Black Board Self Calibration Progress -> Continued

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Aug 28, 2007

Outline - Recap

① Recap - BBS - Detailed checks on Simulated data

② BBS - Checks on CS1 Data & Comparison with MeqTree solutions

BBS - First Image

③ **Not Presenting deep images-> next week**

④ BBS Status/Processing - Different Versions, their status

⑤ RFI /Deep RFI Flagging - MMSE

⑥ Conclusions - Next Step

BBS-Image - 1 (62MHz)

- MS1810, SB19
- Channel 10-240 (BW 240 KHz)
- Time used 7.5 hrs   (from start)
- *uvw* during solv
- CasA and CygA subtracted, corrected-> CasA
- Tycho (114 Jy)
- other sources
- very preliminary analysis
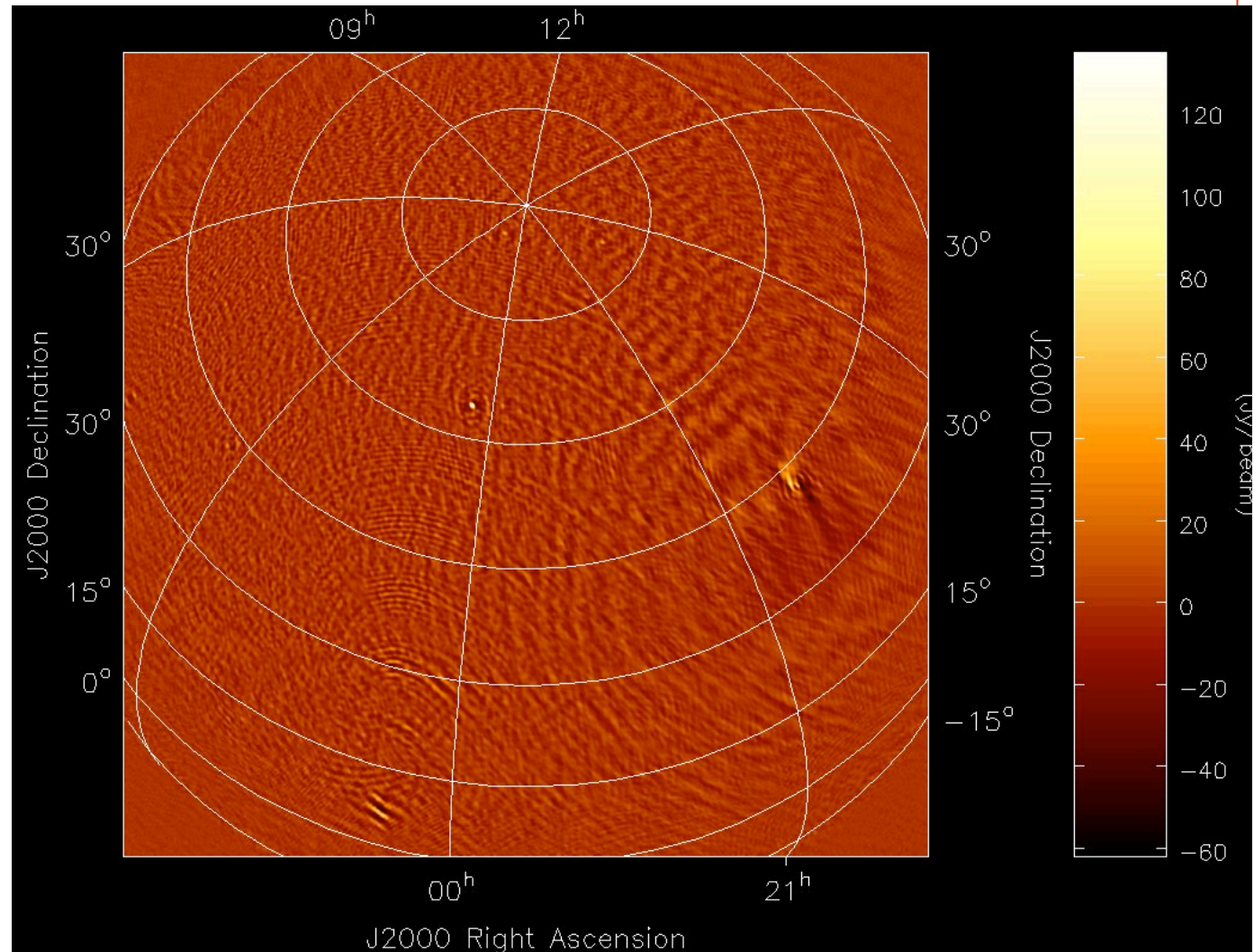
No MMSE, 20 iteration, uv<100m flagged

BBS-Image -2 (59.9MHz)

- MS1810, SB18
- Channel 10-240 (BW 240 KHz)
- Time used 7.5 hrs   (from start)
- *uvw* during solv
- CasA and CygA subtracted, corrected-> CasA
- **Tycho (110 Jy**)
- other sources
- very preliminary analysis
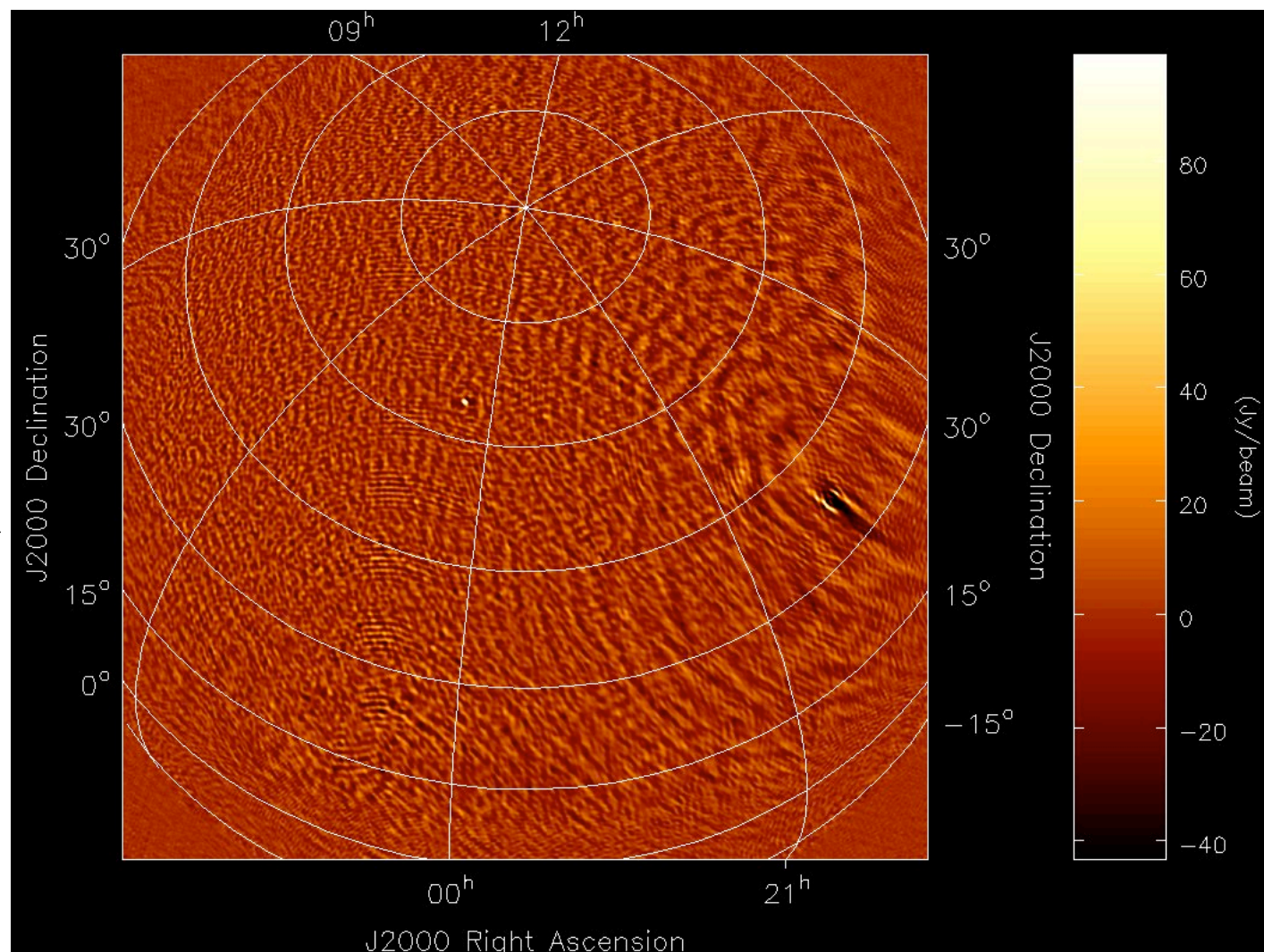
No MMSE, 20 iteration, uv<100m flagged

BBS Progress

- **BBS - Versions**

  -> Native

  -> customised to run for having smaller solve domains, passing of soln (about 1 hr for 16hr data file, 1 min integration, 10itr, 256 channel)

  -> Distributed Version

  -> Distributed Version with Beam (Sarod's Analytical Beam)

- **BBS - Pipeline**

  -> Flag Autocorrs, bad channels, uv range clipping, amplitude clipping

  -> create sky model and instrument model
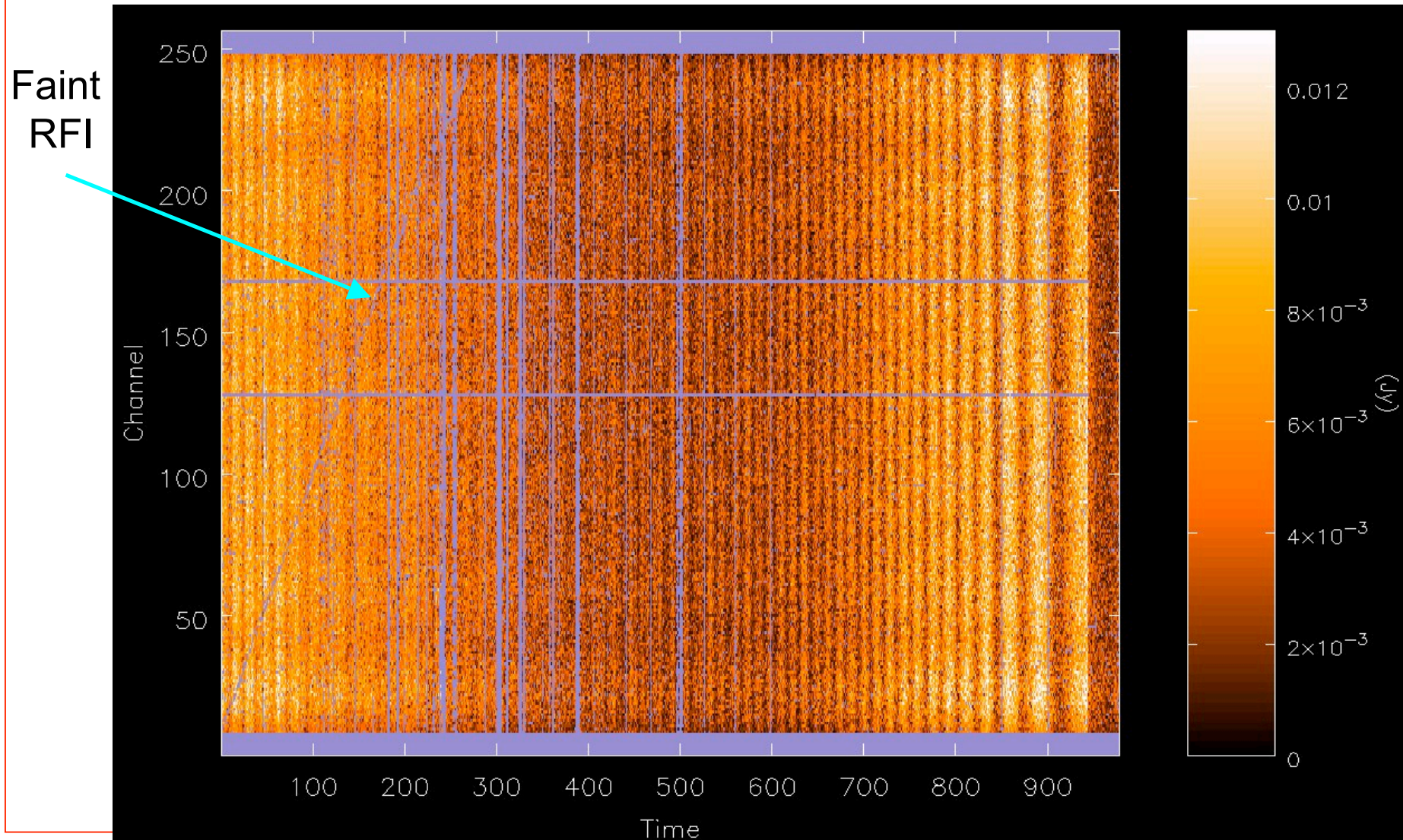
  -> Configuration/parset files for BBS running

  -> plot tools to inspect solutions, port them as text files

  -> image it

RFI Flagging

- **Deep RFI flagging improvement over median filter? ->> more results later**

Faint RFI

Conclusions - Dates

- **We verified all four BBS stages - predict, solve, correct and subtract on simulated data.** Our comparison of BBS solution with MeqTree solutions match.

- **Distribution Version being checked/Beam implementation.**

- **Pipeline under construction -> should be ready in 2 weeks**

- **Deep Images -> will present it next week**

- **Optimal flagging!! (important in reducing mis-interpretaion!) - Going on**

!! Thank you !!