ~\* 'nro-20171009JST015940-v200811ms\_v200908-pipe'

[Update](#) [Clear](#) Number of data per page:

#	<a href="#">Dataset ID ?</a>	<a href="#">Data ID ?</a>	<a href="#">Object ?</a>	<input type="checkbox"/>	<a href="#">Download</a>	<a href="#">QL image</a>	<a href="#">QL spect</a>	<a href="#">Maximum intensity map of this dataset</a>	<a href="#">SPW ?</a>	<a href="#">Data Type ?</a>	<a href="#">Coords (Ra Dec) ? center:</a>	<a href="#">Galactic Coord center:</a>
	<input type="text" value="nro-20171009JST015940-v20"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
			<a href="#">Object List</a>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	<a href="#">nro-20171009JST015940-v200811ms_v200908-pipe</a>	NROA0003657	Ori-KL	<input type="checkbox"/>	<a href="#">Download</a> <a href="#">FITS WebQL</a> <a href="#">VO Search</a> <a href="#">QL by PDF</a>				spw0	CUBE.I	05h35m14 -05d22m33 83.811 -5.376	208d59m38 -19h 208.994 -19.
2	<a href="#">nro-20171009JST015940-v200811ms_v200908-pipe</a>	NROA0003658	Ori-KL	<input type="checkbox"/>	<a href="#">Download</a> <a href="#">FITS WebQL</a> <a href="#">VO Search</a> <a href="#">QL by PDF</a>				spw0	CUBE.XXXY	05h35m14 -05d22m33 83.811 -5.376	208d59m38 -19h 208.994 -19.
3	<a href="#">nro-20171009JST015940-v200811ms_v200908-pipe</a>	NROA0003659	Ori-KL	<input type="checkbox"/>	<a href="#">Download</a> <a href="#">FITS WebQL</a> <a href="#">VO Search</a> <a href="#">QL by PDF</a>				spw1	CUBE.I	05h35m14 -05d22m33 83.811 -5.376	208d59m38 -19h 208.994 -19.

# NAOJ Radio Science Data Archive (FITS WebQL)



## ユーザーへの要望

- ぜひご活用いただき、多くの論文出版をお願いします
- 要望など、お気軽にお寄せください

## 連絡先

- 使い方に対する質問、要望、など
  - 野辺山ヘルプデスク
  - Nobeayama45 Discord
  - 関係者へメール・口頭（西村、南谷、小杉）

## 今後の展望（西村案）

- 真の電波アーカイブを目指す？（VERA、大学連携、大学データ？？？）
- 多データとの連携？（共通で検索できるようになると嬉しい？？？）
- 皆さんの声をお聞かせください