

C202C / MK018 Correlation Report

General information

- Consists of only one science project: **MK018**
- Special frequency: 88GHz
- PI: KIM
- Targets: NGC1052 (0238-084)
- Session info: <http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/>
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/oct20/feedback_oct20.asc
- Text files with detailed antenna statistics, scroll down to get to the cumulative statistics for the whole experiment:

[c202c ALL.antrep](#)

Current Status

Preliminary correlation finished, preliminary release to PI on 28.04.2021.

Production correlation in custom modes (see Notes below) finished, release to PI on 31.05.2021.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	yes	<p>Fringe overview of all baselines including this antenna in LL(left for each baseline) and RR (right for each baseline).</p> <p>Legend: white box - scheduled, but no data (or sometimes fourfit had trouble with the particular baseline/pol, so no data in alist), blue - no fringe, shades of green and brown -- fringes of varying quality.</p> <p>c202c FRINGE RfAnt Ef LLRR AllSrc.pdf</p> <p>Examples of fourfit fringe plots can be found in (all fringe plots with baselines including the given antenna):</p> <p>No0038_B.pdf</p> <p>Antenna statistics:</p> <p>c202c Ef.antrep</p> <p>Same for all antennas below unless otherwise noted.</p>	<p>Participated in 100% scans, fringes in 47% baselines*||pols, mean SNR 105.</p>
On	X	yes	<p>c202c FRINGE RfAnt On LLRR AllSrc.pdf</p> <p>No0057_X.pdf</p> <p>c202c On.antrep</p>	<p>Participated in 100% scans, fringes in 21% baselines*||pols, mean SNR 70.</p> <p>receiver problems for half of this experiment, scans useless although present in the data. See log for details and fringe map for good and bad scans.</p>

Ys	Y	yes	c202c FRINGE RfAnt Ys LLRR AllSrc.pdf No0038 Y.pdf c202c Ys.antrep	Participated in 93% scans, fringes in 54% baselines*||pols, mean SNR 200.
Mh	Z	yes	c202c FRINGE RfAnt Mh LLRR AllSrc.pdf No0057 Z.pdf c202c Mh.antrep	Participated in 74% scans, fringes in 30% baselines*||pols, mean SNR 25.
Pv	P	yes	c202c FRINGE RfAnt Pv LLRR AllSrc.pdf No0038 P.pdf c202c Pv.antrep	Participated in 100% scans, fringes in 57% baselines*||pols, mean SNR 257.
VLBA: Br	b	yes	c202c FRINGE RfAnt Br LLRR AllSrc.pdf No0079 b.pdf c202c Br.antrep	Participated in 100% scans, fringes in 25% baselines*||pols, mean SNR 24.
VLBA: Fd	f	yes	c202c FRINGE RfAnt Fd LLRR AllSrc.pdf No0038 f.pdf No0075 f.pdf c202c Fd.antrep	Participated in 100% scans, fringes in 37% baselines*||pols, mean SNR 30.
VLBA: Kp	k	yes	c202c FRINGE RfAnt Kp LLRR AllSrc.pdf No0042 k.pdf c202c Kp.antrep	Participated in 99% scans, fringes in 37% baselines*||pols, mean SNR 25.
VLBA: La	l	yes	c202c FRINGE RfAnt La LLRR AllSrc.pdf No0038 l.pdf No0075 l.pdf c202c La.antrep	Participated in 98% scans, fringes in 38% baselines*||pols, mean SNR 31. Data corrupted in scan 39, it was excluded from the correlations.
VLBA: Mk	m	yes	c202c FRINGE RfAnt Mk LLRR AllSrc.pdf	Participated in 100% scans, fringes in 19% baselines*||pols, mean SNR 19.

			No0089_m.pdf c202c_Mk.antrep	
VLBA: Nl	n	yes	c202c_FRINGE_RfAnt_Nl_LLRR_AllSrc.pdf No0075_n.pdf c202c_Nl.antrep	Participated in 100% scans, fringes in 7% baselines*||pols, mean SNR 11. rain
VLBA: Ov	o	yes	c202c_FRINGE_RfAnt_Ov_LLRR_AllSrc.pdf No0079_o.pdf c202c_Ov.antrep	.Participated in 100% scans, fringes in 24% baselines*||pols, mean SNR 28.
VLBA: Pt	p	yes	c202c_FRINGE_RfAnt_Pt_LLRR_AllSrc.pdf No0089_p.pdf c202c_Pt.antrep -----	Participated in 100% scans, fringes in 20% baselines*||pols, mean SNR 19. lots of technical problems, see logs

Notes

Preliminary correlation has been done in the standard configuration tint = 0.5 sec, 8x64MHz IFs per polarization, 64 channels, and is intended only as a data and antenna performance check.

The main production correlation uses the following setup:

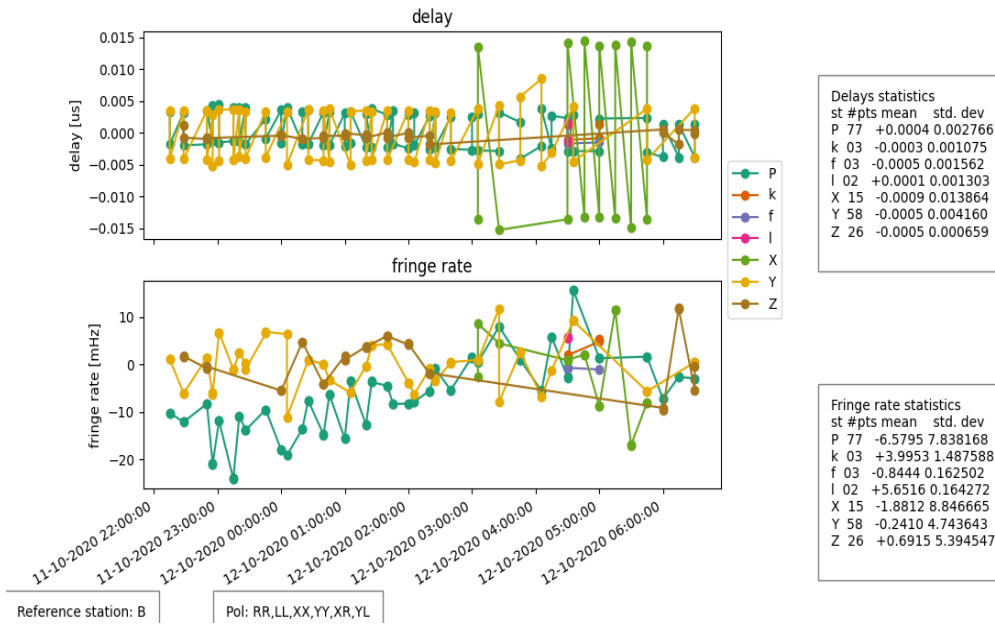
tint = 0.5 sec, 4 x 128 MHz IFs, 128 channels (continuum)

tint = 1 sec, 4 x 128 MHz IFs, 512 channels (line).

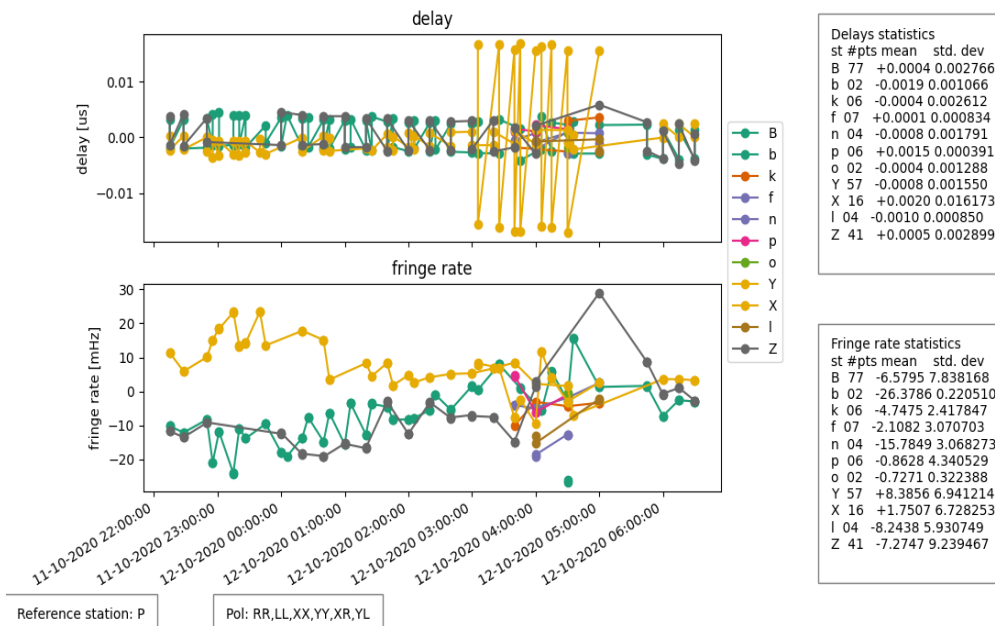
Post-Correlation checks

Residuals

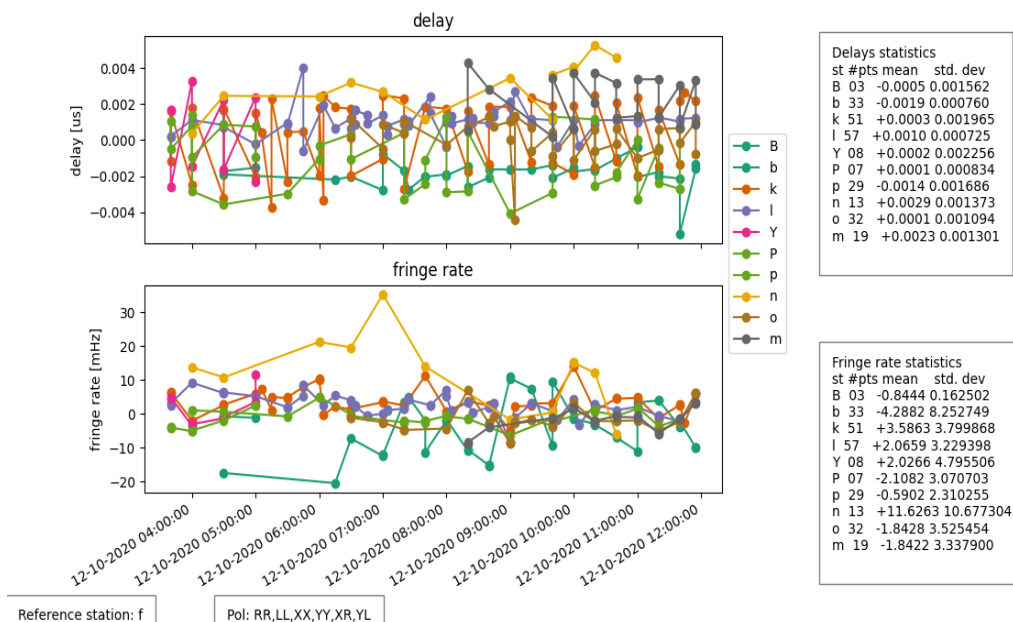
Ef as reference:



Pv as reference:



Fd as reference:



FITS completeness (plist)

legend:

- o -- station scheduled and fully accounted for in the fits file
- 42 (or another number) -- station scheduled, but data found only for 42% of the scheduled interval
- x -- station scheduled, but corresponding entry not found in the fits file
- . -- station not scheduled

c201c.fits:

					EF	ON	YS	PV	MH	FD	NL	OV	PT	BR	KP	LA	MK
c202c_01	No0001	3C84	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_02	No0002	3C84	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_03	No0003	0235+164	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_04	No0004	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_05	No0005	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_06	No0006	3C120	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_07	No0007	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_08	No0008	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_09	No0009	3C120	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_10	No0010	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_11	No0011	0420-014	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_12	No0012	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_13	No0013	0420-014	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_14	No0014	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_15	No0015	0420-014	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_16	No0016	NGC1052	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202c_17	No0017	0420-014	88ghz_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.

c202c_68	No0068	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_69	No0069	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_70	No0070	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_71	No0071	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_72	No0072	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_73	No0073	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_74	No0074	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_75	No0075	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_76	No0076	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_77	No0077	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_78	No0078	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_79	No0079	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_80	No0080	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_81	No0081	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_82	No0082	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_83	No0083	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_84	No0084	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_85	No0085	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_86	No0086	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_87	No0087	0420-014	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_88	No0088	NGC1052	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o
c202c_89	No0089	3C84	88ghz_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o