Sprint 1

IO and Algorithm

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Background

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Background
Methodology
Goals
Modules
Filterbank
Clipping
Dedisperse
Timeseries
Fourier
Pipeline
Plot

Project background

- SIGPROC library
- eScience center
- Asteria
- IO/Algorithm

Methodology

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What were our methods?

- SCRUM
- Sprint reviews

Goals

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Our goals for Asteria

- Refactoring SIGPROC library
- Python/C++
- Tests minimal 60% code coverage

Modules

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These modules are present and usable in the Asteria library

- Filterbank
- Clipping
- Dedisperse
- Timeseries
- Fourier
- Pipeline
- Plot

Filterbank

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- Read filterbank files
- Generate mock data

Clipping

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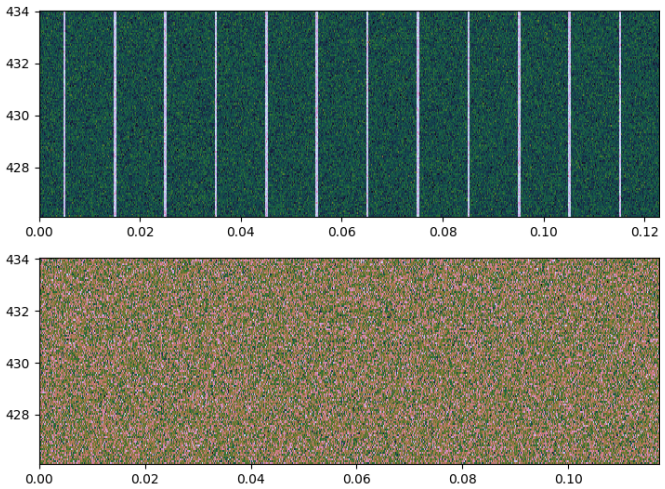
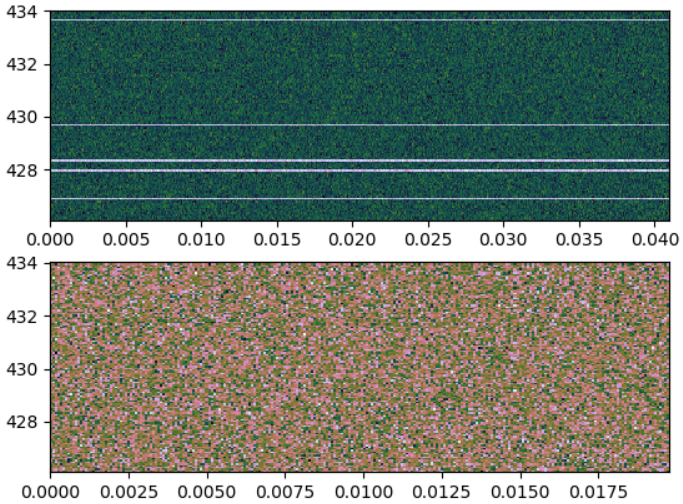
Filter samples with noise



Filter frequencies with noise



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Dedisperse

Dedispersion

Timeseries

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- Downsampling

Fourier

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- Discrete Fourier Transform
- FFT

Pipeline

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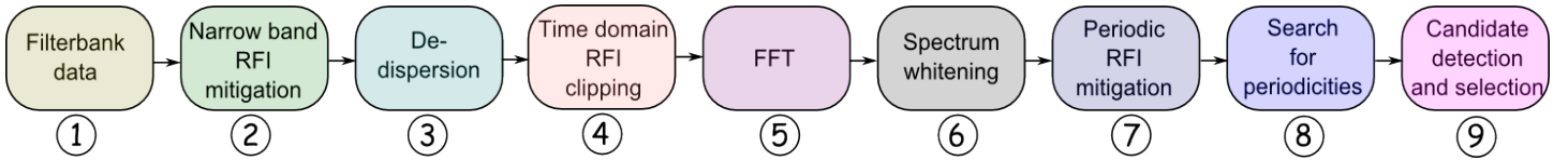

Plot

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- Plot
- Waterfall

Questions?

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