


CSIRO ATNF Pulsar Search User Guide

Location: <http://datanet.csiro.au/dap/public/pulsarSearch.zul>

This document is a basic user guide to provide some background on how to use the CSIRO Pulsar search facility. The Pulsar Search is still in development so there may be some functionality that is not completed as yet. I have included a list of all the working components in the user guide. In addition, the externally available search facility at the above link is several versions behind the version that you may have seen demonstrated.

If you have any questions or feedback, please do not hesitate to contact me via return email at grant.wilson@csiro.au

Pulsar Search screen:

**Data Access Portal**Help | Contact us | Login

[Home](#) > [Search](#) > [Pulsar Search](#) Not logged in

- Browse Datasets
- Search
- Pulsar Search
- Spatial Search

ATNF Pulsar Observation Search

Query pulsar observations taken at the Parkes radio telescope.

Source Name / Position		Frequency / Band	
Pulsar Name:	<input type="text"/>	Frequency: (MHz)	<input type="text"/> to <input type="text"/>
Cone Search:		Band Name:	<input type="text" value="Any"/>
Right Ascension:	<input type="text"/> hh:mm:ss.ss (J2000)		70cm (~0.44 GHz)
Declination:	<input type="text"/> dd:mm:ss.ss (J2000)		50cm (~0.66 GHz)
Search Window:	<input type="checkbox"/> arcmin	Observation Mode:	<input type="text" value="All"/>
		Backend:	<input type="text" value="All"/>

Observation	
Project ID:	<input type="text"/>
Observation Date: (dd/mm/yyyy)	<input type="text"/> <input type="text" value="to"/> <input type="text"/>
Observation Date: (MJD)	<input type="text"/> to <input type="text"/>

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Server Name: Production. Build Number: 1.2.0 (11 Nov 2010)

The Pulsar search screen allows searching through ATNF Pulsar data using a variety of search options

Search field	Description
Pulsar name	Allows searching for pulsar observations by the name of a pulsar. Partial matching is allowed
Cone Search <ul style="list-style-type: none"> - Right ascension - Declination - Search window 	Right Ascension measurement in hh:mm:ss.ss (J2000) Declination measurement dd:mm:ss.ss (J2000) Field of view to search around the RA/Dec measurement (arcmin)
Project ID	This is the OPAL project ID in which an observation was observed
Observation date (DD-MMM-YYYY)	Allows searching for pulsar observations by observation date in dd-mmm-yyyy format
Observation date (MJD)	Allows searching for pulsar observations by observation date in Modified Julian Date (MJD) format
Frequency	Allows searching for pulsar observations within a frequency range
Frequency Band name	Allows searching for pulsar observations within a specified frequency band
Observation mode	Allows searching for pulsar observations by observation mode
Backend	Allows searching for pulsar observations by the backend used

Pulsar Search Results:

Project ID

 P262 (5)
 P595 (34)

Backend

 AFB (5)
 PDFB2 (8)
 PDFB3 (12)
 PDFB4 (14)

Pulsar Name

 J0108-1431 (7)
 J0108-1431_R (7)
 J0111-7131 (1)
 J0131-7310 (2)
 J0134-2937 (5)
 J0134-2937_R (5)
 J0152-1637 (7)
 J0152-1637_R (5)

Frequency

 1369 (34)
 1374 (5)

Calibration

Before mins
 After mins
 Show Cal. Files

Pulsar Name:

Cone Search:

Right Ascension: hh:mm:ss.ss (J2000)

Declination: dd:mm:ss.ss (J2000)

Search Window: arcmin

Observation

Project ID:

Observation Date: (dd/mm/yyyy) to

Observation Date: (MJD) to

Frequency: (MHz) to

Band Name:
 70cm (~0.44 GHz)
 50cm (~0.66 GHz)
 20/18cm (1.2-1.8 GHz)

Observation Mode:

Backend:

Search Results:

Found 39 records

	Project ID	Filename	File Size (KB)	Last Modified	Source	RA	Dec	Backend	Nchan
<input type="checkbox"/>	P595	r080430_001728.rf	123586.8	2008-04-30 10:28:07	J0108-1431	01:08:08.200	-14:31:48.500	PDFB2	0
<input type="checkbox"/>	P595	r080430_010431.rf	82417.5	2008-04-30 11:09:45	J0108-1431	01:08:08.200	-14:31:48.500	PDFB2	0
<input type="checkbox"/>	P595	s080923_135355.rf	123586.8	2008-09-24 00:04:23	J0108-1431	01:08:08.290	-14:31:48.500	PDFB3	1024
<input type="checkbox"/>	P595	s090512_024347.rf	82417.5	2009-05-12 12:49:03	J0108-1431	01:08:08.290	-14:31:48.500	PDFB3	1024
<input type="checkbox"/>	P595	t100222_011522.rf	98862.1	2010-02-22 12:21:42	J0108-1431	01:08:08.340	-14:31:50.100	PDFB4	1024
<input type="checkbox"/>	P595	t100423_014232.rf	90627.1	2010-04-23 11:48:22	J0108-1431	01:08:08.340	-14:31:50.100	PDFB4	1024
<input type="checkbox"/>	P595	t100423_025543.rf	74160.0	2010-04-23 13:00:32	J0108-1431	01:08:08.340	-14:31:50.100	PDFB4	1024

Following the completion of the search results, all matching observation records are returned. At present, only the first 1000 search results are returned.

Pulsar Facet Search pane:

Project ID ▲

- P262 (5)
- P595 (34)

The Project ID facet search allows users to see all of the projects that are included within the search results. Projects can be deselected here to refine the search results

Backend ▲

- AFB (5)
- PDFB2 (8)
- PDFB3 (12)
- PDFB4 (14)

The Backend facet search allows users to see all of the backends that are included within the search results. Backends can be deselected here to refine the search results

Pulsar Name ▲

- J0108-1431 (7)
- J0108-1431_R (7)
- J0111-7131 (1)
- J0131-7310 (2)
- J0134-2937 (5)
- J0134-2937_R (5)
- J0152-1637 (7)
- J0152-1637_R (5)

The Pulsar name facet search allows users to see all of the pulsars that are included within the search results. Specific pulsars can be deselected here to refine the search results

Frequency ▲

- 1369 (34)
- 1374 (5)

The frequency facet search allows users to see all of the frequencies that are included within the search results. Frequencies can be deselected here to refine the search results

Calibration ▲

Before mins

After mins

Show Cal. Files

The Calibration facet search allows users to search for calibration files within a time period of the observation file. Selecting the "Show cal. Files" checkbox performs a search for all calibration files within the specified search window and groups them with their matching observation files

Calibration Files Search results

Pulsar Name: j01

Cone Search:

Right Ascension:

Declination:

Search Window: arcmin

Observation

Project ID:

Observation Date: (dd/mm/yyyy) to

Observation Date: (MJD) to

Search Results:

Found 14 calibration records

Project ID	Filename	File size
<input type="checkbox"/> P595	r080430_001728.rf	1.0
<input type="checkbox"/> P595	r080430_010431.rf	8.0
<input type="checkbox"/>	r080430_010234.cf	2.0
<input type="checkbox"/> P595	s080923_135355.rf	1.0
<input type="checkbox"/>	s080923_135146.cf	2.0
<input type="checkbox"/> P595	s090512_024347.rf	8.0
<input type="checkbox"/>	s090512_024150.cf	2.0
<input type="checkbox"/> P595	t100222_011522.rf	1.0
<input type="checkbox"/>	t100222_011337.cf	2.0
<input type="checkbox"/> P595	t100423_014232.rf	9.0

Project ID

- P262 (5)
- P595 (34)

Backend

- AFB (5)
- PDFB2 (8)
- PDFB3 (12)
- PDFB4 (14)

Pulsar Name

- J0108-1431 (7)
- J0108-1431_R (7)
- J0111-7131 (1)
- J0131-7310 (2)
- J0134-2937 (5)
- J0134-2937_R (5)
- J0152-1637 (7)
- J0152-1637_R (5)

Frequency

- 1369 (34)
- 1374 (5)

Calibration

Before: mins

After: mins

Show Cal. Files

Search term

Searching by calibration files extends the original search to include calibration files where the calibration file within a user entered window either before, after or either side of an observation file. The search is only performed once the "Show cal. files" checkbox is selected

Original observation file

Related calibration files

Calibration file search terms entered

Download pulsar datasets

To download observation files, users can select a file by checking the checkbox next to the record they would like and clicking download

Search Results:

Found 8 records

	Project	Filename	Source	RA	Dec	Backend	Freq (MHz)	Bw (MHz)	Nchan
<input checked="" type="checkbox"/>	P456	s090210_212139.rf	J1744-1134	17:44:29.400	-11:34:54.600	PDFB3	1369	256	512
<input type="checkbox"/>	P456	t091029_195539.cf	J0437-4715_R	04:37:00.000	-47:34:60.000	PDFB4	1369	256	1024
<input type="checkbox"/>	P456	t091029_195926.rf	J0437-4715	04:37:15.810	-47:15:08.600	PDFB4	1369	256	1024
<input type="checkbox"/>	P595	s090512_023307.rf	J0034-0721_R	00:34:00.000	-07:00:00.000	PDFB3	1369	256	1024

Download dataset(s)

Select observation file to download

Download datasets button

Future functionality

At this stage, the download of multiple files has not been implemented, but this is expected to be implemented in the very near future.

In addition, other enhancements to the interface that are under development include:

- Search for pre-processed observation files
- Download pre-processed observation files
- Search for thumbnail images of processed observation files
- Download multiple files