

# F191B (2 Gbps fringe-test) Correlation Report

## General information

- 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)

## Fringes

| Station | Code | Fringes | Plots   | Comments                                 |
|---------|------|---------|---|--|
| Ef      | B    | Yes     | <a href="#">f191b No0002 3C84 BP LL.pdf</a> , <a href="#">f191b No0002 3C84 BP LR.pdf</a> , no RL fringe, <a href="#">f191b No0002 3C84 BP RR.pdf</a><br><a href="#">f191b No0002 3C84 BX LL.pdf</a> , <a href="#">f191b No0002 3C84 BX LR.pdf</a> , <a href="#">f191b No0002 3C84 BX RL.pdf</a> , <a href="#">f191b No0002 3C84 BX RR.pdf</a><br><a href="#">f191b No0002 3C84 BY LL.pdf</a> , no LR fringe, <a href="#">f191b No0002 3C84 BY RL.pdf</a> , <a href="#">f191b No0002 3C84 BY RR.pdf</a><br><a href="#">f191b No0002 3C84 BZ LL.pdf</a> , <a href="#">f191b No0002 3C84 BZ LR.pdf</a> , <a href="#">f191b No0002 3C84 BZ RL.pdf</a> , <a href="#">f191b No0002 3C84 BZ RR.pdf</a><br><a href="#">f191b No0002 3C84 Bi LL.pdf</a> , <a href="#">f191b No0002 3C84 Bi LR.pdf</a> , no RL fringe, <a href="#">f191b No0002 3C84 Bi RR.pdf</a>                                 | bad weather: thick clouds and light rain |
| On      | X    | Yes     | <a href="#">f191b No0002 3C84 BX LL.pdf</a> , <a href="#">f191b No0002 3C84 BX LR.pdf</a> , <a href="#">f191b No0002 3C84 BX RL.pdf</a> , <a href="#">f191b No0002 3C84 BX RR.pdf</a><br><a href="#">f191b No0002 3C84 XP LL.pdf</a> , no LR fringe, <a href="#">f191b No0002 3C84 XP RL.pdf</a> , <a href="#">f191b No0002 3C84 XP RR.pdf</a><br><a href="#">f191b No0002 3C84 XY LL.pdf</a> , <a href="#">f191b No0002 3C84 XY LR.pdf</a> , <a href="#">f191b No0002 3C84 XY RL.pdf</a> , <a href="#">f191b No0002 3C84 XY RR.pdf</a><br><a href="#">f191b No0002 3C84 ZX LL.pdf</a> , <a href="#">f191b No0002 3C84 ZX LR.pdf</a> , <a href="#">f191b No0002 3C84 ZX RL.pdf</a> , <a href="#">f191b No0002 3C84 ZX RR.pdf</a><br><a href="#">f191b No0002 3C84 Xi LL.pdf</a> , <a href="#">f191b No0002 3C84 Xi LR.pdf</a> , no RL fringe, <a href="#">f191b No0002 3C84 Xi RR.pdf</a> | blue sky, tau ~0.3 and Tsys*~230K        |
| Ys      | Y    | Yes     | <a href="#">f191b No0002 3C84 BY LL.pdf</a> , no LR fringe, <a href="#">f191b No0002 3C84 BY RL.pdf</a> , <a href="#">f191b No0002 3C84 BY RR.pdf</a><br><a href="#">f191b No0002 3C84 PY LL.pdf</a> , <a href="#">f191b No0002 3C84 PY LR.pdf</a> , <a href="#">f191b No0002 3C84 PY RL.pdf</a> , <a href="#">f191b No0002 3C84 PY RR.pdf</a><br><a href="#">f191b No0002 3C84 XY LL.pdf</a> , <a href="#">f191b No0002 3C84 XY LR.pdf</a> , <a href="#">f191b No0002 3C84 XY RL.pdf</a> , <a href="#">f191b No0002 3C84 XY RR.pdf</a>   | sunny with light clouds                  |

| Station | Code | Fringes | Plots  | Comments   |
|---------|------|---------|--|--|
|         |      |         | <a href="#">f191b No0002 3C84 ZY LL.pdf</a> , no LR fringe,<br><a href="#">f191b No0002 3C84 ZY RL.pdf</a> , <a href="#">f191b No0002 3C84 ZY RR.pdf</a><br><br><a href="#">f191b No0002 3C84 iY LL.pdf</a> , no LR fringe,<br><a href="#">f191b No0002 3C84 iY RL.pdf</a> , <a href="#">f191b No0002 3C84 iY RR.pdf</a>   |  |
| Mh      | Z    | Yes     | <a href="#">f191b No0002 3C84 BZ LL.pdf</a> , <a href="#">f191b No0002 3C84 BZ LR.pdf</a> ,<br><a href="#">f191b No0002 3C84 BZ RL.pdf</a> , <a href="#">f191b No0002 3C84 BZ RR.pdf</a><br><br><a href="#">f191b No0002 3C84 ZP LL.pdf</a> , no LR fringe,<br><a href="#">f191b No0002 3C84 ZP RL.pdf</a> , <a href="#">f191b No0002 3C84 ZP RR.pdf</a><br><br><a href="#">f191b No0002 3C84 ZX LL.pdf</a> , <a href="#">f191b No0002 3C84 ZX LR.pdf</a> ,<br><a href="#">f191b No0002 3C84 ZX RL.pdf</a> , <a href="#">f191b No0002 3C84 ZX RR.pdf</a><br><br><a href="#">f191b No0002 3C84 ZY LL.pdf</a> , no LR fringe,<br><a href="#">f191b No0002 3C84 ZY RL.pdf</a> , <a href="#">f191b No0002 3C84 ZY RR.pdf</a><br><br><a href="#">f191b No0002 3C84 Zi LL.pdf</a> , <a href="#">f191b No0002 3C84 Zi RR.pdf</a> ,<br>no LR or RL fringes                                       | nice weather   |
| Pv      | P    | Yes     | <a href="#">f191b No0002 3C84 BP LL.pdf</a> , <a href="#">f191b No0002 3C84 BP LR.pdf</a> , no RL<br>fringe, <a href="#">f191b No0002 3C84 BP RR.pdf</a><br><br><a href="#">f191b No0002 3C84 XP LL.pdf</a> , no LR fringe,<br><a href="#">f191b No0002 3C84 XP RL.pdf</a> , <a href="#">f191b No0002 3C84 XP RR.pdf</a><br><br><a href="#">f191b No0002 3C84 PY LL.pdf</a> , <a href="#">f191b No0002 3C84 PY LR.pdf</a> ,<br><a href="#">f191b No0002 3C84 PY RL.pdf</a> , <a href="#">f191b No0002 3C84 PY RR.pdf</a><br><br><a href="#">f191b No0002 3C84 ZP LL.pdf</a> , no LR fringe,<br><a href="#">f191b No0002 3C84 ZP RL.pdf</a> , <a href="#">f191b No0002 3C84 ZP RR.pdf</a><br><br><a href="#">f191b No0002 3C84 iP LL.pdf</a> , <a href="#">f191b No0002 3C84 iP LR.pdf</a> ,<br><a href="#">f191b No0002 3C84 iP RL.pdf</a> , <a href="#">f191b No0002 3C84 iP RR.pdf</a> | Pico Veleta<br>with DBBC2<br><br>good weather,<br>Tau225=0.24,<br>but worsened<br>towards the<br>end of the<br>observations,<br>some thick<br>clouds<br>preventing<br>pointing. Scan<br>No0002 is<br>probably the<br>best. |
| P3      | i    | Yes     | <a href="#">f191b No0002 3C84 Bi LL.pdf</a> , <a href="#">f191b No0002 3C84 Bi LR.pdf</a> ,<br>no RL fringe, <a href="#">f191b No0002 3C84 Bi RR.pdf</a><br><br><a href="#">f191b No0002 3C84 iP LL.pdf</a> , <a href="#">f191b No0002 3C84 iP LR.pdf</a> ,<br><a href="#">f191b No0002 3C84 iP RL.pdf</a> , <a href="#">f191b No0002 3C84 iP RR.pdf</a>   | Pico Veleta<br>with DBBC3  |

| Station | Code | Fringes | Plots  | Comments   |
|---------|------|---------|--|--|
|         |      |         | <p><a href="#">f191b No0002 3C84 Xi LL.pdf</a>, <a href="#">f191b No0002 3C84 Xi LR.pdf</a>,<br/>no RL fringe, <a href="#">f191b No0002 3C84 Xi RR.pdf</a></p> <p><a href="#">f191b No0002 3C84 iY LL.pdf</a>, no LR fringe,<br/><a href="#">f191b No0002 3C84 iY RL.pdf</a>, <a href="#">f191b No0002 3C84 iY RR.pdf</a></p> <p><a href="#">f191b No0002 3C84 Zi LL.pdf</a>, <a href="#">f191b No0002 3C84 Zi RR.pdf</a>,<br/>no LR or RL fringes</p>   |  |
| Na      | N    | Yes     | <p><a href="#">f191b No0002 3C84 BN L-IF0.pdf</a>, <a href="#">f191b No0002 3C84 BN L-IF1.pdf</a>,<br/><a href="#">f191b No0002 3C84 BN R-IF0.pdf</a>, <a href="#">f191b No0002 3C84 BN R-IF1.pdf</a></p> <p><a href="#">f191b No0002 3C84 NP IF0-L.pdf</a>, <a href="#">f191b No0002 3C84 NP IF0-R.pdf</a>,<br/><a href="#">f191b No0002 3C84 NP IF1-L.pdf</a>, <a href="#">f191b No0002 3C84 NP IF1-R.pdf</a></p> <p><a href="#">f191b No0002 3C84 NX IF0-L.pdf</a>, <a href="#">f191b No0002 3C84 NX IF0-R.pdf</a>,<br/><a href="#">f191b No0002 3C84 NX IF1-L.pdf</a>, <a href="#">f191b No0002 3C84 NX IF1-R.pdf</a></p> <p><a href="#">f191b No0002 3C84 NY IF0-L.pdf</a>, <a href="#">f191b No0002 3C84 NY IF0-R.pdf</a>,<br/><a href="#">f191b No0002 3C84 NY IF1-L.pdf</a>, <a href="#">f191b No0002 3C84 NY IF1-R.pdf</a></p> <p><a href="#">f191b No0002 3C84 ZN L-IF0.pdf</a>, <a href="#">f191b No0002 3C84 ZN L-IF1.pdf</a>,<br/><a href="#">f191b No0002 3C84 ZN R-IF0.pdf</a>, <a href="#">f191b No0002 3C84 ZN R-IF1.pdf</a></p> <hr style="border-top: 1px dashed black;"/> <p>Fringes to Na in scans No0001 and No0003-6 in a single file:<br/><a href="#">Na fringes.pdf</a></p> | <p>The first GMVA fringes to NOEMA after its upgrade. Single-dish setup, R2DBE, not NOEMA correlator output.</p> <p>In scan 2 two polarizations are IF0 and IF1, both correlated as "RCP" (and so both designated as R in the plots, be careful if printing or copying these!) for technical reasons. Because apparently the quarter-wave plate was inserted incorrectly, neither really represents RCP or LCP, as</p> |

| Station | Code | Fringes | Plots | Comments  |
|---------|------|---------|-------|---|
|         |      |         |       | <p>can be seen from similar SNR in correlations to LCP and RCP of other stations. The real polarization must be unknown elliptical or linear.</p> <p>In scans 1 and 3-6 "LCP" is IF0 and "RCP" is IF1. The polarization behavior is similar in all scans, SNR is approximately the same for LL, LR, RL, and RR.</p> |

### Notes

PV has done parallel recording with the DBBC2 backend (PV) and the DBBC3 backend (P3). However the setup of the DBBC3 has been kept from the f191a test (4Gbps test) carried out just before f191b. Since f191a was done in DDC mode the subbands are shifted by 16MHz with respect to the DBBC2 PFB bands (for details of the DBBC3 setup see the 4Gbps page).

This means that 16MHz zoom bands have to be used when correlating with P3.

For the following GMVA session the setup has been changed to match the DBBC3 subbands with the PFB subbands.