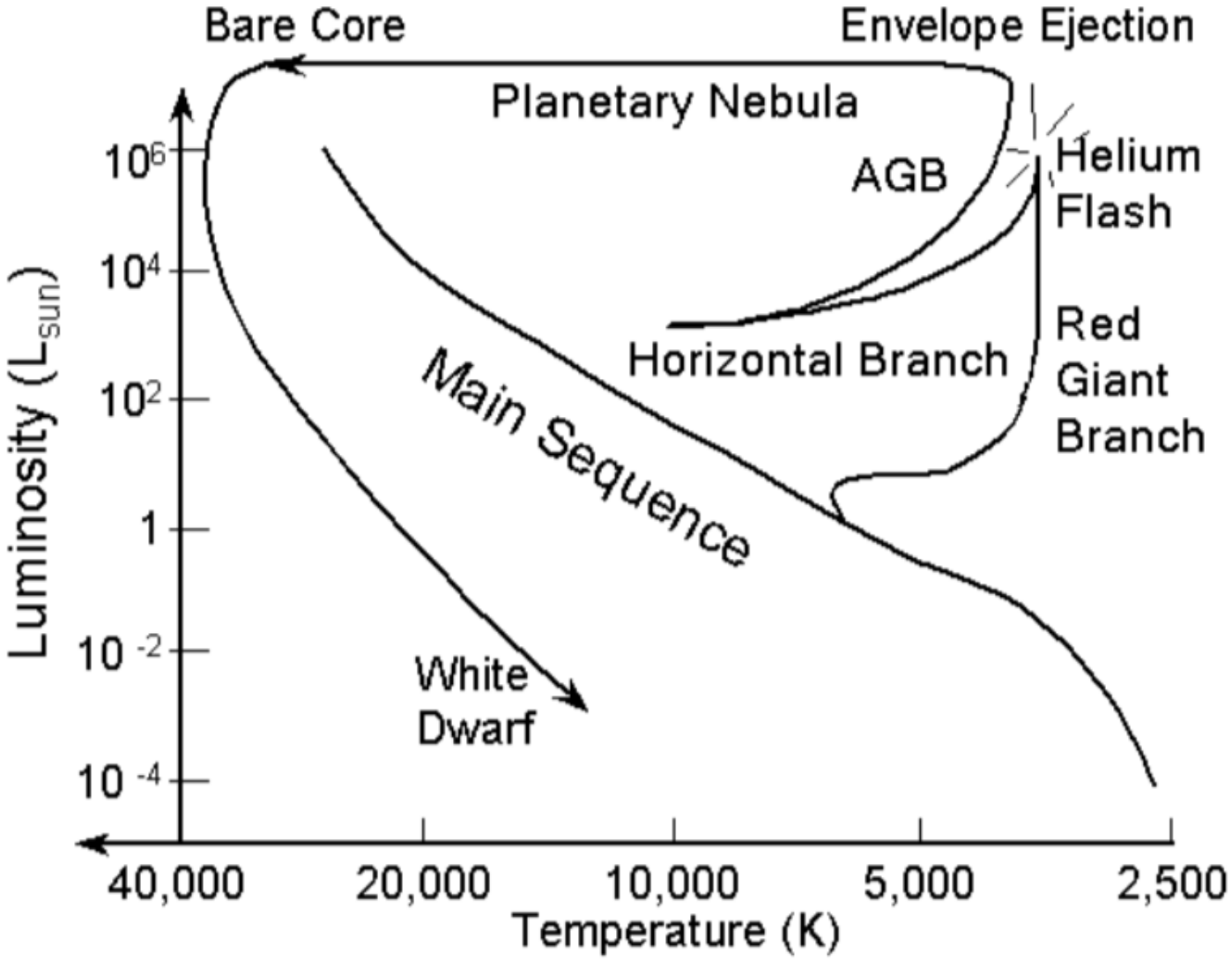
SHOTGLAS
II. MUSE spectroscopy of blue horizontal branch stars in the core of ω Centauri and NGC 6752

A Review by Arthur Völkerer

Horizontal Branch

- Helium Fusion -> He I and He II lines
- In the paper
  - Chemestriy
  - Evolution
  - Temperature



Sterne und Planetensysteme „The evolution of the Sun.pdf", Page 15

Data

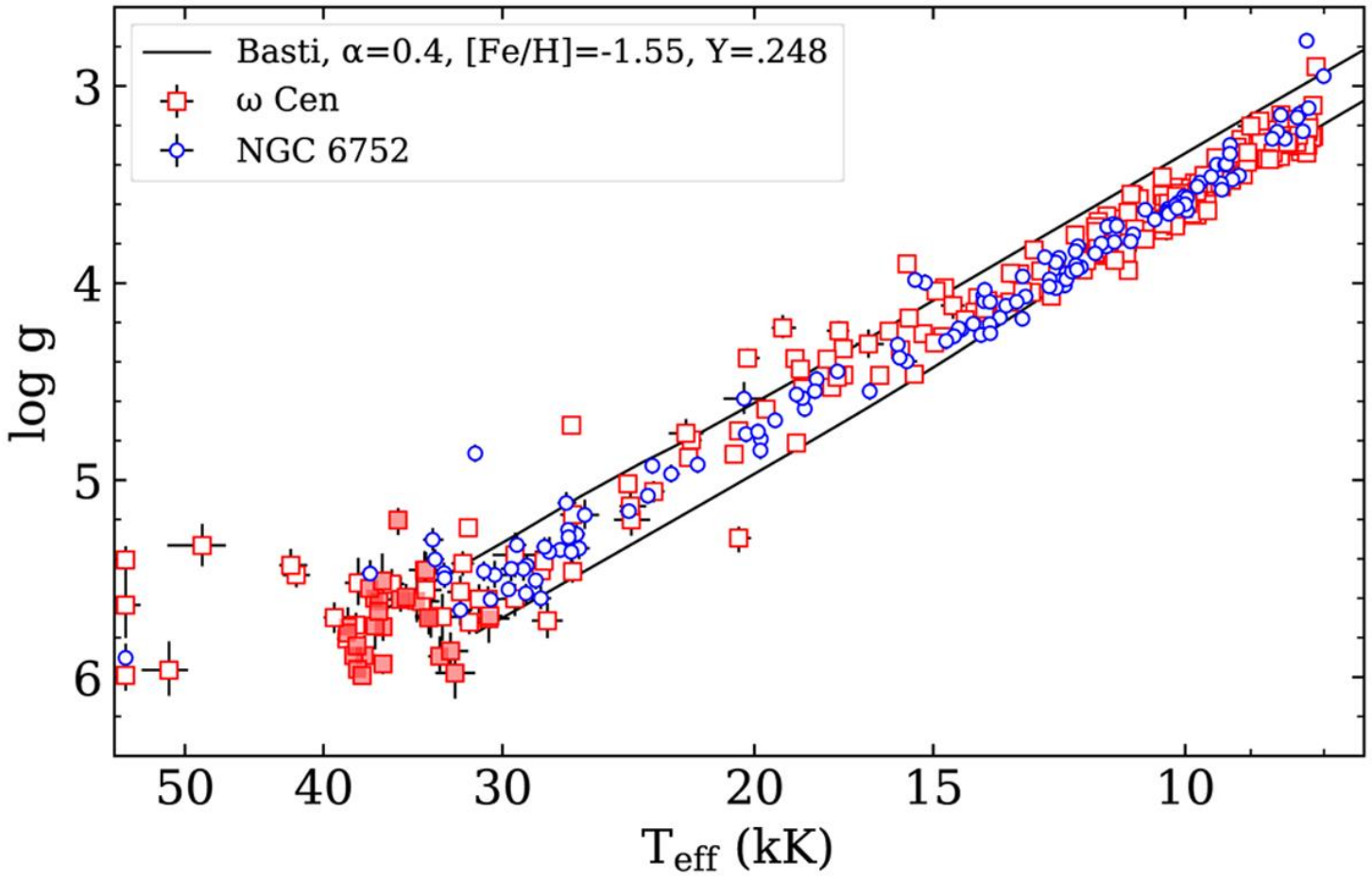
- MUSE (475–935 nm)
- Hubble Space Telescope Photometrie
- Smaller Catalogs
- More than 400 HB Stars (>8kK)
- NGC 6752
- ω Centauri

Models

- Compared a model spectrum with the MUSE spectrum
- Hybrid LTE/NLTE model atmosphere
  - LTE
  - NLTE
  - Back to LTE to impove the result
- With model of the spectrum, some properties can be derived

Results

- Log g (surface gravity)
- Effective temperature
- Helium abundance
- Average reddening
- Radius
- Luminosity
- Mass

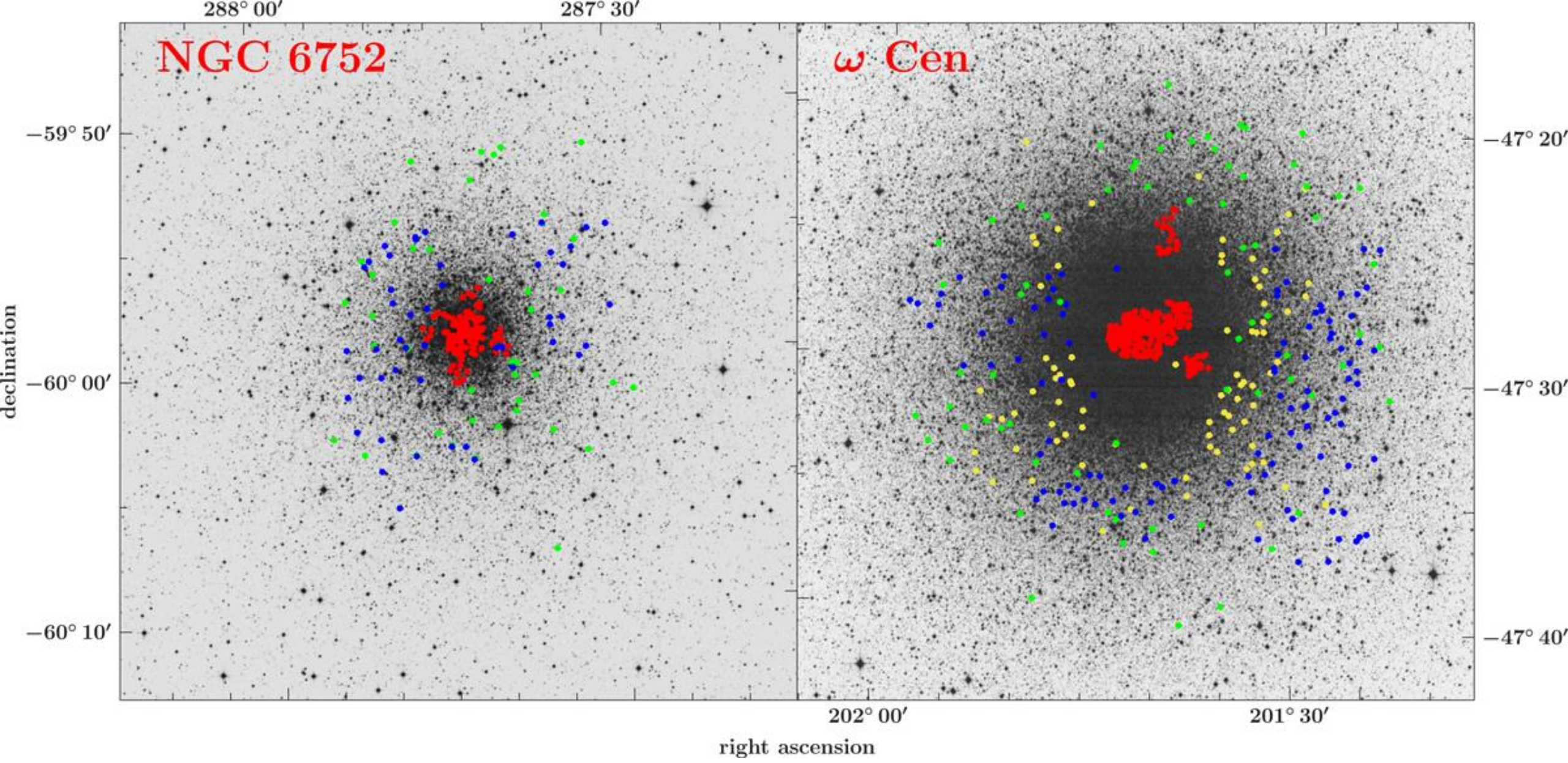


(Fig. 12. in the Paper)

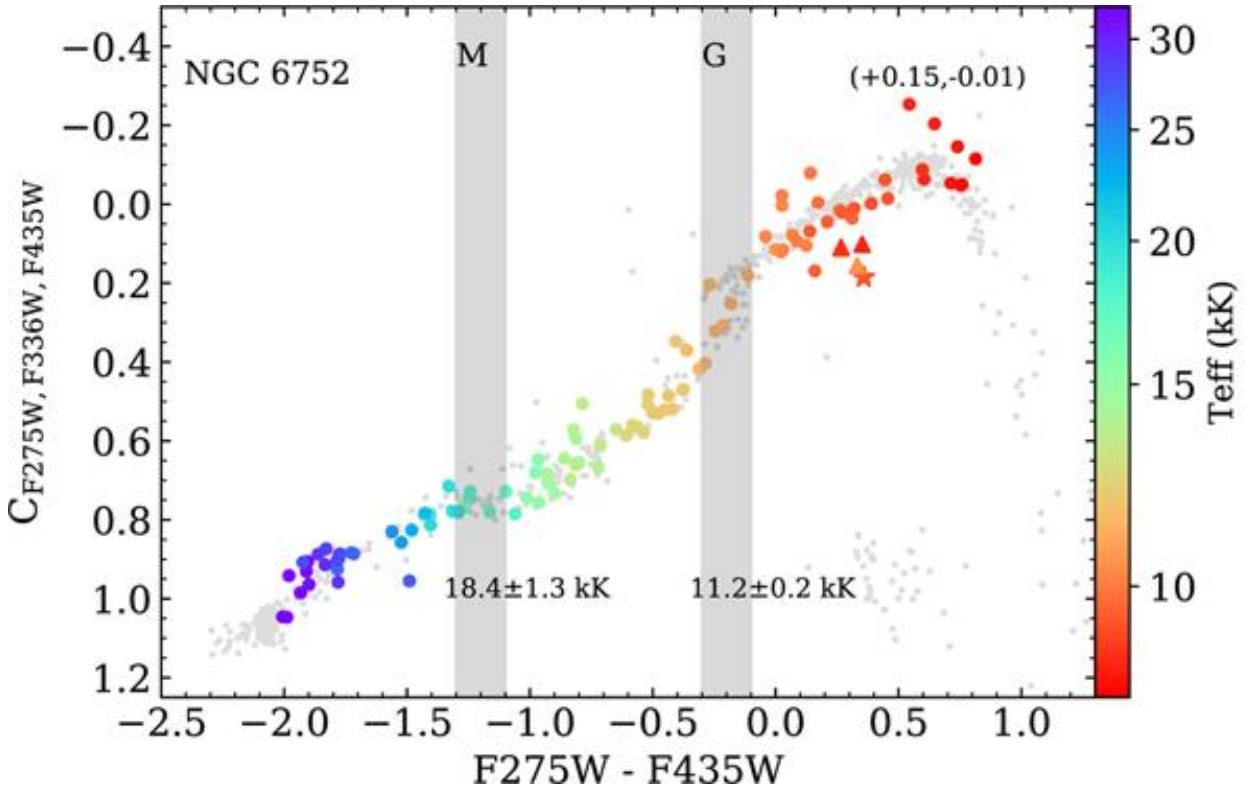
Summary

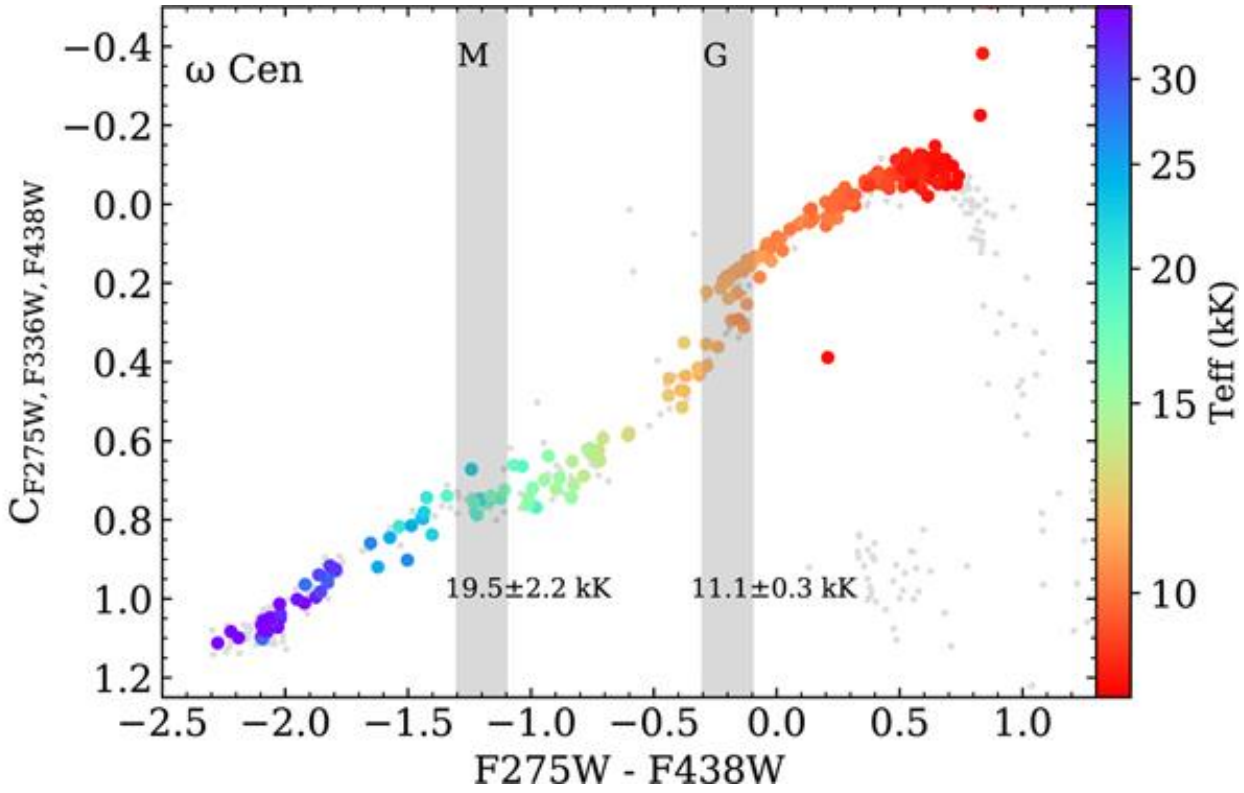
- Analyzed blue horizontal branch
- Compared Muse data with theroretical models
- Good results in lower temperature and no differnece between the two clusters

Paper: https://ui.adsabs.harvard.edu/abs/2023A%26A...677A..86L/abstract



(Fig. 1. in the Paper)





(Fig. 8. in the Paper)

Color-Color Diagram