Wind structure of black-hole progenitors

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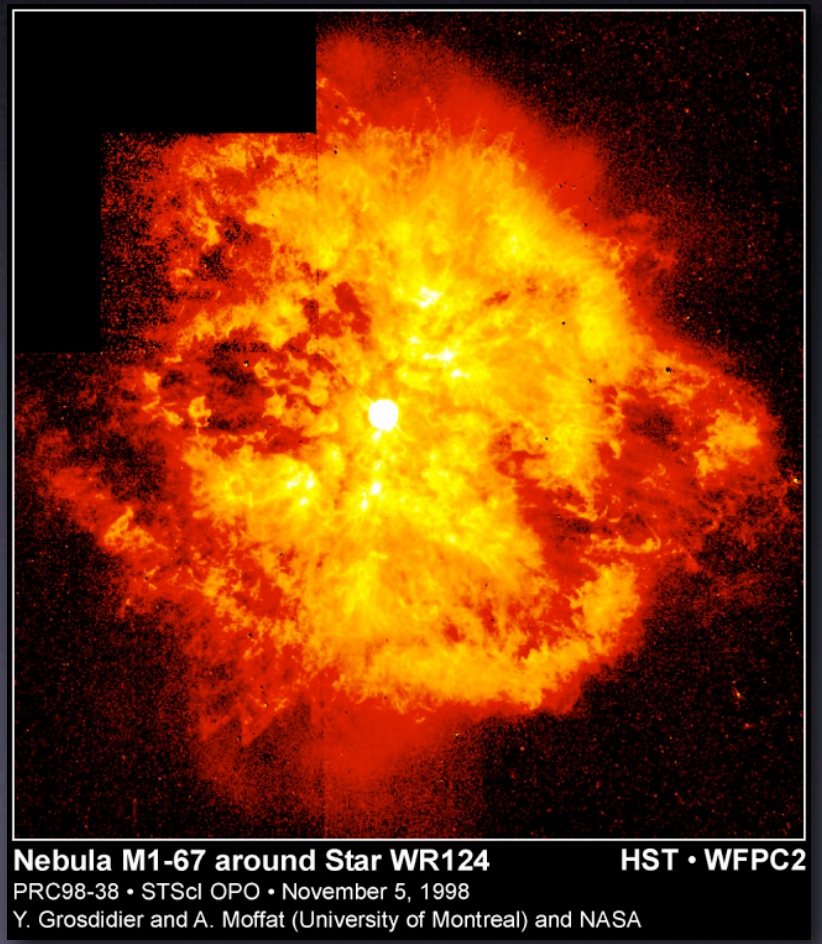
Targets :

- WR79a (eWNL)
  V, K mag = 5.1, 4.9, d = 1.99 kpc
- WR113 (WC) (?)
  V, K mag = 9.4, 5.4, d = 1.79 kpc

Wolf-Rayet star = Wolf-Rayet wind



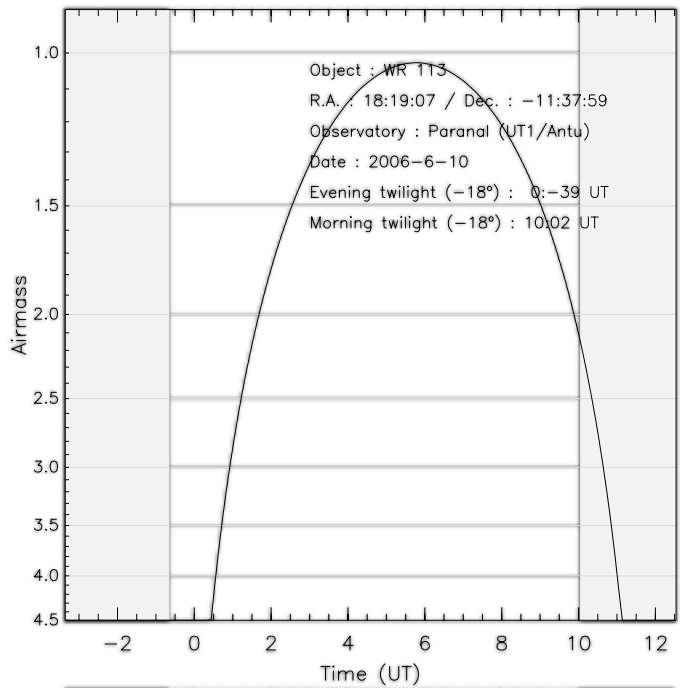
Preparation

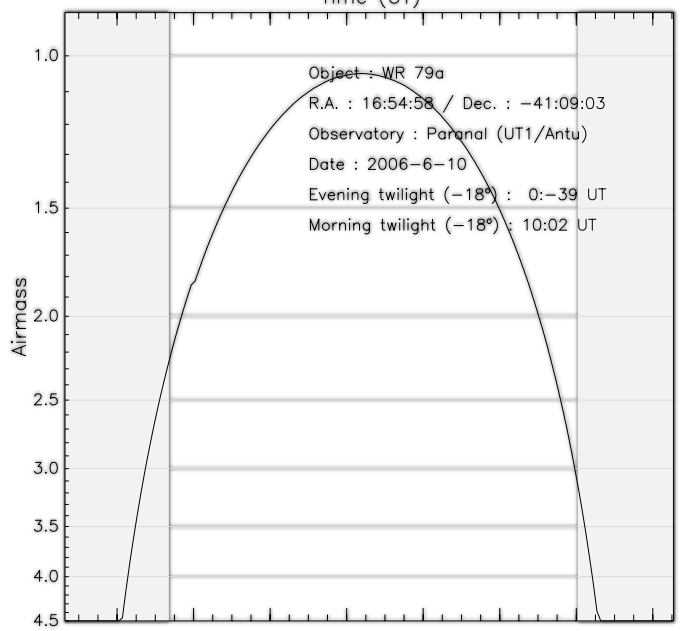
For WR79a

- FEROS spectrum + WIFI image.
- FUSE + IUE + ISO spectra
- AMBER SDT (useless)
- AMBER GTO, still?

For WR113

- No ESO archive data





- Bracket γ @ 2.165μ
- Measure the size versus the wavelength.
- Closure phase could bring photocenter shift, hence rotation velocity?
- **AMBER 3T MR-HK**

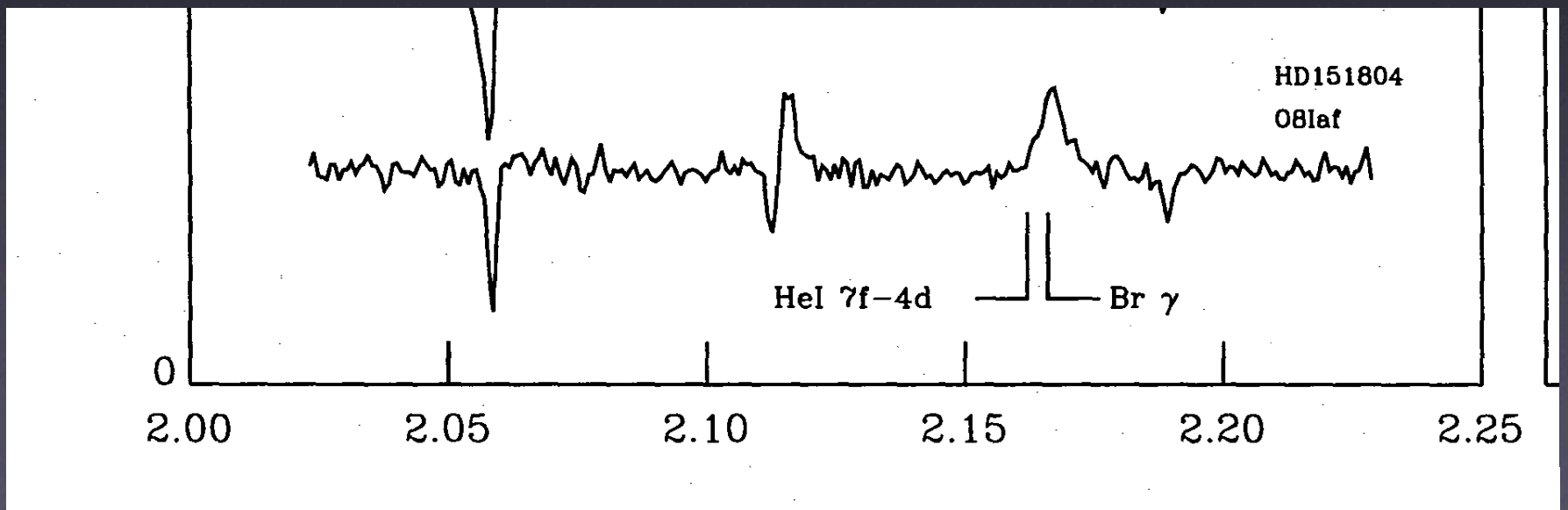
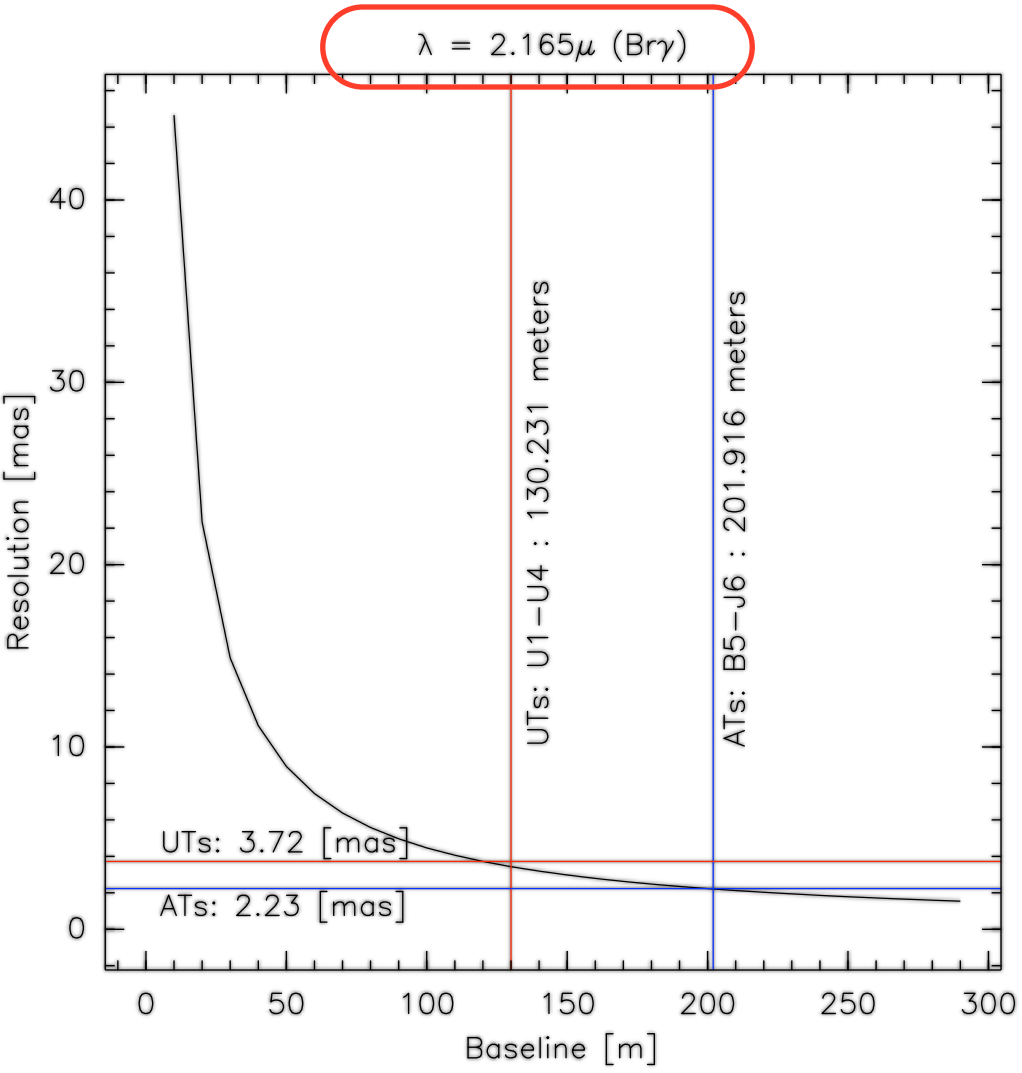
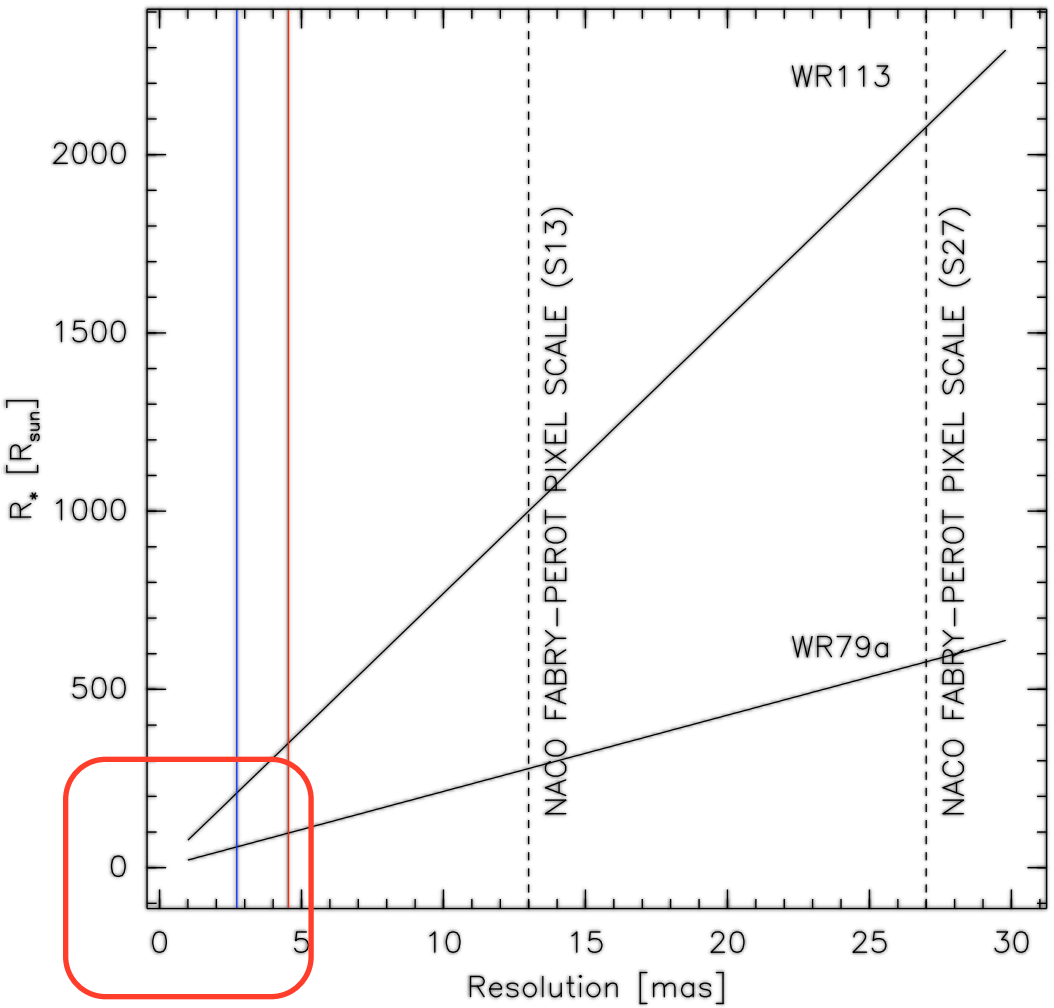


Figure 2: Spectrum of WR79a - Morris et al. 1996

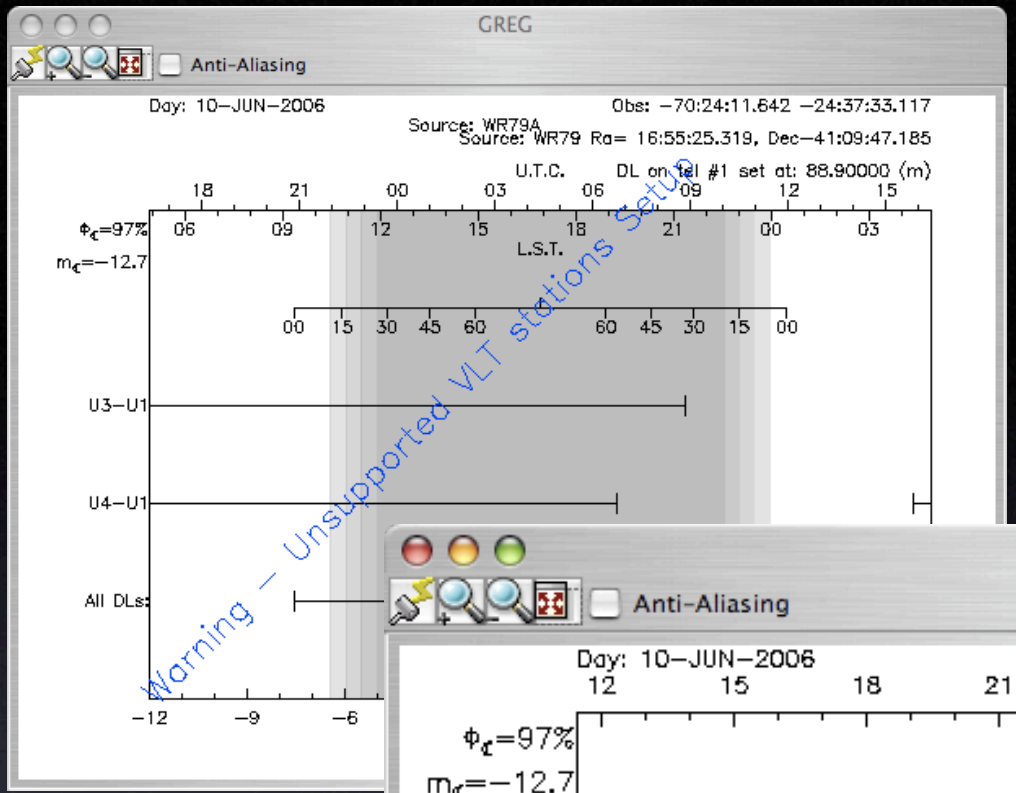
To resolve disk:
$D = \lambda/\theta$

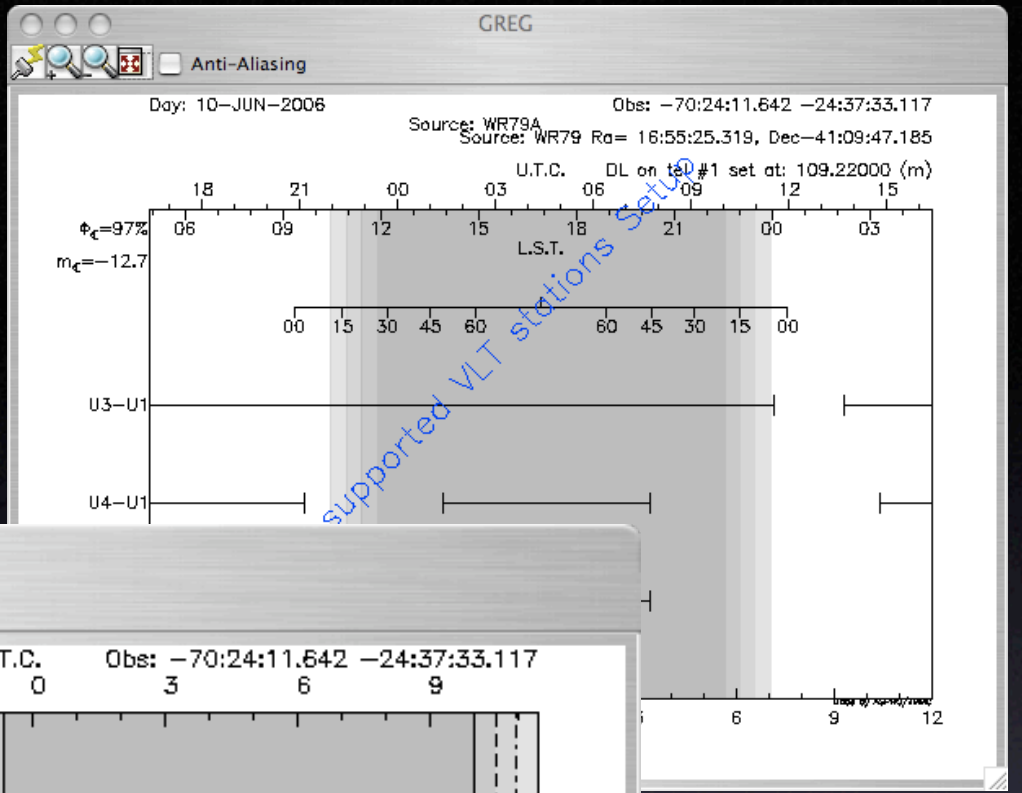
continuum is not resolved

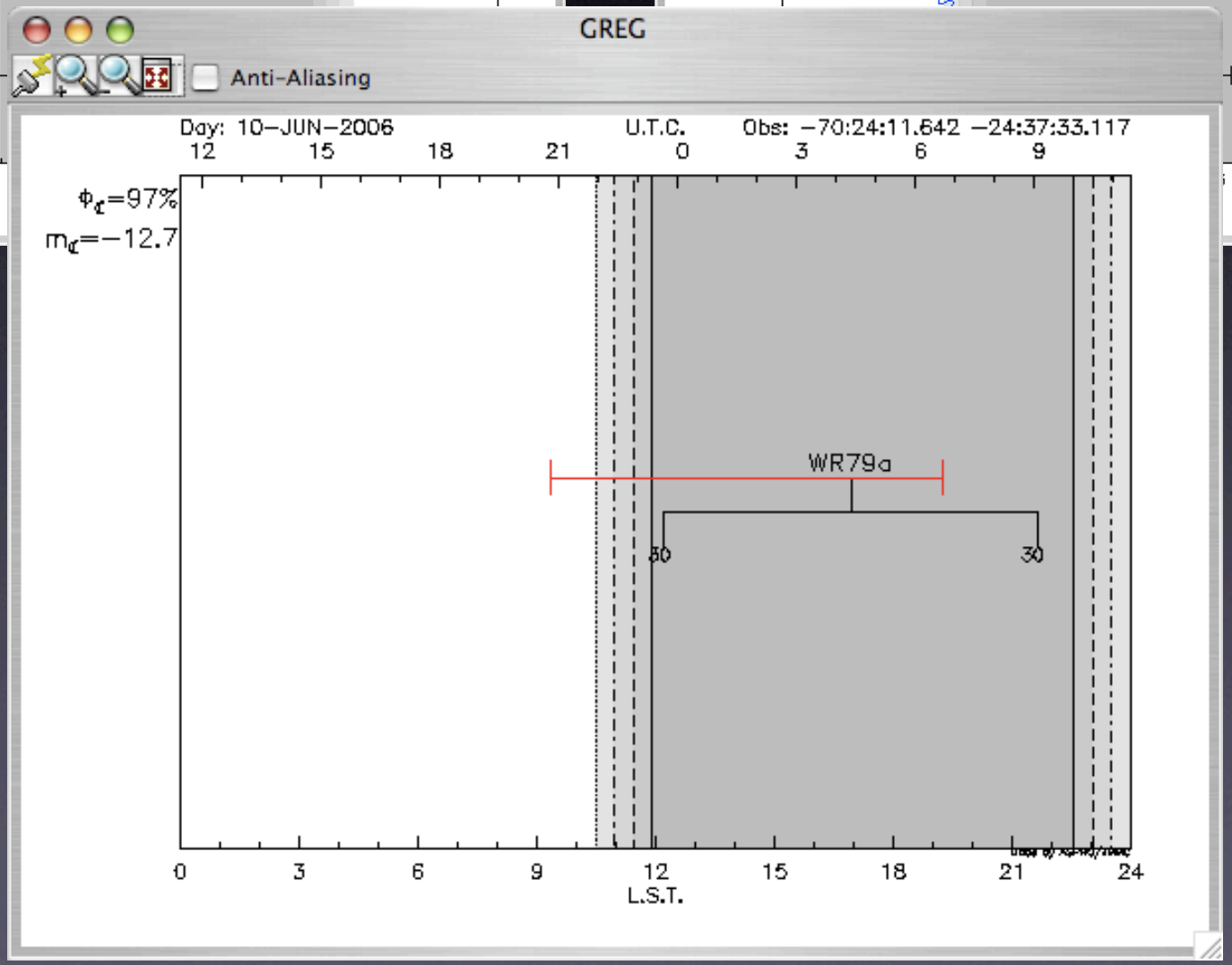


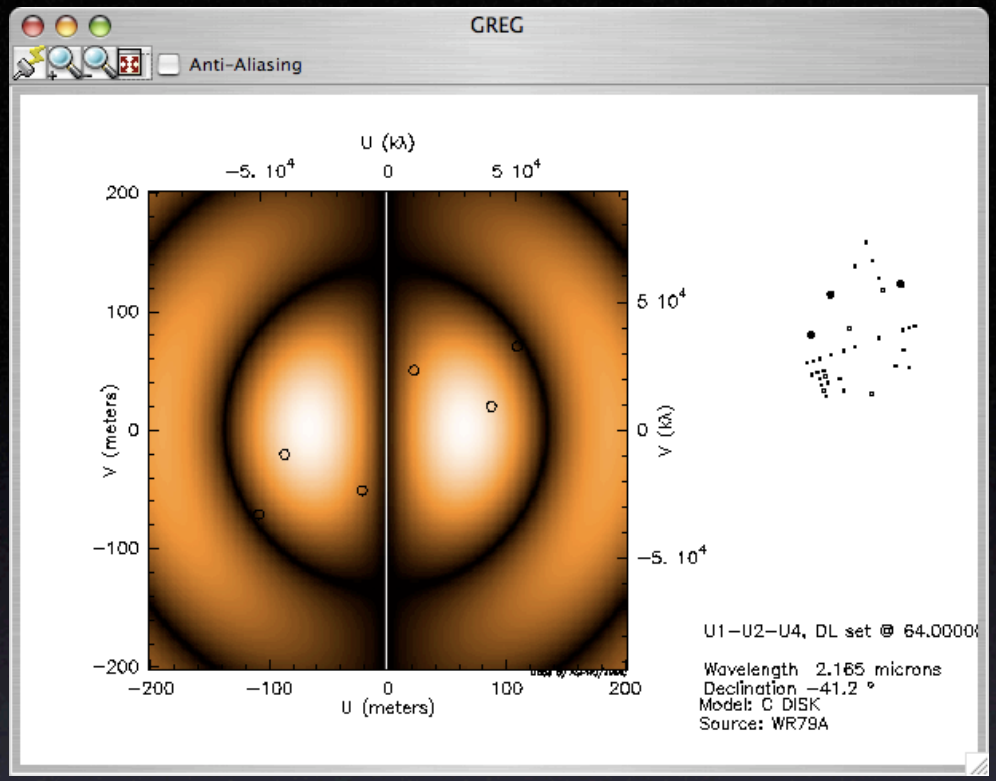


FORS spectra

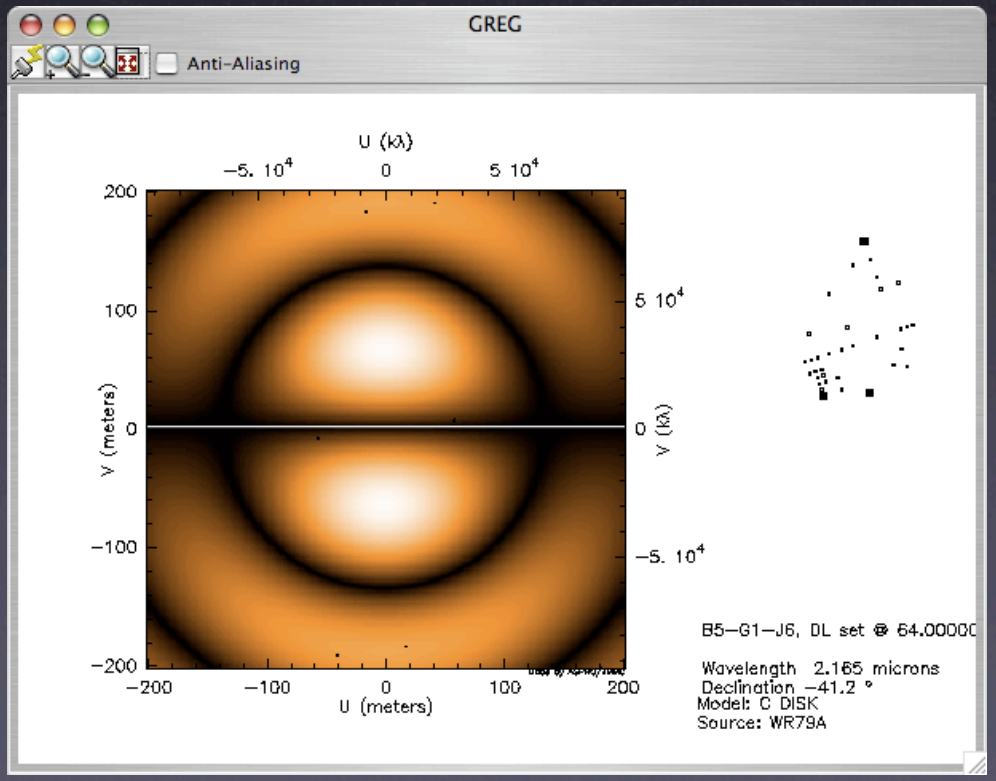

GREG
Anti-Aliasing
Day: 10-JUN-2006
Obs: -70:24:11.642 -24:37:33.117
Source: WR79A
Source: WR79 Ra= 16:55:25.319, Dec-41:09:47.185
U.T.C.
DL on tel #1 set at: 88.90000 (m)
L.S.T.
U3-U1
U4-U1
All DLs:
Warning - Unsupported VLT stations Setup


GREG
Anti-Aliasing
Day: 10-JUN-2006
Obs: -70:24:11.642 -24:37:33.117
Source: WR79A
Source: WR79 Ra= 16:55:25.319, Dec-41:09:47.185
U.T.C.
DL on tel #1 set at: 109.22000 (m)
L.S.T.
U3-U1
U4-U1
Unsupported VLT stations Setup


GREG
Anti-Aliasing
Day: 10-JUN-2006
U.T.C.
Obs: -70:24:11.642 -24:37:33.117
WR79a
30
30
L.S.T.

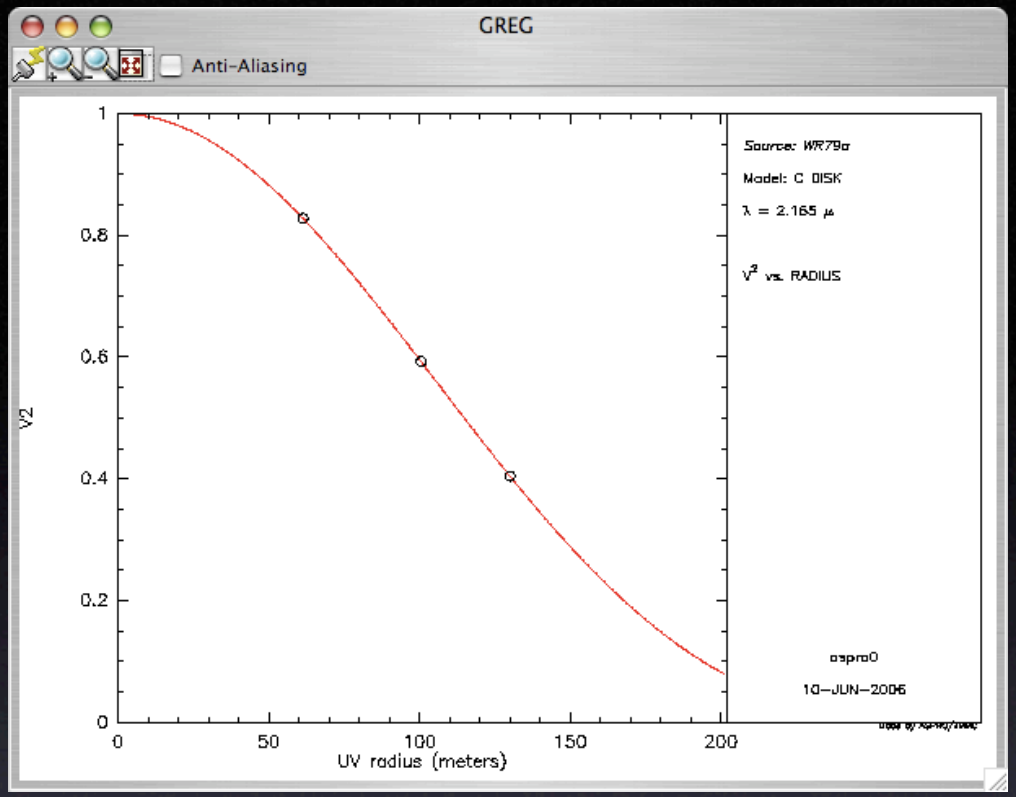


U1-U2-U4 / size = 4 mas

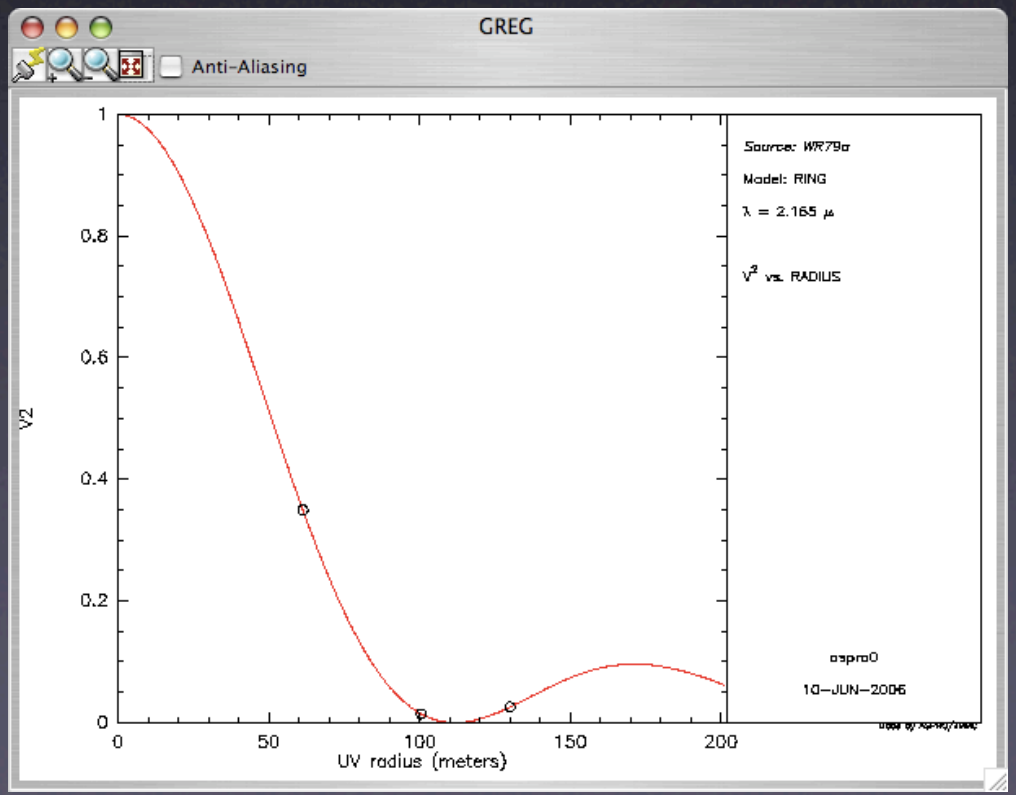


B5 - G1 - J6 / size = 4 mas

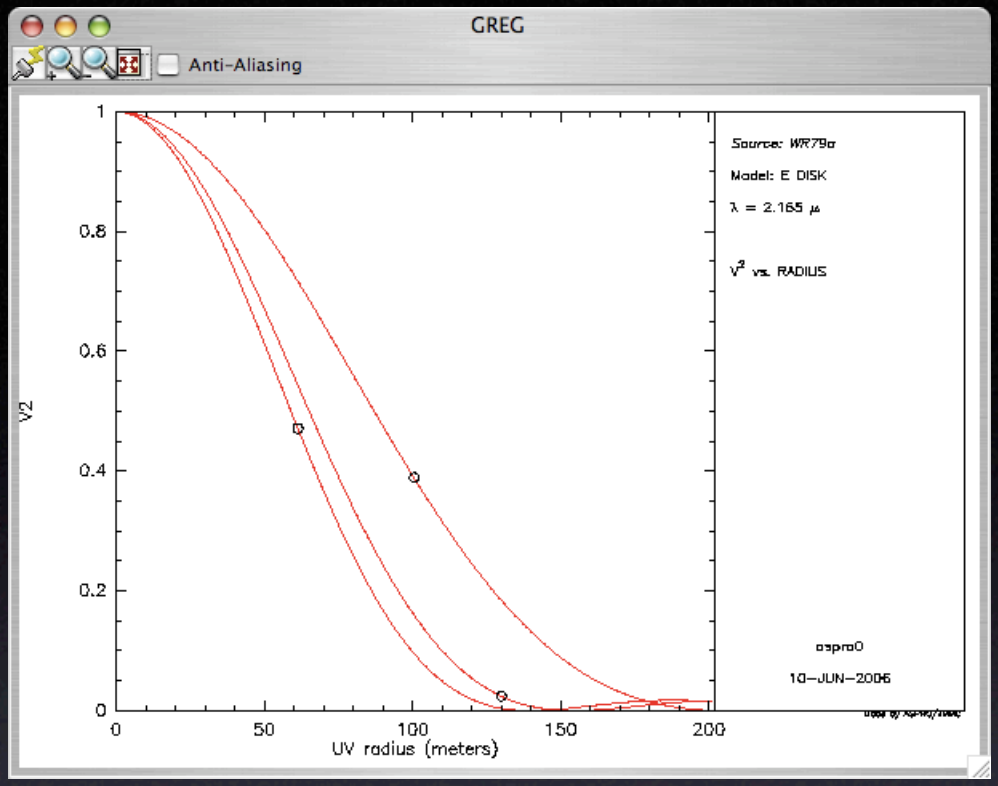
but no visibilities due to delay lines...
and object too faint for ATs anyway(?)



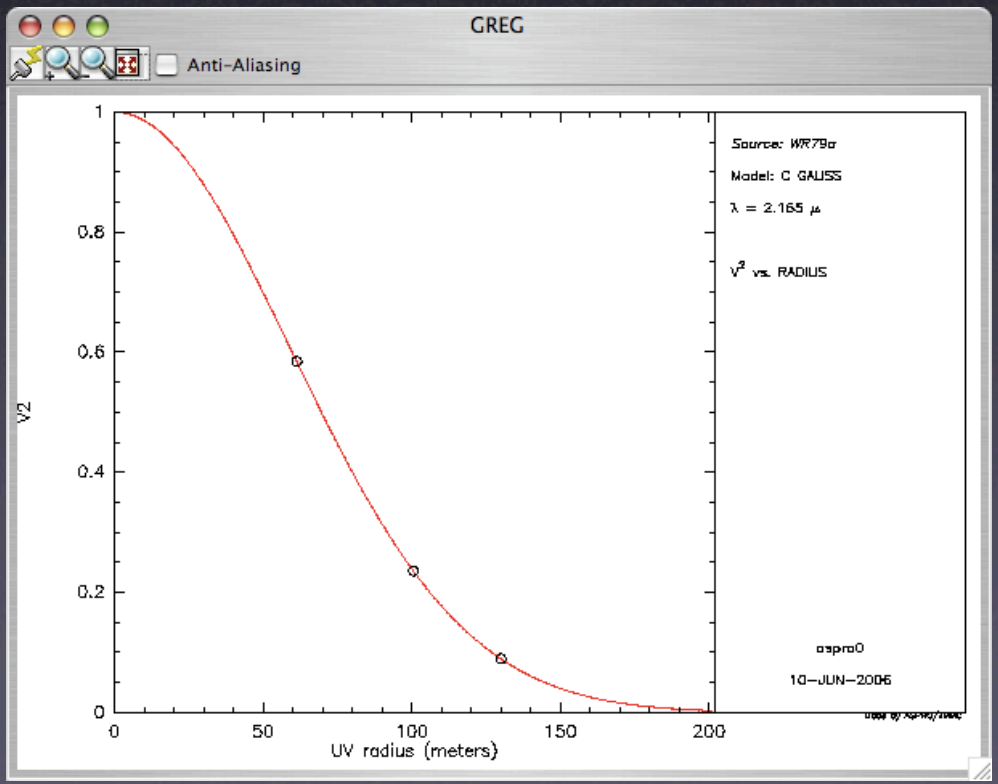
U1 - U2 - U4
C_DISK 2 mas



U1 - U2 - U4
C_RING 2-4 mas



U1 - U2 - U4
E_DISK 2-4 mas
pos angle = 0.



U1 - U2 - U4
C_GAUSS 2 mas

Calibrator(s)

2.1μ - 4.9 Kmag : 1-7 mag, R.A. = 60 min, Dec = 5 deg.