

CS-1 developments: 21-28 mar 2007

Observational program last week. There was little progress because everyone was busy writing documentation.....

- LBA: CS16 antenna problems (Rob Millenaar is looking into this)
- LBA dropout of autocorrelation signals (see plots)
- HBA: some tests but still no good data, nor fringes (see plot)
- outstanding issues: 160/200 MHz (to be picked up next week, I hope)

Ideas/plans for new observations

- Transients KSP have requested repeated observations (5-10 x 10h over one month period near zenith. This will be accommodated when the system is 'stable'.
- Better dedicated observations needed to get dipole beam parameters.
- Broadband data needed (e.g. 24 subbands over full 15-75 MHz range) to get frequency dependent S/N (Casey, Ger)
- Some 'perfect' datasets needed to go deeper (and to show off at CDR & Emmen)

CS-1 data analysis

Calibration:

- MeqTrees efforts (Sarod, Joris): not much progress to report
- BBS calibration (Joris, Pandey): some work on WSRT LFFE datasets done
- Discussion on 'peeling vs simultaneous solutions' (#parameters, convergence, speed, MeqTrees versus BBS) . Conclusion: will be studied using archival discussions, simulations and actual data processing

Imaging

- Field shift problem still unsolved
- Dynamic range and flux scale in 'CasA-allsky' image.... somewhat misleading
(there are several complicating issues: the primary beam of 48-dipole station only on CasA, the varying CasA flux and varying source intensity as function of time (not up all the time))

Beam modelling progress

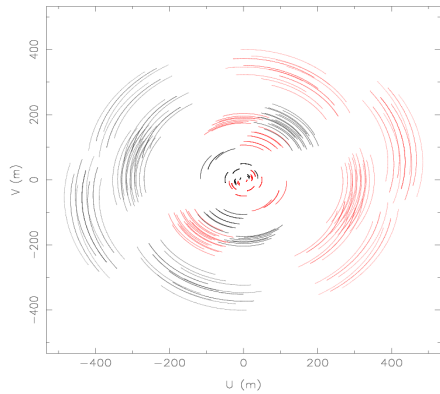
- Sarod's efforts on analytic beam fitting (Jan reports)---> next week

Ionospheric modelling progress

- using GPS (James, Maaijke, Jan)

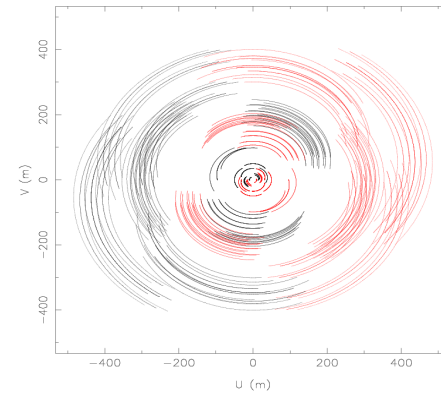
uv-coverage CS-1 (16 dipoles) (L1576, CasA) after 3, 6, 12 and 24 hours

sp64_4/ger/LOFAR/CS1/data/24feb07-L1576/L2007_01576_SB4-5.MS Spectral Window: 2 Polarization: 1 F



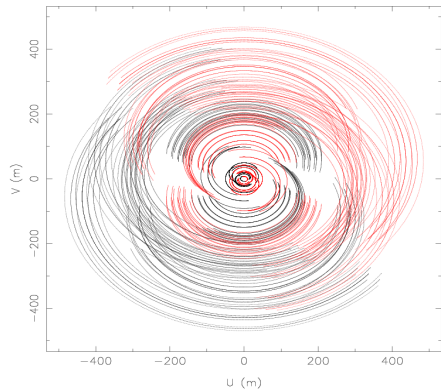
ger 24-Mar-2007 18:32

sp64_4/ger/LOFAR/CS1/data/24feb07-L1576/L2007_01576_SB4-5.MS Spectral Window: 2 Polarization: 1 F



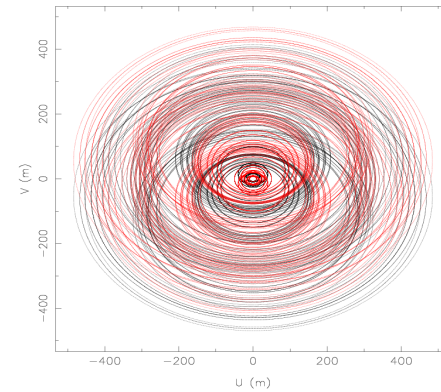
ger 24-Mar-2007 18:32

sp64_4/ger/LOFAR/CS1/data/24feb07-L1576/L2007_01576_SB4-5.MS Spectral Window: 2 Polarization: 1 F



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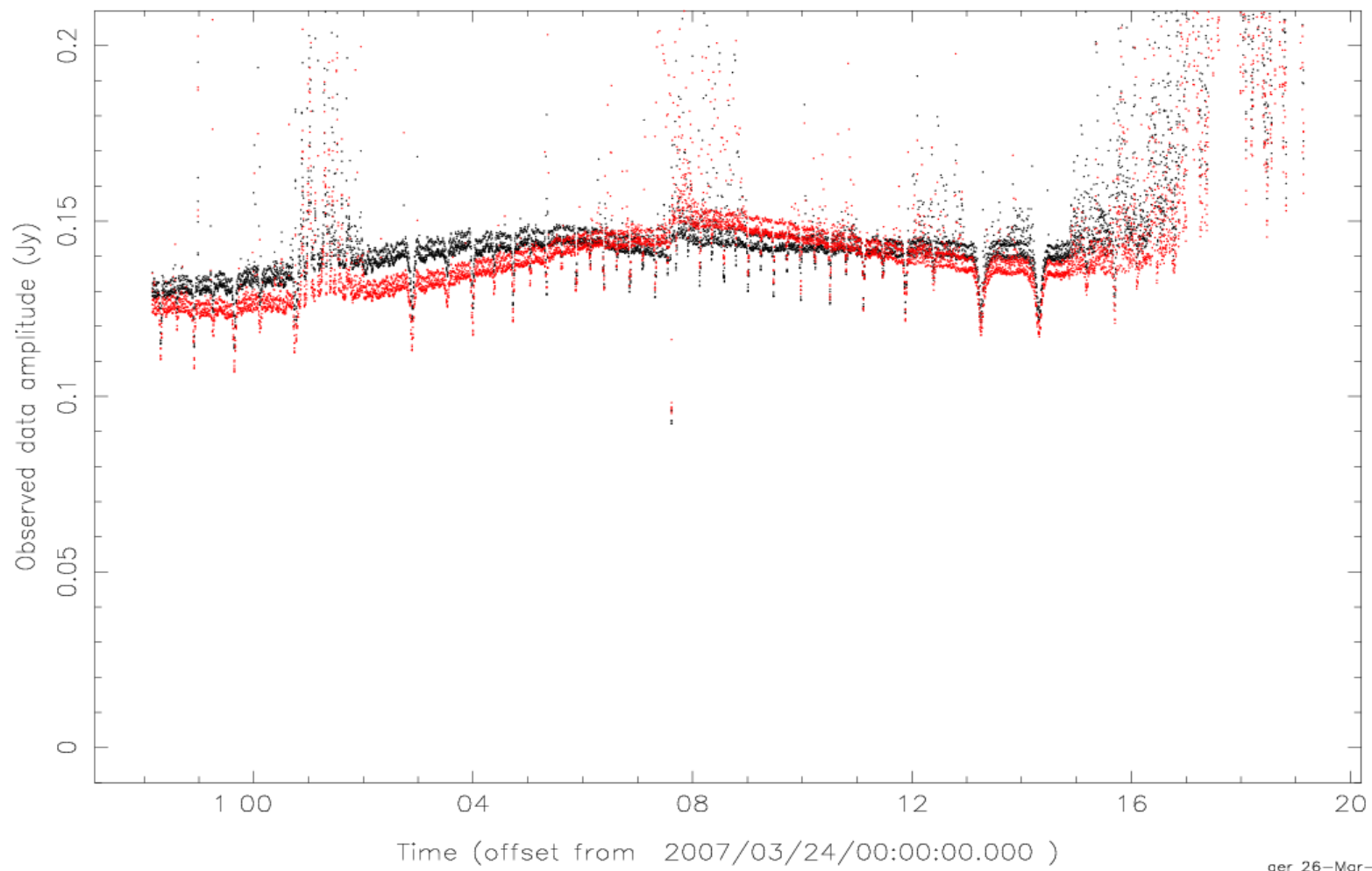
sp64_4/ger/LOFAR/CS1/data/24feb07-L1576/L2007_01576_SB4-5.MS Spectral Window: 2 Polarization: 1 F



ger 24-Mar-2007 18:31

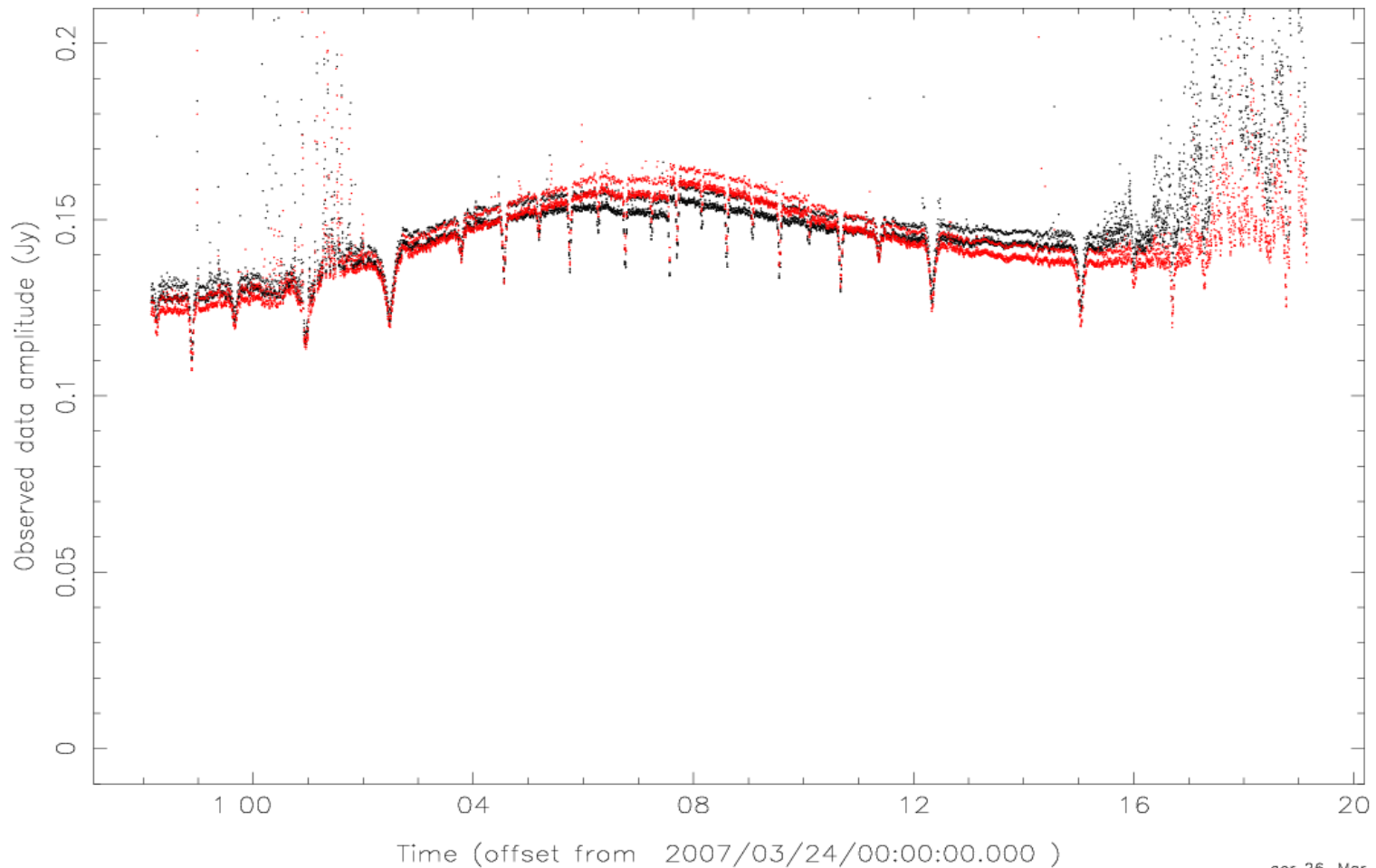
CS008 (ANT9) autocorrelation SB3 (35 MHz) L1797 25Mar07

jop64_4/ger/LOFAR/CS1/data/25mar07-L1797/L2007_01797_SB3.MS Spectral Window: 1 Polarization: 1 Fi
XX YY Antenna1 = 9 Antenna2 = 9



CS001 (ANT5) autocorrelation SB5 (43 MHz) L1797 25Mar07

lop64_4/ger/LOFAR/CS1/data/25mar07-L1797/L2007_01797_SB5.MS Spectral Window: 1 Polarization: 1 Fi
XX YY Antenna1 = 5 Antenna2 = 5



First HBA test on L1787 23Mar07

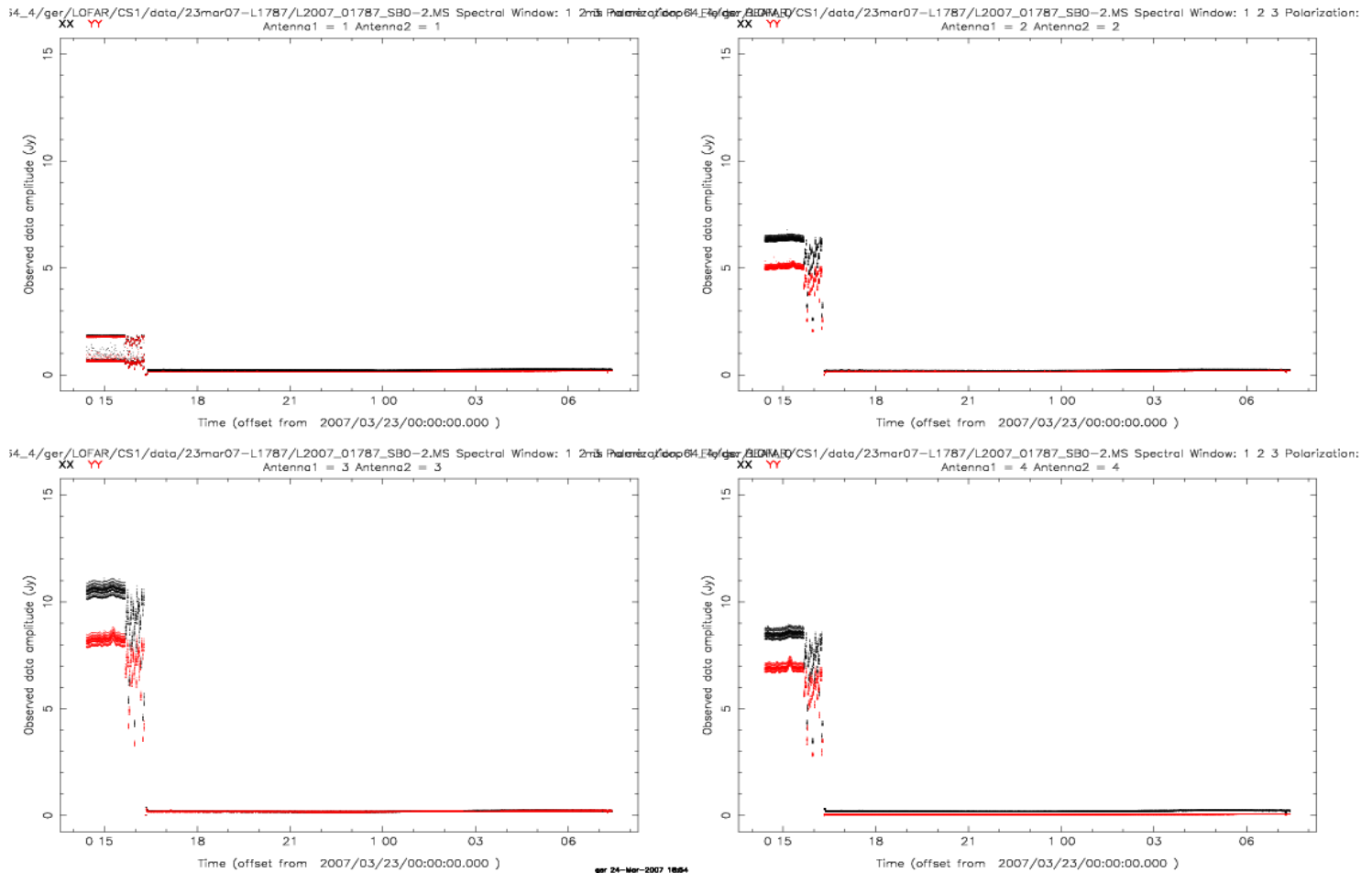


Image used in discussion on flux scale and dynamic range in images...

L1576 area (24Feb07) near Cas A/Tycho
(Note: KVIS display, wrong coordinates)

