ML009 Correlation Report

General information

- A part of C202A.
- Includes only 3mm part
- PI: LEE
- Targets: 1928+738 (4C73.18)
- 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:

  c202a_ALL_3mm.antrep

Current Status

Correlation finished, data **released to PI** on 28.04.2021.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	**yes**	**Note: all plots and statistics are done for the whole of c202a** Fringe overview of all baselines including this antenna in LL(left for each baseline) and RR (right for each baseline). 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. c202a_FRINGE_RfAnt_Ef_LLRR_AllSrc_3mm.pdf Examples of fourfit fringe plots can be found in (all fringe plots with baselines including the given antenna): No0189_B_3mm.pdf Antenna statistics: c202a_Ef_3mm.antrep **Same for all antennas below unless otherwise noted.**	Participated in 100% scans, fringes in 16% baselines*||pols, mean SNR 48. **bad weather**
On	X	**yes**	c202a_FRINGE_RfAnt_On_LLRR_AllSrc_3mm.pdf	Participated in 100% scans, fringes in 23% baselines*||pols, mean SNR 36.

			No0131_X_3mm.pdf c202a_On_3mm.antrep	
Ys	Y	**no**	c202a_FRINGE_RfAnt_Ys_LLRR_AllSrc_3mm.pdf c202a_Ys_3mm.antrep	No fringes in c202a, due to some probem with clocks: fringes found in the fringe test with one clock setting, and in c202b shifted by more than 0.5us. None of these settings produced fringes in c202a and fringe search with a wide window also yileded no result.
Mh	Z	**yes**	c202a_FRINGE_RfAnt_Mh_LLRR_AllSrc_3mm.pdf No0087_Z_3mm.pdf c202a_Mh_3mm.antrep	Participated in 100% scans, fringes in 10% baselines*||pols, mean SNR 25. **bad weather**
Pv	P	**yes**	c202a_FRINGE_RfAnt_Pv_LLRR_AllSrc_3mm.pdf No0100_P_3mm.pdf c202a_Pv_3mm.antrep	Participated in 100% scans, fringes in 35% baselines*||pols, mean SNR 52.
VLBA: Br	b	**yes**	c202a_FRINGE_RfAnt_Br_LLRR_AllSrc_3mm.pdf No0128_b_3mm.pdf c202a_Br_3mm.antrep	3mm: participated in 100% scans, fringes in 23% baselines*||pols, mean SNR 23.
VLBA: Fd	f	**yes**	c202a_FRINGE_RfAnt_Fd_LLRR_AllSrc_3mm.pdf No0150_f_3mm.pdf c202a_Fd_3mm.antrep	3mm: participated in 100% scans, fringes in 30% baselines*||pols, mean SNR 33.
VLBA: Kp	k	**yes**	c202a_FRINGE_RfAnt_Kp_LLRR_AllSrc_3mm.pdf No0150_k_3mm.pdf c202a_Kp_3mm.antrep	3mm: participated in 100% scans, fringes in 24% baselines*||pols, mean SNR 24.
VLBA: La	l	**yes**	c202a_FRINGE_RfAnt_La_LLRR_AllSrc_3mm.pdf No0131_l_3mm.pdf c202a_La_3mm.antrep	3mm: participated in 94% scans, fringes in 30% baselines*||pols, mean SNR 30. **dropped out for several scans due to USNO observations**
VLBA: Mk	m	**yes**	c202a_FRINGE_RfAnt_Mk_LLRR_AllSrc_3mm.pdf	3mm: participated in 97% scans, fringes in 21% baselines*||pols, mean SNR 19.

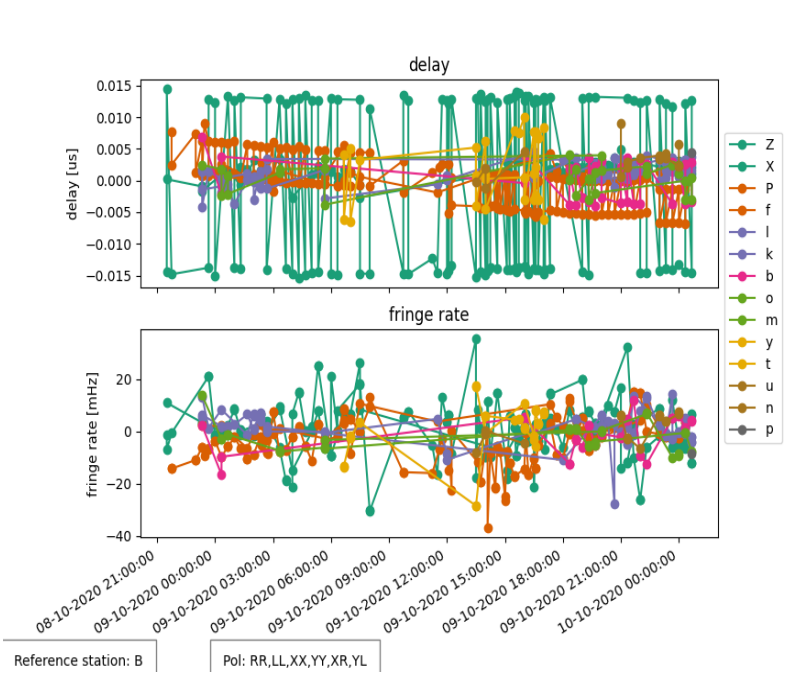
			No0150_m_3mm.pdf c202a_Mk_3mm.antrep	**dropped out for several scans due to USNO observations**
VLBA: Nl	n	**yes**	c202a_FRINGE_RfAnt_Nl_LLRR_AllSrc_3mm.pdf No0122_n_3mm.pdf No0219_n_3mm.pdf c202a_Nl_3mm.antrep	3mm: participated in 100% scans, fringes in 11% baselines*||pols, mean SNR 15.
VLBA: Ov	o	**yes**	c202a_FRINGE_RfAnt_Ov_LLRR_AllSrc_3mm.pdf No0150_o_3mm.pdf No0228_o_3mm.pdf c202a_Ov_3mm.antrep	3mm: participated in 100% scans, fringes in 27% baselines*||pols, mean SNR 29.
VLBA: Pt	p	**yes**	c202a_FRINGE_RfAnt_Pt_LLRR_AllSrc_3mm.pdf No0128_p_3mm.pdf c202a_Pt_3mm.antrep	3mm: participated in 95% scans, fringes in 13% baselines*||pols, mean SNR 19. **lots of technical problems, see logs**
KVN: Kt	t	**yes**	c202a_FRINGE_RfAnt_Kt_LLRR_AllSrc_3mm.pdf No0110_t_3mm.pdf c202a_Kt_3mm.antrep	Participated in 99% scans, fringes in 29% baselines*||pols, mean SNR 54.
KVN: Ku	u	**yes**	c202a_FRINGE_RfAnt_Ku_LLRR_AllSrc_3mm.pdf No0113_u_3mm.pdf c202a_Ku_3mm.antrep	Participated in 86% scans, fringes in 25% baselines*||pols, mean SNR 52.
KVN: Ky	y	**yes**	c202a_FRINGE_RfAnt_Ky_LLRR_AllSrc_3mm.pdf No0103_y_3mm.pdf No0140_y_3mm.pdf c202a_Ky_3mm.antrep ----------	Participated in 100% scans, fringes in 36% baselines*||pols, mean SNR 49.

Notes

Post-Correlation checks

Residuals

Ef as reference (3mm):



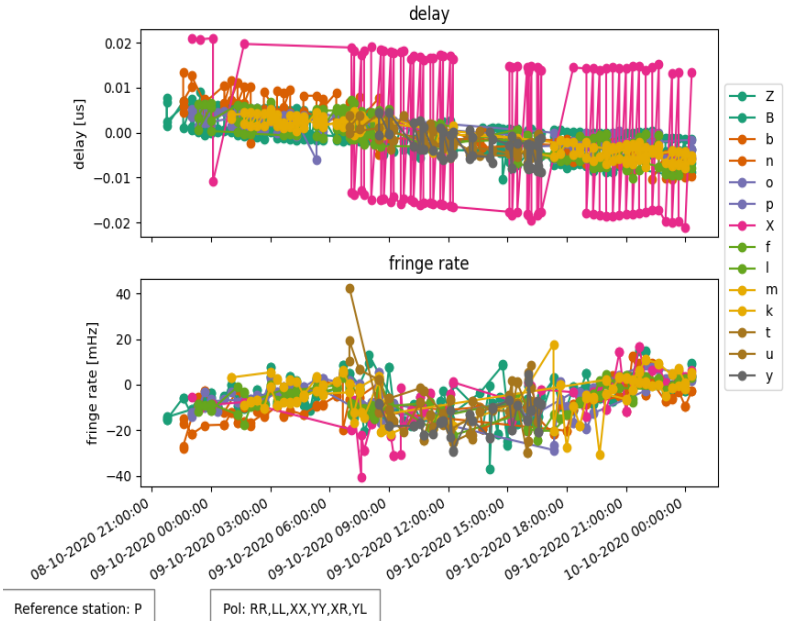
Delays statistics

st	#pts	mean	std. dev
Z	79	+0.0016	0.001297
X	111	-0.0004	0.013588
P	139	-0.0003	0.003787
f	36	+0.0012	0.001384
l	48	+0.0010	0.001798
k	30	+0.0014	0.001910
b	31	+0.0001	0.003335
o	21	-0.0002	0.002188
m	08	+0.0023	0.000985
y	21	+0.0020	0.005695
t	07	+0.0009	0.000546
u	04	+0.0013	0.002228
n	11	+0.0038	0.002108
p	01	+0.0044	0.000000

Fringe rate statistics

st	#pts	mean	std. dev
Z	79	+1.4092	7.041613
X	111	+0.7195	12.271833
P	139	-5.0497	8.456332
f	36	+1.9737	5.111896
l	48	+0.9521	5.965123
k	30	+2.7011	5.975520
b	31	-1.4669	6.826313
o	21	-2.6572	4.813693
m	08	-2.1433	6.452071
y	21	-1.4876	10.598768
t	07	+5.2609	8.999682
u	04	-3.3772	3.366171
n	11	+3.0834	4.545181
p	01	-8.5820	0.000000

Pv as reference (3mm):



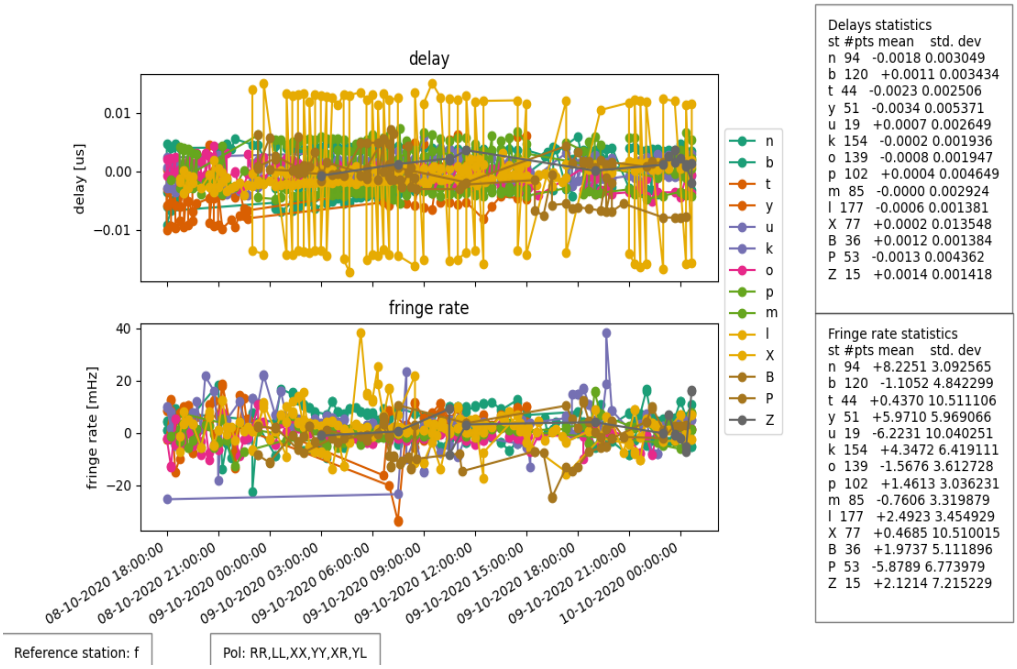
Delays statistics

st	#pts	mean	std. dev
Z	126	-0.0010	0.004277
B	139	-0.0003	0.003787
b	74	+0.0010	0.003462
n	66	+0.0019	0.006947
o	66	+0.0010	0.002501
p	54	+0.0006	0.003635
X	97	+0.0002	0.016602
f	53	-0.0013	0.004362
l	80	+0.0001	0.004338
m	53	-0.0010	0.004043
k	84	-0.0010	0.003575
t	44	-0.0014	0.002879
u	31	-0.0028	0.001602
y	43	-0.0028	0.003453

Fringe rate statistics

st	#pts	mean	std. dev
Z	126	-6.1334	6.960577
B	139	-5.0497	8.456332
b	74	-5.7918	7.315588
n	66	-9.5978	7.222652
o	66	-2.0772	6.062643
p	54	-7.2893	6.720186
X	97	-7.8822	10.735221
f	53	-5.8789	6.773979
l	80	-7.1734	7.259365
m	53	+2.3221	4.471411
k	84	-8.0885	7.930150
t	44	-12.9160	10.642271
u	31	-5.4845	11.178537
y	43	-15.0510	6.881836

Fd as reference (3mm):



Delays statistics

st	#pts	mean	std. dev
n	94	-0.0018	0.003049
b	120	+0.0011	0.003434
t	44	-0.0023	0.002506
y	51	-0.0034	0.005371
u	19	+0.0007	0.002649
k	154	-0.0002	0.001936
o	139	-0.0008	0.001947
p	102	+0.0004	0.004649
m	85	-0.0000	0.002924
l	177	-0.0006	0.001381
X	77	+0.0002	0.013548
B	36	+0.0012	0.001384
P	53	-0.0013	0.004362
Z	15	+0.0014	0.001418

Fringe rate statistics

st	#pts	mean	std. dev
n	94	+8.2251	3.092565
b	120	-1.1052	4.842299
t	44	+0.4370	10.511106
y	51	+5.9710	5.969066
u	19	-6.2231	10.040251
k	154	+4.3472	6.419111
o	139	-1.5676	3.612728
p	102	+1.4613	3.036231
m	85	-0.7606	3.319879
l	177	+2.4923	3.454929
X	77	+0.4685	10.510015
B	36	+1.9737	5.111896
P	53	-5.8789	6.773979
Z	15	+2.1214	7.215229

FITS completeness (pclist)

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
```

ml009.fits:

```
                                  FD NL OV PT BR KP MK LA KY KU KT EF ON YS PV MH
c202a_075 No0100 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_076 No0101 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_077 No0102 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_078 No0103 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_079 No0104 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  x  o  o  o  o  o  o
c202a_080 No0105 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_081 No0106     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  .  .  .  .
c202a_082 No0107 0102+584 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  o  o  o  o  o
c202a_083 No0108 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  x  o  o  o  o  o  o
c202a_084 No0109 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  x  o  o  o  o  o  o
c202a_085 No0110 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_086 No0111 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_087 No0112 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_088 No0113 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_089 No0114 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_090 No0115 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_091 No0116 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
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c202a_092 No0117 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_093 No0118 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  76 o  o  o  o  o  o  o
c202a_094 No0119 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_095 No0120 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_096 No0121 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_097 No0122 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_098 No0123 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_099 No0124 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_100 No0125 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_101 No0126 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_102 No0127 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_103 No0128 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_104 No0129 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_105 No0130 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_106 No0131 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_107 No0132 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_108 No0133 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_109 No0134 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_110 No0135 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_111 No0136 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_112 No0137 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_113 No0138 1928+738 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202a_114 No0139 1928+738 3mm_ddc o  o  o  o  o  o  o  o  95 o  o  o  o  o  o  o  o
c202a_115 No0140 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_116 No0141 1928+738 3mm_ddc o  o  o  o  o  o  .  o  o  o  o  o  o  o  o  o  o
c202a_117 No0142 1928+738 3mm_ddc o  o  o  o  o  o  .  o  o  o  o  o  o  o  o  o  o
c202a_118 No0143 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  o
c202a_119 No0144 1928+738 3mm_ddc o  o  o  o  o  o  .  o  o  o  o  o  o  o  o  o  o
c202a_120 No0145 1928+738 3mm_ddc o  o  o  o  o  o  .  o  o  o  o  o  o  o  o  o  o
c202a_121 No0146  NRAO150 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  .  o  .  .  o
c202a_123 No0148 1928+738 3mm_ddc o  o  o  o  o  o  .  o  o  o  o  o  o  o  o  o  o
c202a_124 No0149 1928+738 3mm_ddc o  o  o  o  o  o  .  o  o  o  o  o  o  o  o  o  o
c202a_125 No0150  NRAO150 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  .  o  .  .  o
c202a_126 No0151    3C371 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  o  .  o  o  .
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c202a_139 No0164 1928+738 3mm_ddc o  o  o  o  o  o  .  o  o  o  o  o  o  o  o  o  o
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