Log CHARA/VEGA 2014-07-02

Observers : Nicolas, Jean-Michel, Χανthippi on site (+ Nic on CHARA)

Configuration: E1B1P1-E2B2P3-W2B3P4 (+CLIMB)

***Check star*: HD 159975**

- ⇨ **Start at 3:45 UTC**
- ⇨ **The pupils are quite faint because of the fact that the star's declination is low (probably). We find later that it is a general problem; the camera might be to old !!!**
- ⇨ **N_{avg} = 900 on the red camera**
- ⇨ **N_{avg} = 500 on the blue camera**
- ⇨ **The dome is locked and there is a problem with B2 on E2.**
- ⇨ **With all the shutters off we have 10 photons on the red camera and 20 photons on the blue.**
- ⇨ **4:14 UTC: E2 is working again**
- ⇨ **Flux optimization and fringe tracking**
- ⇨ **CLIMB has difficulties to find fringes.**
- ⇨ **Slew to the science star which is bright.**

***Science star:* HD 177724**

- ⇨ **The seeing is not good**
- ⇨ **- 4.170 µm the first fringe for B12**
- ⇨ **+3.000 µm for B23**
- ⇨ **But they are not so nice (CSE in IR ?)**
- ⇨ **4:55 UTC: Slew to the cal1 to check again.**
- ⇨ **The fringes are here but ugly**

***Cal1:* HD 165777**

- ⇨ **4:58 UTC: Nic thinks that Climb has H band filter instead K band. Indeed ! It is better now…**

CLIMB position :
1-2 = -4323 um
2-3 = -0.300 µm
Climb_B1 = -0.43
Climb_B2 = -0.13

V64 –Bn star

Star	HD 177724
Cal1	HD 165777
Cal2	HD 196180
Cal3	HD 195810
Baselines	E1E2W2
Comments	The aim is to measure the flatness of the star

HD177724CAL1E2E1W2.2014.07.02.03.28

For all the observations we will do the following:

1) **Check for pollution, integration of the camera few seconds**
2) **Check if the blue camera is starting to record**
3) **Stop the tracking during recording**

HD177724E2E1W2.2014.07.02.05.37

- ⇨ **Density 0.3 on the two cameras**
- ⇨ **The first block is bad. 21 blocks in total.**

HD177724CAL3E2E1W2.2014.07.02.05.53

- ⇨ **The seeing is around 8 cm**

HD177724E2E1W2.2014.07.02.06.09

~~**HD177724CAL2E2E1W2.2014.07.02.06.27**~~

- ⇨ **Increasing of the exposure time on tip/tilt**
- ⇨ **There are only 30 photons for this star so we check for the alignment**
- ⇨ **Something strange with cal2. Warning this cal2 might be bad…**
- ⇨ **Switch on other cal3**

HD177724CAL3E2E1W2.2014.07.02.06.43

- ⇨ **We checked the pupils and they are extremely faint.**
- ⇨ **The seeing seems good 10 cm, but very unstable …**
- ⇨ **The flux is not stable, there are some fluctuations**

HD177724E2E1W2.2014.07.02.07.10

- ⇨ **Density to 0.3 for both cameras**

HD177724CAL3E2E1W2.2014.07.02.07.23

V01 – Exoplanet Host Stars

Star	HD 191195
Cal1	HD 178207
Cal2	HD 183534
Baselines	E1E2W2
Comments	Exoplanet host stars

HD191195CAL1E2E1W2.2014.07.02.07.49

- ⇨ **Seeing 7 cm**

HD191195E2E1W2.2014.07.02.08.08

HD191195CAL2E2E1W2.2014.07.02.08.28

HD191195E2E1W2.2014.07.02.08.46

During the recording we stop the tracking panel which prevents from checking their quality. The seeing seems quite stable. Bloc 13 we check the fringes, they come very quickly very good, very stable (as for CLIMB). We remove again the tracking. Good data.

HD191195CAL1E2E1W2.2014.07.02.09.05

- ⇨ **The seeing is about 7-8cm**

D_R2700.2014.07.02.09.28

V52_750nm - Cepheids

Star	HD 213306
Cal1	HD 214734
Baselines	E1E2
Comments	Cepheids

- ⇨ **We checked the pupils on the cal and they are extremely faint and this is not usual.**

HD213306CAL1E2E1.2014.07.02.09.40

HD213306E2E1.2014.07.02.09.54

HD213306CAL1E2E1.2014.07.02.10.08

- ⇨ **The seeing is 8cm**

HD213306E2E1.2014.07.02.10.19

- ⇨ **Seeing is not good, about 5cm but it is stable**

HD213306CAL1E2E1.2014.07.02.10.31

~~**D_R2750.2014.07.02.10.42 (that's the good one!!!!)**~~ **(not anymore)**

D_R2750.2014.07.02.10.48

- ⇨ **Density 2.0 on each camera**

V52_670nm - Cepheids

Star	HD 213306
Cal1	HD 214734
Baselines	E1E2
Comments	Cepheids

HD213306CAL1E2E1.2014.07.02.10.53

HD213306E2E1.2014.07.02.11.04

HD213306CAL1E2E1.2014.07.02.11.17

- ⇨ **11.20 UTC: The shutter panel crushed**
- ⇨ **Seeing about 4-5 cm**
- ⇨ **11.57 UTC: The 13 first blocks are not good**

HD213306E2E1.2014.07.02.12.02

- ⇨ **12.6 UTC: 15 blocks**

~~**HD213306CAL1E2E1.2014.07.02.12.11**~~

D_R2670.2014.07.02.12.15