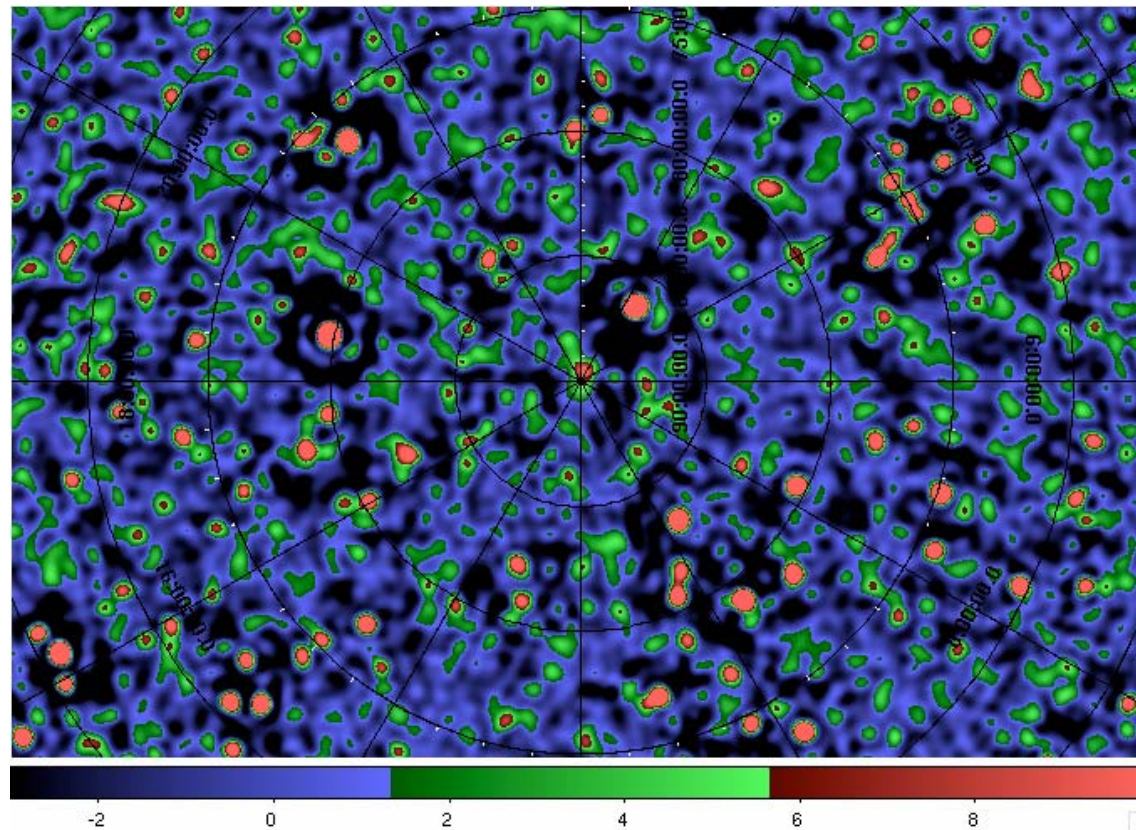# Summary from the Calibratibility Workshop
Ronald Nijboer & Ger de Bruyn

1. LOFAR Configuration
2. Calibratibility
3. Polarization issues
4. Data and Image Quality
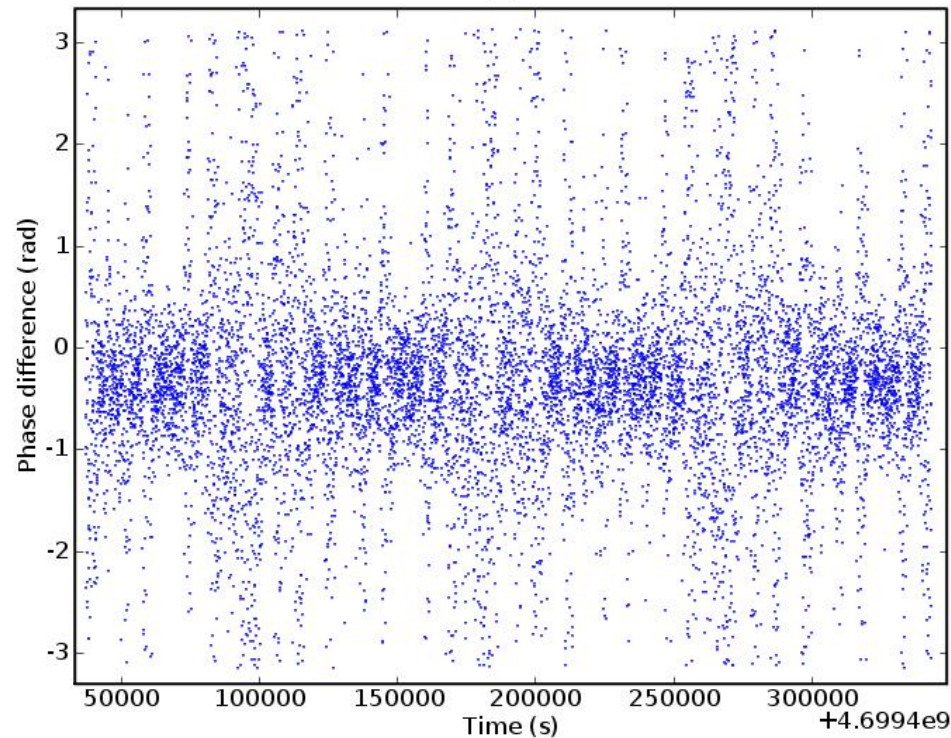5. Software
6. Ionosphere
7. Sky models (flux, positions, …)

- **LOFAR Core Array Configuration (25, 18, 13)**
  - Core Super-station
  - 3 times 6 HBA halter orientations for redundancy
- **LOFAR NL-Remote Array Configuration (first 6+1)**
- **LBA Station Configuration**
  - 2 * 48 antennas (LB-L, LB-H)
  - Outlier dipoles for Calibration
- **HBA Station Configuration**
  - 2 24 tile "half stations" in the Core
  - 1 48 tile "full station" for the NL-Remote
- **Hardware issues**
  - RCU design is fixed
  - Procedure for Clock stability fixed

- Initial analysis by Stefan Wijnholds on achievable "Dynamic Range"

- Use of Outlier Dipoles for Station Calibration

- Redundancy for HBA "halters" in the Core
  - Three sets of orientations
  - No additional redundancy in the super-station

- Peeling of 5 sources: CasA, CygA, Tycho, VirA, TauA

- Initial data reduction for measurements with rotated dipoles
- Discussions …

- Analysis of stability of data and redundancy started using DAL software (USG) and DP^3 pipeline

Time vs. Phase Difference, Antennas 8-11/9-10, Sub-band(0) Channel(100)
/lifs003/L2007_04086/SB0.MS/

- DP^3 Software ready (Default Pre-Processing Pipeline)
  - Correct for Bandpass
  - Flag RFI
  - Compress / collapse in frequency
  - Optionally: Combine into 1 MS

- DAL Software by USG

- Initial profiling results for BBS

Time vs. Amplitude, Baseline 8-8, Sub-band(0) Channel(100)
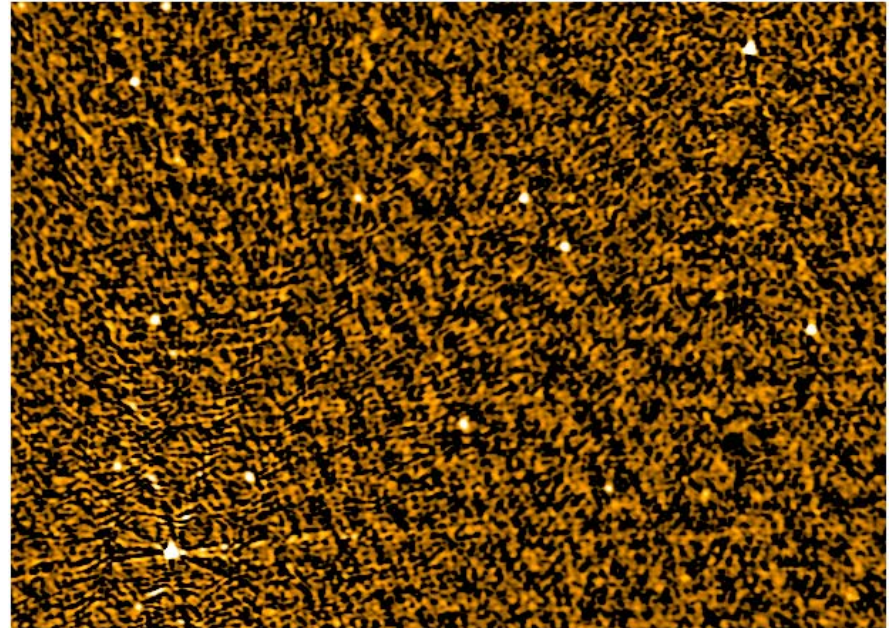/lifs003/L2007_04086/SB0.MS/
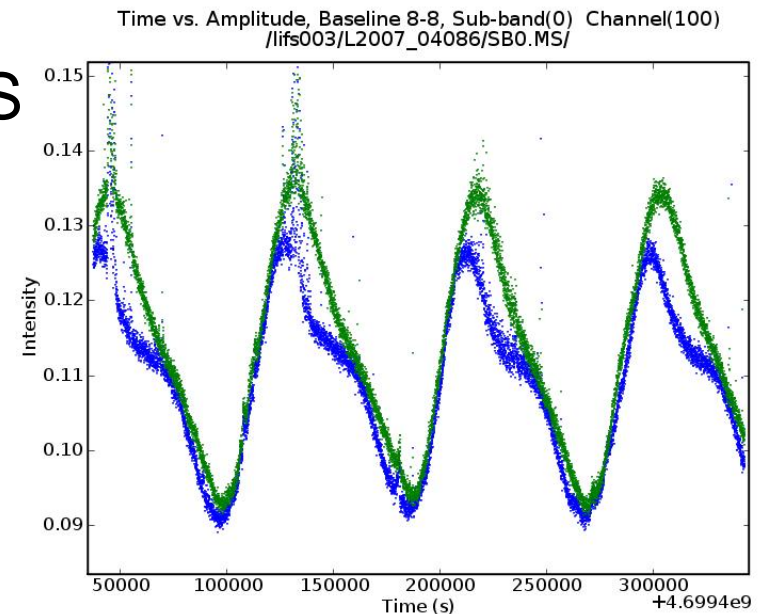
- Start of LIONS (LOFAR IONospheric Simulations)
  - GPS based work
  - SPAM (Source Peeling and Atmospheric Modeling)
  - Initial LOFAR Core simulations by X-mas
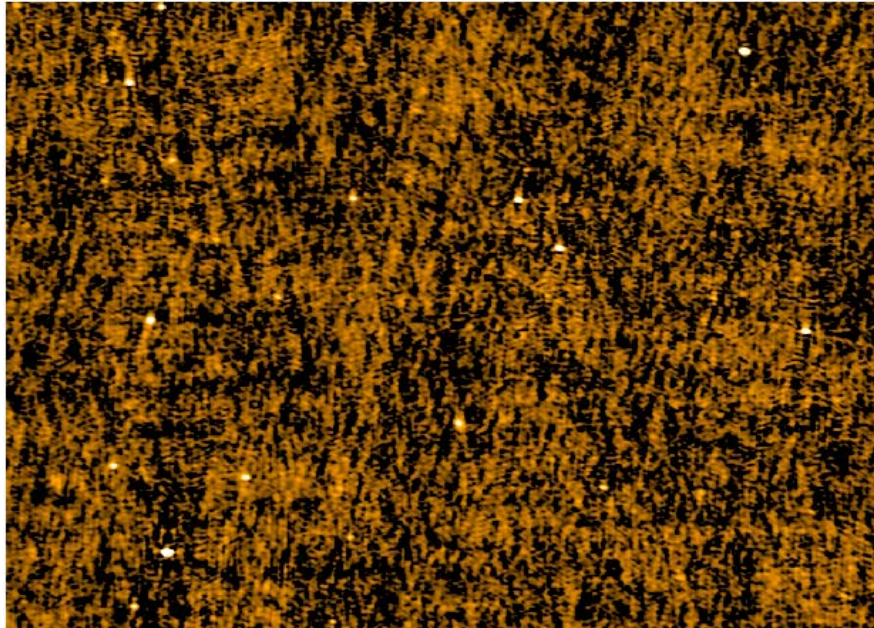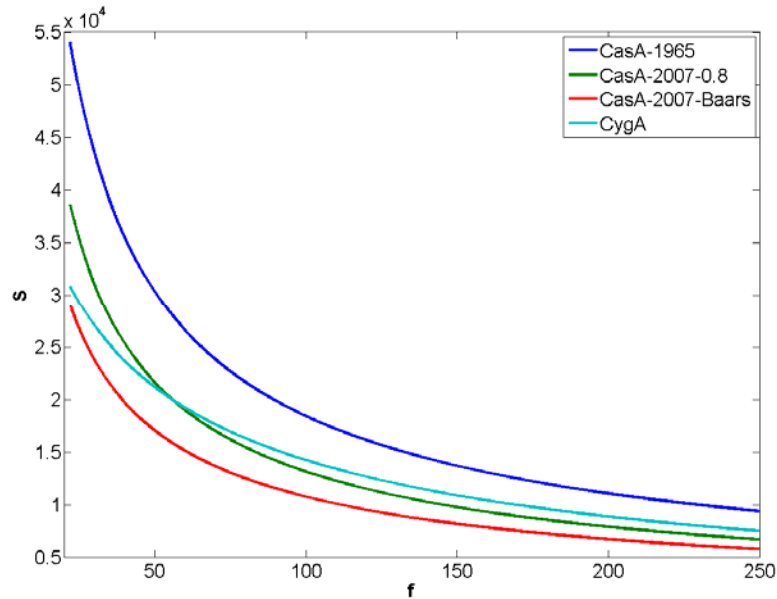

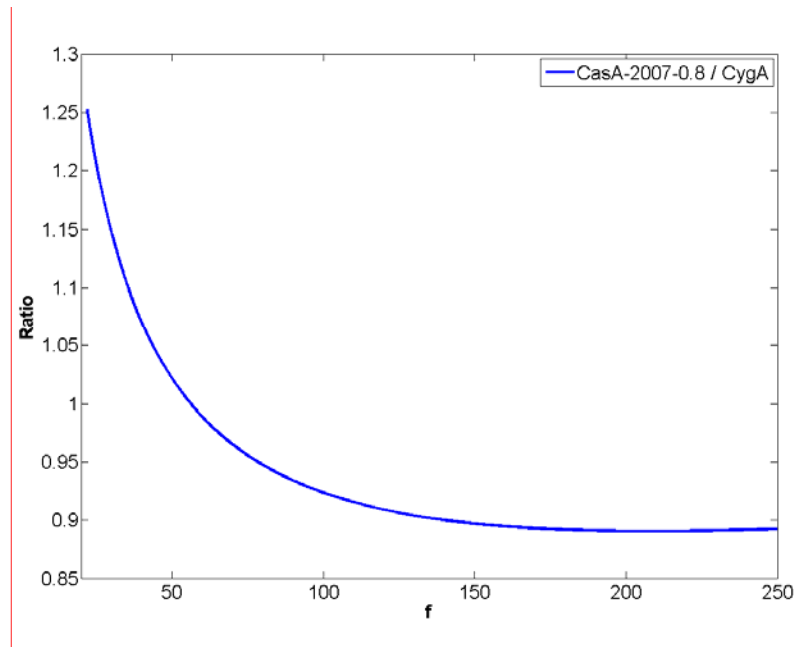SPAM (Intema)

VLSS field based calibration

- Initial analysis by Mohan and Van Weeren
  - See last weeks CS1 meeting
- There seems to be a flux scale inconsistency between 8C, VLSS, WENSS, and NVSS catalogues
- Working towards a GSM
- CasA / CygA are modeled with a flat spectrum in CS1 images

CasA and CygA fluxes

CasA / CygA flux

Based on Baars et al. (1977), and Reese (1990)