Hour tags below are in Calern time

HD213558

8:11 :

Test of GD trheshold measurement out of coherence with $opdc_gtk$

GD+PD locked :

Raw dumps :

HD213558_Sun_Aug_14_23h16m49_2022.bin

hd213558GD004PD0626T_Sun_Aug_14_23h18m40_2022.bin

We lost E1 after a couple of minutes

8:22





8:30 Pierre is looking for fringe.

8:38 => fringe ok

| | ex_gat_gat | - Bergerererer | - Indiana - San | | and the second | | Guineann (G) | | And a state of the | Coll College College | All solutions | | والمحالي الكر | |
|--|------------------|--------------------|---------------------|-------------------|--|--------------------|----------------|---------------|--------------------|----------------------|----------------|---|--------------------|-----------|
| | | opdc_rtd | | *D X | < | | | | | | | | | |
| felescope | Baseline | Curve Offs | et Beam | to Tel matching | mtroller_rtd | | | t - 5 × | | | | mircx_rtd_gtk | | * = × |
| | ALL | 1-10 | El | W2W1S2S1E2 | | | | | | | | Talk to MIRC-X | | |
| | | | | | d × vega⊜ni | vadel: ~/Sylvain/m | nircx4spica | Termin. | al - spoo | Data: O E | | Vcba O PE 11 O PE 2 | A PE TO Clux OI | Vie CENTE |
| | | | | | r/opdcShared/s | c/opdcShared.o | /home/vega/Sy | tva File Edit | View | Col | (x) | Rows (v) | Flux Of | |
| IO O PD O GD | • GdErr O PdErr | O Pasnr O PasnrMea | in O cmaGD O cma | РО О Бакет О Ране | eSrc/toolbox// | C++/CShm/src/CSh | m.o /home/veg | a/S1 0 166667 | 0.166 | 0 . | 299 | 0 * 39 | 0.0 0 | 1.0 2 |
| Xmin | Xmax | Ymin | Ymay | Auto Scalo V | -lgdk-x11-2.0 | lpangocairo-1.0 | -latk-1.0 -l | cai | -0.100 | | | | | |
| * 1 | page a lait | 1 no b | 11000 | Auto Scale 1 | a rig strieetype | +tette | nc • cp cm eau | 0 | _ | 0 | | 100 | 200 | |
| in the second se | | | | mircx_gdt_gtk | | | | 0 - E 8 | 9.166 | S1-S2 | 45 | 52-E2 46 | S1-E2 56 | |
| | | | | Talk to MIRC-X | | | | | 9.1660 | | I tel mi | | All all and a part | 100 |
| 7 | beam, pop ldc | ople cart pos | err DL offse | t step siz | e link beams | 51 52 | 2 EI E2 | W1 W2 | | | | | | COLUMN ST |
| di 👘 | 51 5 1 10.04 | MAN FT -1nn - | < < 0 -0.485 | > >> 0.002 | Loop- Loop+ | 51 · × | × × | × × | 0 -1 | | | | | |
| | 52 4 2 11.52 | MAN FT Onm - | < < 0 -1.070 | > >> 0.002 | Loop Loop+ | / \$2 7.2 - | x x | × × | 0 - | - C2 IM | 24 | C1 M/1 DE | 60 W1 26 | - |
| HL M | E1 1 3 18.27 | MAN FT -29n - | < < 0 -1.995 | > >> 0.006 | LOOP LOOP+ | E1 2.0 5.4 | 9 - x | x x | 0 - | 30- 52.00 | | 21-441 (22) | E2-W1 30 | -30 |
| 171 / 1 | F2 6 4 27.14 | MAN FT 1701 - | < < 0 -1 575 | > >> 0.006 | 1000 1000+ | F2 81 10 | 6 136 - | × × | | | | | | |
| Hoter At | W1 3 3 36.05 | MAN ET 210 | 0 1004 | 2 22 0.00E | | Z 14/1 0 0 00 | | | Option | | | | | |
| CARA AN | W1 5 2 20.95 | MAN FI ZIN | -1.004 | 0.000 | - coop. coop. | 441 8.0 20. | 8 20.5 16. | | ption | | | | | |
| PARA AN | W2 2 5 28.55 | MAN FT 30ni - | < < 0 0.000 | > >> 0.010 | Loop- Loop+ | W2 2.2 6.4 | 4 8.3 6.5 | 27.0 - | 10:13 | \$2-W | | S1-W2 25 | E2-W2 26 | |
| | LDC refbeampol | 1 polforgdt C : | PRIMARY | Gdt Gain 0.60 0.6 | 50 🕄 Sea | chThr. 2.(C | RINGE LOCK | CLEAR MATRIX | 10:13 | 20- | | | | - 20 |
| K _{GD} | DLsleep(mas) 50 | 50 DL RAMP step | DL COMM | : ZERO C | OPLE OFFSET! | MIRCX + MYSTIC | DDL SA | VE/GOTO : | 10:13 | 20 | | The local division in | | |
| 0.0000 0 | S11 | 52 S1 E1 S1 E2 | S1 W1 S1 W2 S2 | E1 52 E2 52 W1 | S2 W2 E1 E2 | E1 W1 E1 W2 | E2 W1 E2 | W2 W1 W2 | 18:13 | | | A 1990 1 | | |
| Close Loop | POL OPD: -U. | 5 -3.2 0.0 X X | 1.1 0.2 -1 X X X | .0 1.0 -0.6 | -0.3 0.2 X X | -1.0 0.1 X X | 0.2 I X | x x | 18:13 | IS1-81 | 15100000 | . E1-E2 16 | W1-W2 23 | |
| the second second | POL_PHI: x | x x | x x x | х х | x x | х х | x | x x | 10:13 ara-ai | | | | | - |
| Dump moni | DISPERSION: -17. | 00 -57.24 57.30 | -19.97 -99.20 -74 | .90 66.69 -19.95 | -64.34 -11.33 | -51.00 -6.40 | 42.33 3 | .17 1.19 | 10:13 | THE OWNER WHEN | an internation | | | |
| RECONF | SIGNAL 128 | 1.0 47.3 132.9 | 168.0 51.2 110 | 5.7 172.3 360.7 | 119.1 254.5 | 370.9 218.7 | 287.8 13 | 8.7 519.0 | sate, | 10- | | | | -10 |
| refVect1 | NOISE 17 | .7 23.9 16.4 | 21.0 23.0 19 | 9 16.2 17.3 | 18.7 18.7 | 18.1 26.3 | 17.0 2 | 1.2 19.2 | CHARA 10-13 | - Coltan | | E1 1411 12 | 50 E1 214 M | |
| | Target HD 21355 | * 20.0 * 20.0 * . | PA- 337 49 22 52 | DEC: 50 16 56 97 | HA: .02.03.19.598 | 20.0 . 20.0 . | 20.0 20. | 0 - 20.0 - | | | | EI-WVI IS | 52-61 14 | |
| li | PING MIRC | X PI | NG OPLE | REOPEN | IA. 02 05 15.550 | OUIT | Bece | ive dag | 10:13 | | | | | |
| li | | a | | | 0.044 | 1. | 2 02616 | | royed | | | | AN DESCRIPTION OF | CHILD DE |
| li | | | | SZEZ | 0.941 | * | 2.82616 | | occured | 0 | | | | -0 |
| 0 | | | | S2W1 | 1.007 | 3 | 4.15326 | | led | 0 | | 100 | 200 | |
| Ľ | | | | S2W2 | 0.928 | 2 | 3.43095 | í | r.searci | | | | | |
| | | | | E1E2 | 0.809 | 0 | 2.16587 | | ircx:/h | min: + | 0 max: | +1 sum: 2.09e+03 | mean: 0.174 rm: | s: 0.324 |
| en | | | | E1W1 | 0.935 | 0 | 3.21748 | | | Refresh (Hz | 3.0 | Start RTD | Stop | RTD |
| 1 | | | | E1W2 | 1.033 | - | 3.38404 | | | PI | IG | REOPEN | OU | IIT |
| | | | | E2W1 | 0.853 | 0 | 3.70483 | | | Log: | | Receive pyco | Infig | |
| 4 | | | | E2W2 | 0.888 | | 3 16212 | | | - | - | | artes | |
| | | | | | 0.000 | 1. | JAGERE | | | | | | | |

8:48 :

Start spicaFT @GD only kgd = 0.0487



E1 lost after 1 min



9:11 Start spicaFT @GD only kgd = 0.0487

9:14 : Lost

9:15 : refound

9:16 lost anew

Remark : E1 DL position: 8:38 E1@-1.995, 9:19 E1@-1.666

9:20 Realignment requested to Norm

9:44 : realignment done, fringe found

| 1 | 0.000 | | | | | | | |
|--|------------------------------|----------------------|------------------------|----------------------|------------------|--|--|--|
| | | mircx_gdt_gtk | | | + _ = × | | | |
| and the second | | Talk to MIRC- | | | | | | |
| beam, pop ldc o | ple cart pos err DL o | ffset step | size link beams 🗹 | S1 S2 E1 | E2 W1 W2 | | | |
| S1 5 1 21.65 MAN | FT -2nn << < 0 -0.17 | 3 > >> 0.00 | 2 \$ Loop- Loop+ ✓ S | L - x x | x x x | | | |
| S2 4 2 23.13 MAN | FT -7nn << < 0 -0.91 | .6 > >> 0.00 | 2 🗘 Loop- Loop+ 🗹 S2 | 2 9.6 - x | x x x | | | |
| E1 1 3 35.24 MAN | FT 11ni << < 0 -1.53 | 35 > >> 0.00 | 5 \$ Loop- Loop+ ✓ E | 4.1 1.7 - | x x x | | | |
| E2 6 4 39.73 MAN | FT 10n << < 0 -1.19 | 98 > >> 0.00 | 5 🗘 Loop- Loop+ 🗹 E | 2 14.5 9.5 8.8 | 3 - x x | | | |
| W1 3 2 32.02 MAN | FT 8nm << < 0 -0.68 | 86 > >> 0.00 | 5 🗘 Loop- Loop+ 🗹 W | 1 9.5 6.6 10. | 8 14.2 - × | | | |
| W2 2 5 30.49 MAN | FT 1nm << < 0 0.00 | 0 > >> 0.01 |) 🗘 Loop- Loop+ 🗹 W | 2 10.5 7.1 14. | 1 12.7 28.1 - | | | |
| LDC refbeampol 1 2 polf | forgdt C C PRIMARY | Gdt Gain 0.60 | 0.60 CearchT | hr: 2.(🗘 🛛 FRINGE L | OCK CLEAR MATRIX | | | |
| DLsleep(mas) 50 50 🗘 Dl | L RAMP steps 1 🗯 DL CO | MM 😂 ZEF | O OPLE OFFSET: MIR | CX + MYSTIC D | DDL SAVE/GOTO | | | |
| S1 S2 S1 E1 | S1 E2 S1 W1 S1 W2 | S2 E1 S2 E2 S2 | V1 S2 W2 E1 E2 E1 | W1 E1 W2 E2 W | 1 E2 W2 W1 W2 | | | |
| OPD: 1.8 2.0 | -3.6 1.0 2.0 | -0.9 -1.0 -0 | 4 0.2 0.6 1 | 1.3 0.3 -1.9 | -1.1 0.3 | | | |
| POL DPD. X X | ÷ ÷ ÷ | | ÷ ÷ | | ÷ ÷ | | | |
| MEAN VIS: 125 074 | 0.90 0.65 0.87 | 106 123 1 | 2 121 0.86 0 | 82 126 0.65 | 5 0.84 1.14 | | | |
| DISPERSION: -16.01 -48.91 | 50.57 -58.88 -82.86 | -65.62 46.02 -39 | 93 -67.29 -3.96 12 | 2.38 35.81 -8.32 | 2 -41.12 -24.13 | | | |
| SIGNAL 204.9 83.3 | 294.4 161.4 222.9 | 39.2 193.4 12 | .4 156.6 151.3 17 | 0.8 264.7 247. | 3 249.6 507.8 | | | |
| NOISE 21.3 20.3 | 20.3 17.0 21.2 | 23.3 20.3 18 | .9 22.1 17.2 1 | 5.8 18.8 17.5 | 5 19.7 18.1 | | | |
| GET SEND 20.0 \$ 20.0 | \$ 20.0 \$ 20.0 \$ 20.0 \$ 2 | 20.0 \$ 20.0 \$ 20.0 | \$ 20.0 \$ 20.0 \$ 20. | 0 \$ 20.0 \$ 20.0 | 20.0 20.0 2 | | | |
| Target: HD_213558 Mag: 3 | 3.870000 RA: 337 49 22.5 | 52 DEC: 50 16 56.9 | HA: -01 05 03.054 UT | C: Mon Aug 15 0 | x | | | |
| PING MIRCX | PING OPLE | REOPEN | QUIT | F F | Receive pyconfig | | | |

9:45 Start spicaFT @GD only kgd = 0.0487

CmdGD in [0, 54µm] µm

9:48 closing $\underline{\text{PD@0.423}}$, cmdPD in [-17,20] μm

| Telescope Baseline Curve Offset Beam to Tel matching ALL ALL | introller, rtd + - = X | mircx rtd_gtk + = □ × Talk to MIRC-X • CutRo ◯ SumR □ Bias □ Ghost ✔ Boxes ✔ Fit |
|--|--|---|
| O Photo PD GD GdErr • PdSnr PdSnrMean cmdGD cmdPD GdRef PdR Xmin Xmax Ymin Ymax ✓ Auto Scale 0.0 [2] 0.00.0 [2] 0.30 [2] 8.00 [2] [2] 0.20 [2] 0.20 [2] 0.20 [2] 0.20 [2] 0.20 | 0 | II Fring Xcha P51C P52C P5Tr Flux Vis FlxTr Rows(y) 299 a 0 39 a 0.0 20 10 10 |
| KTD Curves | 0 0.1660 0.056667 | 45 S2-E2 46 S1-E2 56 |
| | -0.165557 epde | gtk |
| 0.5 | 0.0487 2 0.423 2 Open Loop Enable Fringe Relock | SNR_THRESHGD |
| | Pump monitoring File suffix Requested events 3558GD0049PD042T, 5000 C | S1S2 1.006 1 3.47 S1E1 0.983 2 2.31 |
| 0.2 1 EIST | MAN RECONF MAN • refVect1 • refVect2 • refVect3 • refVect4 • refVect5 • refVect6 | S1E2 1.032 2 4.64 S1W1 0.936 2 2.8 |
| 0.0 | 1 MAN Server connected! PING QUIT | S1W2 1.084 2.94 |
| -0.2 | 3 MAN | S2E2 0.971 2.53 |
| -0.3 - | 5 MAN | 52W1 1.017 2.16 52W2 0.930 1.75 |
| -0.5 | 3 50 2 | E1E2 0.828 : 2.45 E1W1 0.981 : 2.03 |
| -0.7 - | | E1W2 1.042 : 2.72 |
| | x 1.19 13.37 - | E2W1 0.893 . 2.15 E2W2 0.923 . 2.46 |
| | | W1W2 0.991 3.35 |
| event rate (Hz) : 342.745 Stop RTD PING Server connected! QUIT .og: Receive data - | iss Mar IRCX | Integrated sample # = 39 Safety margin 0.15 Save GD T |

9:54 : still GD+PD locked, CmdGD $\,$ in [0, 90 μ m] μ m, cmdPD in [0,90] μ m





9:54 : still GD+PD locked, CmdGD $\,$ in [0, 90 μ m] μ m, cmdPD in [0,90] μ m

10:00 : we lost E2, PD cmd on E1/E2 got crazy, GdCMD still consistent



10:05: looking for fringes with Mircx

Recording Mircx data

10:45 : moving to HD3360

11:12 : fringes found

| | | | | | | | | | | | | m | ircx_ | gdt_gt | k | | | | | | | | | | • = | |
|-------|-----|-----|--------------|----|---------|-------|--|-------|-------|------|-----------|--------|-------|----------|---------|------------------------|---------|---------|---------|--------|--------|-------|------------------|-------|--------|-------|
| | | | | | | | | | | | | | Ta | alk to I | AIRC-X | | | | | | | | | | | |
| bea | m, | рор | ldc | | | ople | cart po | s err | | | DL offset | | | | | step size link beams 🗹 | | | | | S1 | S2 | E1 | E2 | W1 | W2 |
| S1 | 5 | 1 | 17.48 | M | IAN | FT | 6nm | << | < | 0 | -0.5 | 92 3 | >]: | >> | 0.002 | - | Loop- | Loop+ | | S1 | - | х | × | х | х | х |
| S2 | 4 | 2 | 19.63 | M | IAN | FT | -8nn | << | < | 0 | -1.1 | 05 2 | > : | >> | 0.002 | ÷ | Loop- | Loop+ | | S2 | 0.3 | - | × | х | х | х |
| E1 | 1 | 3 | 32.55 | N | IAN | FT | -46n | << | < | 0 | -2.0 | 35 3 | > : | >> | 0.002 | - | Loop- | Loop+ | | E1 | 3.1 | 0.6 | - | x | × | x |
| E2 | 6 | 4 | 38.83 | M | IAN | FT | -3nn | << | < | 0 | -1.6 | 20 2 | > [: | >> | 0.002 | ÷ | Loop- | Loop+ | | E2 | 0.2 | 0.4 | 0.6 | - | × | х |
| Wl | 3 | 2 | 36.36 | N | IAN | FT | -1nn | << | < | 0 | -1.0 | 63 3 | > : | >> | 0.002 | - | Loop- | Loop+ | | W1 | 0.3 | 2.4 | 0.3 | 0.4 | - | × |
| W2 | 2 | 5 | 37.18 | M | 1AN | FT | -7nn | << | < | 0 | 0.00 | 00 2 | > [: | >> | 0.010 | - | Loop- | Loop+ | | W2 | 0.5 | 0.2 | 0.1 | 0.1 | 0.1 | - |
| LDC |] | efb | eampol | 1 | 🗘 po | lforg | dt C | | PRIM | IARY | | | Gdt | Gain | 0.60 0. | 60 | ÷ | Se | ard | chThr: | 2.(‡ | FR | INGE LO | CK CL | EAR M | ATRIX |
| DLsle | ep | (ma | is) 50 | 50 | \$ [| DL R | AMP ste | ps 1 | - | 1 | DL CO | MM | | \$ | ZERO | OP | LE OFFS | SET: | 1 | MIRCX | + MYS | TIC | DDL SAVE/GOTO 💲 | | | |
| | | | S1 9 | 52 | S1 E | 1 | S1 E2 | S1 | W1 | SI | W2 | S2 E1 | S | 2 E2 | S2 W1 | | S2 W2 | E1 E2 | 2 | E1 WI | E1 | W2 | E2 W1 | E2 W2 | 2 W1 | W2 |
| (| OPE |): | 39. | .5 | -2.7 | | 11.3 | -16 | 5.1 | 33 | .6 | -18.1 | - | 13.1 | -25.4 | | 19.9 | 45.7 | | 8.1 | -3 | 8.1 | -36.8 | -15.2 | 3(| 5.4 |
| POI | 0 | PD: | х | | х | | х | × | 0 | × | | х | | х | х | | х | х | | х | | х | х | х | | х |
| PO | | HI: | X | 7 | X 1 41 | | X | ~ X | 10 | X | 0 | X 0 71 | | X | X | | X 0.49 | × 0.00 | | X | 0 | X X | | X | 0 | X |
| DISE | FR | SIU | U.4 | 58 | -101 \$ | R6 ' | 726.03 | 118 | 5 4 9 | -107 | 278 | 532 3 | 2 6 | 78 54 | -131 3 | 6 | 1680.83 | 0.99 | 7 | 535.8 | 7 .27 | 8 3 8 | -586.85 | 260.7 | 3 -46 | 0.68 |
| S | GN | | N. 042. 5 | 7 | -101.0 | 50 | 3.6 | 4 | 9.49 | 8 | 7 | 91 | 2 0 | 89 | 45.5 | 0 | 3.0 | 12.8 | <u></u> | 63 | 7 -27 | 6.50 | 8 9 | 1.6 | 3 -40 | 0.00 |
| N | 01 | SE | 17 | .6 | 20.7 | 7 | 21.9 | 17 | .2 | 19 | .0 | 15.4 | | 21.7 | 18.8 | | 15.1 | 20.5 | | 18.6 | 3 | 2.7 | 21.1 | 17.0 | 2 | 1.0 |
| GET | | SEN | D 20.0 | 1 | 20.0 | 2 | 20.0 \$ | 20.0 |) ‡ | 20.0 | : | 20.0 | : 20 | 0.0 | 20.0 | 1 | 20.0 | 20.0 | - | 20.0 | \$ 20. | 0 1 | 20.0 ‡ | 20.0 | \$ 20. | 0 2 |
| Targe | et: | H | 3360 | 1 | Mag: | 4.2 | 50000 | RA | 1: | 09 1 | 4 34.2 | 26 DE | C: | 53 53 | 48.87 | HA | 4: -01 | 42 43.7 | 78 | UTC: | Mon A | ug 15 | 01 |) | (| |
| | | PII | NG MIRC | X | | | 1 | PING | OPLE | - | | | | REOF | EN | | | | C | UIT | | | Receive pyconfig | | | |
| ecce | - | me | Vectz | 0 | erveca | 50 | OTENECO OTENECO OTENECO SINI 10,355 LE 0,707 | | | | | | | | | | TCO | | | | | | | | | |

11:13 : spicaFT@GD started => fringe lost instantaneously

Struggling to find fringes.

11:25 : Norm tells us that the Ople server crashed, Norm restarts it.

11:35: cannot ping ople server from mircx_gdt_gtk, forgot to hit reopen/ reconnect on mircx_server_gtk

11:53: Norm found back the fringes on mircx

| | | | | | | | | | mirc | x_gdt_ | gtk | | | | | | | | | | • = | | |
|--------------------------------------|----------------------|----------|---------|----------|---------|--------|-------|----------|--------|----------|---------|---------|------------|---------|------------|-------|------------|-------|------------------|--------|---------|--------|--|
| | | | | | | | | | | Talk to | MIRC-X | | | | | | | | | | | | |
| beam | , pop | ldc | | ople ca | art pos | err | | DL of | ffset | | step s | link be | nk beams 🗹 | | | | S 2 | E1 | E2 | W1 | W2 | | |
| S1 5 | 5 1 | 16.57 | MAN | FT | -6nn • | << < | : 0 | -0.23 | 2 > | >> | 0.002 | 4 | Loop- | Loop+ | | 51 | - | х | x | × | × | -0.27 | |
| S2 4 | 12 | 18.70 | MAN | FT | 1nm · | << < | : 0 | -0.85 | 9 > | >> | 0.002 | * | Loop- | Loop+ | v 9 | 2 1 | 9.0 | - | х | х | х | -0.89 | |
| E1 1 | L 3 | 35.63 | MAN | FT | 6nm · | << < | < 0 | -1.59 | 2 > | >> | 0.002 | * | Loop- | Loop+ | I | 1 | 4.7 | 3.8 | L | х | × | -1.64 | |
| E2 6 | 54 | 38.83 | MAN | FT | -3nn • | << < | : 0 | -1.17 | 6 > | >> | 0.002 | * | Loop- | Loop+ | I | 2 2 | 3.2 | 9.8 | 7.2 | - | х | -1.21 | |
| W1 3 | 3 2 | 31.29 | MAN | FT | 1nm · | << < | | -0.71 | 1 > | >> | 0.002 | * | Loop- | Loop+ | V V | V1 | 7.0 | 4.6 | 2.9 | 5.9 | - | -0.71 | |
| W2 2 5 30.01 MAN FT 15n << < 0 0.000 | | | | | | | | | 0 > | >> | 0.010 | + | Loop- | Loop+ | v v | V2 1 | 3.0 | 9.0 | 4.2 | 6.8 | 8.5 | | |
| LDC | refb | eampol | 1‡ po | olforgdt | C 🌲 | PR | MAR | Y | G | idt Gair | 0.60 | .60 | ÷ | Se | arch | Thr:2 | ¢ | FR | INGE LO | СК СІ | EAR M | IATRIX | |
| DLslee | p(mi | as) 50 🗄 | 50 ‡ | DL RAM | P step | 1 1 | | DL COM | мм | ‡ | ZERO | OP | LE OFFS | SET! | MI | RCX + | MYS | TIC | DD | L SAVE | /GOTO 💲 | | |
| | | S1 9 | 52 S1 E | E1 S1 | E2 | S1 W1 | S | 1 W2 | S2 E1 | S2 E2 | S2 W | 1 | S2 W2 | E1 E2 | 2 E | 1 W1 | E1 | W2 | E2 W1 | E2 W | 2 W1 | . W2 | |
| C OF | D: | -0. | 4 -0. | 5 0 | .4 | -0.5 | | -3.4 0.3 | | 0.0 | 0.2 | | -2.2 | -0.9 | | -1.0 | 2 | .2 | -1.7 | -1.4 | - | 1.5 | |
| POL_ | OPD: | : X | X | | X | × | | X | X | × | X | | × | × | | X | | X | X | X | | X | |
| MEAN | | . 14 | 9 11 | 6 1 | 38 | 0.86 | | 12 | 0.92 | 1 1 1 | 1 01 | | 0.95 | 0.86 | | 0.81 | 1 | 04 | 0.67 | 0.73 | 0 | 97 | |
| DISPE | RSIO | N: -18. | 70 -60. | 86 72 | .14 | -78.14 | -1 | 02.45 | -21.10 | 58.93 | -72.6 | 1 | -75.47 | 9.63 | 1 | 3.23 | 37 | .48 | -7.32 | -20.2 | 7 -1 | 7.14 | |
| SIG | NAL | 335 | .4 97. | 2 50 | 8.7 | 120.9 | 2 | 47.4 | 58.1 | 211.7 | 87.3 | 1 | 135.5 | 147. | 1 | 54.6 | 13 | 6.1 | 124.7 | 116.2 | 17 | 8.9 | |
| NO | ISE | 17. | 6 20. | 7 2 | 1.9 | 17.2 | | 19.0 | 15.4 | 21.7 | 18.8 | | 15.1 | 20.5 | | 18.6 | 32 | 2.7 | 21.1 | 17.0 | 2 | 1.0 | |
| GET | SEN | ID 20.0 | \$ 20.0 | \$ 20. | 0 1 | 20.0 | \$ 20 | .0 ‡ 2 | 0.0 | 20.0 | \$ 20.0 | + | 20.0 ‡ | 20.0 | \$ 20 | 0.0 | 20.0 |) ‡ | 20.0 ‡ | 20.0 | \$ 20. | 0 ‡ | |
| Target: | H | D_3360 | Mag: | 4.2500 | 000 | RA: | 09 | 14 34.2 | 6 DEC: | 535 | 3 48.87 | HA | A: -01 | 38 01.0 | 06 U | TC: N | Ion A | ug 15 | 0! | | (| | |
| | PING MIRCX PING OPLE | | | | | | | | | REC | PEN | | | | QU | IT | | | Receive pyconfig | | | | |

11:55: spicaFT@GD0.048+PD0.459 started

12:01 : Below the spica-ft commands , sounds like PD loop absorbs all the drifts, GD loop too slow, it doesn't see the opd drifts since they are already corrected by PD loop :





12:05 : fiber explorer, spica-FT tracking still alive

Very low PDerr, around 200nm !:

| opdc_rtd | • X | 0.955 | 2 | × | | | mincs_rtd_otk Talk to MIRC-X | * _ 0 | 5.0 |
|--|--|--|--|---|--------------------|--------------------------------------|---|---|------------|
| Telescope Baseline Curve O ALL 1 0 | ffset Beam to Tel matching E1W2W15251E2 | 2 | SNR_MEAN _{PD} 5.5593 | × ninal-spoo dit View | Mode: C Data: C | 2D • Cut Full • Fring Cols (x) | Ro ○ SumR ○ SumC □ I ○ Xcha ○ PS 1E ○ PS 2 Rows (y) | Bias □ Ghost ✔ Boxes ✔ Fit E • PS Tri ○ Flux ○ Vis ○ F Flux | t FlxTi |
| Photo PD GD GdErr PdErr PdSnr PdSnr | ean O cmdGD O cmdPD O GdRef O PdRef | 0 | 2.9943 | 0 0.1660 667 -0.1660 0 | 0 | 299 | 0 39 | 0.0 11.0 | |
| Xmin Xmax Ymin | Ymax 🗸 Auto Scale Y ? | | 4.68272 | 0 567 0 0.1660 | 51 | S2 45 | 100 S2-E2 46 | 51-E2 56 | |
| | 1.00 | 0 | 1.56868 | 67 567 567 | | | | | |
| 0.7 | н (н р | 0 | 2.72791 | 0 0 0 - 0 0 0 - 1 0 0 - | 30 - 52- | W1 34 | S1-W1 35 | E2-W1 36 | 30 |
| 0.5 - | | 0 0 | 2.16422 2.0763 | | | | | | |
| 0.3 | distribution of the second | 0 | 2.32462 2.577 | 41 Option created 1-14 10:13 | 52 | W2 24 | S1-W2 25 | E2-W2 26 | |
| 0.2 | W253 | 0 | 2.79489 2.45438 | mircx_gdt_gt | 20- | | | | 20 |
| ••• As the Abby of Manager Providence of | 5 1 52 | fety margin | 3.65296 | Talk to M set | S1- | E1 15 | E1-E2 16 | W1-W2 23 | |
| -0.2 | | 5 | Save GD Thresholds | | 10- | | | | -10 |
| -0.3 | TI TI ELW2 | 6.51 MAN F J8.83 MAN F | FT 6nm << < 0 -1.58 FT -3nn << < 0 -1.17 | i6 > >> 17 > >> | El- | | E1-W1 13 | 52-E1 14 | |
| -0.5 | 2 | 9.95 MAN F | FT 1nm << < 0 -0.71 FT 15m << < 0 0.00 | 8 > >> 0 > >> | | | | | |
| -0.8 - | 13 | ampol 1 polfo | RAMP step: 1 DL CO | Gdt Gain | 0- | | 100 | 200 | |
| 0 200 400 600 | 800 1000 | 51 S2 S1 E1 0.1 0.1 x x | S1 E2 S1 W1 S1 W2 0.2 0.2 0.4 x x x x | 52 E1 S2 E2 -1.4 0.7 x x | min: | +0 max: | +1 sum: 1.89e+03 No fit | mean: 0.157 rms: 0.32 | 1 |
| Event rate (Hz) : 342.363 Stop RTD PING | Server connected! QUIT | x x 1.28 0.94 -20.12 -57.75 756.3 270.3 | x x x 1.27 1.04 1.09 66.44 -82.05 -107.59 670.1 286.9 221.5 | x x 0.96 1.09 -34.99 38.58 106.2 293.2 | Refresh | (Hz): 3.0 PING | Start RTD REOPEN | Stop RTD QUIT | |

12:08 : 5000 events recorded hd3360GD0047PD0459T.bin

12:18 : still running, take a new dump, 10000 events

12: 25 : we lost W2, then recovered by spicaFT by its own

12: 29 : we lost S1, then E2 lost, releasing PD loop, E2 recovered

12:32 E2 lost, stop spica-FT

12:36 : fringe recovered with mircx :

| | mircx_gdt_gtk | | | | | | | | | | | | | | | 0 c | . 🗆 X | | | | | | |
|---|------------------------------------|------------------|--------|--------|--------|------|------|------|-----------|------------------|-----------|---------|----|---------|--------------|-----|------------|-------|--------|--------|--------|-------|-------|
| | | | | | | | | | | | Talk to I | MIRC-X | | | | | | | | | | | |
| beam | beam, pop ldc ople cart pos err DL | | | | | | | | DL offse | offset step size | | | | | link beams 🗹 | | | | | E1 | E2 | Wl | W2 |
| S1 5 | 5 1 | 14.90 | MAN | FT | -6nn | << | < | 0 | -0.180 | > | >> | 0.002 | + | Loop- | Loop+ | | S1 | - | х | х | х | х | -0.27 |
| S2 4 | 12 | 17.11 | MAN | FT | 1nm | << | < | 0 | -0.855 | > | >> | 0.002 | ¢ | Loop- | Loop+ | ✓ | S 2 | 28.5 | • | х | х | х | -0.89 |
| E1 1 | L 3 | 39.01 | MAN | FT | 6nm | << | < | 0 | -1.558 | > | >> | 0.002 | \$ | Loop- | Loop+ | | E1 | 6.6 | 6.5 | - | х | х | -1.64 |
| E2 6 | 5 4 | 38.83 | MAN | FT | -3nn | << | < | 0 | -1.198 | > | >> | 0.002 | \$ | Loop- | Loop+ | • | E2 | 19.5 | 15.7 | 6.6 | - | × | -1.21 |
| W1 3 | 3 2 | 26.35 | MAN | FT | 1nm | << | < | 0 | -0.689 | > | >> | 0.002 | \$ | Loop- | Loop+ | | W1 | 6.1 | 4.5 | 2.6 | 4.4 | 2 | -0.71 |
| W2 2 | 2 5 | 23.06 | MAN | FT | 15nı | << | < | 0 | -0.002 | > | >> | 0.010 | \$ | Loop- | Loop+ | ~ | W2 | 10.3 | 10.9 | 4.2 | 9.9 | 9.8 | - |
| LDC refbeampol 1 polforgdt C PRIMARY Gdt Gain 0.60 0.60 SearchThr: 2.(FRINGE LOCK CLEAR MATE | | | | | | | | | | | | ATRIX | | | | | | | | | | | |
| DLslee | p(m | as) 50 | 50 ‡ | DL RAI | MP ste | ps 1 | * | | DL COMM | | ÷ | ZERO | OP | LE OFFS | SET: | 1 | MIRCX | + MY | STIC | DD | L SAVE | GOTO | \$ |
| | | S1 | 52 S1 | E1 S | 1 E 2 | S1 | W1 | SI | W2 S2 | E1 | S2 E2 | S2 W3 | 1 | S2 W2 | E1 E | 2 | E1 W | 1 E. | LW2 | E2 W1 | E2 W | 2 W: | LW2 |
| OP | PD: | -1. | 4 0 | .8 | 0.5 | -0 | .8 | 0 | .6 1. | 5 | 0.2 | 2.1 | | 0.0 | -0.1 | | 2.2 | - | 0.8 | 1.2 | 0.9 | (|).5 |
| POL_ | OPD | : х | | х | х | > | (| | x x | | х | х | | х | х | | Х | | х | х | х | | х |
| POL | PHI: | . 1 ⁷ | | X 1 | X | ~ | | 1 | x x | 6 | × | X 1 1 4 | | X 0.01 | X | | 1 OF | | X | X | 0 70 | 1 | X |
| DISPE | RSIC | . 1.2 N· -17 | 67 -40 | 174 5 | 9.46 | -101 | 01 | -97 | 00 0.0 | 00 | 42.61 | -76.4 | 2 | -85.85 | 10.00 | R | 72.6 | | 7 28 | -34 70 | -50.2 | 2 -2 | .55 |
| SIG | NAI | 501 | 3 13 | 66 4 | 27 5 | 10 | 51 | 19 | 59 100 | 1 3 | 340 1 | 84.0 | ſ | 165.2 | 135 | 1 | 49 (| 1 1 | 35.8 | 93.2 | 168 (| 20 | 15.8 |
| NO | ISE | 17 | .6 20 | 0.0 4 | 21.9 | 17 | .2 | 19 | 9.0 15 | .4 | 21.7 | 18.8 | | 15.1 | 20.5 | Ť. | 18.6 | 5 3 | 2.7 | 21.1 | 17.0 | 2 | 1.0 |
| GET | SEI | D 20.0 | \$ 20. | 0 20 | .0 ‡ | 20.0 | - | 20. | 0 \$ 20.0 | - | 20.0 | 20.0 | - | 20.0 ‡ | 20.0 | + | 20.0 | \$ 20 | .0 ‡ | 20.0 ‡ | 20.0 | \$ 20 | .0 ‡ |
| Target: | H | D_3360 | Mag: | 4.250 | 0000 | RA | A: (| 09 1 | 4 34.26 | DEC: | 53 53 | 48.87 | H | A: -01 | 38 01.0 | 06 | UTC: | Mon A | Aug 15 | 0! | | < | |
| PING MIRCX PING OPLE REOPEN QUIT Receive pyconfig | | | | | | | | | | | g | | | | | | | | | | | | |

12:48: spicaFT@GD0.046+PD0.506 started

12:53 : Test of fringe search : +200 μ m on S2, failed to recover.

12:57 Switch with mircx manual fringe search, DL out of delay

END OF operation log

Comments :

• <u>Fringe search failure</u> : probably due to a mislead in the CHARA DL operation understanding. Imagine we lost T1. spicaFS performs a first move of +L sending n commands of L/n on T1 starting from the current position (let's call it start_pos = zero for sake of simplicity). It should actually accumulate the n steps of L/n in its fringe search commands running through [0, L/n, 2L/n,, L] rather than sending n commands of L/n.

Same thing when starting the second slope, it should accumulate the homing command (-L) to move back to start_pos, then send the fringe search commands running through -L + [0, -L/n, - 2L/n, ..., -L] to achieve the second slew slope.

Third slope will consist in sending fringe search commands running through -2L + [0, L/n, 2L/n, ..., L], and so on....

• spicaFT opdc server never restarted during the night, never crashed.