# Color-Magnitude Diagram



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# What we will do

### • Field stars

- Take the HRDs, use different grids and estimate the mass, radius and age for all individual stars
- Sort stars according to metallicity => same task
- Calculate differences and search for correlations and offsets

### Open clusters

- Johnson, Gaia and 2MASS photometry: get cluster parameters
- Calculate differences and search for correlations and offsets

## Globular clusters

- Johnson photometry: get cluster parameters
- Calculate differences and search for correlations and offsets

# Samples for comparison

#### • Field stars

- Stroemgren  $uvby\beta$  photometry: intrinsically reddening and metallicity calibration
- Geneva 7-colour photometry: reddening used from Stroemgren  $uvby\beta$  photometry plus nearby stars without reddening, also metallicity calibration available

#### • Open clusters

• Johnson, Gaia and 2MASS photometry, cleaned data sets

## Globular clusters

Johnson photometry [homework]





## 2MASS photometry Gaia photometry







