

RoPACS Midyear Workshop, Munich, May 10-11 2010

# *Characterization of planet-host candidates*

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## *As an ESR... done so far:*

Gathering knowledge:

- data taken at WHT – secondary eclipse of TrES-3b in K-band  
(de Mooij & Snellen, 2009)
- observational run at CST – near-IR photometry (side project)

Applying this knowledge:

- request GTC time – when CanariCam is operating

# *Spectroscopic classification and radial velocity limits for WFCAM Transit Survey (WTS) planet candidates*

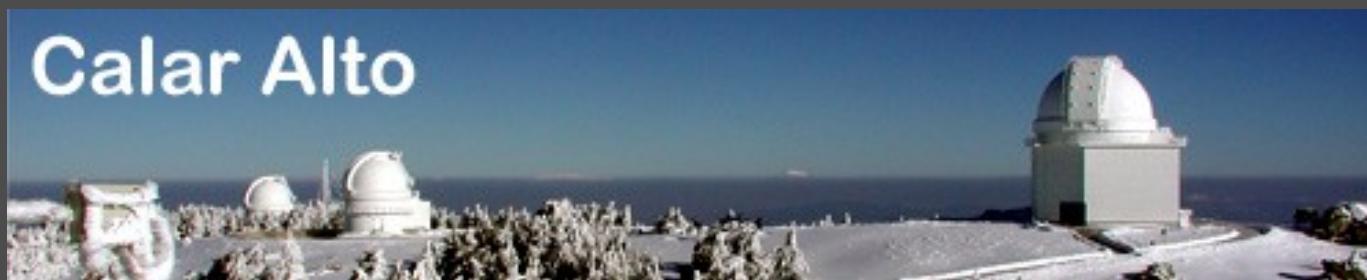
Aims:

Spectroscopic follow-up of the most exciting candidates:

- classify the spectral type;
- estimate radial velocity variations with  $\sim$ km/s-precision:
  - establish the real planet-transit systems
  - identify and solve the lowest-mass stellar/substellar binaries

# *Calar Alto Observatory*

- German-Spanish Astronomical Centre (CAHA)
- Sierra de los Filambres, Andalucía, Southern Spain
- three telescopes: 1.23m, 2.2m and 3.5m



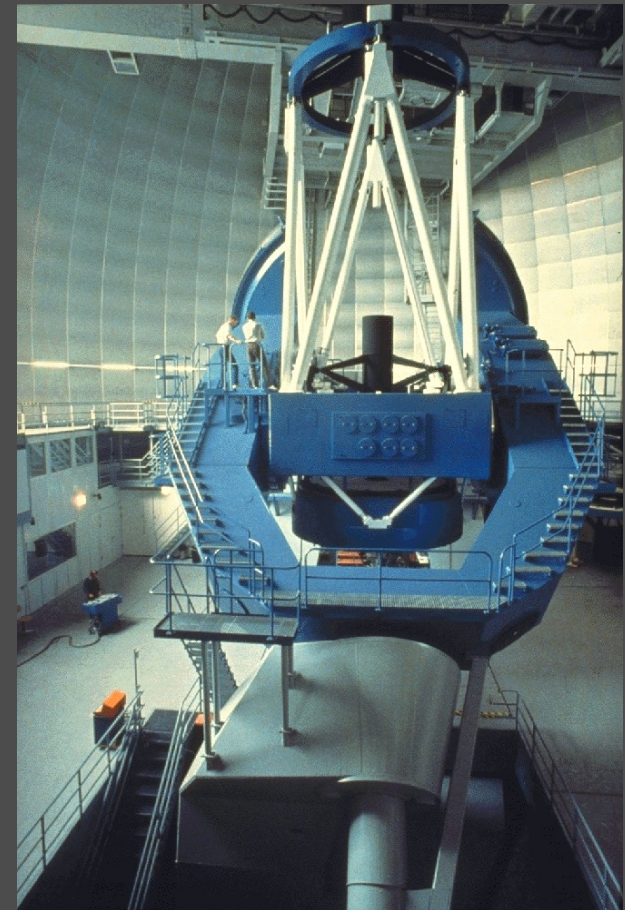
# Calar Alto Observatory – June 19-21

- 3.5m telescope
- TWIN spectrograph:
  - intermediate resolution: 3000-14000
  - wavelength range: 320-1100 nm

Observational run: 3 nights

- 10 objects of 19.5h field
- I-mag between 14 and 19

3.5m telescope



# *Calar Alto Observatory – June 19-21*

- Low resolution spectroscopy ( $1.62 \text{ \AA/pix}$ ):
  - derive the spectral types of the targets
  - distinguish the cases: planet, small star/brown dwarf, grazing binary, or stellar binary blended with a background star
  
- Intermediate resolution spectroscopy ( $0.37 \text{ \AA/pix}$ ):
  - obtain RV information with a few km/s of accuracy
  - aim: identify spectroscopy binaries

## *To come...*

Second proposal already approved for 2 nights in November:

- around 8 objects of 7.0h field
- additional spectra of the 19.5h field objects observed in June

Calar Alto's new instrument: CAFE – echelle spectrograph:

- to obtain accurate RV for late-K to early-M candidates

After the commissioning, we intend to use the CanariCam for mid-IR follow-up.

***Thank you all!***