

Observing log CHARA/VEGA 2014-08-22
Observers: Denis, Simon, Frantz + Chris (on site)

Interferometer configuration: E2/V2/POP2 E1/V1/POP1 W2/V3/POP5 (+CLIMB)

V01, HD 191195 [S.Borgniet]

UCT03:15 Check star (**HD 186882** – del Cyg V=2.87)

UCT03:20 Checking pupil alignment. Flux visible on images, but pupils are invisible. Yesterday, for alignment, we actually pointed at **HD 203280** (Alderamin V=2.46). **Skipped this step.**

UCT03:27 Very slow display on the camera GUIs. Remote desktop on the machine that controls the cameras. Very slow as well. Seems to be more an overall network speed problem.

UCT03:34 Restarted the camera low level software. That seems to have fixed the issue. Now doing the fringes on VEGA. Adjusting alignment of the three beams relative to the slit.

UCT03:43 Moving to calibration star (HD 178207). Clouds! Altadena sky image looks pretty bad. Lost the star... standing by...

UCT03:55 Tracking fringes on CLIMB! Can't see fringes on VEGA. Few counts in the visible. Closure-phase plot on CLIMB jumps around quite a bit. Observing conditions are far from ideal.

UCT04:04 Still haven't gotten good fringes on VEGA. Can spot E2W2, but not E1E2. Have <200 counts on the red camera.

UCT04:10 **HD191195CAL1.2014.08.22.04.09** (HD 178207) 30 blocks – Decided to go ahead and proceed with the observing anyways. Had to interrupt this and restart the RED camera.

UCT04:15 **HD191195CAL1.2014.08.22.04.13** (HD 178207) 30 blocks of data. Now the system is nominal. Altadena webcam indicates the sky is clearing up. Seeing is as poor as yesterday... r0 ~ 7 cm.

UCT04:35 **HD 191195.2014.08.22.04.31** (V=5.85) 30 blocks of data. Still can't see the fringes on E1E2. Seeing is degrading.

UCT04:52 **HD191195CAL1.2014.08.22.04.50** (HD 178207) 30 blocks of data.

UTC04:59 Photometry fluctuating quite a bit. Will have to change gears... and move to a 2-telescope configuration, program V64. Humidity is on the rise, currently at ~60 %.

UTC05:05 **D_R4270.2014.08.22.05.08** Spectral calibration.

Interferometer configuration: 2T : **E2E1** with E2/V2/POP2 E1/V1/POP1 (+CLIMB)

V64, HD 177724 [A.Meilland]

We switch to High Spectral Resolution (so Cons. OPD + 500µm) for this program.

VEGA fringes are too close to the sont trop proches de l'aigrette, we **correct the cophasing.**

B1 is now -0.8

B2 stays on -0.1

UCT05:30 **HD177724E2E1.2014.08.22.05.17** -> 90 blocks !! seeing is a bit up, around 8-9 cm.

UTC06:15 **D_R1656.2014.08.22.06.18** Spectral calibration.

Configuration 3T : E2S2W2 with E2/V2/POP2 S2/V1/POP5 W2/V3/POP5 (+CLIMB)

V62, HD 209409 [A.Meilland]

UCT06:20 Check star **HD213998**. Seeing 8-9 cm. Chris gets pretty nice fringes on CLIMB. VEGA fringes have to be moved (E2S2 are too on the left and E2W2 are too on the right).

We correct the cophasing. B1= -0.5 and B2=-0.17.

We have the fringes on VEGA, but they do not look very very nice. Go to calibrator HD211924.

UCT06:50 **HD209409CAL2E2S2W2.2014.08.22.06.24** Calibrator HD211924. 20 blocs. Seeing 7-8cm. CLIMB fringes not very nice.

UCT07:12 **HD209409E2S2W2.2014.08.22.07.05** Target. 20 blocs. Seeing lightly up (8-9cm). We get E2W2 fringes on VEGA. We test the acquisition with **tracking simultaneously**. We get S2W2 fringes after bloc 5.

UCT07:27 **HD209409CAL2E2S2W2.2014.08.22.07.21** Calibrator HD211924. 20 blocs. Seeing around 8-9 cm.

UCT07:40 **HD209409E2S2W2.2014.08.22.07.37** Target. 20 blocs. We have E2W2 fringes on VEGA (not very nice), and S2E2 after 9 blocks.

UCT07:55 **HD209409CAL2E2S2W2.2014.08.22.07.52** Calibrator HD211924. 20 blocs. Seeing up to 10cm. Fringes E2W2 on VEGA.

UCT08:10 **D_R2656.2014.08.22.08.05** Spectral calibration.

Configuration 3T: E2E1W2 with E2/V2/POP2 E1/V1/POP1 W2/V3/POP5 (+CLIMB)

V01, HD 191195 [S.Borgniet]

UCT08:20 We set the internal Climb offset with previous values for this configuration (**B1 -0.4 and B2 -0.1**) and get the fringes.

UCT08:23 **HD191195CAL1.2014.08.22.08.20** (HD 178207) 30 blocks of data. $r_0 \sim 11$ cm. Better conditions. We get ~450-500 photons on ALGOL RED (about 50% more than on previous point at the beginning of the night). Nice fringes E1E2. E2W2 visible at block 21.

UCT08: **HD-191195.2014.08.22.08.37** Control panel crash. We relaunch it and start again.

UCT08:45 **HD 191195.2014.08.22.08.45** ($V=5.85$) 30 blocks. $R_0 \sim 10$ cm. Fringes VEGA E1E2 and E2W2.

UCT09:05 **HD191195CAL1.2014.08.22.09.01** (HD 178207) 30 blocks of data. $r_0 \sim 10$ cm, a bit down. Fringes E1E2 VEGA, E2W2 @ bloc 10.

UCT09:20 **D_R2720.2014.08.22.09.19** Spectral calibration

V60, HD 12583 [N. Nardetto]

UCT09:32 HD12583CAL1E2E1W2.2014.08.22.09.26 Calibrateur 1 : HD6530.
30 blocks. R0~10cm. CLIMB fringes. E1E2 begins to go out on VEGA.

UCT09:48 HD12583E2E1W2.2014.08.22.09.48 Target / 30 blocks. R0 ~ 11 cm. Nice fringes (E1E2, E2W2) on VEGA.

UCT10:11 HD12583CAL2E2E1W2.2014.08.22.10.05 Calibrateur 2 (HD15130). 30 blocks. Nice fringes (E1E2, E2W2) on VEGA. R0 ~ 12cm.

UCT10:26 HD22798CAL1E2E1W2.2014.08.22.10.25 Calibrateur 1 (**HD23363**). 30 blocks
Les franges VEGA E2W2 s'éloignent un peu (LDC en butée). On corrige -> **B2=-0.2**. Le pic E2W2 sort avant E1E2 ..?

UCT10:47 HD22798E2E1W2.2014.08.22.10.45 Target / 30 blocks. R0 ~ 14cm, has gone up. Les franges ont du mal à sortir (visibles à partir bloc 10).

UCT11:05 HD22798CAL1E2E1W2.2014.08.22.11.03 Calibrateur 1 (**HD23363**). 30 blocks. r0~14cm. Franges E2W2 sortent en premier; E2E1 en retard et moins visibles (après 12 blocs).

UCT11:26 HD23526E2E1W2.2014.08.22.11.23 Target / 30 blocks. R0 ~ 15cm. Franges E2W2 sortent au bloc 6.

UCT11:45 HD23526CAL1E2E1W2.2014.08.22.11.39 Calibrateur 1 (**HD23363**). 30 blocs. Note : c'est bien un calibrateur commun à HD23536 et HD22798. r0~12cm. Attention, le pic E1E2 s'est rapproché de l'aigrette (20-30 μ m). Le pic E2W2 sort bien quant à lui.

UCT12:06 HD22798E2E1W2.2014.08.22.12.03 Target / 30 blocks. R0 ~ 13cm. Idem pour les franges, E2W2 est bien visible et E1E2 est proche de l'aigrette.

UCT12:25 HD22798CAL1E2E1W2.2014.08.22.12.21 Calibrateur 1 (**HD23363**). 30 blocks. r0~11cm.

UCT12:38 D_R2700.2014.08.22.12.37 Spectral calibration.

End of the night.