



European Organisation for Astronomical Research in the Southern Hemisphere

OBSERVING PROGRAMMES OFFICE • Karl-Schwarzschild-Straße 2 •  
D-85748 Garching bei München • e-mail: [opo@eso.org](mailto:opo@eso.org) • Tel.: +49 89 320 06473

# Application for observing time

NORMAL PROGRAM

PERIOD: 93A

*Giovanni Bruno*  
*Mounir Challouf*  
*Gaetan Dalla Vedova*  
*Kateryna Kravchenko*  
*Lindsay Marion*

Principal Investigator: Social



*Laboratory Seolane*  
*Observatory of Barcelonnette*

# State of the art

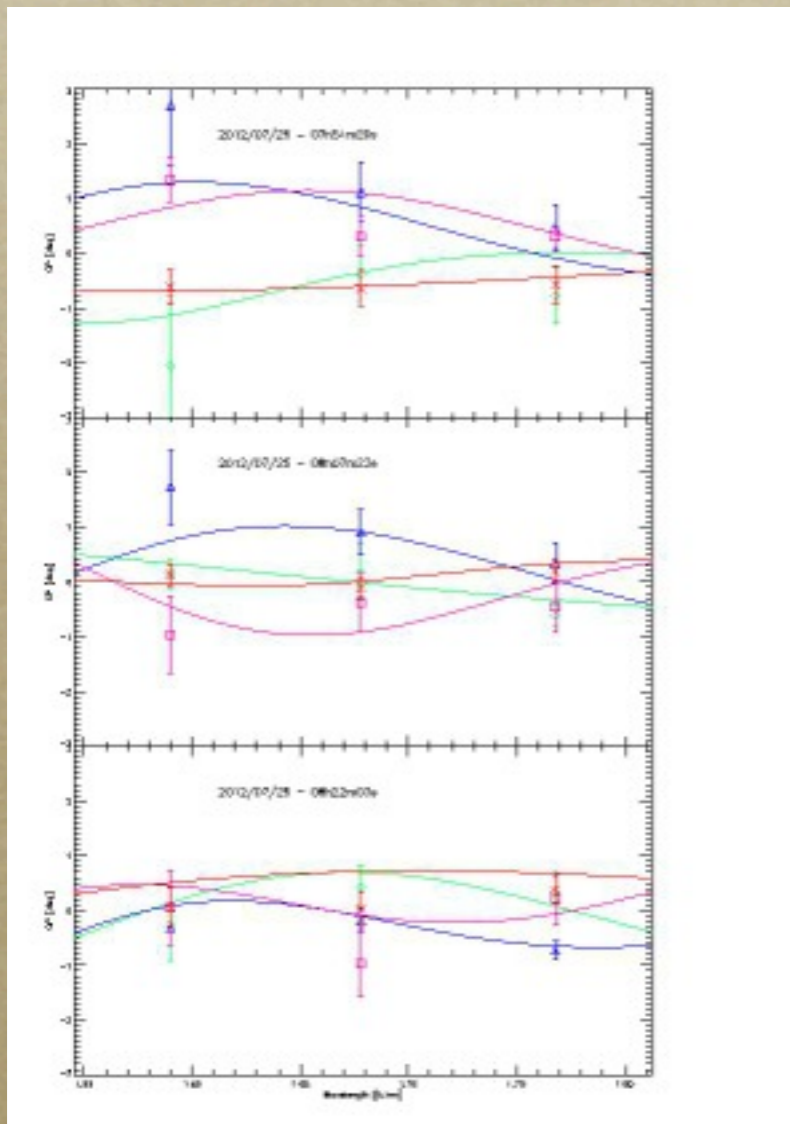


Fig. 1 closure phase of HR 8843  
(Ertel, S. et al., in prep.)

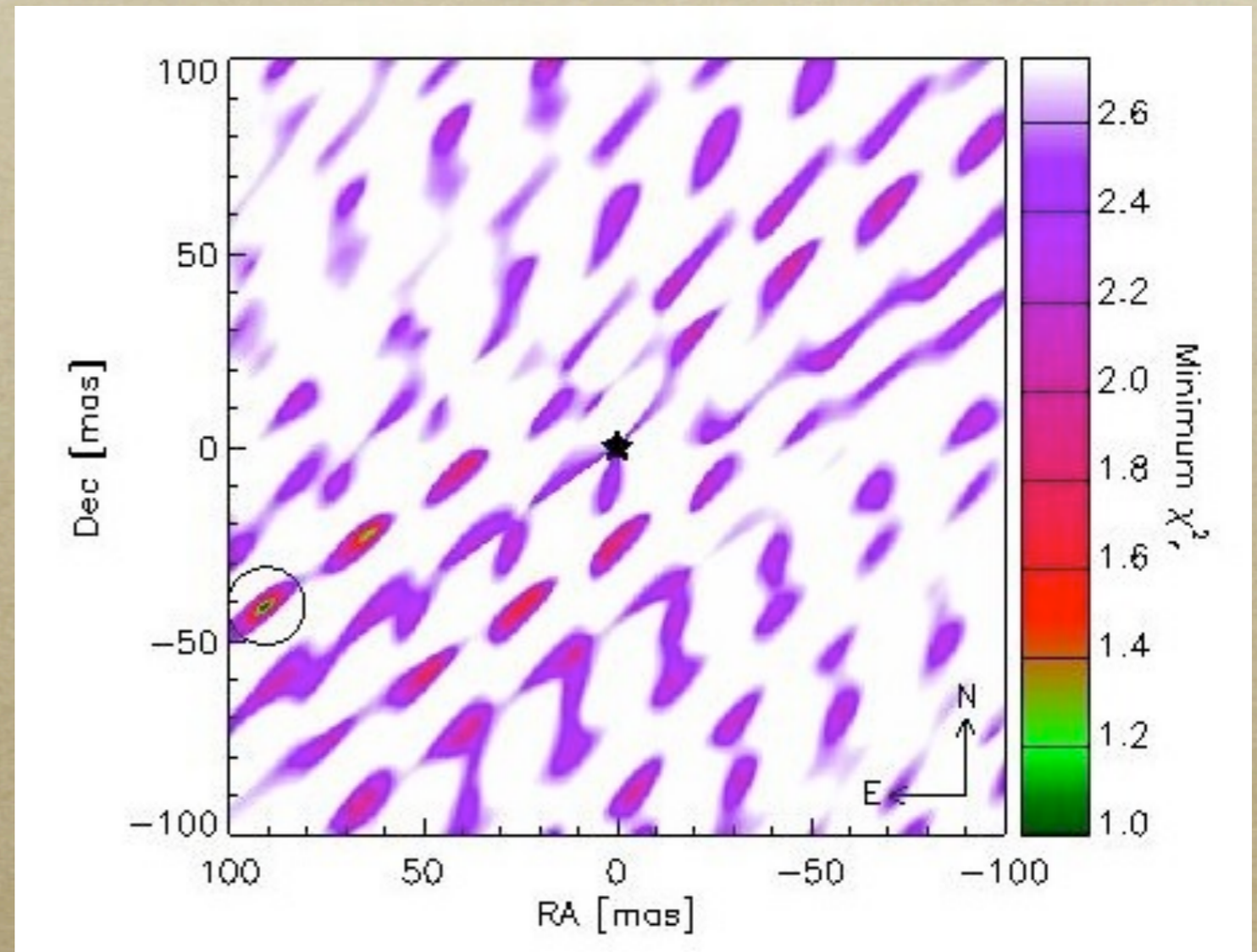


Fig. 2 Chi2 map for the best contrast of HR 8843  
(Ertel, S. et al., in prep.)

**1. Title:**                    **Interferometry in order to detect  
asymmetries and reconstruct images  
around eta Phe, phi01 Pav and HR 8843**

- Why - Validate asymmetries around the targets and reconstruct their images
- What - Targets with hints of asymmetries in the closure phase
- How - With interferometry in the H band

**2. Total Time Request:**

9 hours (1-2 nights)  
from August 20 to September 03, 2014

<i>Target</i>	<i>Run</i>	<i>Time</i>	<i>Month</i>	<i>Instrument</i>	<i>Mode</i>
<i>eta Phe</i>	<i>A</i>	<i>3h</i>	<i>Aug-Sep</i>	<i>PIONIER</i>	<i>VM</i>
<i>phi01 Pav</i>	<i>A</i>	<i>3h</i>	<i>Aug-Sep</i>	<i>PIONIER</i>	<i>VM</i>
<i>HR 8843</i>	<i>A</i>	<i>3h</i>	<i>Aug-Sep</i>	<i>PIONIER</i>	<i>VM</i>

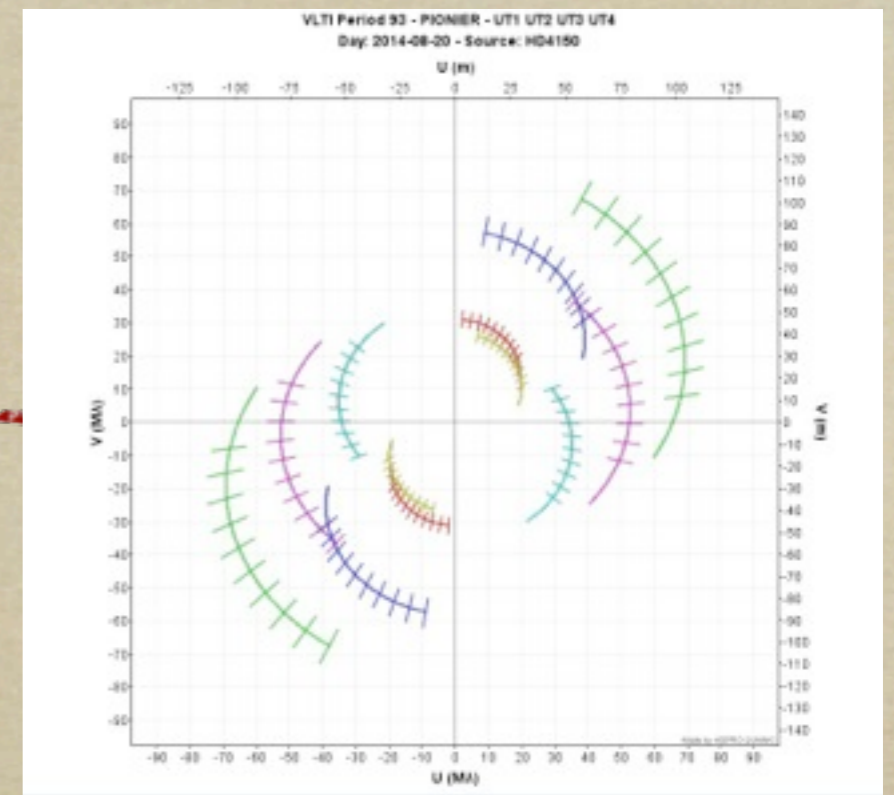
### 3. Targets & Calibrators:

<i>Target</i>	<i>ra(J2000)</i>	<i>dec(J2000)</i>	<i>Type</i>	<i>Mag.</i>
<i>eta Phe</i>	<i>00 43 21.23841</i>	<i>-57 27 47.0073</i>	<i>A0</i>	<i>H= 4.354</i>
<i>phi01 Pav</i>	<i>20 35 34.85112</i>	<i>-60 34 54.3056</i>	<i>F0</i>	<i>H= 2.966</i>
<i>HR 8843</i>	<i>23 16 57.6861</i>	<i>-62 00 04.3228</i>	<i>F6</i>	<i>H=4.606</i>

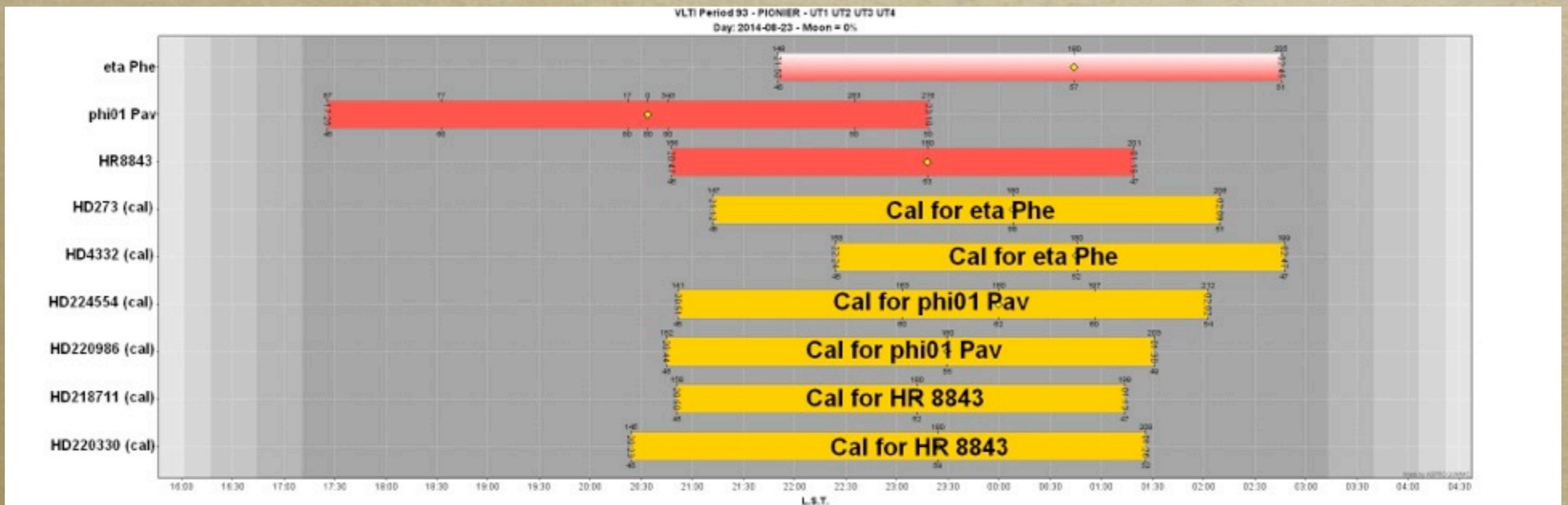
<i>Calibrator</i>	<i>ra(J2000)</i>	<i>dec(J2000)</i>	<i>Type</i>	<i>Mag.</i>
<i>HD 273</i>	<i>00 07 22.1</i>	<i>-56 50 12.9</i>	<i>K5</i>	<i>H= 3.83</i>
<i>HD 4332</i>	<i>00 44 54.6</i>	<i>-63 11 47.8</i>	<i>K4</i>	<i>H= 3.33</i>
<i>HD 224554</i>	<i>23 58 55.8</i>	<i>-52 44 44.9</i>	<i>K0</i>	<i>H=2.30</i>
<i>HD 220986</i>	<i>23 28 49.2</i>	<i>-59 26 11.7</i>	<i>K3</i>	<i>H=4.24</i>
<i>HD 218711</i>	<i>23 11 10.6</i>	<i>-63 11 23.9</i>	<i>K3</i>	<i>H=4.02</i>
<i>HD 220330</i>	<i>23 23 22.1</i>	<i>-55 33 12.2</i>	<i>K2</i>	<i>H=3.56</i>

# Observation

August 23, 2014



(a)



(b)

Fig. 3 a) U-V coverage for PIONIER, b) targets observability

# Thanks for your attention



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