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Chapter 1

Introduction

This repo hosts some tools for radio astronomy signal processing. This includes both stand-alone tools as well as codes to explore concepts. There is no guarantee that the codes will work, and eveything here is experimental !

1.1 Hosted codes

Chapter 2

File Index

2.1 File List

Here is a list of all documented files with brief descriptions:

dada2spec.c
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Chapter 3

File Documentation

3.1 dada2spec.c File Reference

Reads a psrdada file and generates spectra out of them. The number of FFT bins and required time averaging can be specified.

```
#include <stdio.h>
#include <stddef.h>
#include <unistd.h>
#include <stdlib.h>
#include <string.h>
#include <stdbool.h>
#include <signal.h>
```

Functions

- void **interrupt_handler** (int dummy)
- int **findinheader** (const char ∗hdr_buf, const char ∗hdr_name, double ∗val)
- void **print_acq_usage** (char ∗const argv[ ])
- int **main** (int argc, char ∗argv[ ])

3.1.1 Detailed Description

Reads a psrdada file and generates spectra out of them. The number of FFT bins and required time averaging can be specified.

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Version

0.1

Date

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3.2 pipe_spec_plplot.c File Reference

This is a sample code.

```
#include <stdio.h>
#include <math.h>
#include <unistd.h>
#include <plplot/plplotP.h>
#include <fftw3.h>
```

Macros

- #define **NFFT** 4096

Functions

- void **linspace** (double ∗arra, double low_value, double high_value, int N_points)
- double **array_min** (double ∗in_array, int N_points)
- double **array_max** (double ∗in_array, int N_points)
- int **main** ()

3.2.1 Detailed Description

This is a sample code.

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