Discussion of observations for LOFAR CS1

This area is for more detailed comments about problems and tests done with specific observations. Start a new subsection for your favorite observation!

L2007_03693

Studied reflected signal of Italian TV station in SB3 (channel 179). Found roughly 20 individual events of different durations (0.1-4 s) and shapes (FRED profile to broad lump). See more in presentation by Casey at August CS1 meeting.

L2007_03453

reflections of distant TV stations seen with LBA at 200MHz on subbands 247,282,283,319

L2007_02339

Sarod used this data set to make the deep, all-sky map named ??. The MeqTrees .tdl.conf file is below:

L2007_02333

• Position error in images from first subband is gone. I assume reference frequency error was fixed. (casey)

L2007_02216

- Phase wrap problem disappeared. Why?
- Dipole number 15x now works.
- First subband of each MS has shift in positions. Sarod says this is caused by an error in the reference frequency for the first subband of each MS. (casey)

L2007_02113

- Phase wrap problem with CS016. All baselines between CS016 dipoles and non-CS016 dipoles have a rapid change in phase with frequency. About twelve turns of phase are observed across the 256*0.6 kHz subbands.
- Closure phase experiment for phase wrap problem: add phases along three baselines (e.g., 1-13 + 13-14 + 14-1). This sum is constant, which suggests that the phase wrap is related to a delay

problem between CS016 and the other stations. It probably does not occur in the correlator. (Can someone confirm this?)

- Dipole number 15x is turned off.
- First subband of each MS has shift in positions. Sarod says this is caused by an error in the reference frequency for the first subband of each MS. (casey)

L2007_02092

• Phase wrap problem first of CS016 first seen?

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