

PAON4 fringe analysis

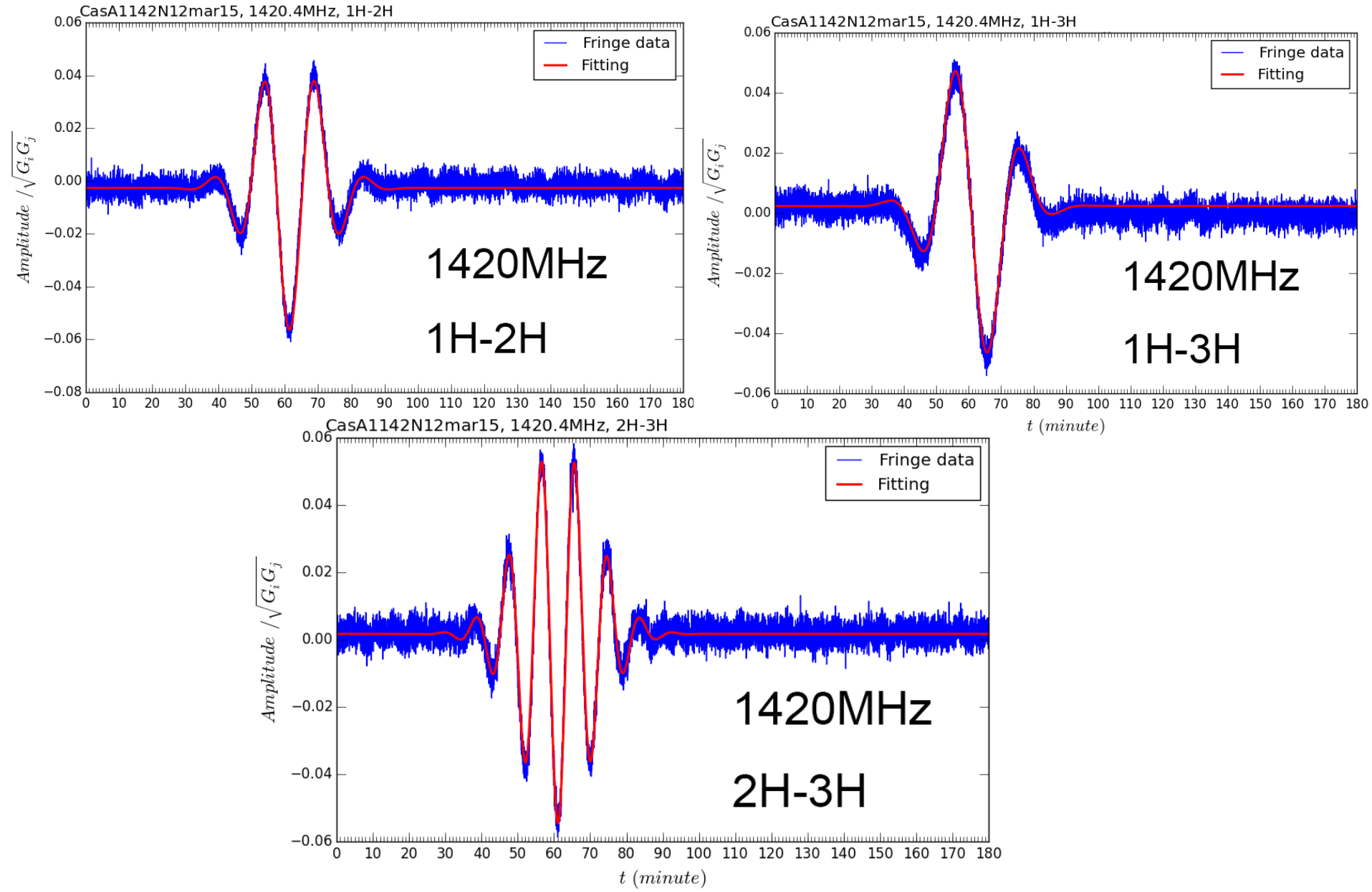
Qizhi Huang

2015/5/12

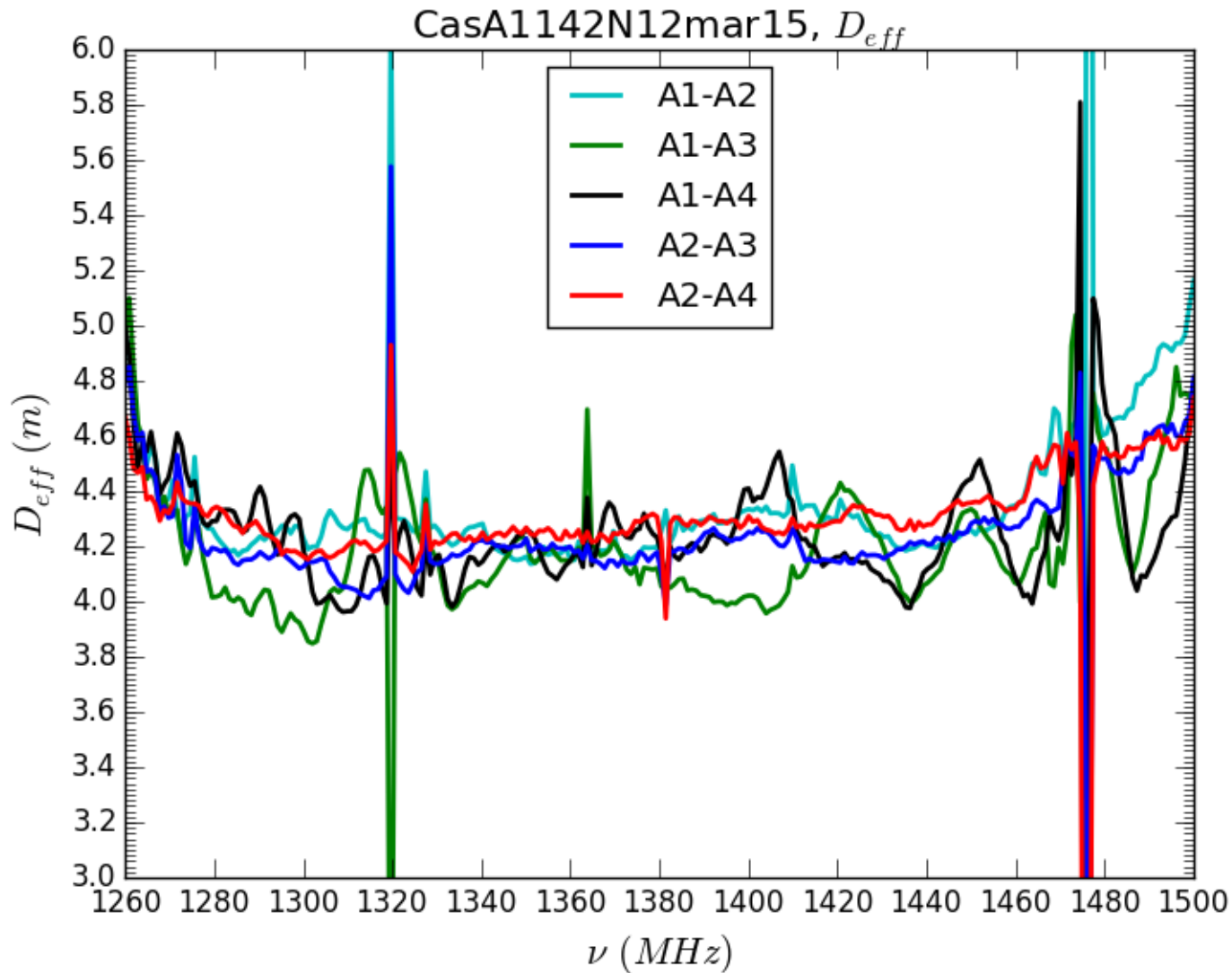
Some information

- For data set CasA1142N12mar15
- Cassiopeia A: $RA = 23^h 23^m 26^s$, $Dec = +58^\circ 48'$
- PAON4 geographic position:
 $lon. = 2^\circ 11' 58.5'' N$, $lat. = +47^\circ 22' 55'' E$
- Starting time of the observation:
2015/3/12 10:55:00 -> sidereal time $1^h 0^m 33^s$
- $1^h 0^m 33^s$ after the starting time, the CasA will go into the center of the beam.

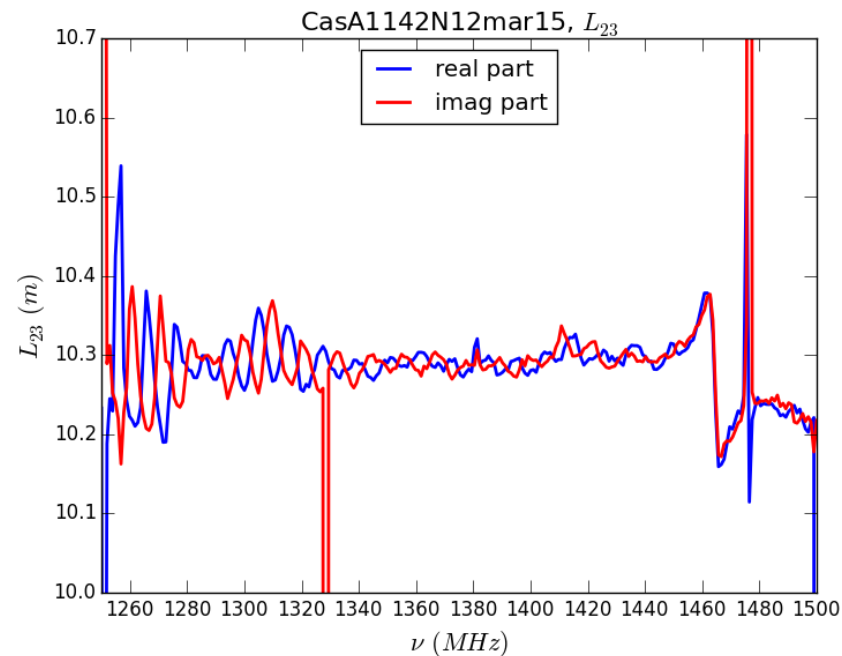
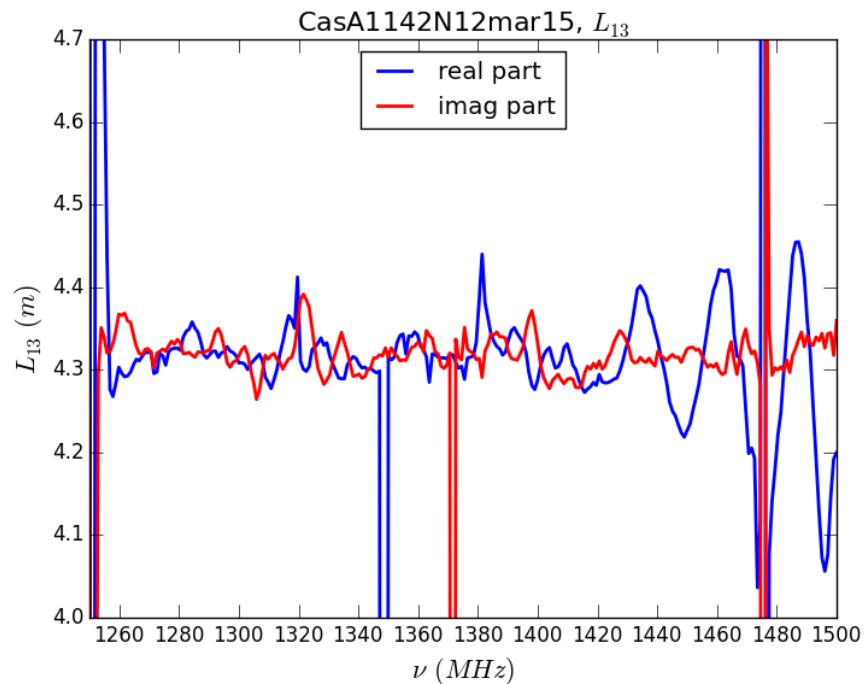
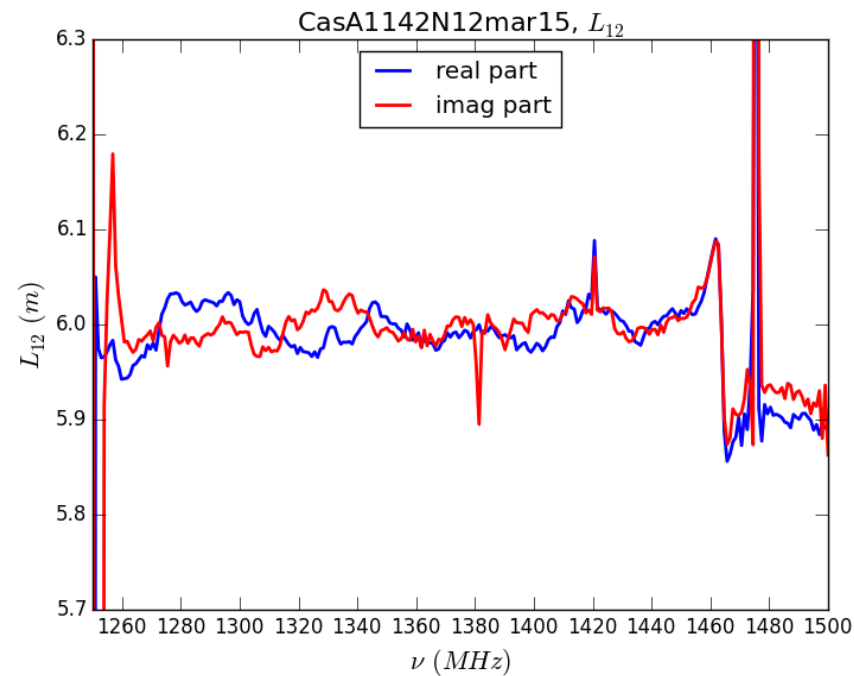
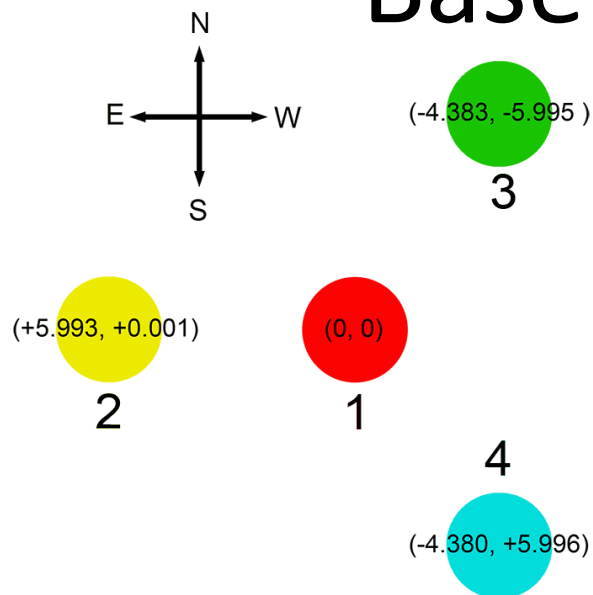
Fringe fitting



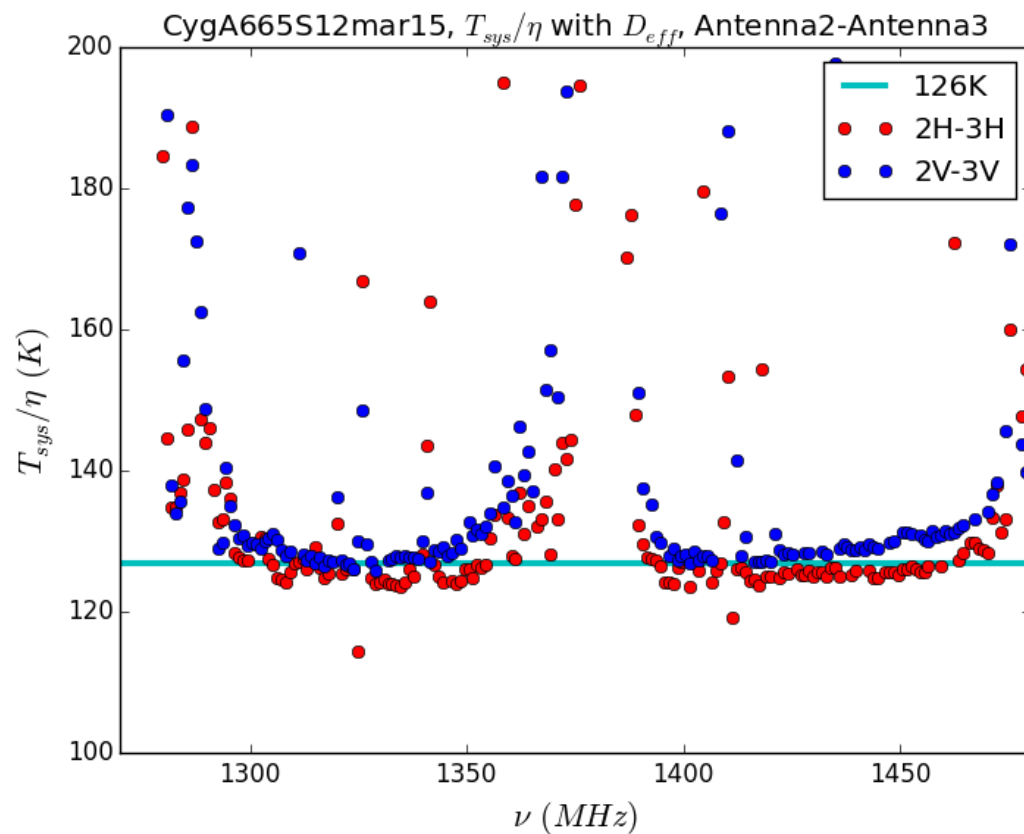
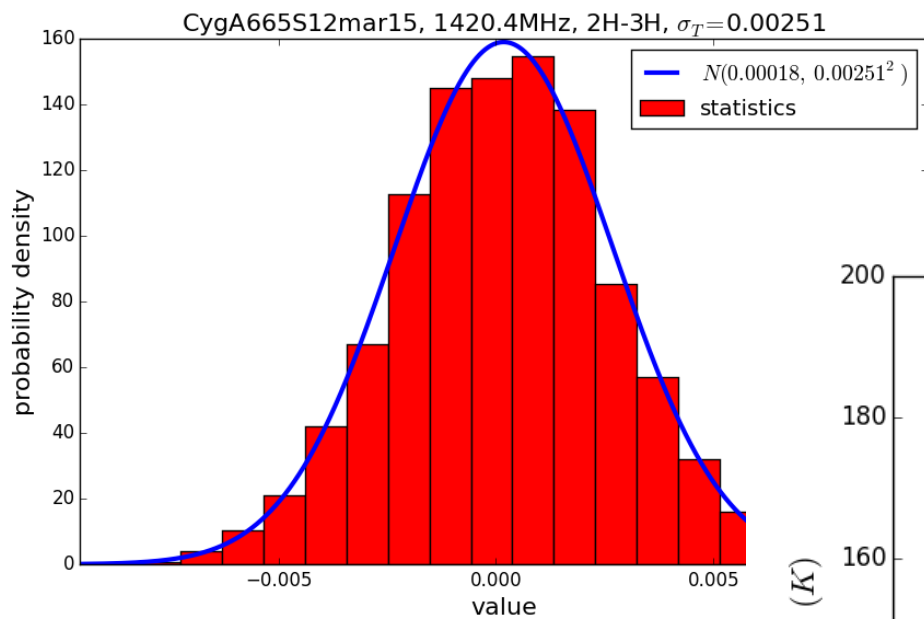
Effective diameter



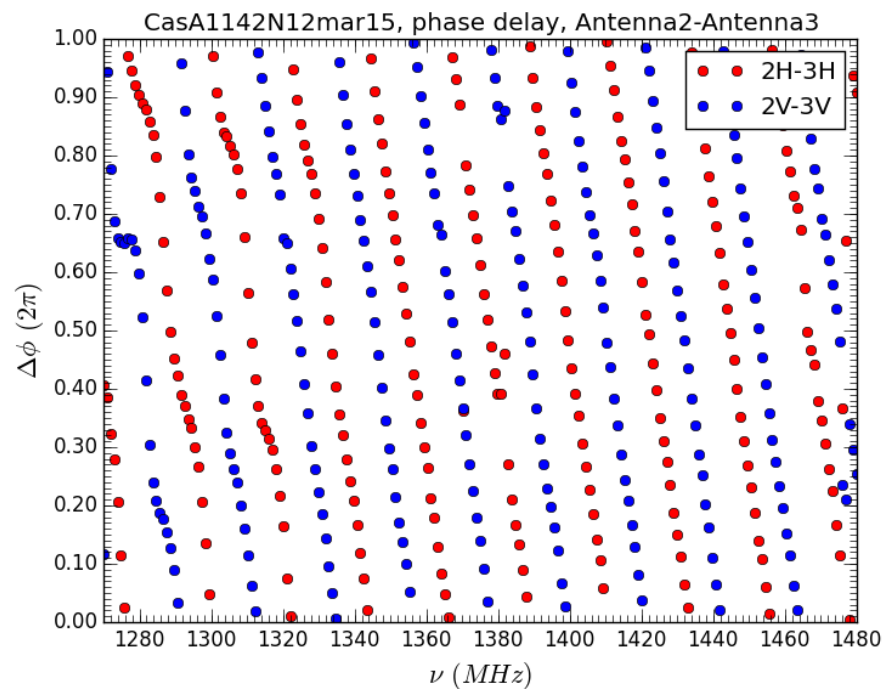
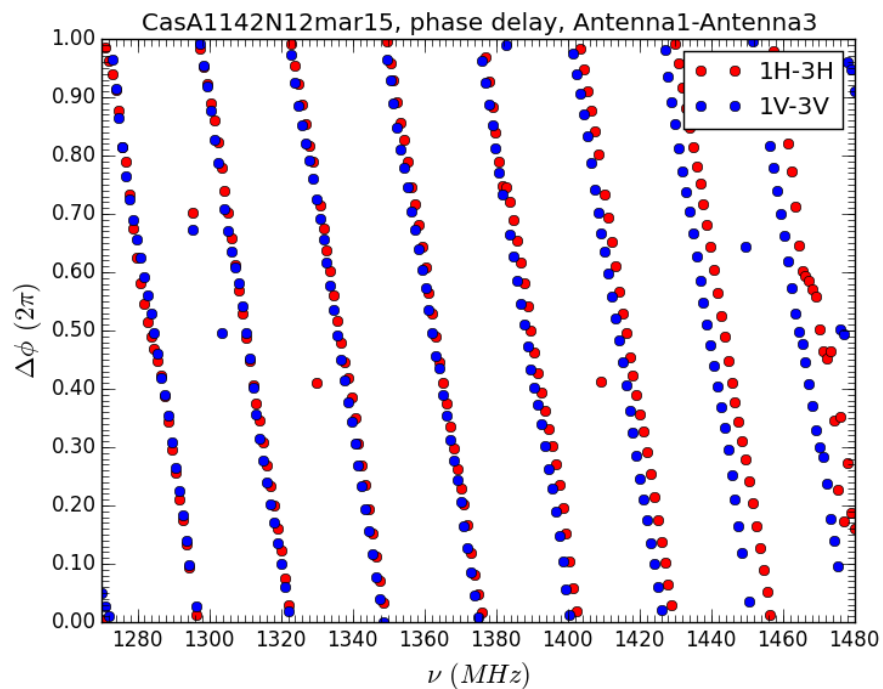
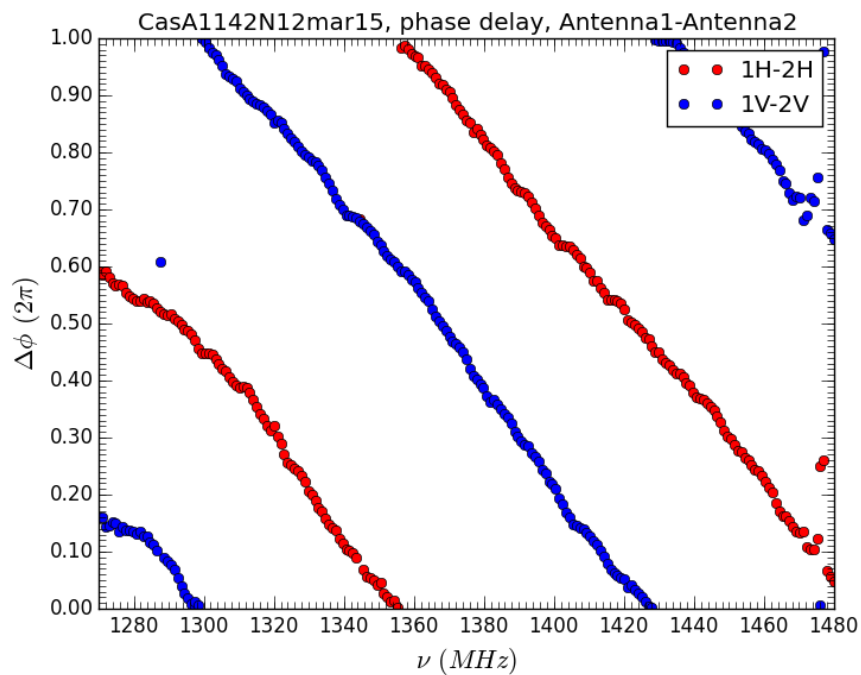
Baseline



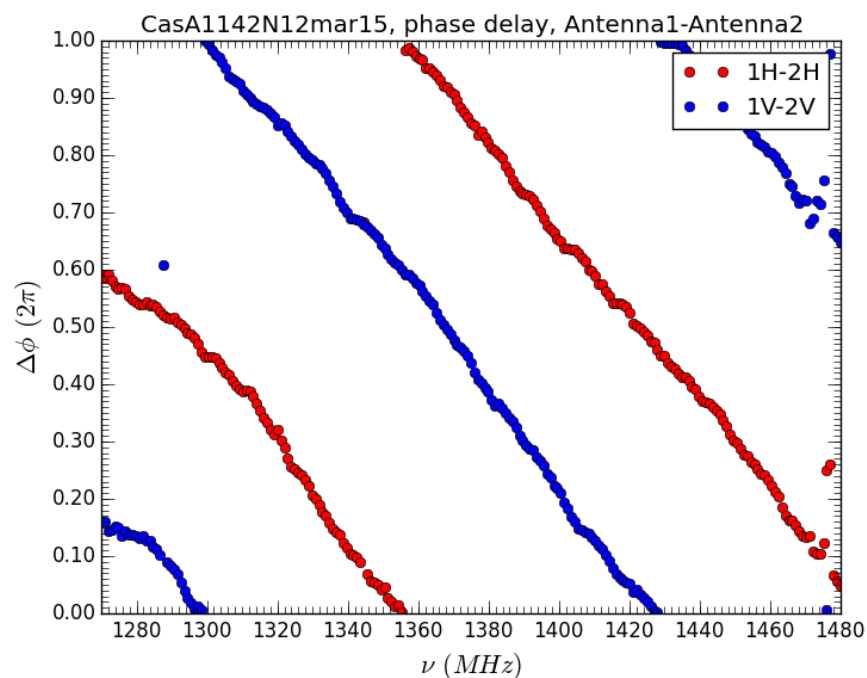
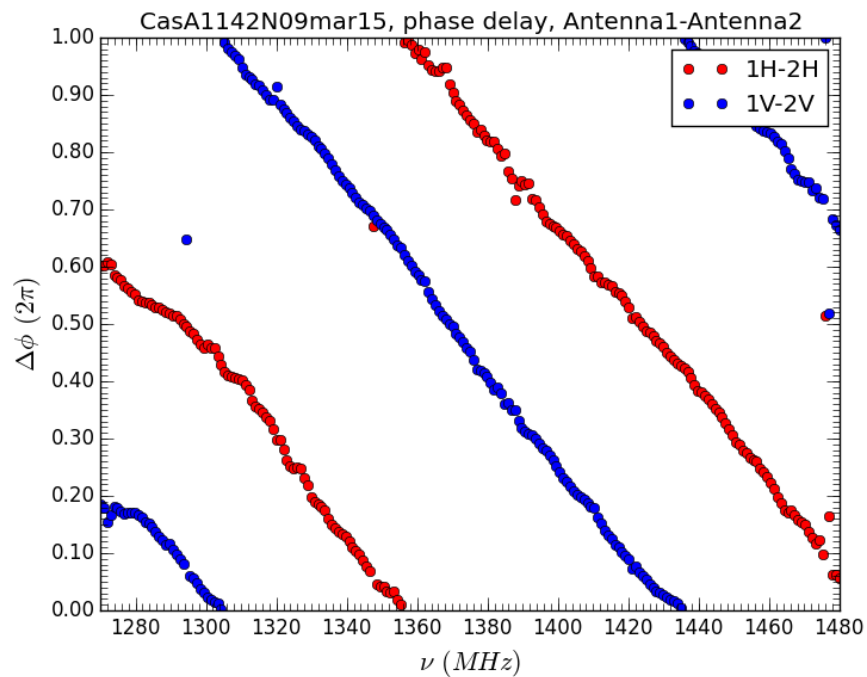
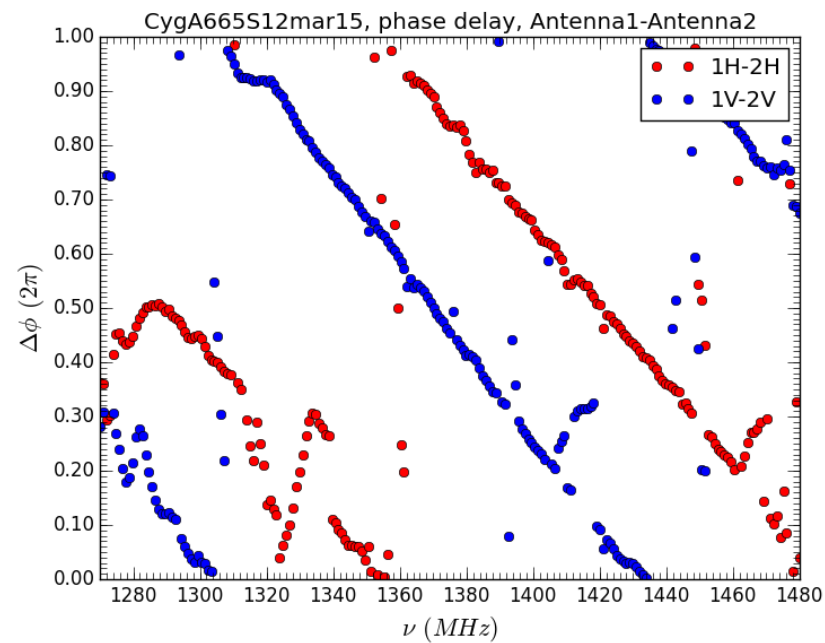
Tsys



Phase



Stability



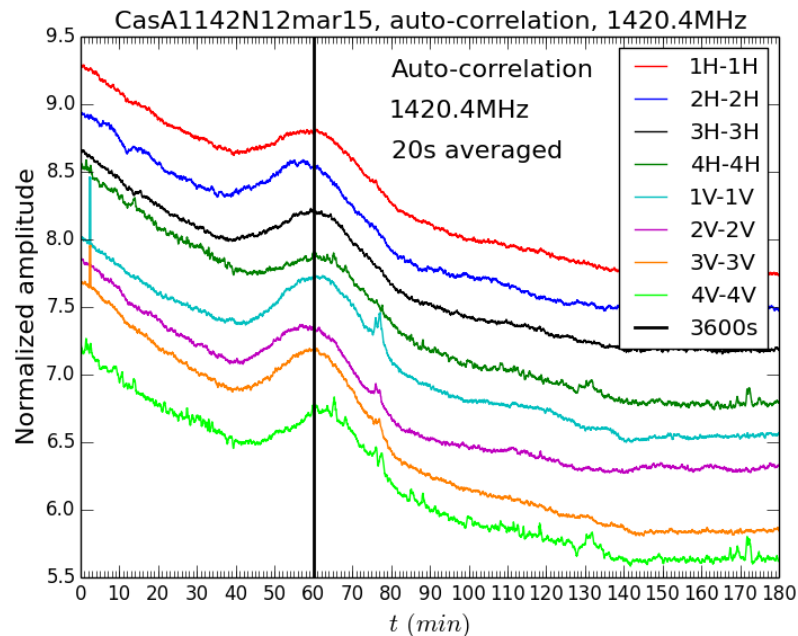
Antenna pointing

- Starting time of the observation:

2015/3/12 10:55:00 -> sidereal time $22^h 22^m 54^s$

Cassiopeia A: $RA = 23^h 23^m 26^s$, $Dec = +58^\circ 48'$

- $1^h 0^m 33^s$ after the starting time, the CasA will go into the center of the beam.



$$|V_{ij}| = \sqrt{\text{real}^2 + \text{imag}^2} = \text{Beam}$$

