

Observational log CHARA/VEGA 2015-10-31

Observers: Frédéric, Jana, and Norm
Instruments: VEGA & CLIMB(tracking)

Configuration:

Telescope	Beam	PoP
E1	B1	P1
E2	B2	P2
W1	B3	P1
W2	B1	P5
S1	B2	P4
S2	B3	P5

Beginning of the observation:

- 01.35 Arrived to the control room.
01.43 According to Judit the E2 line is leaking and it is not safe to use it. Therefore we will go for the S2S1W2 triplet or S1S2 first and then S1E1.
01.43 The beam sampler does not move. We cannot change the configuration.
02.03 Norm is trying to fix the beam sampler.

Programme: V52 (Cepheids), PI: N.Nardetto

- 02.26 Baseline S1S2.
02.27 Co-phasing on 32 Peg = HD 212097.
02.59 We have an issue with the telescope-beam placement. From the pupil controls it seems that S2 is on beam 2. It is incorrect.
03.04 Correcting the setup to: W2-B1, S1-B2, S2-B3.
04.22 Beams are in position, but we do not have time to do any observation on V52. I am sorry Nicolas.

Programme: V45 (Pleiades), PI: F. Millour

- 04.53 We have very low flux on B3.
04.53 We are going to Alcyone, the seeing conditions are very poor ($r_0 < 5$ cm) and we need a brighter object to set up the slit.
05.18 LDCs were off, so it might be the reason for the low flux.
05.27 The spectrum seem to be cut from the top as if something was blocking part of the slit, and very are getting too few photons. The slit must be misaligned.
05.39 We are checking the position of the spectrum with the spectral calibration lamp. The spectrum of the calibration lamp is well-aligned. Then it has to be something before the slit..
05.56 We decided to act as if everything was correct and to go to HD3360 to co-phase.
06.04 Hmm the pupils are misaligned a lot after change of the target.
06.10 We restarted the slit position and now it seems to be slightly better and the positioning of the slit also seem to work better.
06.14 We have almost no flux on beam 3, when compared to beam 1 and 2. Also beam 3 does not respond to positioning.
06.19 Norm is checking path of the light on in the lab. He was not able to find any problem.
06.46 Checking pupils again. There is evidently a lot less light on the pupil of beam 3.
06.53 We are abandoning attempts to observe with three baselines. We have no clue, what is causing the low light level on beam three - it may be the S2. Therefore we will observe in 2T regime with S1-B2, W2-B1.
07.17 S2 was not pointing at the correct star, so forget all before that.

07.27 We are changing to HD 23338, because we cannot co-phase W2E1 on HD3360, because it is too late of course. My apologies for not realizing earlier..

07.41 HD 23338 is not bright enough to align CLIMB, so we are pointing at HD 23630.

07.52 Aligned CLIMB on HD 23630.

07.53 Co-phasing S1S2 on HD 23338. Beam 3 is reference beam. The change of the reference beam happened during the changing of beams-telescopes at the beginning of the night.

08.17 CLIMB BC1 crashed and we cannot open it again. We are trying to restart it now.

08.21 CLIMB BC1 crashed at Mount Wilson, so we cannot do anything about that.

08.32 We have fringes on S1S2 and S1W2 on CLIMB, but they are very unstable.

08.33 Trying to co-phase on S1W2.

08.40 CLIMB BC1 crashed again, so we lost the fringes. There is not enough time to co-phase S1W2 any more. It would not be possible probably, because the S1W2 fringes were very unstable even on CLIMB.

08.45 CLIMB BC1 crashed again.

08.48 Trying to co-phase on S1S2.

09.16 We are having hard time finding the fringes on S1S2 with VEGA.

09.36 We gave up on HD 23338, we were unable to find fringes with VEGA.

Programme: V66 (Be stars), PI: A.Meilland

09.38 Switched to zeta Tauri = HD 37202.

09.39 We are seeing rather big difference between S1-B2 and S2-B3.

09.42 The flux on the S2-B3 is twice lower than S1-B2, and it still appears to be cut-off from the top side.

09.54 Seeing is 1 – 3 cm.

10.00 We have fringes on CLIMB for S1S2, fluctuating a lot.

10.08 We have fringes on VEGA for S1S2.

10.15 Fringes lost on CLIMB.

10.20 CLIMB BC1 crashed.

11.07 Re-aligning CLIMB. We lost the fringes and have troubles to co-phase, the seeing is steadily decreasing.

11.18 We are co-phased. **Offsets: CLIMB-B1 6.65 mm, CLIMB-B2 4.47 mm**

11.19 Recording [HD37202 HD37202S1S2.2015.10.31.09.32](#), 656.2 nm, 40 blocks, fringe peak visible, seeing \approx 3 cm, **S2 offset 1040 μ m.**

11.45 Moving to HD 23630.

11.51 Recording [HD23630 HD23630S1S2.2015.10.31.11.43](#), 656.2 nm, 40 blocks, fringe peak visible, seeing \approx 3 cm, **S2 offset 750 μ m.**

12.10 Finished recording. Moving to HD 23302.

12.14 Recording [HD23302 HD23302S1S2.2015.10.31.12.11](#), 656.2 nm, 40 blocks, fringe peak visible, but weak, seeing \approx 3 cm, **S2 offset 625 μ m. Last 5 blocks are wrong, telescope moving.**

12.31 Finished recording, moving to HD 35411.

12.41 Recording [HD35411 HD35411S1S2.2015.10.31.12.33](#), 656.2 nm, 40 blocks, fringe peak visible, but weak (SNR 2.5), seeing \approx 3 cm, **S2 offset 150 μ m.**

12.59 Finished recording, moving to HD 37202.

13.02 Recording [HD37202 HD37202S1S2.2015.10.31.12.59](#), 656.2 nm, 40 blocks, fringe peak visible, but weak (SNR 7.0-11.0), seeing \approx 5 cm, **S2 offset 820 μ m.**

13.28 Finished recording.

13.48 Spectral calibration [D_R2656.2015.10.31.13.45](#).

13.50 Everything has frozen. We have to repeat the spectral calibration.

14.03 Spectral calibration [D_R2656.2015.10.31.14.02](#).

End of the observation:

14.07 Spectral calibration is done, we are checking everything and closing the shop.

hh.mm Bonsoir.

Time is in UT+00.00, blue.. science target, red.. calibrator, green.. spectral calibration, gold.. additional information.