

# C191E Correlation Report

## General information

- Includes two science projects: [MH004B](#) and [MK011](#)
- Session info: <http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/>
- Station feedback: [http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr19/feedback\\_apr19.asc](http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr19/feedback_apr19.asc)
- Text file with detailed antenna statistics, scroll down to get to the cumulative statistics for the whole experiment:  
[c191e.antrep](#)

## Current Status

correlation finished, data **released** on 19/09/2019.

the **second release** was made on 18/01/2020 to fix the double autocorrelation issue.

## Fringes

Fourfit fringe plots with fringes to multiple antennas:

Scan No0040, source 3C273, fringes to Ef, On, Ys, Mh, Pv, Gl, Fd, Kp, La, Ov, Pt: [No0040\\_all.pdf](#)

Scan No0047, source 3C273, fringes to Ef, On, Ys, Pv, Gl, Gb, Br, Fd, Kp, La, Nl, Ov: [No0047\\_all.pdf](#)

Scan No0067, source 3C273, fringes to Gl, Gb, Br, Fd, Kp, La, Mk, Nl, Pt: [No0067\\_all.pdf](#)

Scan No0110, source 3C345, fringes to Ef, On, Ys, Mh, Pv, Gl, Br, Fd, Kp, La, Mk, Nl, Pt: [No0110\\_all.pdf](#)

Scan No0159, source 3C345, fringes to Gl, Br, Fd, Kp, La, Nl, Ov, Pt: [No0159\\_all.pdf](#)

Station	Code	Fringes	Plots	Comments
Ef	B	yes	<p>Fringe overview of all baselines (all of C191E) including this antenna in LL (left for each baseline) and RR (right for each baseline).</p> <p>Legend: white - scheduled, but no data, blue - no fringe, dark red/brown/green - fringes of different quality.</p> <p><a href="#">c191e_FRINGE_RfAnt_Ef_LLRR_AllSrc.pdf</a></p> <p>Examples of fourfit fringe plots: <a href="#">No0040_all.pdf</a>, <a href="#">No0047_all.pdf</a>, <a href="#">No0110_all.pdf</a></p> <p>Same for all antennas below unless otherwise noted.</p>	Power failure at the start, starting 1 hr late, weather mixed, everything from clear sky to light rain
On	X	yes	<p><a href="#">c191e_FRINGE_RfAnt_On_LLRR_AllSrc.pdf</a></p> <p><a href="#">No0040_all.pdf</a>, <a href="#">No0047_all.pdf</a>, <a href="#">No0110_all.pdf</a></p>	

Station	Code	Fringes	Plots	Comments
Ys	Y	yes	<a href="#">c191e FRINGE RfAnt Ys LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0047_all.pdf</a> , <a href="#">No0110_all.pdf</a>	
Mh	Z	yes	<a href="#">c191e FRINGE RfAnt Mh LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0110_all.pdf</a>	Rain, snow and wet snow over the whole experiment
Pv	P	yes	<a href="#">c191e FRINGE RfAnt Pv LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0047_all.pdf</a> , <a href="#">No0110_all.pdf</a>	Down because of the weather in the beginning of this experiment.
GLT: Gl	g	yes	Here bright red - false fringe (mostly to KVN), determined by having extremely large single-band delay, often > 0.1us. <a href="#">c191e SBD RfAnt Gl LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0047_all.pdf</a> , <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a> , <a href="#">No0159_all.pdf</a>	confirmed correct polarization configuration for this session
GBT: Gb	G	yes	<a href="#">c191e FRINGE RfAnt Gb LLRR AllSrc.pdf</a> <a href="#">No0047_all.pdf</a> , <a href="#">No0067_all.pdf</a>	broken Cal-Wheel, no Tsys
VLBA: Br	b	yes	Here bright red - false fringe (mostly to KVN), determined by having extremely large single-band delay, often > 0.1us. <a href="#">c191e SBD RfAnt Br LLRR AllSrc.pdf</a> <a href="#">No0047_all.pdf</a> , <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a> , <a href="#">No0159_all.pdf</a>	problems with 7mm, possibly affecting pointing
VLBA: Fd	f	yes	Here bright red - false fringe (mostly to KVN), determined by having extremely large single-band delay, often > 0.1us. <a href="#">c191e SBD RfAnt Fd LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0047_all.pdf</a> , <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a> , <a href="#">No0159_all.pdf</a>	
VLBA: Kp	k	yes	Here bright red - false fringe (mostly to KVN), determined by having extremely large single-band delay, often > 0.1us. <a href="#">c191e SBD RfAnt Kp LLRR AllSrc.pdf</a>	

Station	Code	Fringes	Plots	Comments
			<a href="#">No0040_all.pdf</a> , <a href="#">No0047_all.pdf</a> , <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a> , <a href="#">No0159_all.pdf</a>	
VLBA: La	l	yes	<a href="#">c191e FRINGE RfAnt La LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0047_all.pdf</a> , <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a> , <a href="#">No0159_all.pdf</a>	
VLBA: Mk	m	yes	<a href="#">c191e FRINGE RfAnt Mk LLRR AllSrc.pdf</a> <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a>	Windy. Taken out for several scans because of USNO observing. Some time loss due to recording failure.
VLBA: Nl	n	yes	<a href="#">c191e FRINGE RfAnt Nl LLRR AllSrc.pdf</a> <a href="#">No0047_all.pdf</a> , <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a> , <a href="#">No0159_all.pdf</a>	
VLBA: Ov	o	yes	<a href="#">c191e FRINGE RfAnt Ov LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0047_all.pdf</a> , <a href="#">No0159_all.pdf</a>	Down for most of the experiment due to critical technical failures.
VLBA: Pt	p	yes	<a href="#">c191e FRINGE RfAnt Pt LLRR AllSrc.pdf</a> <a href="#">No0040_all.pdf</a> , <a href="#">No0067_all.pdf</a> , <a href="#">No0110_all.pdf</a> , <a href="#">No0159_all.pdf</a>	Taken out for several scans because of USNO observing. Paked for half hour due to cryo work.
KVN: Kt	t	no	Here bright red - false fringe, determined by having extremely large single-band delay, often > 0.1us. <a href="#">c191e SBD RfAnt Kt LLRR AllSrc.pdf</a>	no fringes, except falsely found by fourfit
KVN: Ku	u	no	Here bright red - false fringe, determined by having extremely large single-band delay, often > 0.1us. <a href="#">c191e FRINGE RfAnt Ku LLRR AllSrc.pdf</a>	did not observe
KVN: Ky	y	no	Here bright red - false fringe, determined by having extremely large single-band delay, often > 0.1us. <a href="#">c191e SBD RfAnt Ky LLRR AllSrc.pdf</a>	no fringes, except falsely found by fourfit

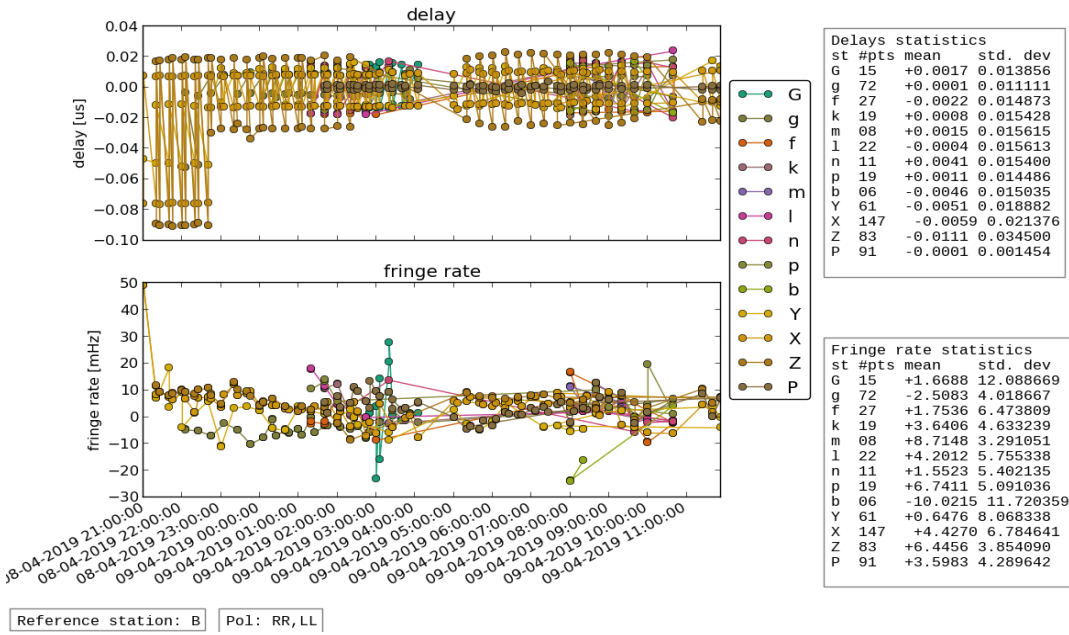
Notes

Due to an unknown yet technical problem fourfit detects false fringes for all baselines from Kt and Ky to GLT and three VLBA antennas, Br, Fd and Kp. They can be weeded off by extremely large fringe single-band delay.

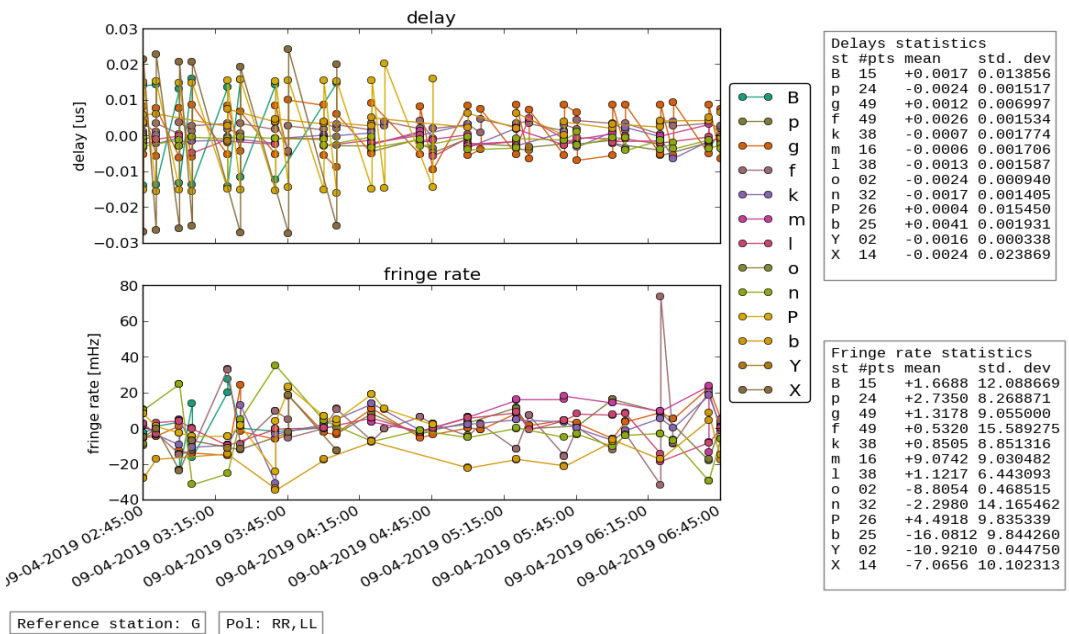
Post-Correlation checks

Residuals

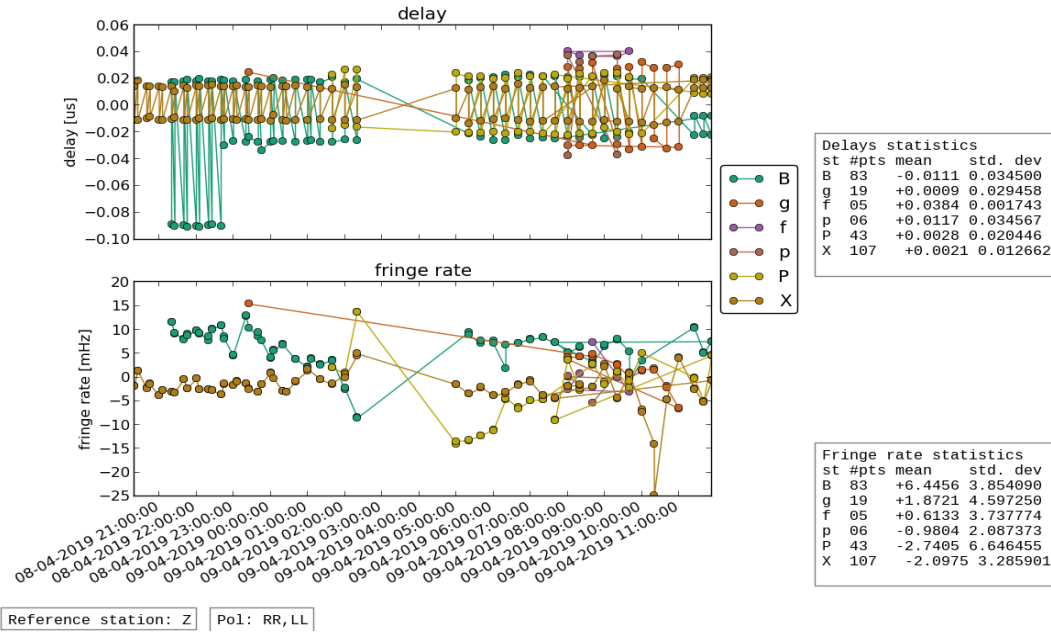
Ef:



GBT:



Mh:



**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

**c191e.fits:**

				EF	ON	YS	PV	MH	GL	NL	FD	PT	LA	OV	KP	BR	MK	GB	KY	KU	KT	
c191e_001	No0001	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_002	No0002	M87	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_003	No0003	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_004	No0004	M87	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_005	No0005	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_006	No0006	M87	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_007	No0007	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_008	No0008	M87	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_009	No0009	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_010	No0010	M87	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_011	No0011	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_012	No0012	M87	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_013	No0013	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_014	No0014	M87	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_015	No0015	3C273	3mm_RDBE	o	o	o	x	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c191e_016	No0016	M87	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.





c191e_117	No0124	3C345	3mm_RDBE	o	o	o	o	o	o	o	41	41	58	x	o	25	41	.	.	.	.	
c191e_118	No0125	MRK501	3mm_RDBE	o	o	o	o	o	o	o	o	o	52	x	o	14	o	.	.	.	.	
c191e_119	No0126	3C345	3mm_RDBE	o	o	o	o	o	o	o	41	41	o	x	58	91	41	.	.	.	.	
c191e_120	No0127	MRK501	3mm_RDBE	o	o	o	o	o	o	o	66	03	o	o	x	o	23	o	.	.	.	.
c191e_121	No0128	3C345	3mm_RDBE	.	o	.	.	o	o	o	83	83	o	x	o	33	83	.	.	.	.	
c191e_122	No0129	MRK501	3mm_RDBE	o	o	o	o	o	o	o	63	o	96	x	o	10	o	.	.	.	.	
c191e_123	No0130	3C345	3mm_RDBE	.	.	.	.	.	o	o	25	83	o	x	o	91	83	.	.	.	.	
c191e_124	No0131	MRK501	3mm_RDBE	.	.	.	.	.	o	o	o	o	o	x	o	20	o	.	.	.	.	
c191e_125	No0132	3C454.3	3mm_RDBE	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	
c191e_126	No0133	3C454.3	3mm_RDBE	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	
c191e_127	No0134	3C345	3mm_RDBE	.	.	.	.	.	o	o	41	83	o	x	o	o	83	.	.	.	.	
c191e_128	No0135	MRK501	3mm_RDBE	.	.	.	.	.	o	09	04	o	o	x	o	14	o	.	.	.	.	
c191e_129	No0136	3C454.3	3mm_RDBE	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	
c191e_130	No0137	1633+38	3mm_RDBE	.	.	.	.	.	o	93	40	53	o	x	o	o	60	.	.	.	.	
c191e_131	No0138	MRK501	3mm_RDBE	.	.	.	.	.	o	06	06	o	o	x	o	03	o	.	.	.	.	
c191e_132	No0139	3C345	3mm_RDBE	.	.	.	.	.	o	o	66	66	o	x	o	06	66	.	o	x	o	
c191e_133	No0140	MRK501	3mm_RDBE	.	.	.	.	.	o	90	30	o	63	x	o	10	o	.	o	x	80	
c191e_134	No0141	3C345	3mm_RDBE	.	.	.	.	.	o	o	58	58	o	x	o	33	58	.	o	x	o	
c191e_135	No0142	MRK501	3mm_RDBE	.	.	.	.	.	o	43	10	o	o	x	o	23	o	.	o	x	o	
c191e_136	No0143	3C345	3mm_RDBE	.	.	.	.	.	o	33	41	83	o	x	o	08	83	.	o	x	o	
c191e_137	No0144	MRK501	3mm_RDBE	.	.	.	.	.	o	o	10	o	o	x	o	20	o	.	o	x	o	
c191e_138	No0145	3C345	3mm_RDBE	.	.	.	.	.	o	46	86	86	o	x	o	06	86	.	o	x	o	
c191e_139	No0146	MRK501	3mm_RDBE	.	.	.	.	.	o	o	o	o	o	x	o	13	o	.	o	x	o	
c191e_140	No0147	3C345	3mm_RDBE	.	.	.	.	.	o	o	66	66	o	x	o	20	66	.	o	x	o	
c191e_141	No0148	MRK501	3mm_RDBE	.	.	.	.	.	o	76	63	o	o	x	o	13	o	.	o	x	o	
c191e_142	No0149	1633+38	3mm_RDBE	.	.	.	.	.	o	o	58	33	o	x	o	66	58	.	o	x	o	
c191e_143	No0150	MRK501	3mm_RDBE	.	.	.	.	.	o	o	78	o	o	x	o	11	x	.	o	x	o	
c191e_144	No0151	3C345	3mm_RDBE	.	.	.	.	.	o	o	53	53	o	x	o	26	x	.	o	x	o	
c191e_145	No0152	MRK501	3mm_RDBE	.	.	.	.	.	o	83	56	o	o	x	o	60	x	.	o	x	o	
c191e_146	No0153	3C345	3mm_RDBE	.	.	.	.	.	o	06	33	66	o	x	o	33	x	.	o	x	o	
c191e_147	No0154	MRK501	3mm_RDBE	.	.	.	.	.	o	63	13	o	o	x	o	10	o	.	o	x	o	
c191e_148	No0155	3C345	3mm_RDBE	.	.	.	.	.	o	o	25	58	o	x	o	58	33	.	o	x	o	
c191e_149	No0156	MRK501	3mm_RDBE	.	.	.	.	.	o	50	03	o	o	x	o	26	o	.	o	x	o	
c191e_150	No0157	3C345	3mm_RDBE	.	.	.	.	.	o	o	13	86	o	x	o	13	86	.	o	x	o	
c191e_151	No0158	MRK501	3mm_RDBE	.	.	.	.	.	o	o	03	o	13	x	o	06	o	.	o	x	o	
c191e_152	No0159	3C345	3mm_RDBE	.	.	.	.	.	o	o	41	58	o	58	o	08	58	.	o	x	o	
c191e_153	No0160	MRK501	3mm_RDBE	.	.	.	.	.	o	o	08	o	87	o	o	37	o	.	o	x	o	
c191e_154	No0161	1633+38	3mm_RDBE	.	.	.	.	.	o	41	o	o	o	o	o	58	o	.	o	x	o	