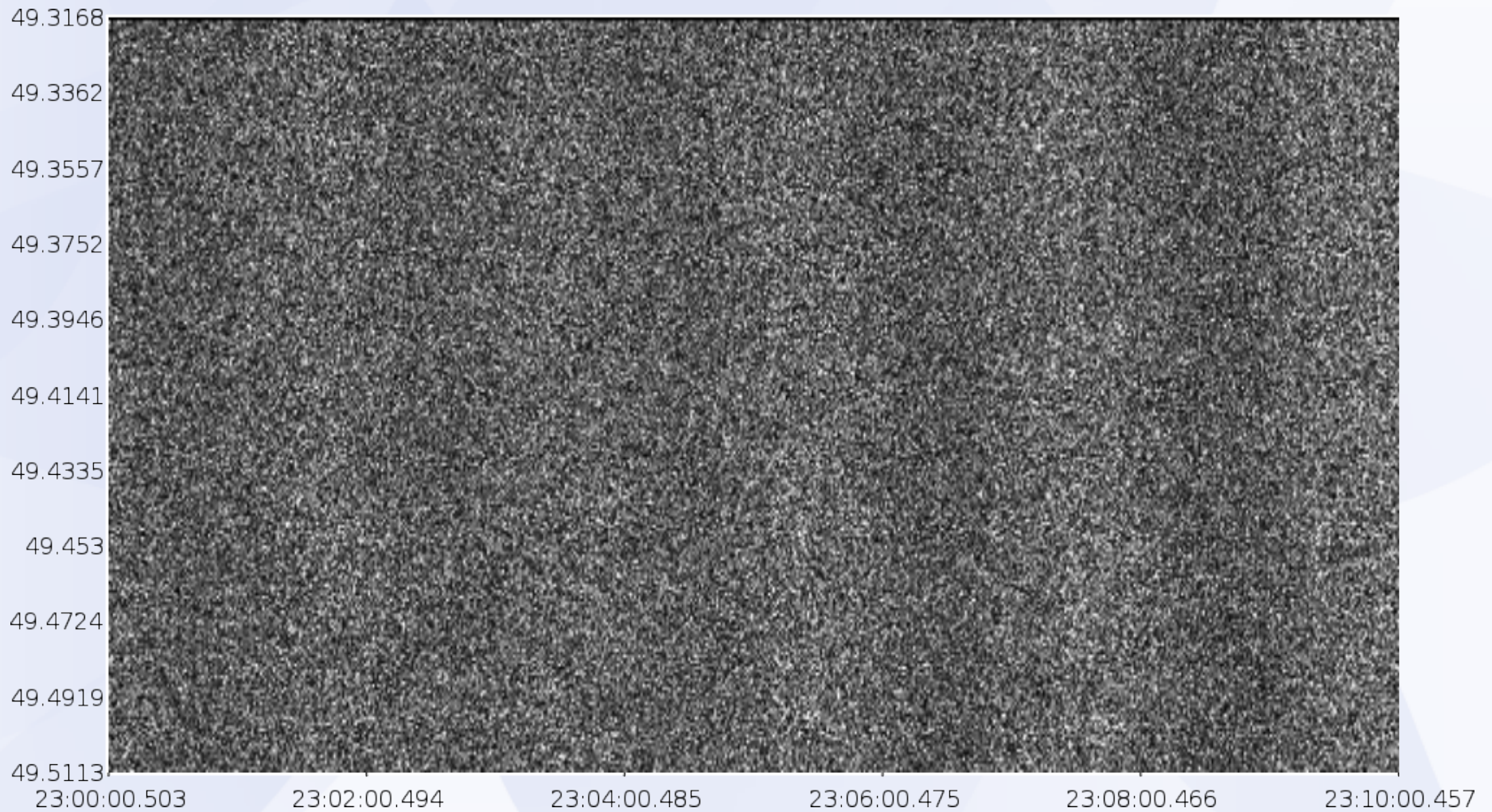# Imaging busy week – flagging
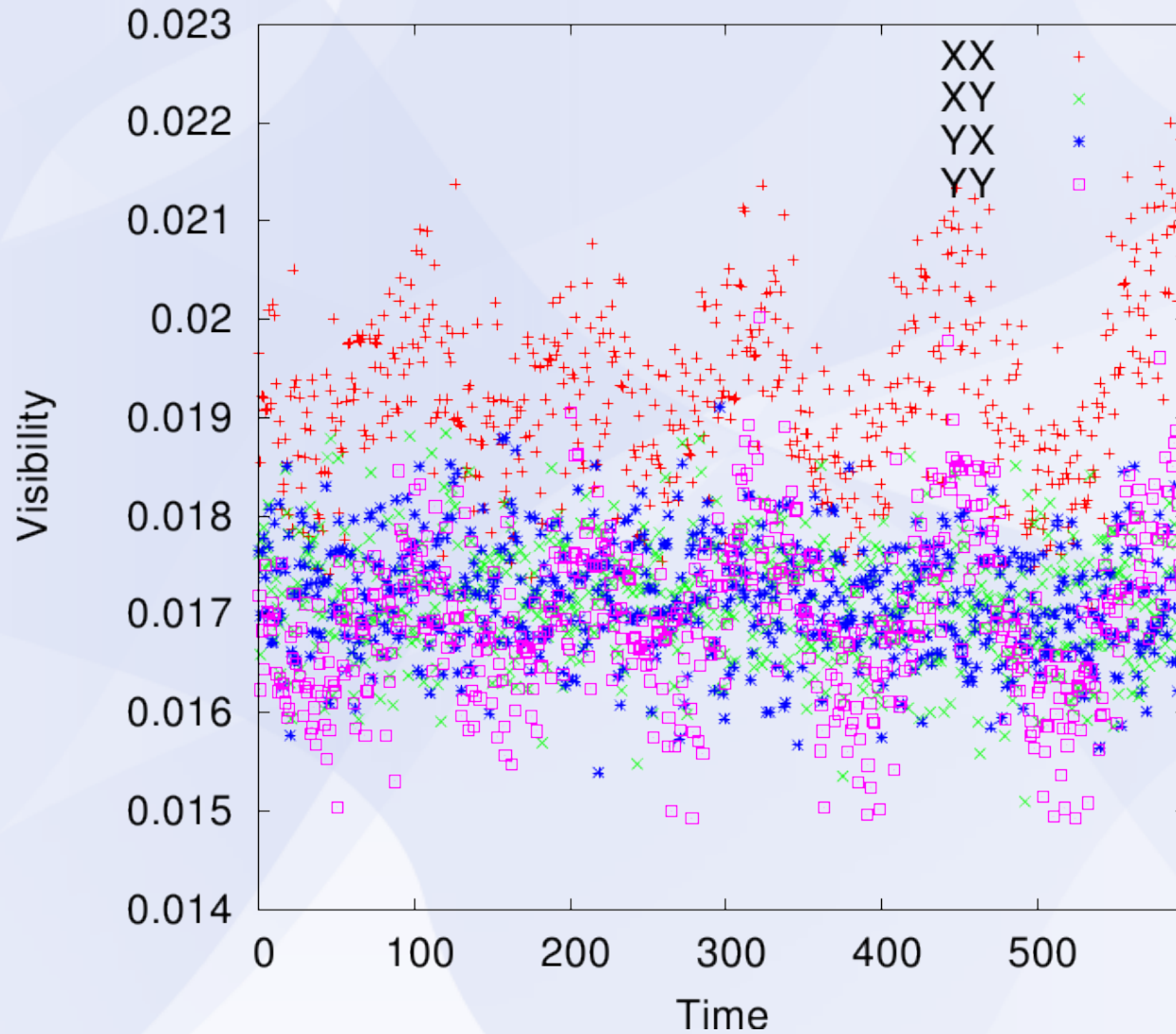## André Offringa

- Together with David Rafferty: compare flagging of NDPPP and rficonsole (or "AOFlagger")

  - Accuracy

  - Speed

- We looked at one LBA sub-band which caused calibration problems

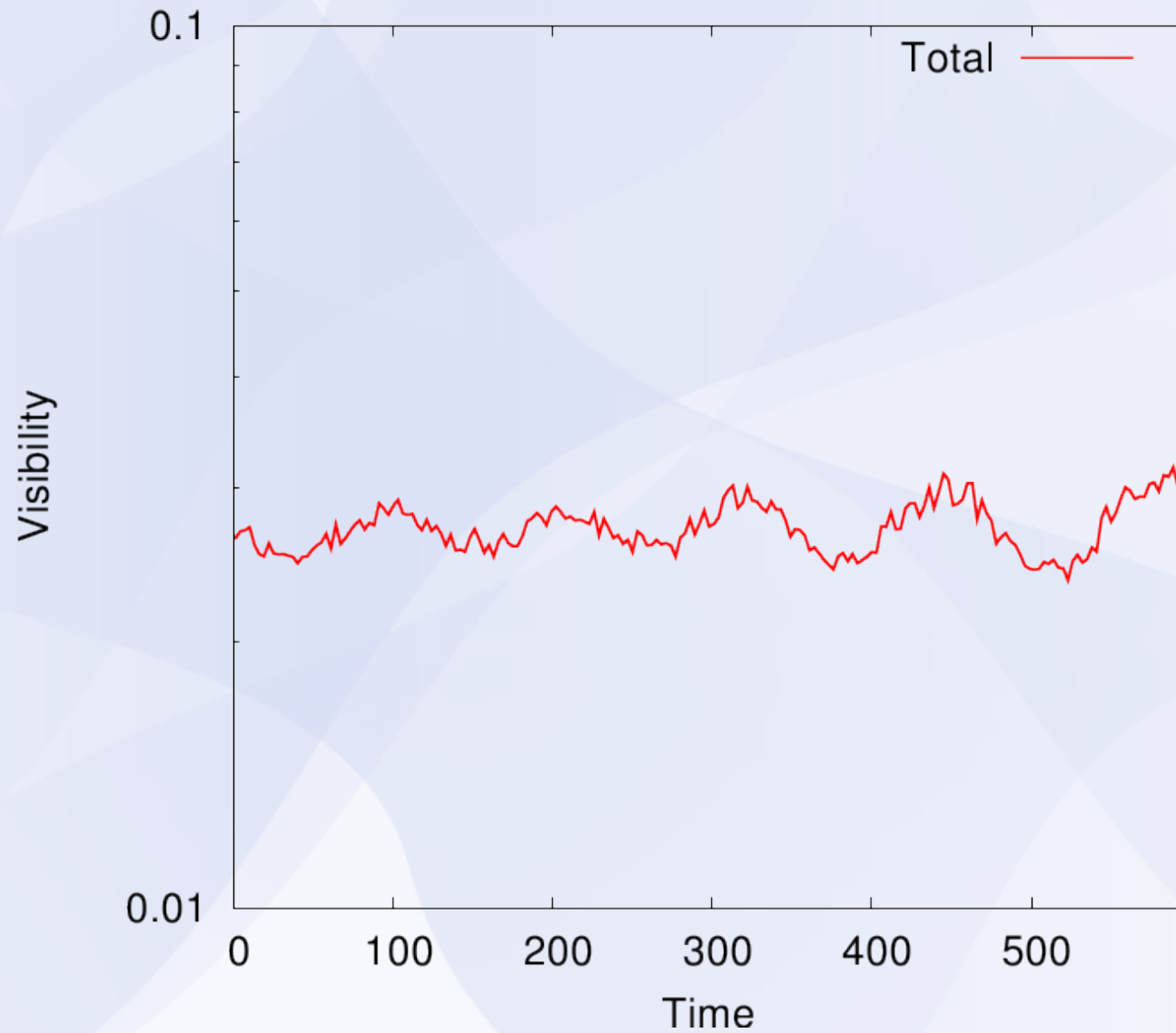 - No strong RFI visible at all

  - Possible weak, broadband RFI

Weak broadband RFI?

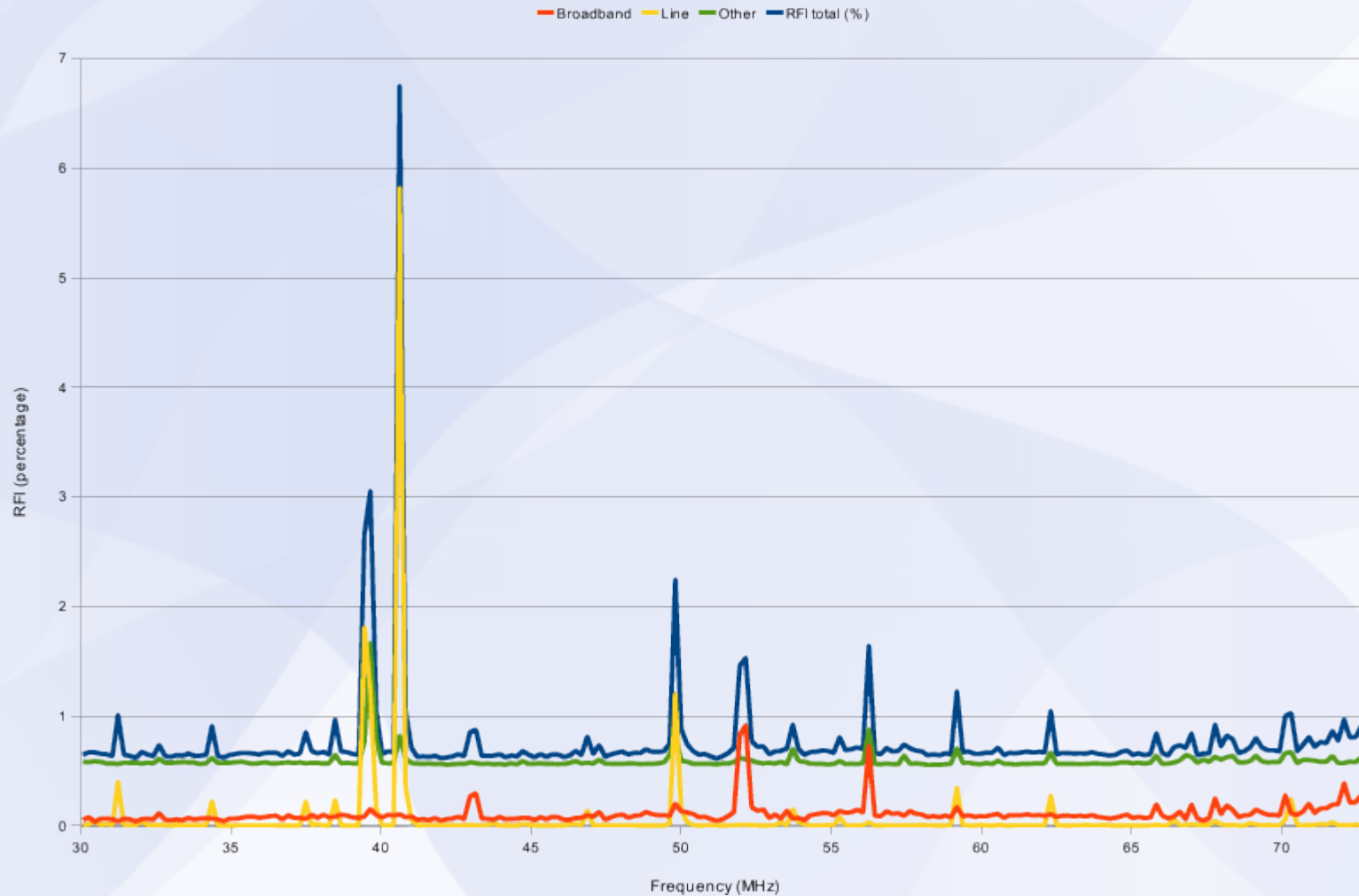# Weak broadband RFI?

Weak broadband RFI?

Calibration problem conclusions

- Flagging won't help calibration

- LBA measurements are (amazingly) clean of strong RFI

- Flagger sometimes misused to flag improperly calibrated regions

- Flagging not necessary **at all** for 90% of the sub-bands... →

RFI spectrum of LBA
Stats of recent 10 min snapshot

Comparison of flaggers

- We compared NDPPP to AOFlagger

- Used AOFlagger's default (no parameters) and current "recommended" settings of NDPPP:
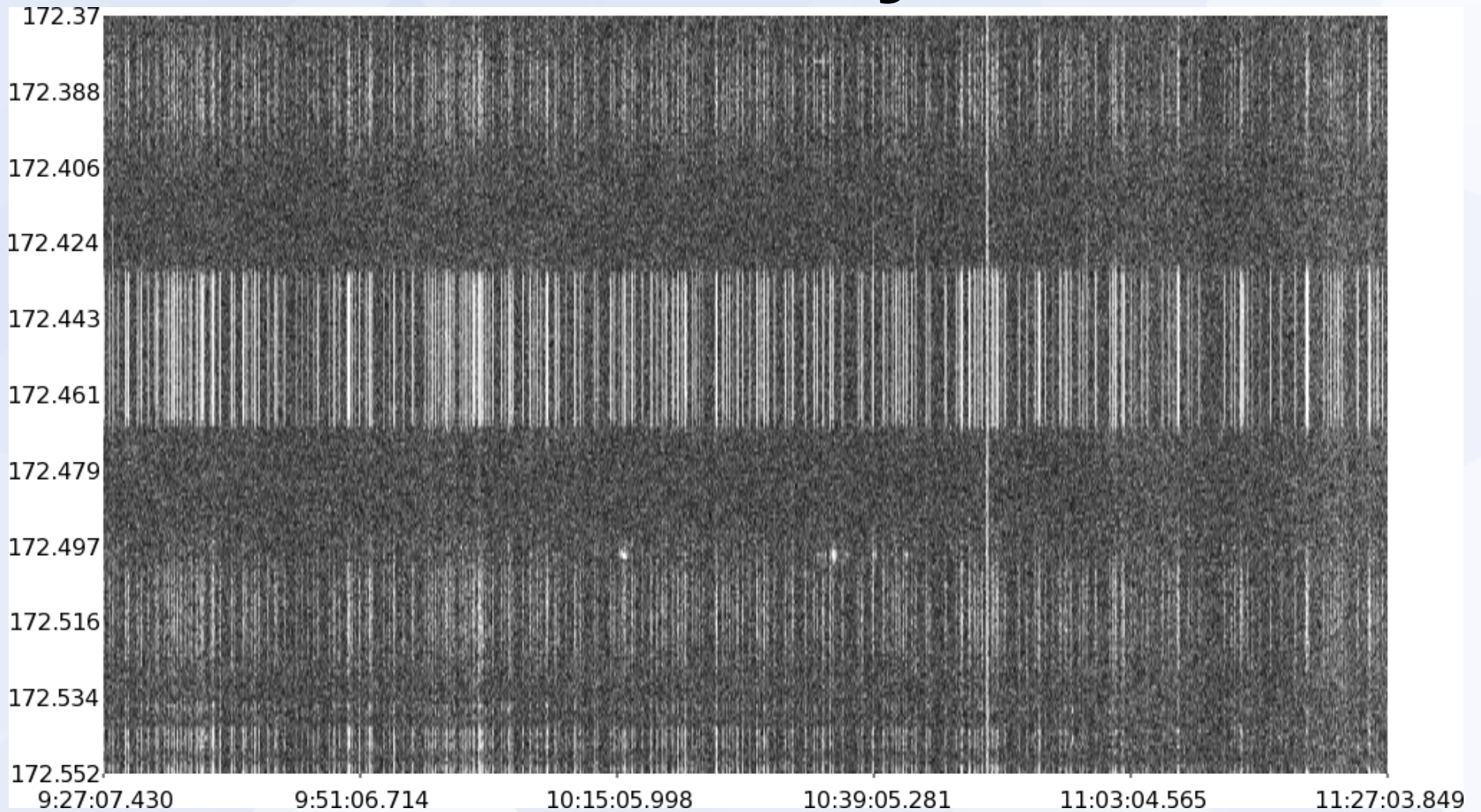
```
flag1.type=madflagger
flag1.threshold=4
flag1.freqwindow=31
flag1.timewindow=5
flag1.correlations=[0,3]

avg1.type = squash
avg1.freqstep = 256
avg1.timestep = 1

flag2.type=madflagger
flag2.threshold=3
flag2.timewindow=51
```
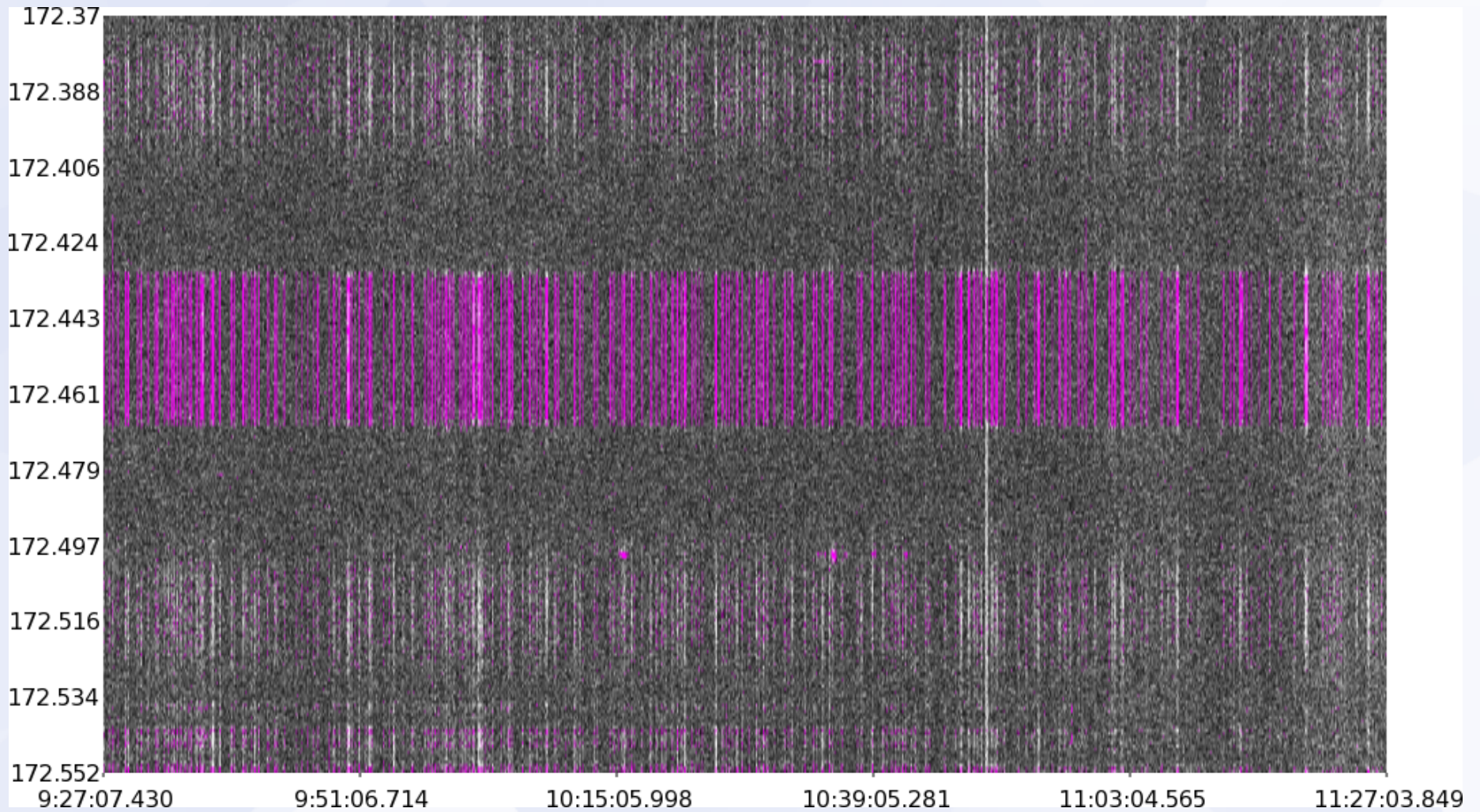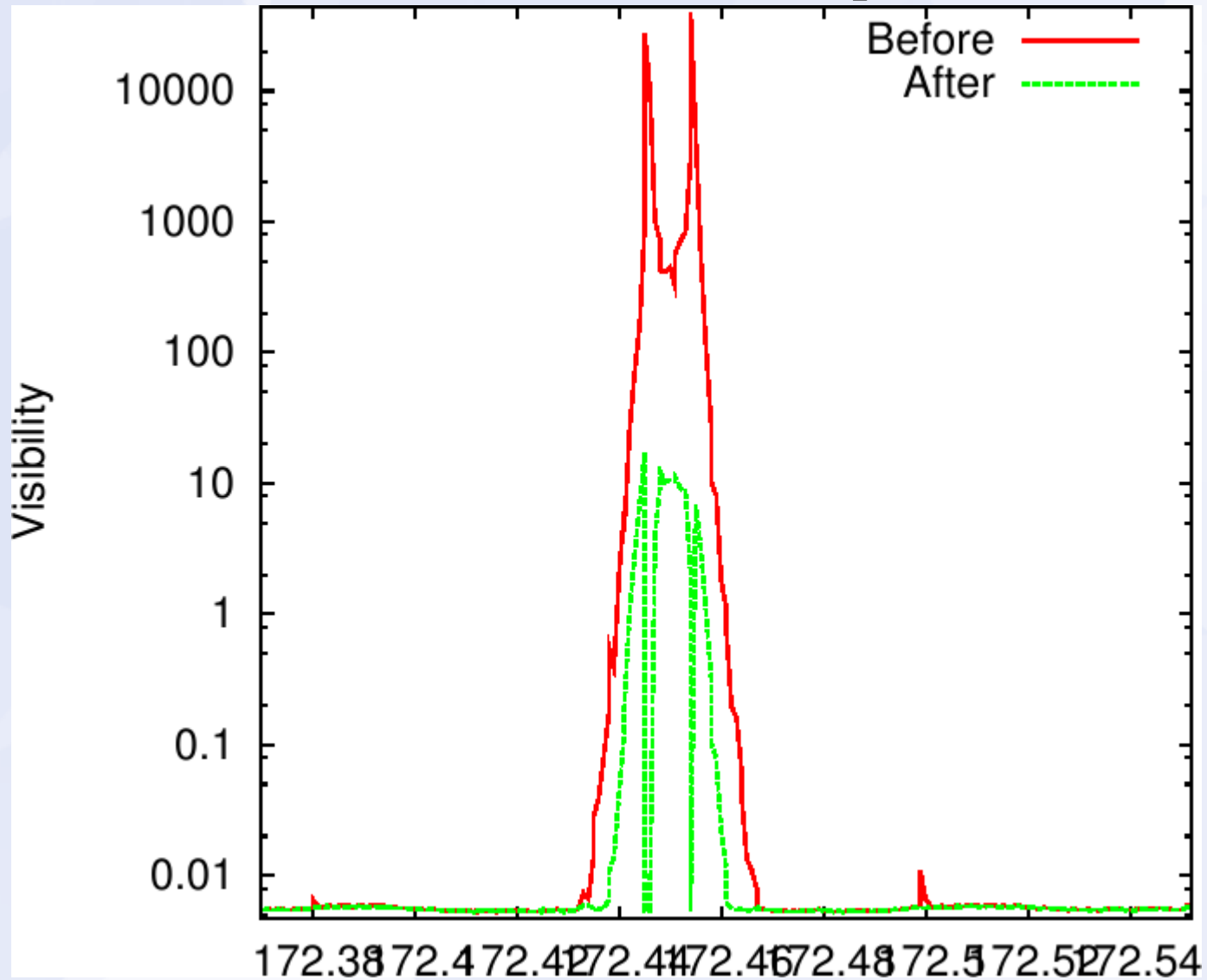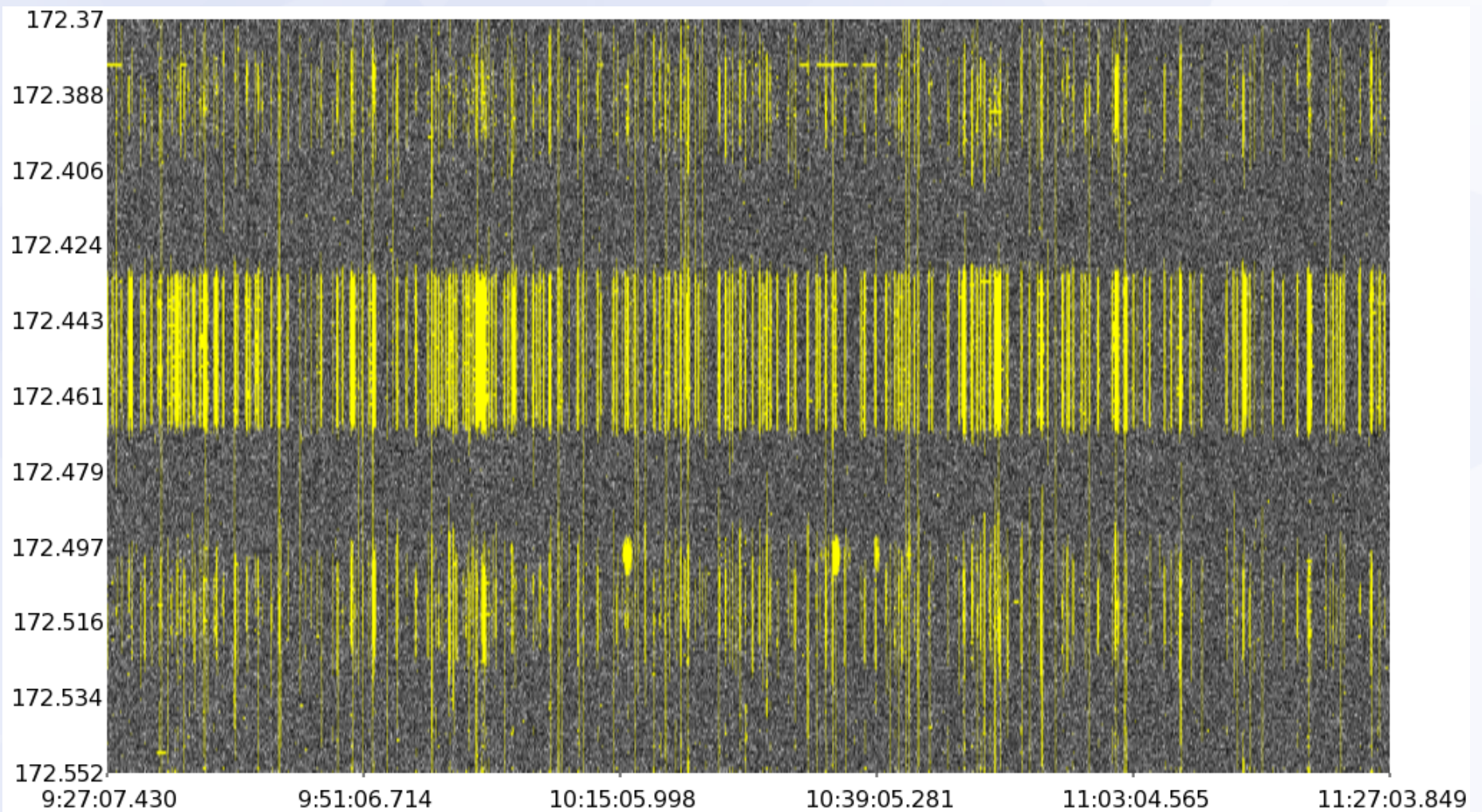
Comparison of flaggers: accuracy
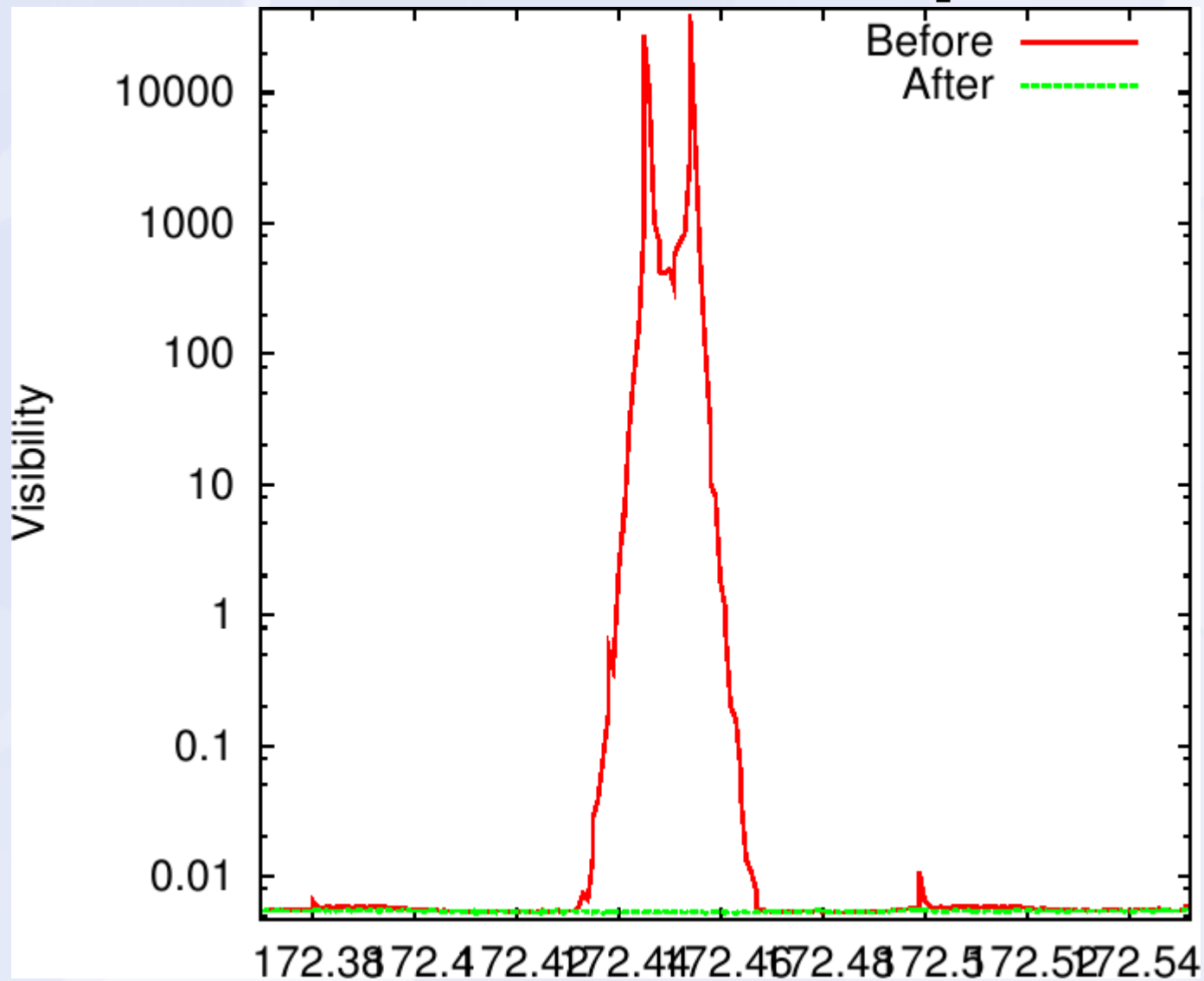
NDPPP's output

NDPPP's output

Rficonsole's output

Rficonsole's output

Rficonsole and NDPPP

- NDPPP misses a lot and generates false positives

- AOFlagger flags almost all of the time all "by eye" visible RFI

- With these settings, rficonsole is about two times faster compared to NDPPP

Rficonsole and NDPPP

The -j parameter on a 10 min snapshot

Threads performance of rficonsole (note: optimal is dependent on size of dataset!)