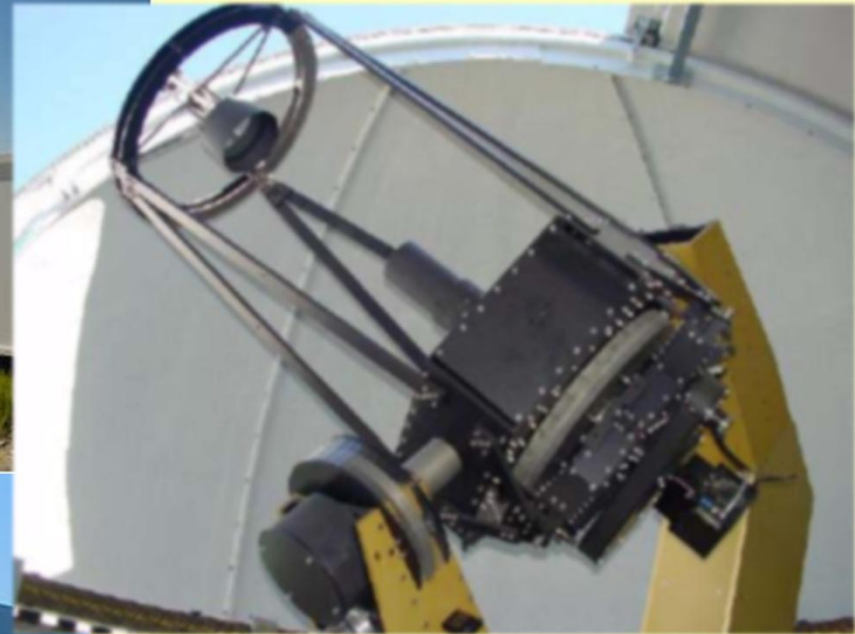
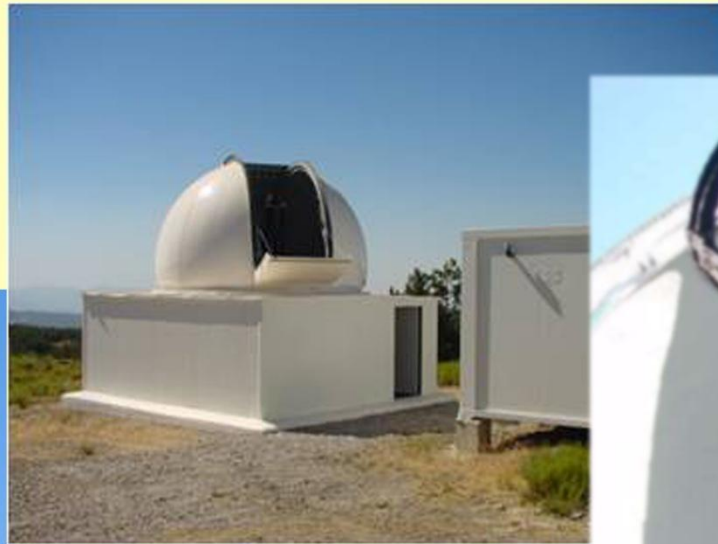
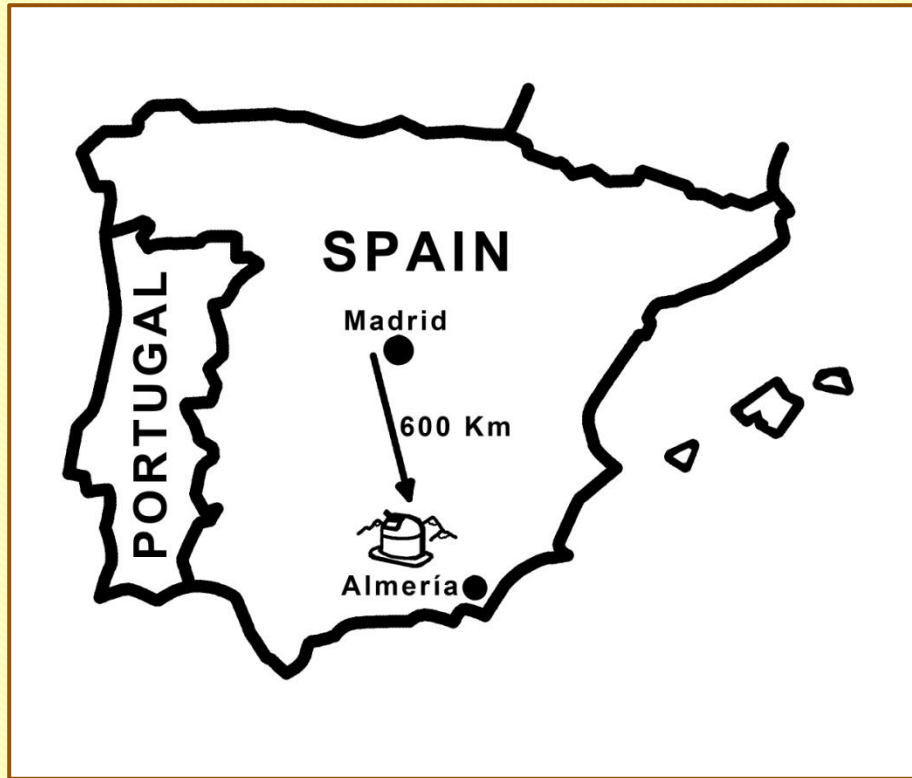


The INTA-CAB robotic telescope



Geographic location



Latitude: 37 13 25
Longitude: 2 32 46 W
Altitude: 2168 m

Instrumental setup

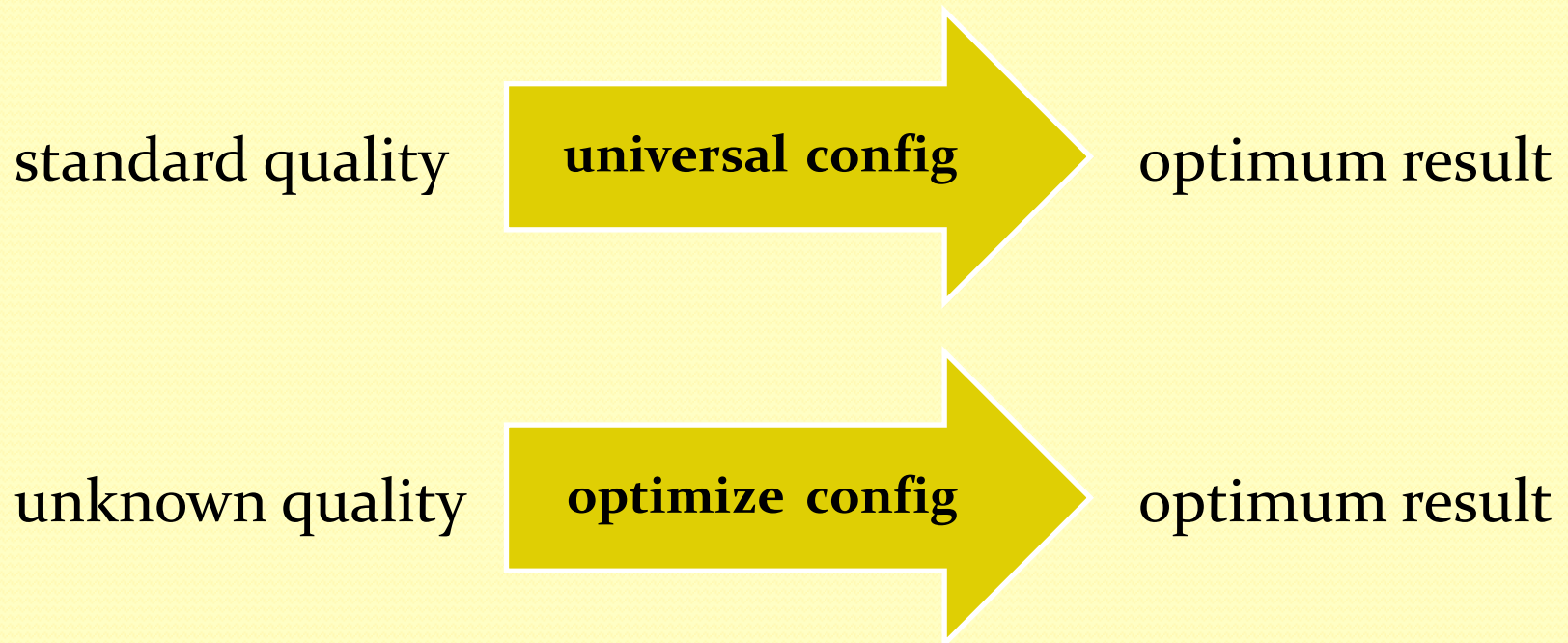
TELESCOPE

- Cassegrain $D=50$ cm $f/10$
- open truss design
- equatorial mounting
- pointing accuracy ~ 0.3 arcsec
- rms tracking error ~ 0.3 arcsec
- filter wheel (max. 12 filters)

DETECTOR

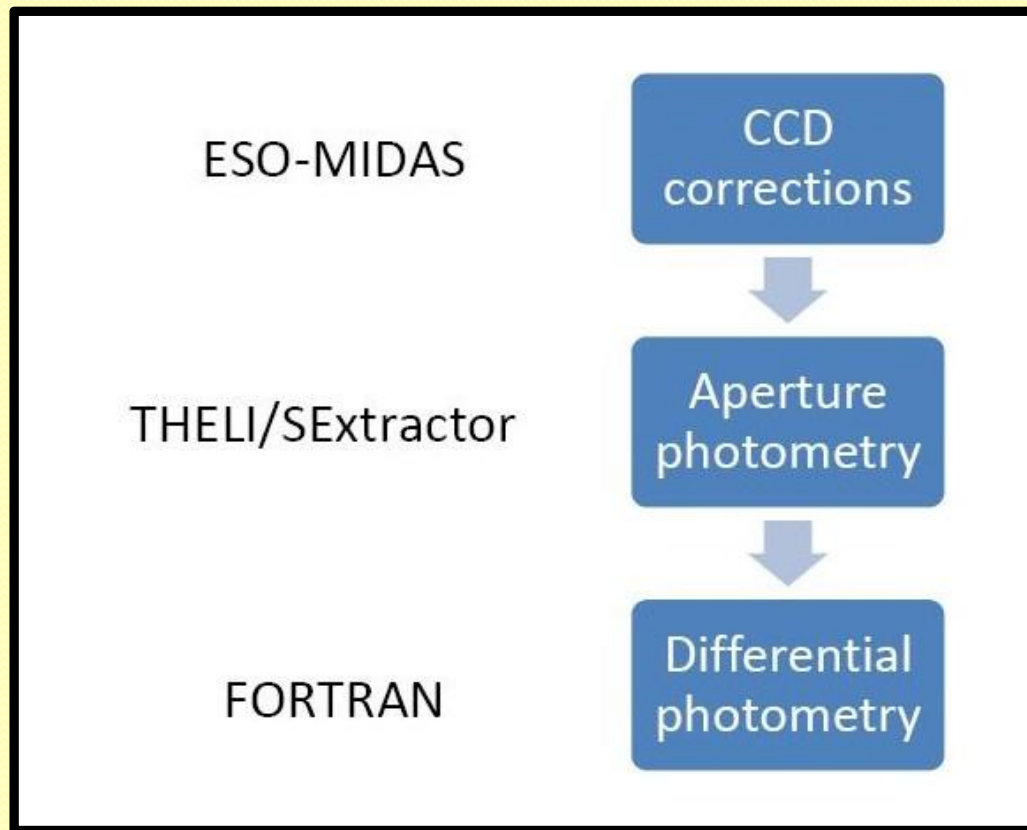
- FLI Proline 11002M
- 4008×2672 pxls, $9 \mu\text{m}$
- $\Rightarrow 0.37$ arcsec/px
- \Rightarrow fov 24×16 arcmin

Motivation

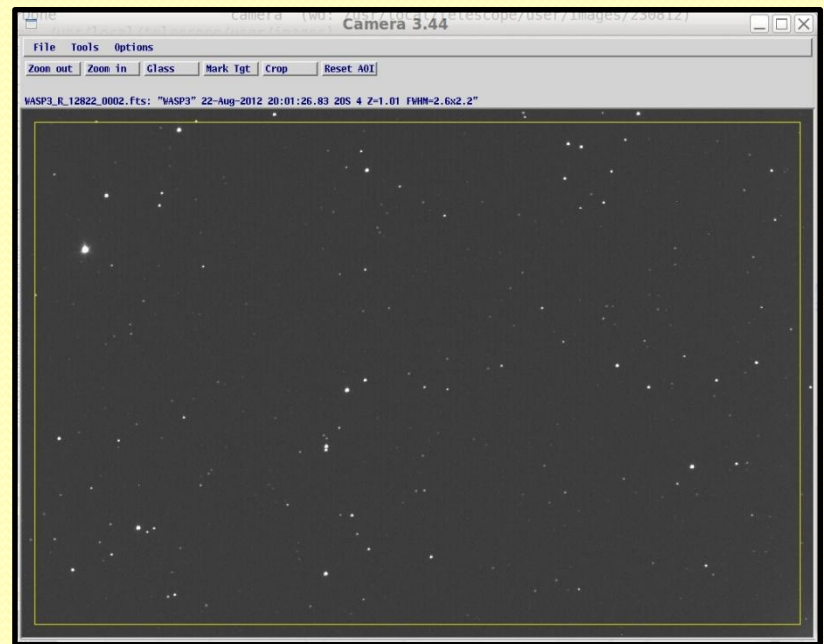
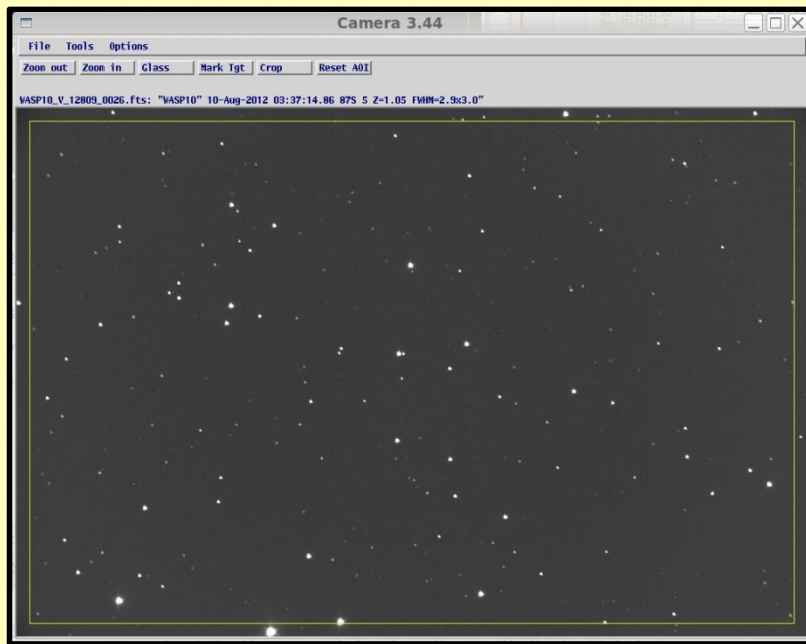


$$\sigma^2 = \sigma^2_{\text{instr}} + \dots + \sigma^2_{\text{Poisson}}$$

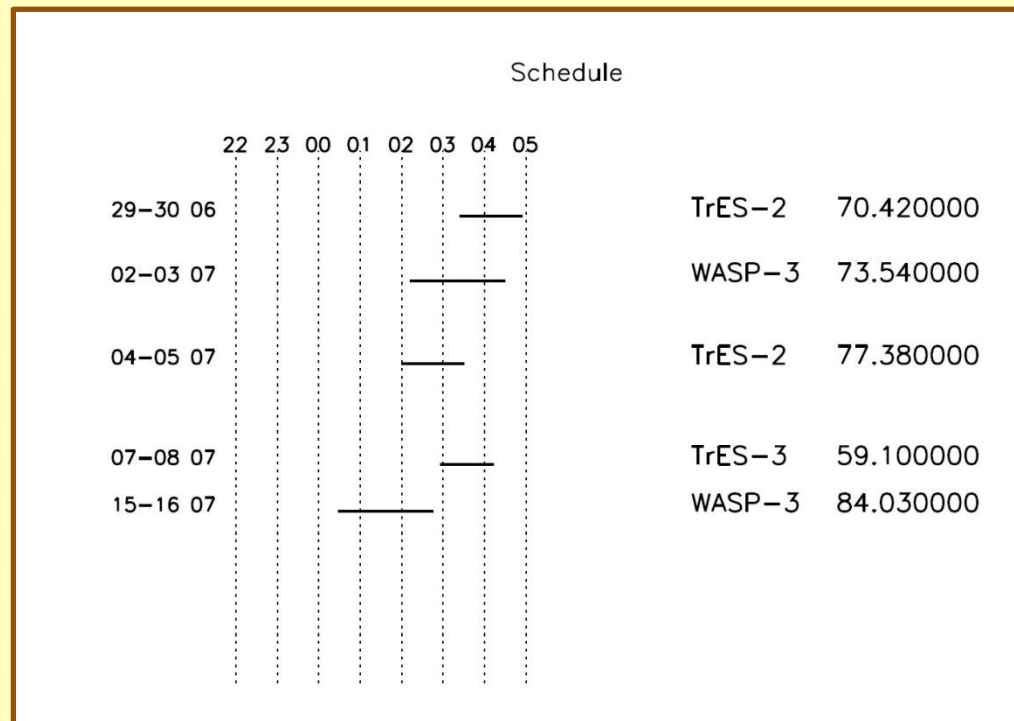
Overview of data processing



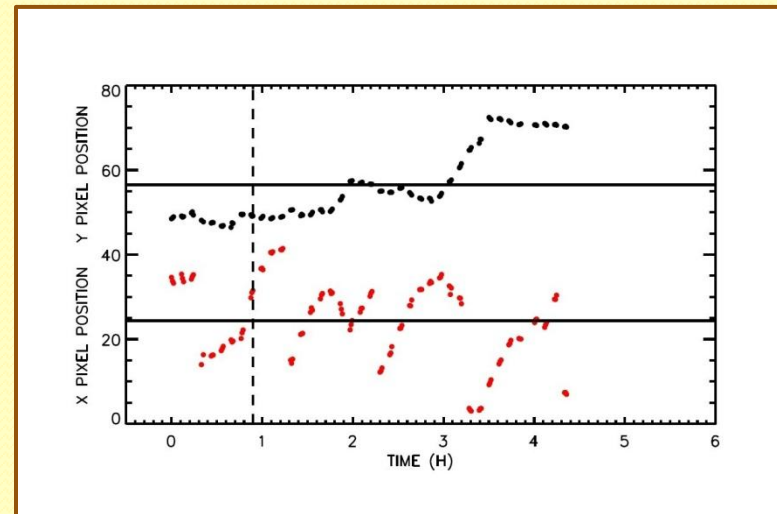
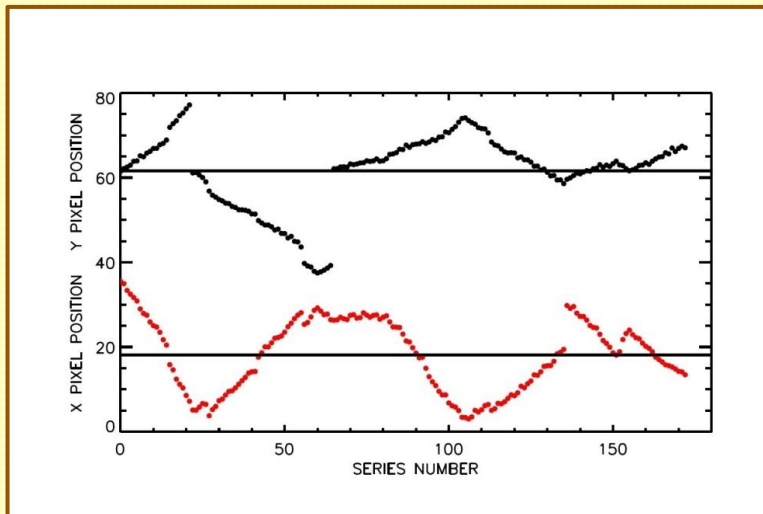
Input data



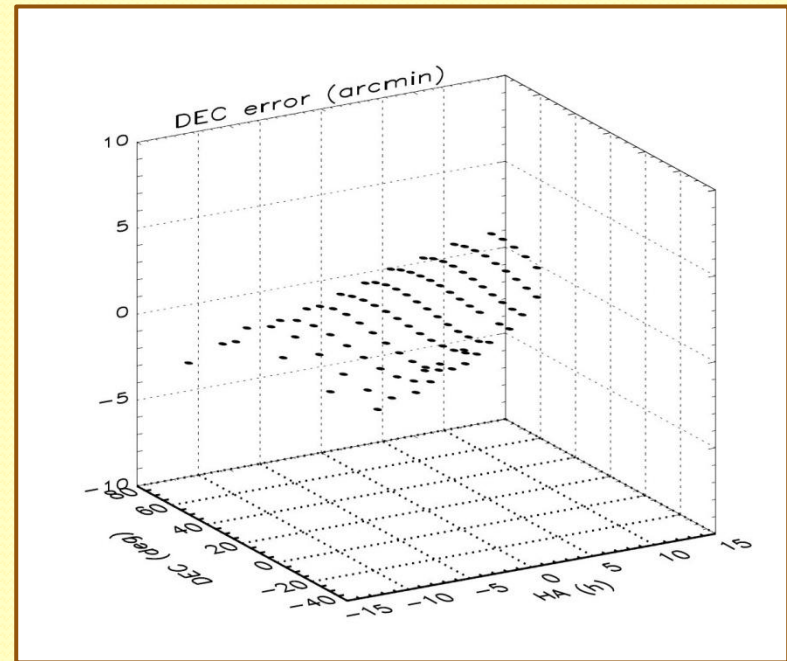
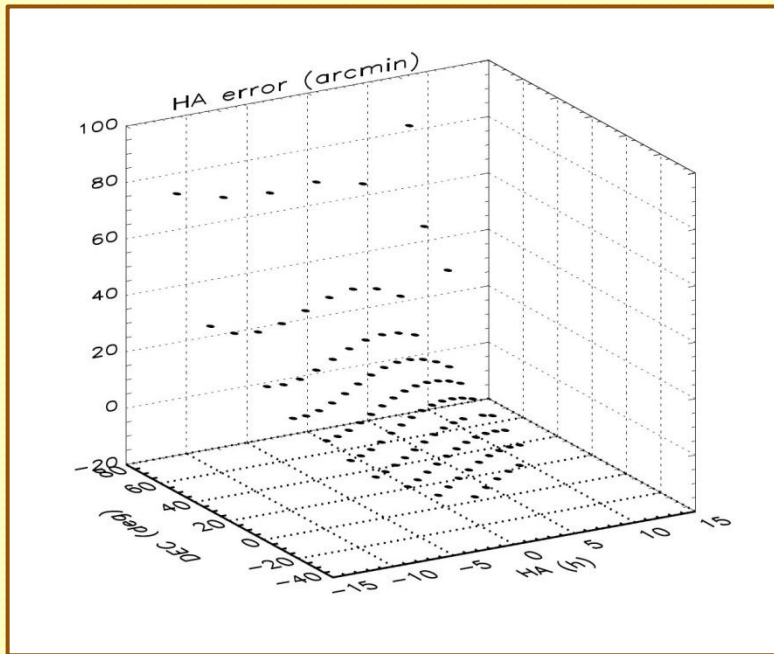
Observing strategy - schedule



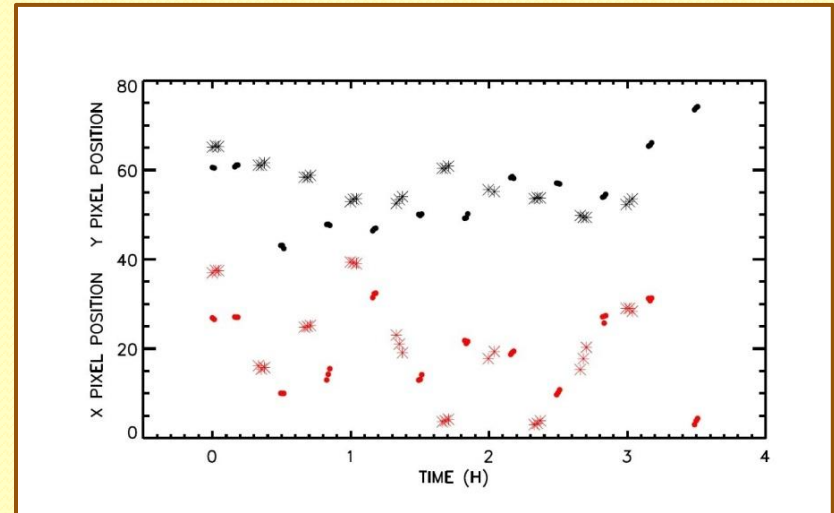
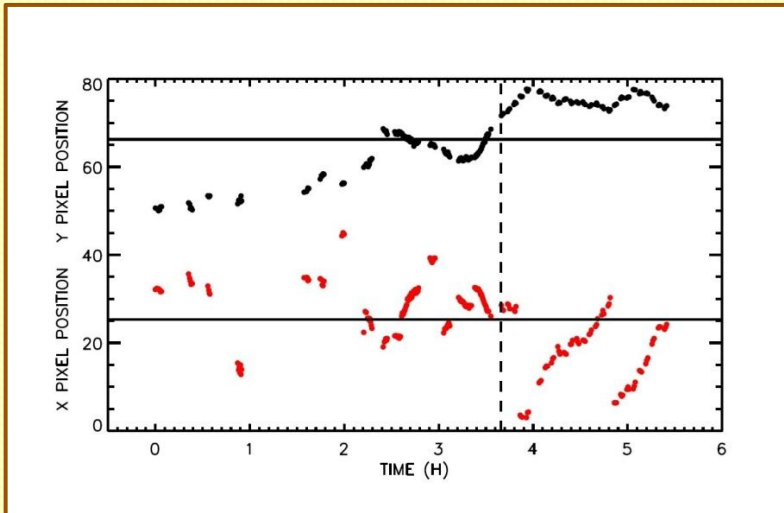
Tracking effects



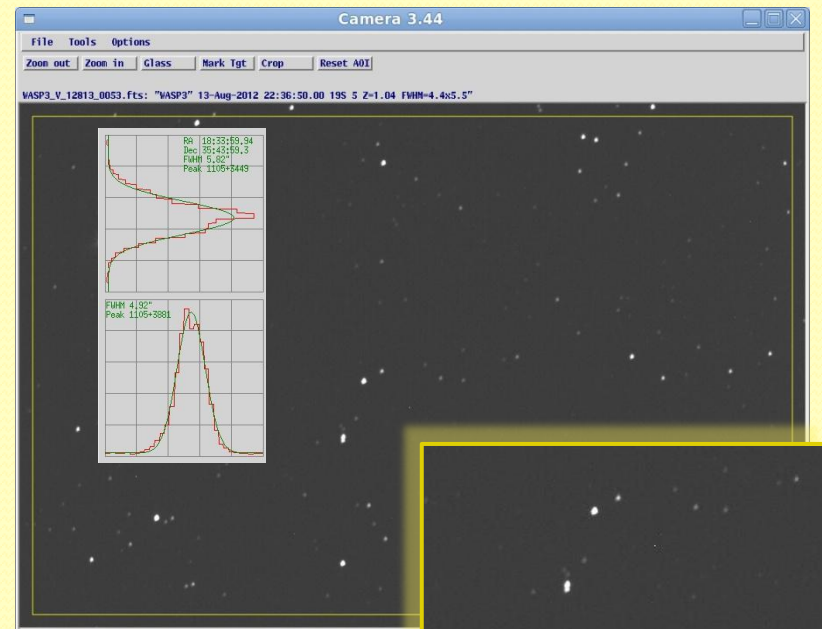
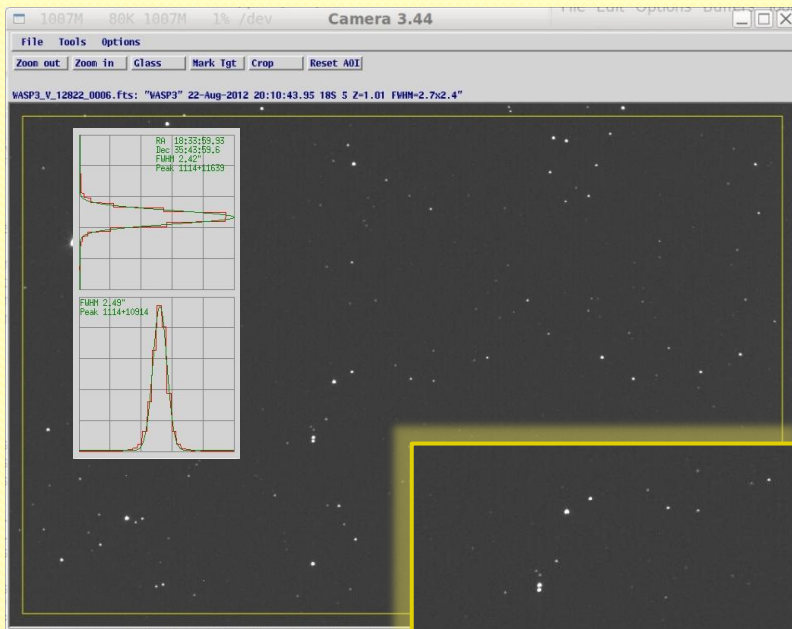
Pointing model



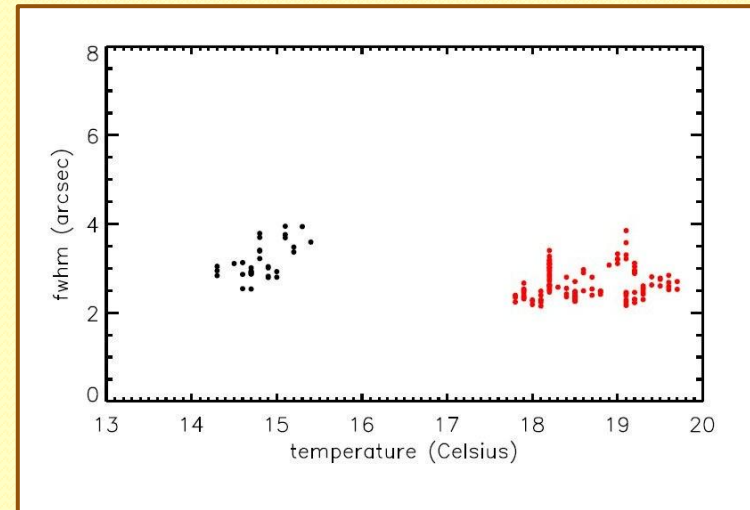
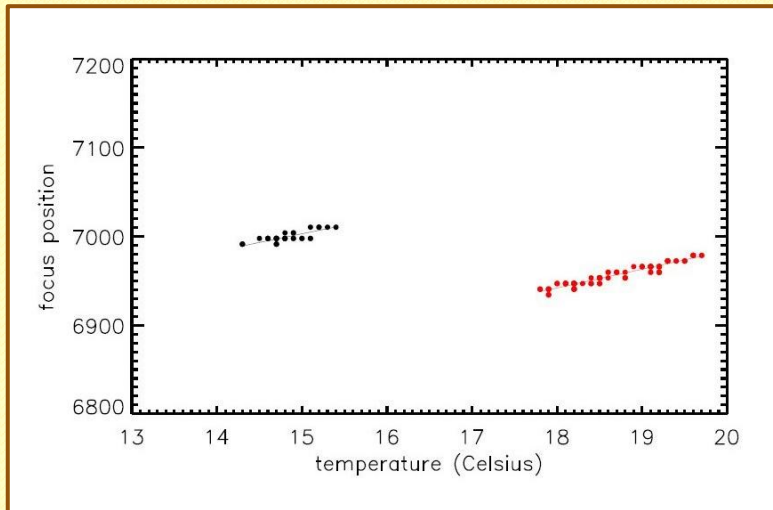
Tracking effects - Strategies



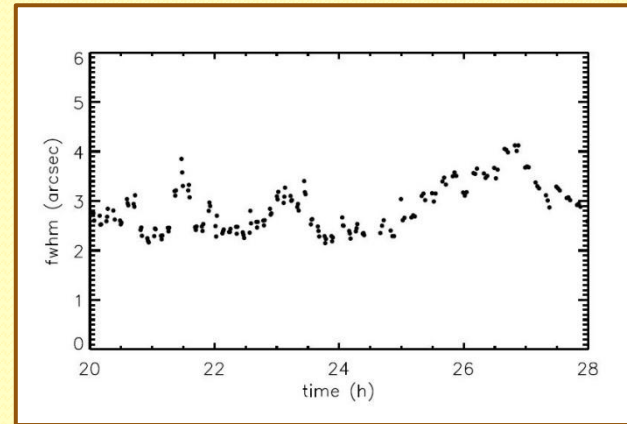
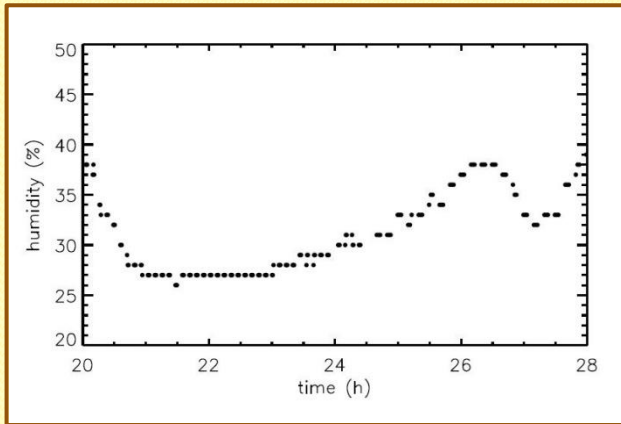
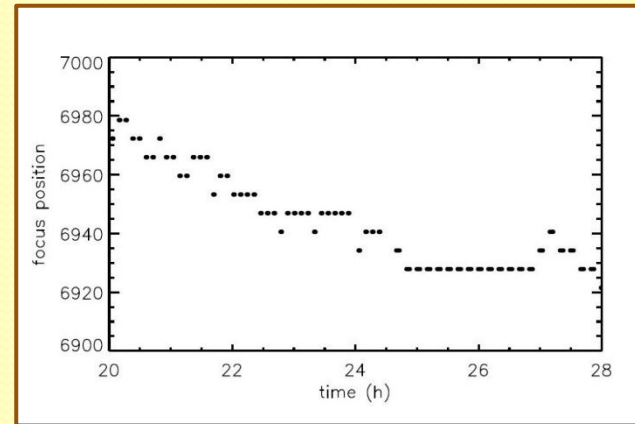
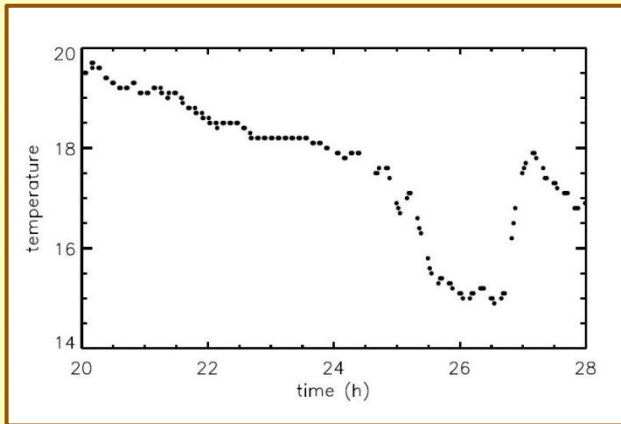
Focus control



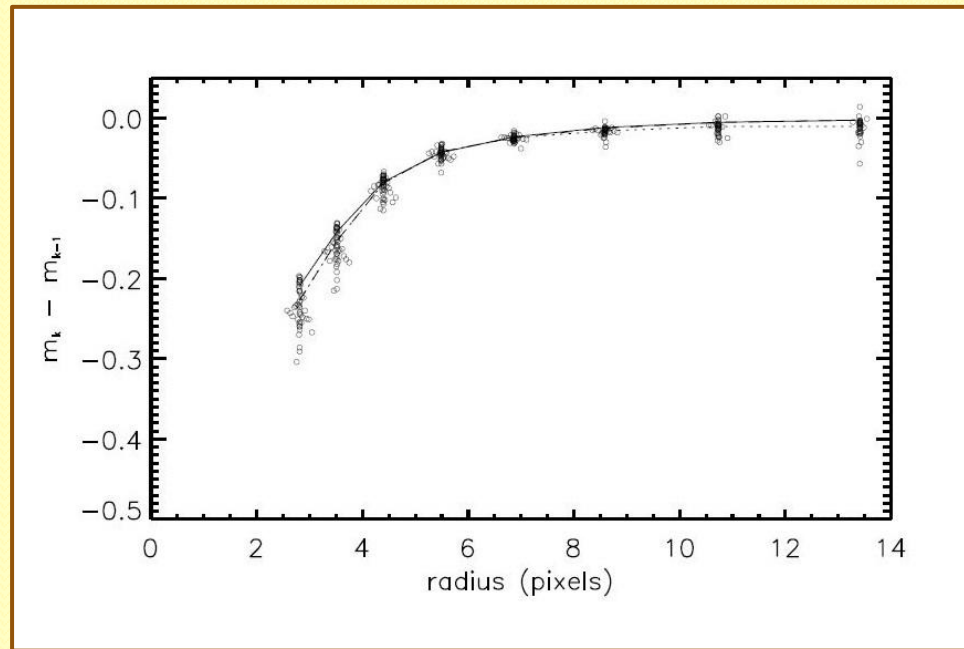
Focus fitting



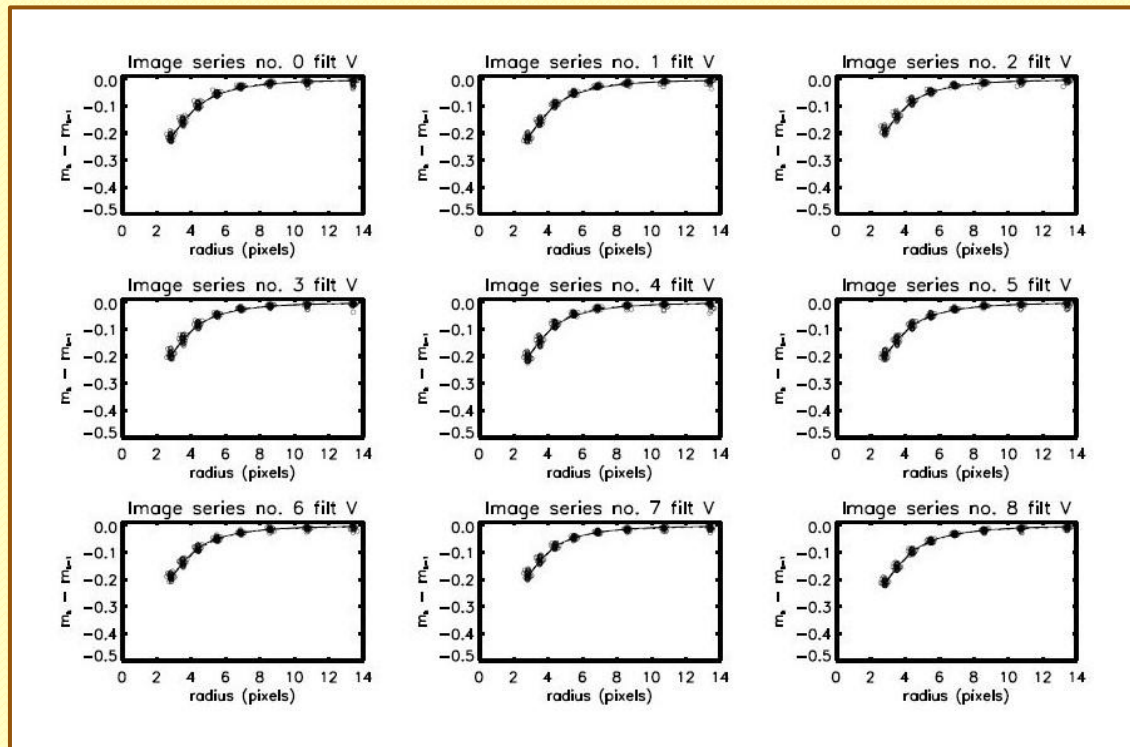
Focus stability



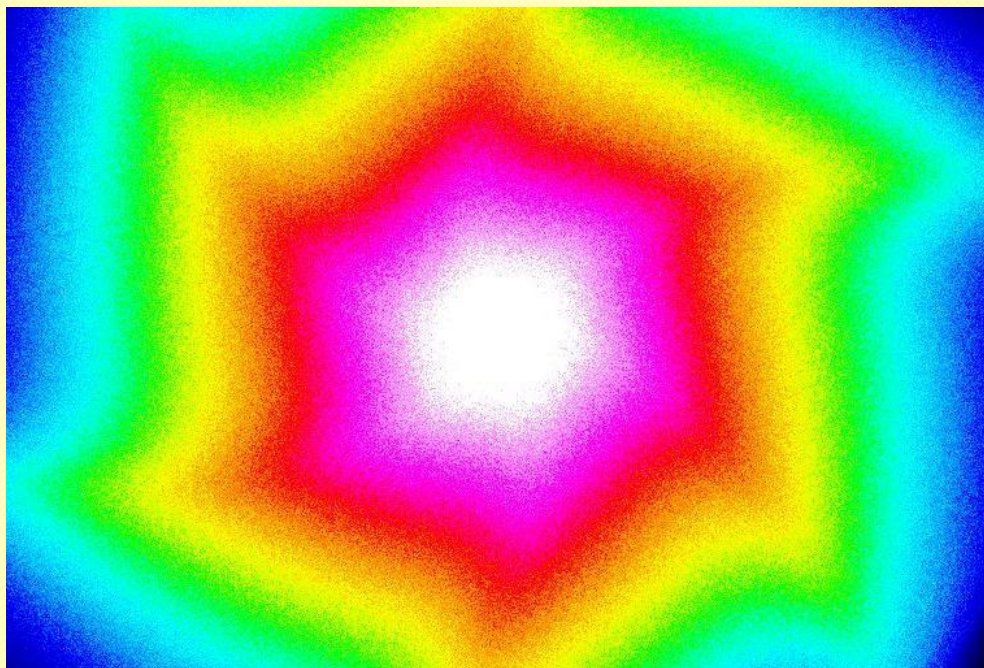
Growth curves



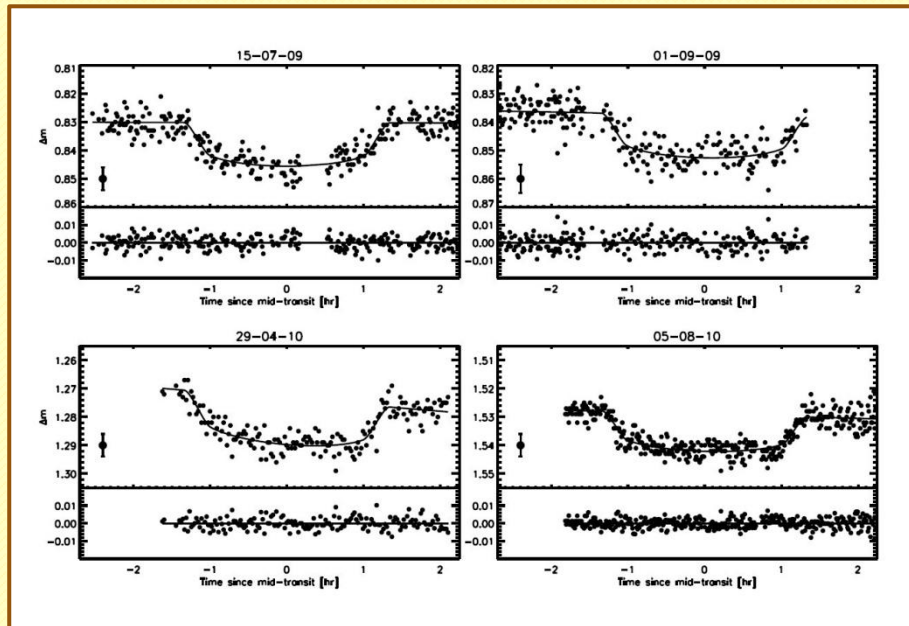
Growth curves



Shutter correction map



We are here...

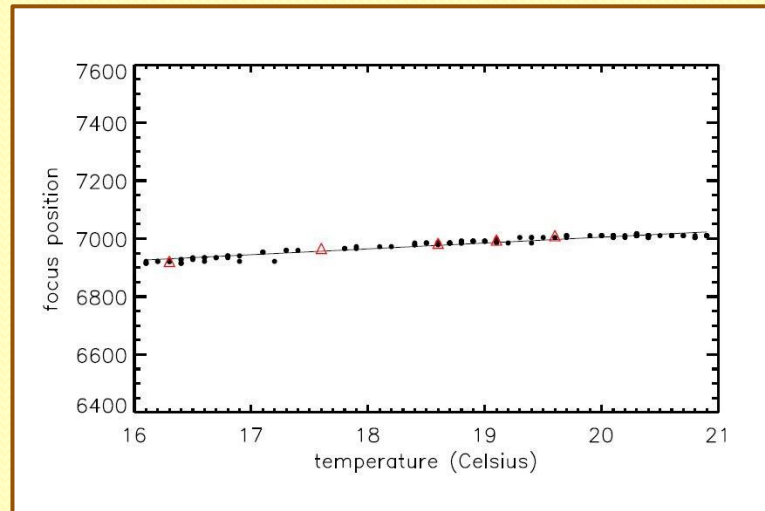


Thank you!

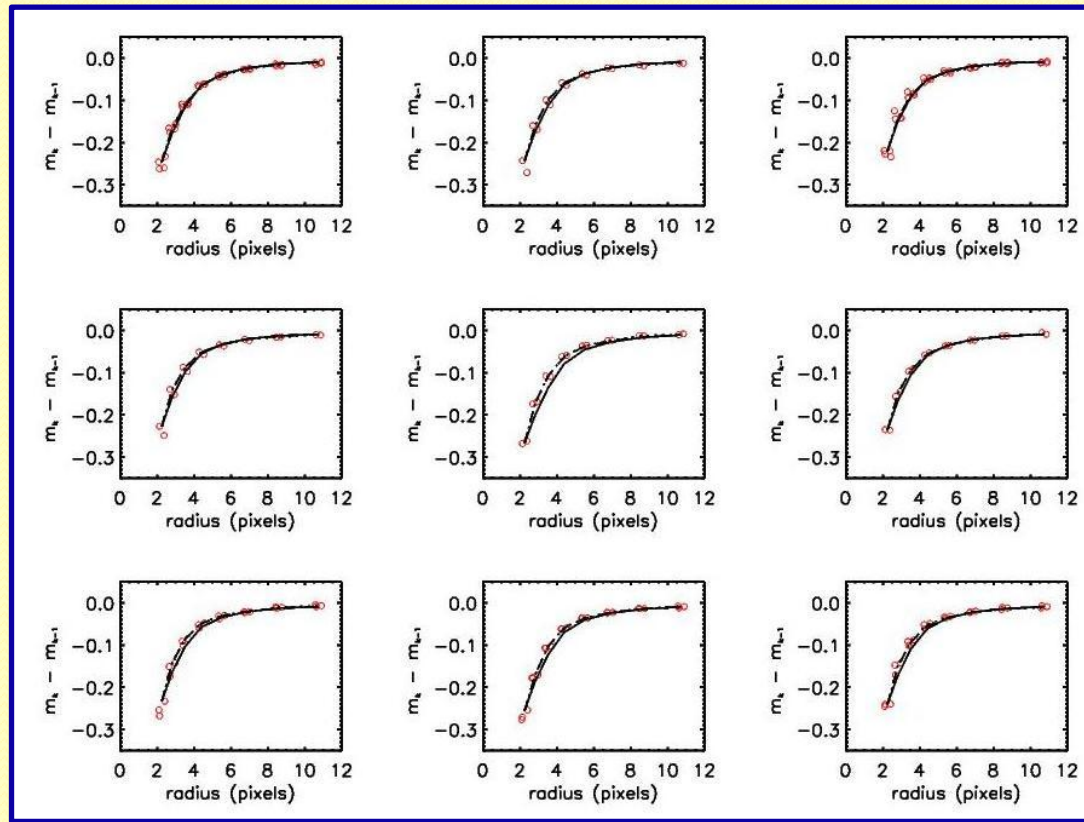
The INTA-CAB robotic telescope



Focus fitting



Growth curves



Differential photometry

- The sample of candidate stars is usually small:
 - variable may dominate over constant stars
- Statistics to assess variability :
 - indicator of image quality
 - use information from distribution of photometric zero point

