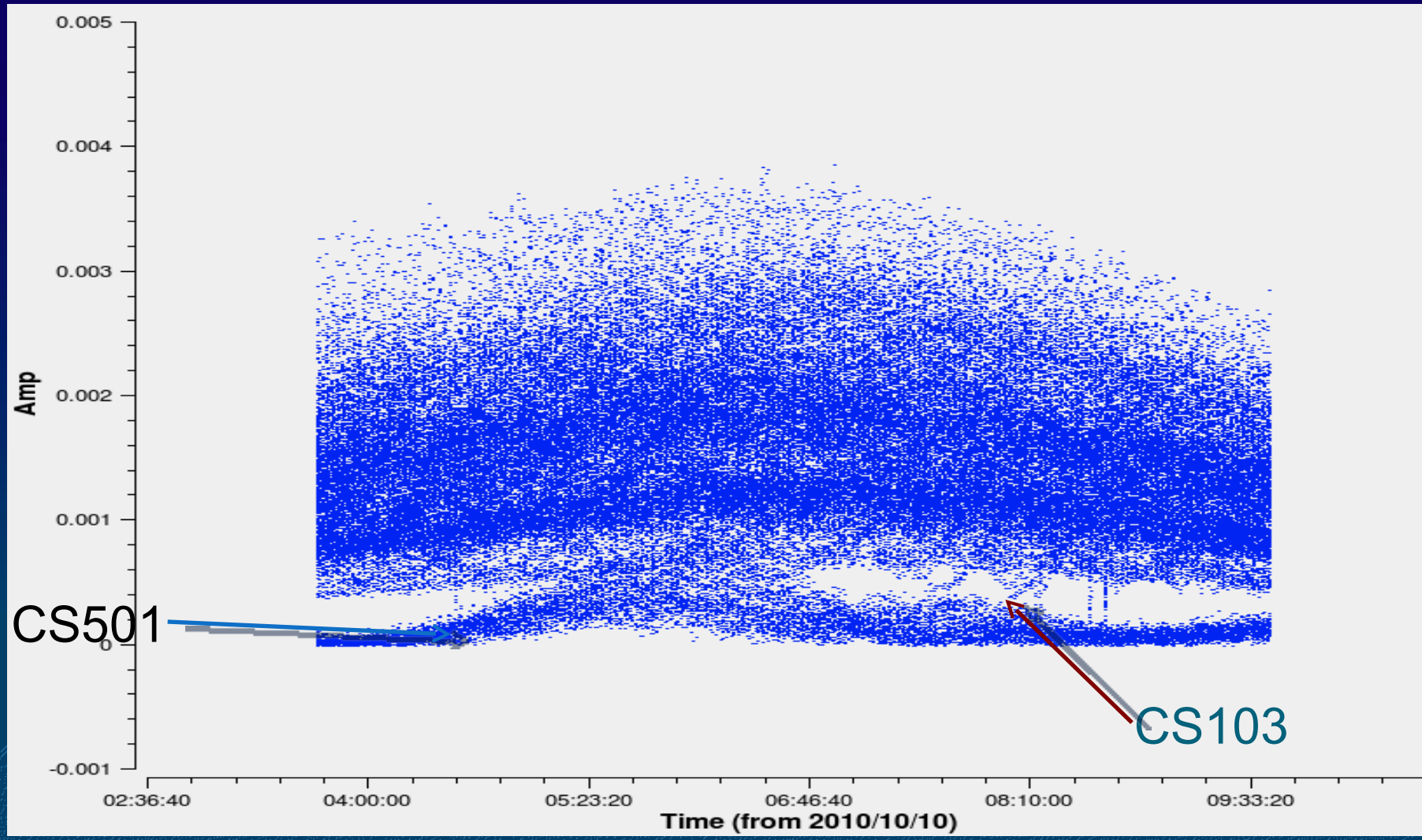
Data analysis 3C196 + ITRF beamserver

Ilse van Bemmel

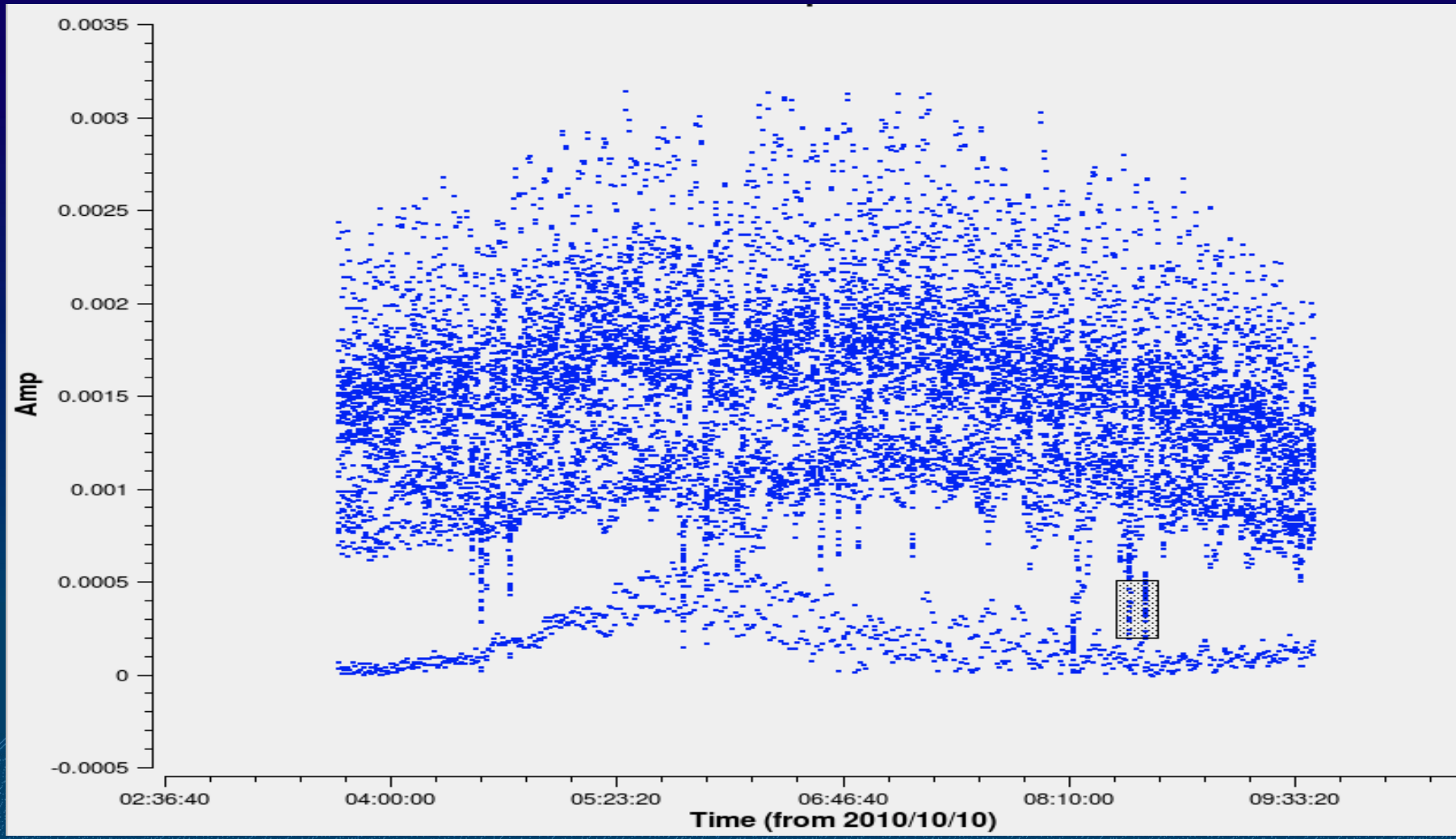
Data

- ITRF beamserver
- 3C196 field
- 6 hours
- HBA (tossed the HBA1 fields)
- NDPPP: combine channels, MAD-flagger

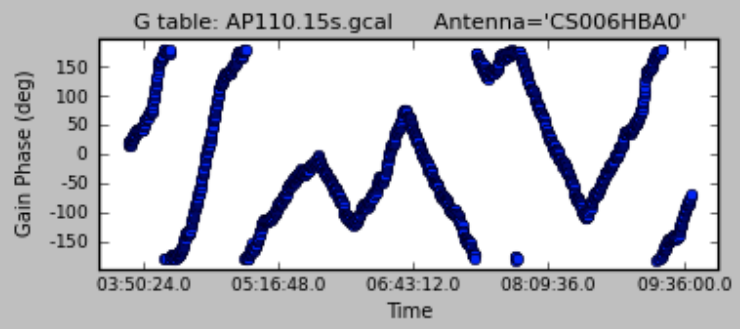
Data inspection

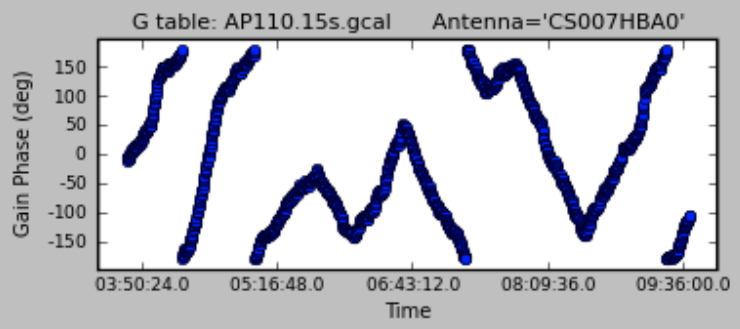


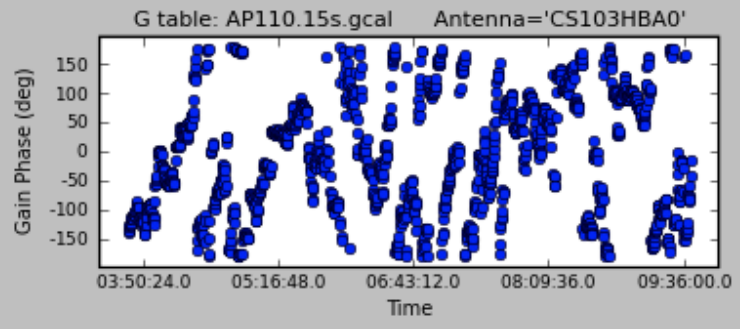
Data inspection

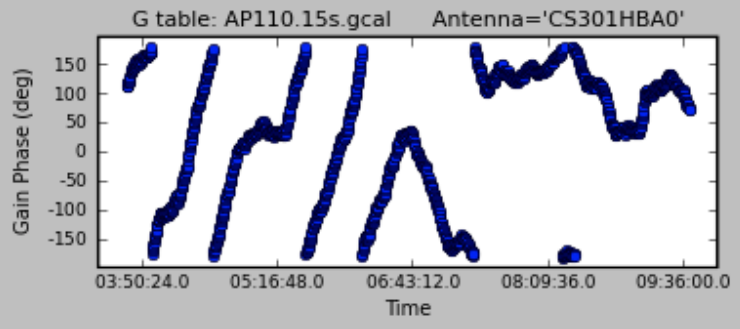


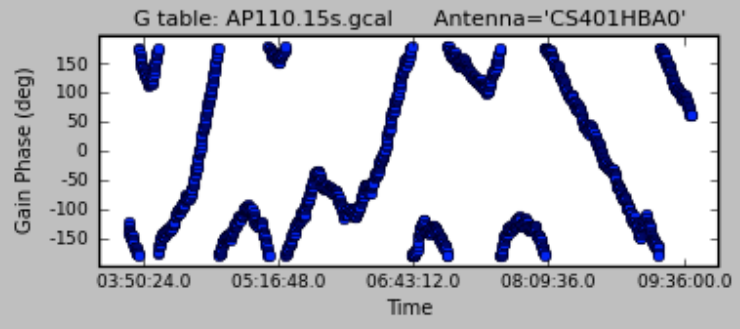
Calibration

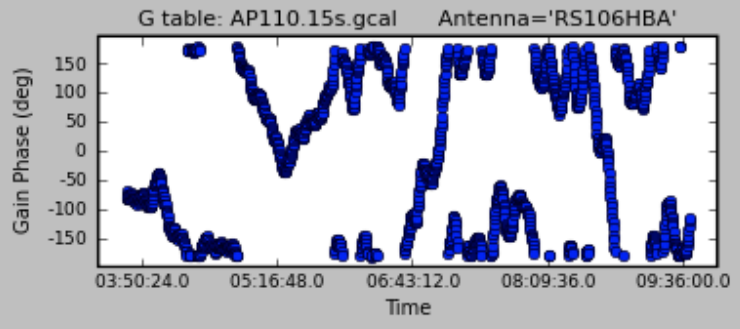


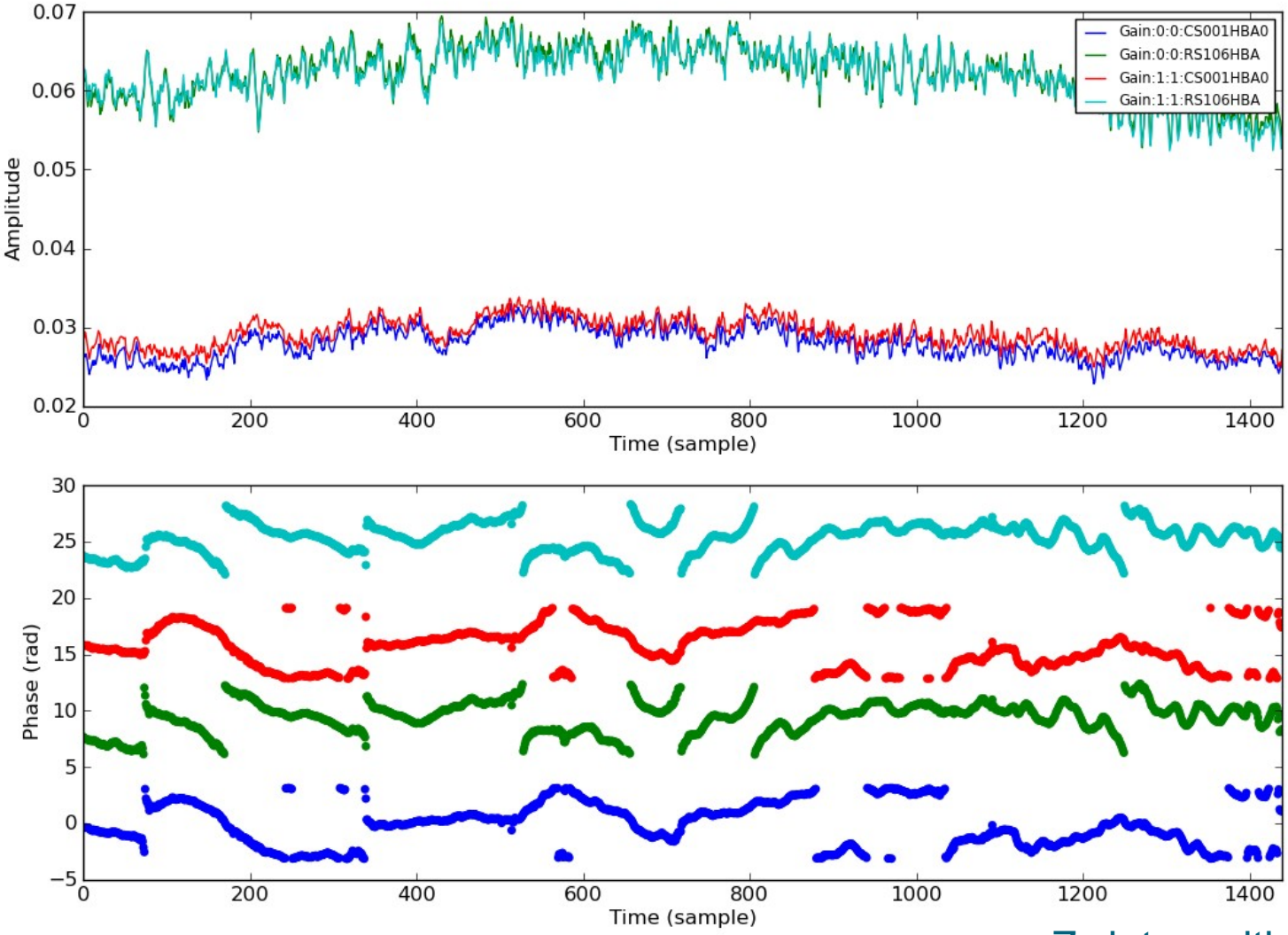












van Zwieten with BBS

Imaging

- Wide field:

  w-planes = $\lambda B/D^2 = 25$

  $\lambda = 2.2$ m

  B = 30 km

  D = 50 m

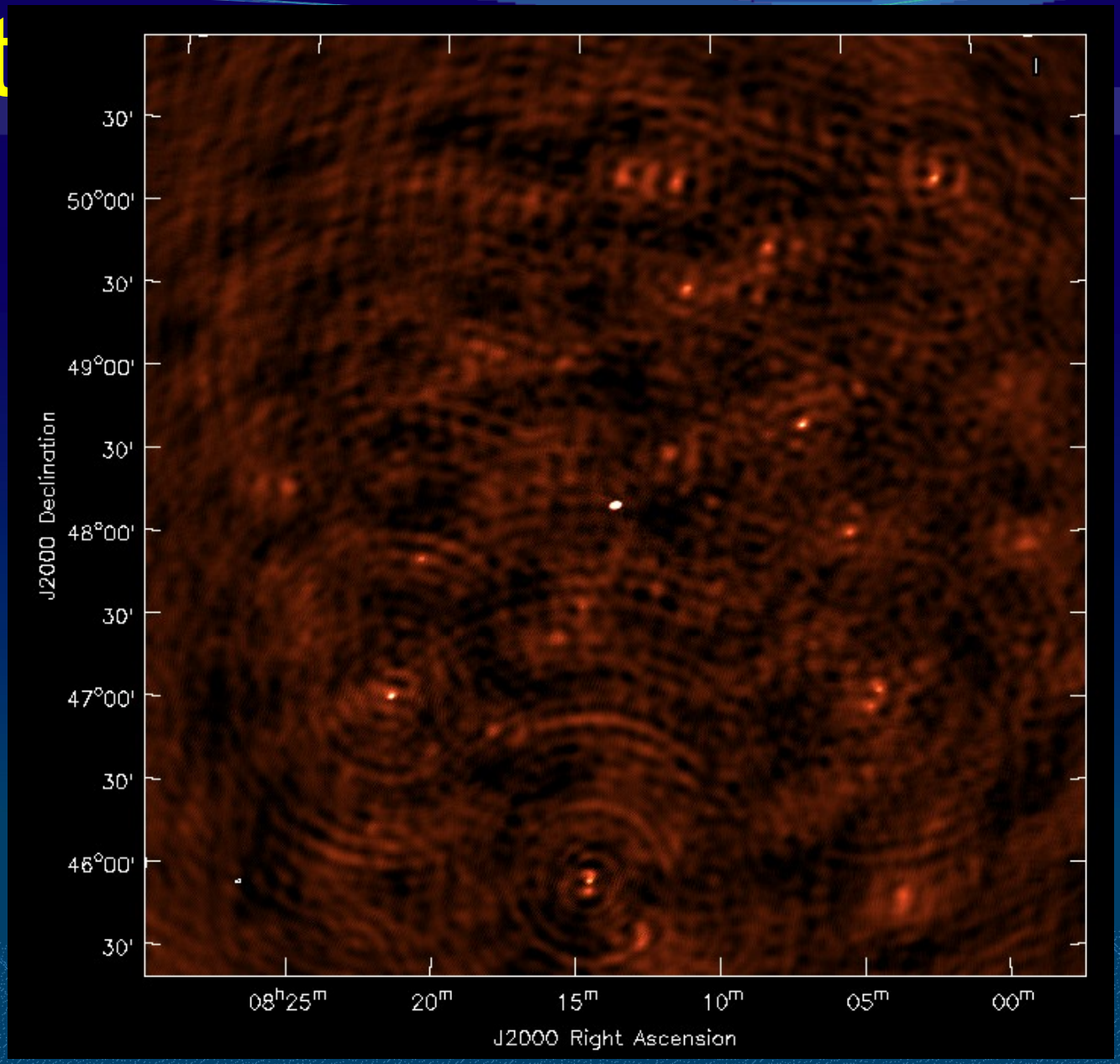
  use

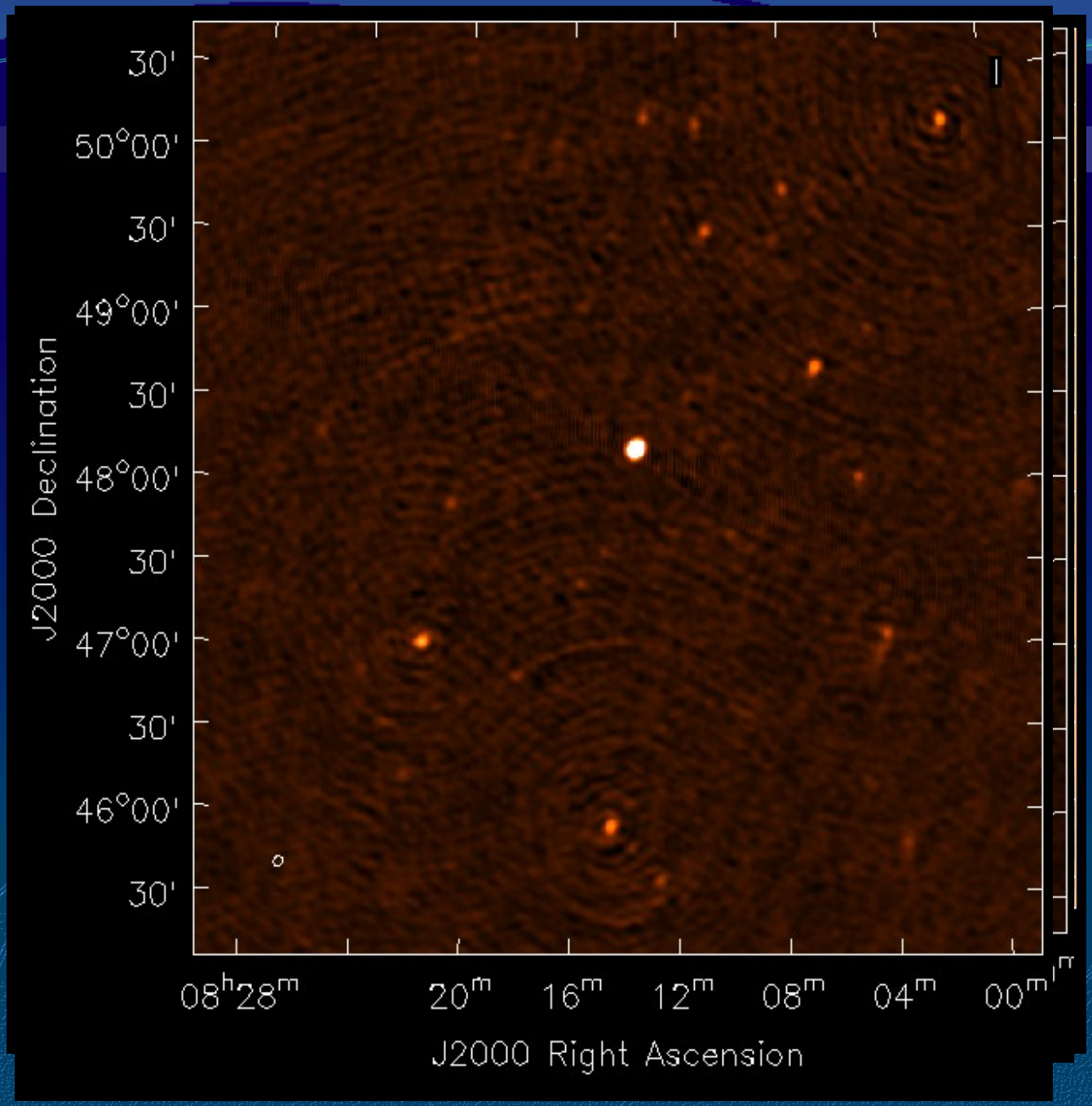
  w-projplanes = 32

  cell = 10 arcsec

  image size = 2048^2

Result


30'
50°00'
30'
49°00'
30'
48°00'
30'
47°00'
30'
46°00'
30'
J2000 Declination
08h25m
20m
15m
10m
05m
00m
J2000 Right Ascension


30'
50°00'
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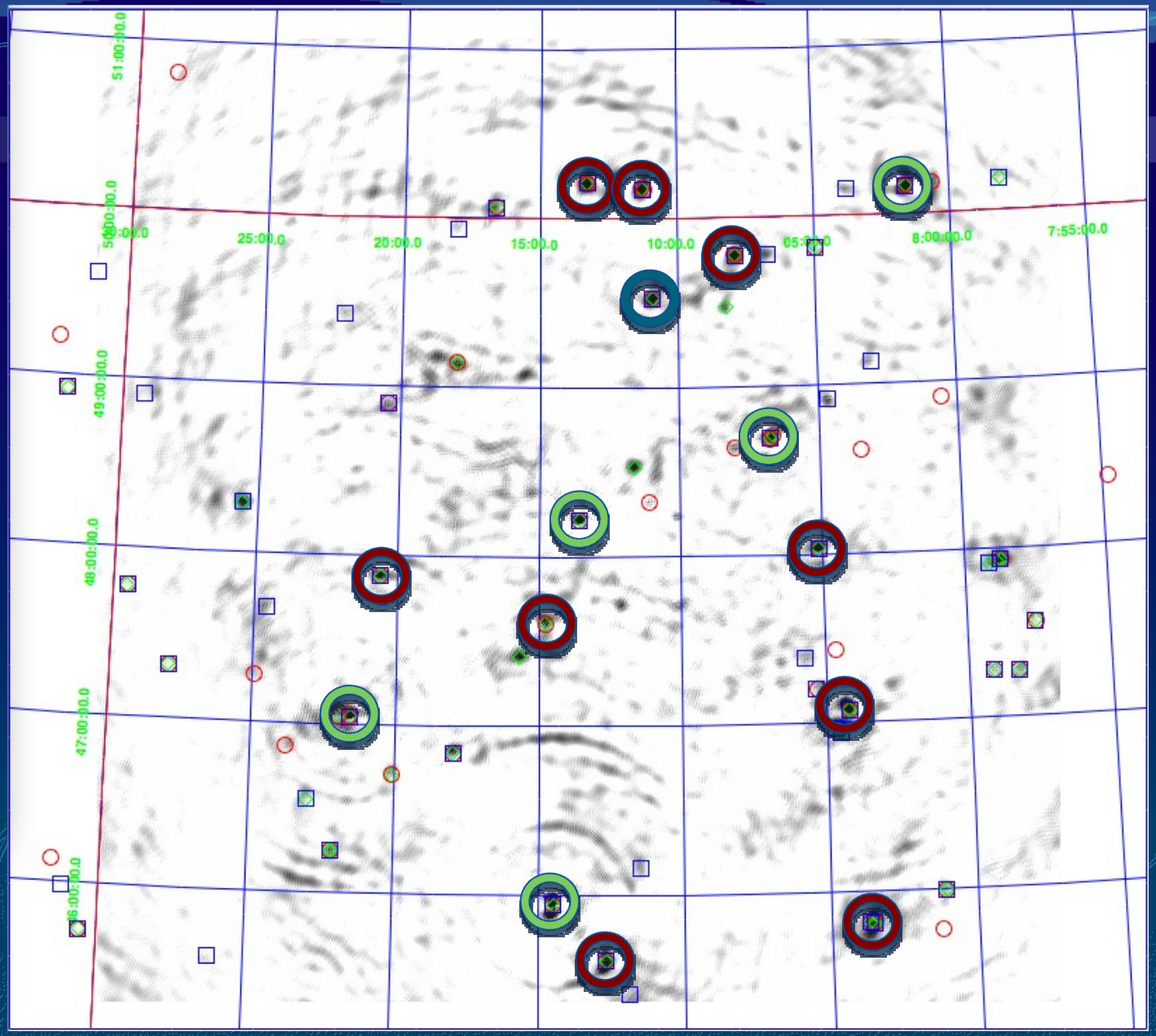
49°00'
30'
48°00'
30'
47°00'
30'
46°00'
30'
J2000 Declination
08h28m
20m
16m
12m
08m
04m
00m
J2000 Right Ascension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50:00:00.0
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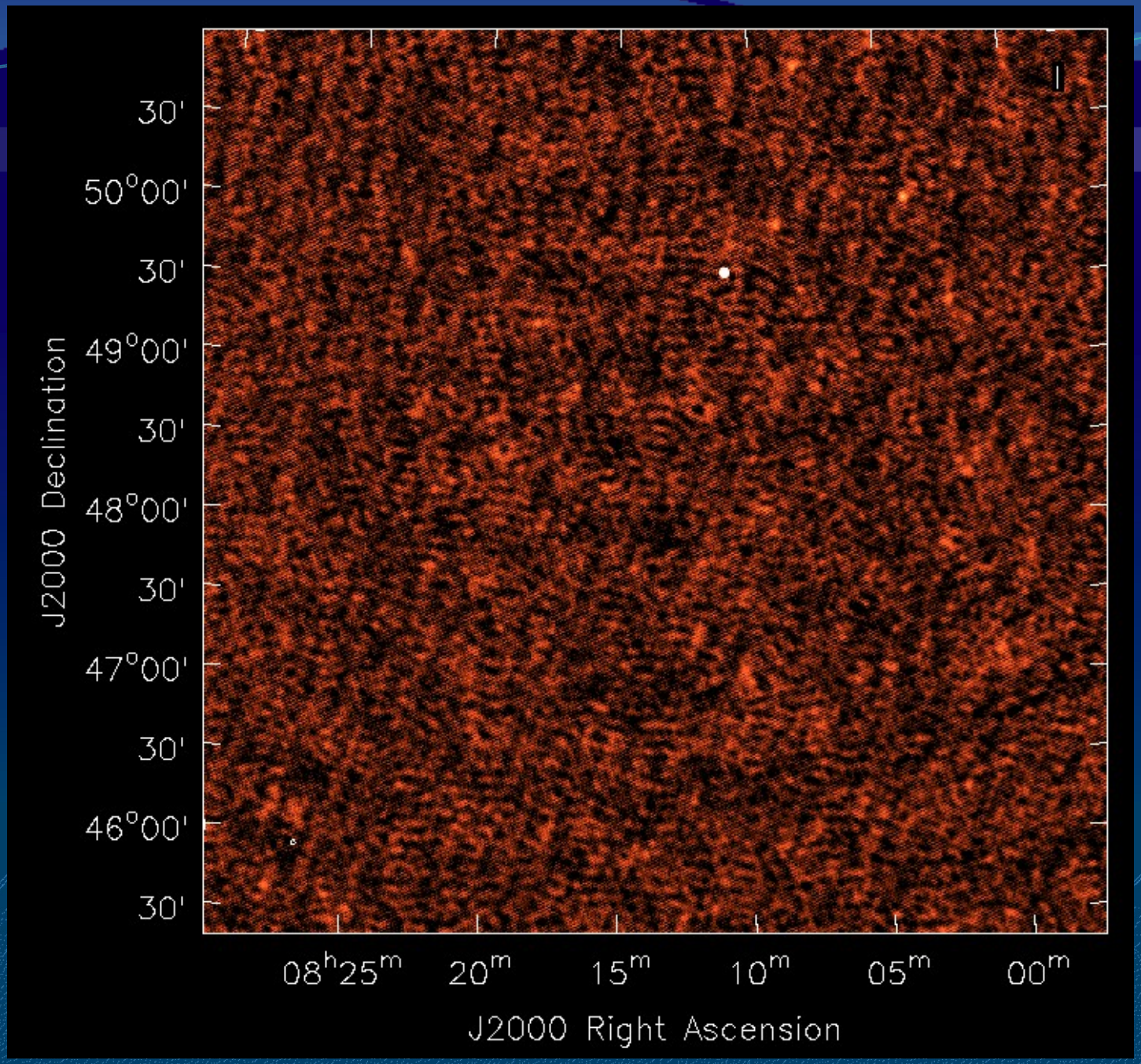
Conclusions

- Execellent data quality!
- Need better output for rficonsole
- W-projection essential: w-planes = 32
- Natural weighting
- Clark clean

- Next:
  - update skymodel and calibrate again
  - compare to BBS results

BBS multi-source attempt

- Directional gain calibration to 6 brightest sources
- Subtract 5 brightest sources
- Correct for source 6
- Image in CASA


30'
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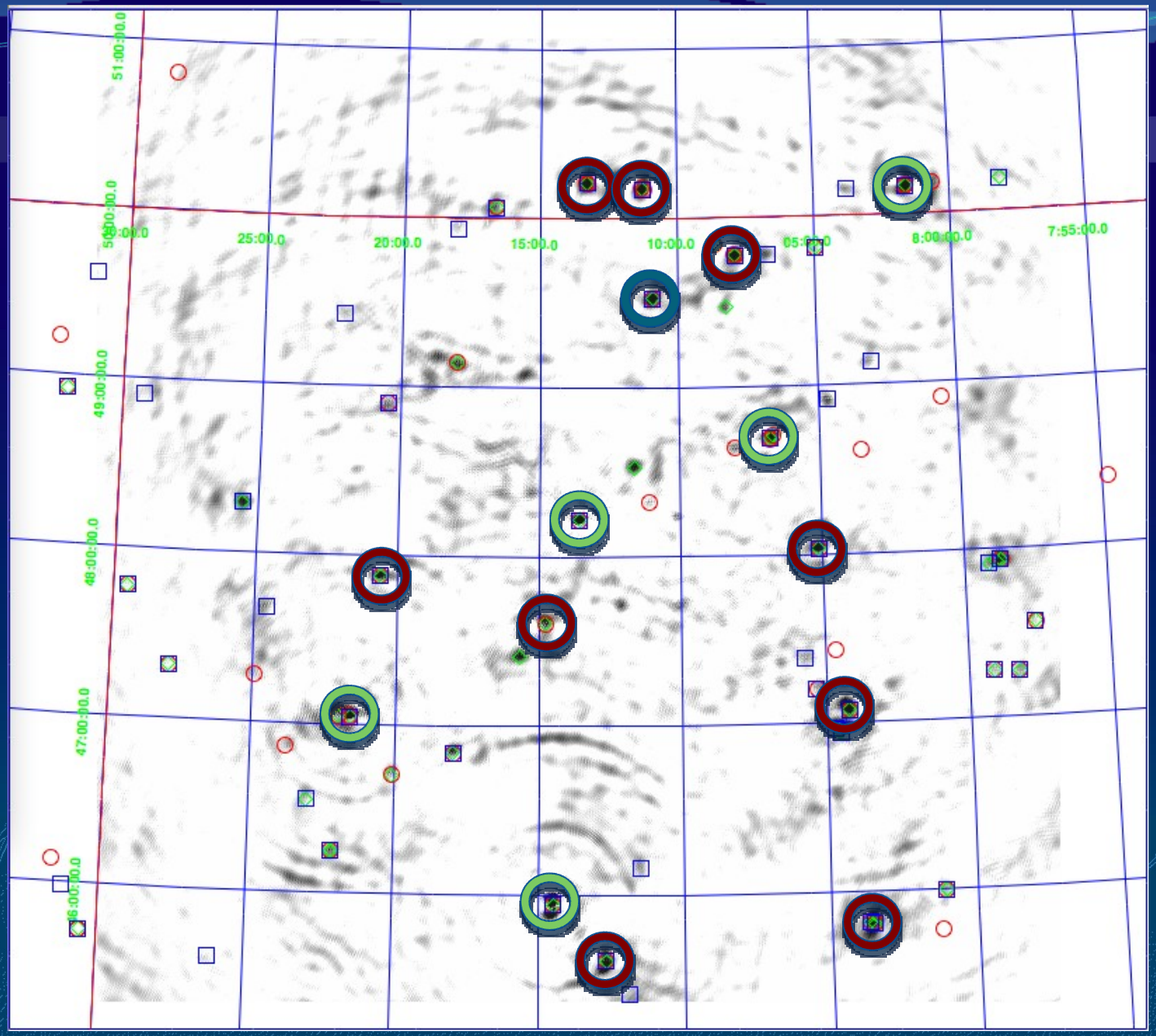
46°00'
30'
J2000 Declination
08h25m
20m
15m
10m
05m
00m
J2000 Right Ascension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