Minutes for AMiBA Telecon 20120830, UTC 2:00

Regular Meeting Time: UTC 2:00 Every Thursday
USA Toll-Free 888-204-5987 Taiwan Toll-Free 00801-10-4304
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- General issue:
  - Shelter opens at 4pm, needs 1.5 hrs to stabilize the temperature (on platform). Will compare with the temperature inside the corr. boxes.
- Operation on site:
  - Lab
    - A summer student will come to work in the lab.
  - IF/LO & Rx status
    - RX4, RX11 warm up during the week end. Both has been pump down and back to work. Peter is preparing the IF/LO module for RX1.
    - Ant9 IF2 may have Mixer problem, waiting for Johnson come back to Hilo.IF1 is still working.
  - Readout & Correlator
    - New PROM chips are installed in LL & RR DAQ boxes. All baselines are affected. Noise spectra show 75% baselines are flat, while some have DC fluctuations, jumps (unlikely related to PROMs, not seen in Jan. Data). Noted spikes in 3R time-domain ⇒ T.O. data shows changing amplitude of spikes. [Hiroaki]
    - 11L12L, 11L13L are flat, probably related to readouts. The corr box needs to be lowered for exam.
    - A script is needed to compare time diff between CCC, TCS and GPS.
  - Observations:
    - Due to the drive problem, there is no observation last week.
    - A1689? Using spare time for high S/N for shape, long baselines issues etc.
    - The current IT has not included the systematic misalignment to the East and the absolute pointing error.
- Dish , Mount, Pointing:
  - radio pointing: the increasing-with-hexpol error pattern should be real. (now IT corrections for all hexpols are the same.) The IT corrections follow the r-pointing error trends, but with a different amplitude making the r-pointing rms increase.
  - "stretch" the hexapod before obs might help on pointing deviation near the zenith.
  - Vertex todo: to install another logger to record HPC log file on next site trip.
- Platform, Deformation:
  - Strain-gauge data needs to be combined with pointing logs to see if there is difference between hexpol=0 and <5deg strategies.
  - Ask Vertex for codes to calculate the reacting force.
- Data Analysis & Science:
  - SzuYuan presented MACS J1931 image. The 16 nights integrated results using Saturn or Jupiter as calibrator looks different, we will proceed more clusters observed on August to see if this is common for the other clusters. Hiroaki is analyzing RXJ2129 data. The noise scaling relation analyzed is consistent with theoretical expectation after changing the ordering of the data used for integration, need to check if the recently taken data (latest 1 month) has problem. Victor suggests to apply deformation correction to each patch of the calibrator instead of the averaged one.
  - Hiroaki figures out the strange behavior of noise property of A2163 coming from the early June data, The image was triangle but it becomes two-peak shaped which is similar to Kyle's result after excluding those early June data. Tian-An presents images of A611 which looks good.
  - Proty's student showed difference map of A383 with interleaved patches, needs cleaned map to make conclusion.
  - SZ spectrum fitting will process in UV space.
  - Paper strategy: publish one cluster by one; add more science & comparison for the single cluster..
  - Absolute flux calibration using weak sources: only a few existed in current catalogs.
  - J1115 flux 24±3 mJy; hasn't obtained reliable images for A1995 [Hiroaki].
  - J0717 [Kyle]: the 2nd half of data is not consistent with the 1st half; flux and peak location changes but not in the case of its r-companion. [Hiroaki] reports 45±5 mJy (all data) with noise higher than expected and changing with time.
  - Discussion on extended sources for verification of cluster sub-structure. Pairs? Virgo?
  - [Proty] A2142, A383, A2390 appear to have substructure. But they were observed in the same time period. ⇒ to compare A383 with Bolocam image.
  - Compare results w/ and w/o deformation corrections. It seems these corrections could correlate noise/signal, especially more apparent in low S/N targets.

- Smearing seen in long integration of cluster (ex. A383, A2390). Deformation? Noise? Pointing (of El)? Longer-integrated radio sources didn't show this issue.
- Ant9 RR is often flagged out. Some baselines' noise weights are poor and we need to exam on this.

Cluster (till 2012/05/15)	on-src time (min) in the past week	Total on-src time (min)	
A1689		456	Hiroaki's analyzed visibilities see http://amibawiki.asiaa.sinica.edu.tw/index.php/Calibrated_Visibility Proty's team finished the analysis of these clusters with deformation corrections.
MACS J2129.4		1326	
RXJ1347		393	
A2261		1344	
MS2137		2454	
RCS1447		975	
MACS J1931		1485	
A209		1485	
A2142		795	
A383		3441	
A2390		2523	
MACS J0329		2280	Hiroaki
MACS J0429		2556	Hiroaki
A611		4470	Hiroaki, Proty's (Tai-an)
MACS J1115		4131	Hiroaki
A1995		4557	
MACS J0717		1446	Hiroaki
A2163		4533	
MACS J0744		1392	
MACS J1931		2841	
MACS J1206		1875	
Rxj2129		4425	

- Beyond 13 element:
  - Platform modification
  - Calibration system

Traveling Schedule to Hilo: (current)

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Traveling Schedule to Hilo: (proposed)

- Oct -

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