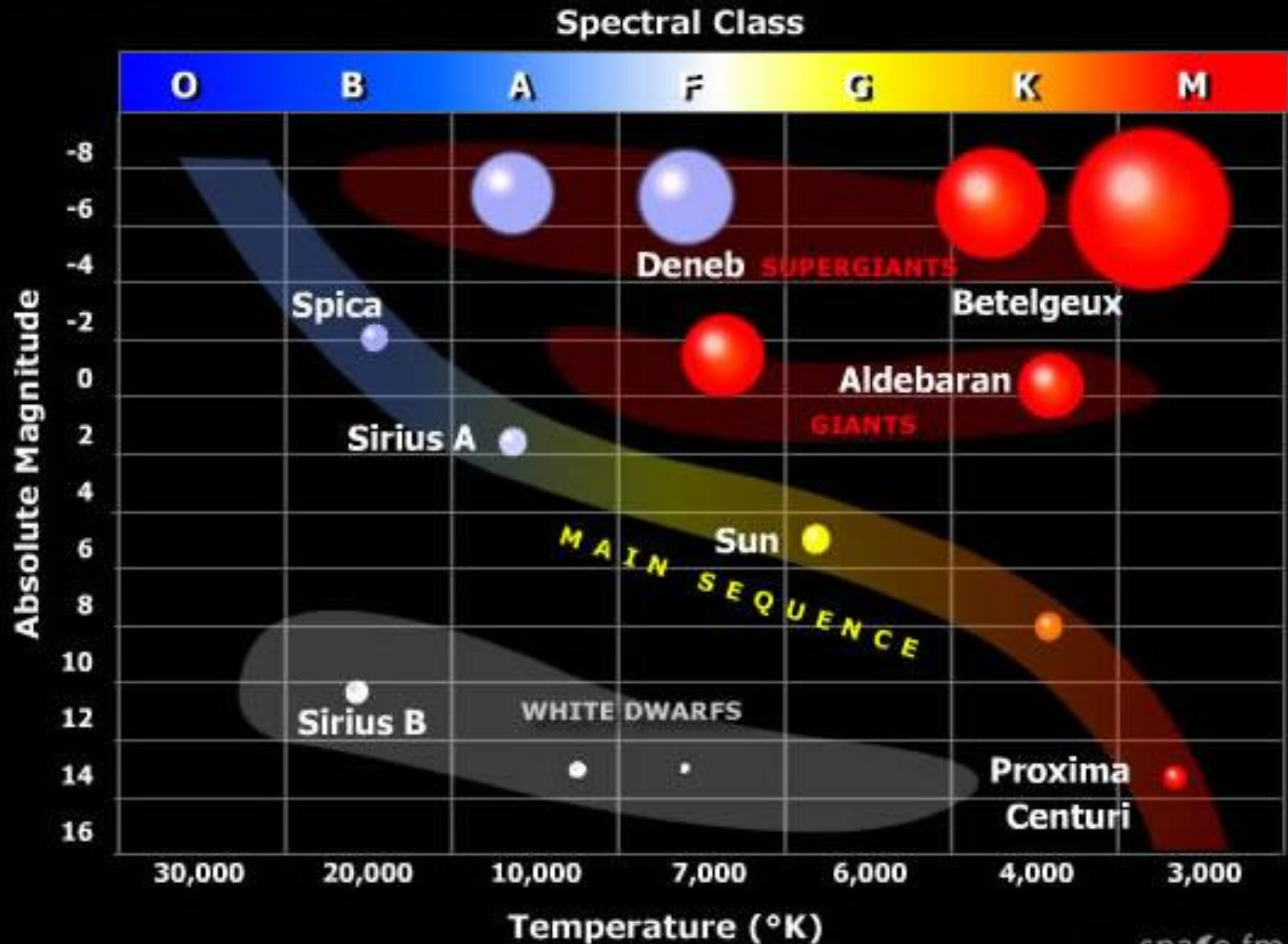


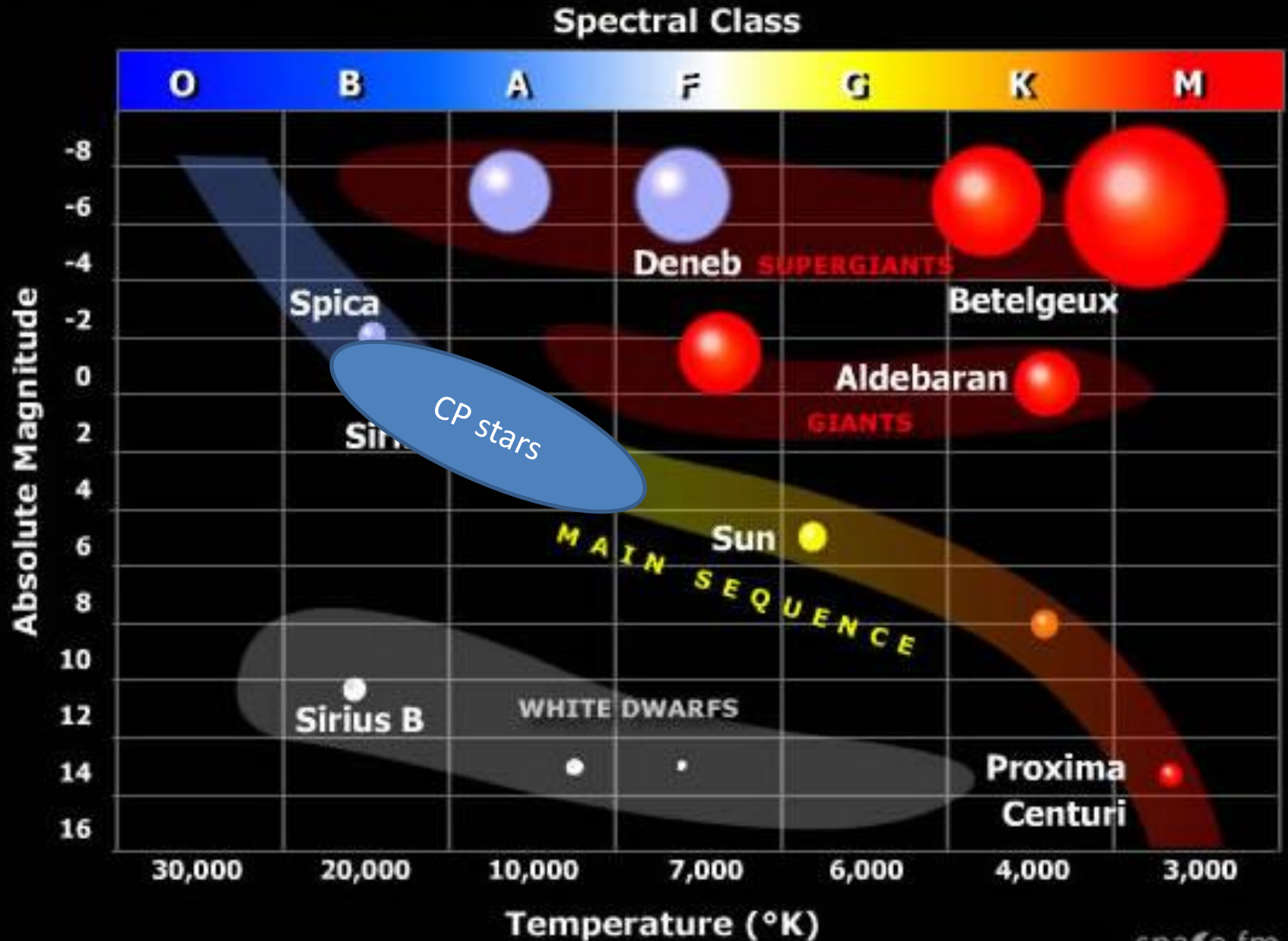
Topic – this semester

- Find all chemically peculiar (CP) stars which are members of open clusters or stellar associations
- What do we need?
 1. Parallaxes, proper motions, coordinates and diameters of star clusters
 2. Parallaxes, proper motions and coordinates of CP stars
 3. Determination of the true members
 4. Plot the colour-magnitude diagrams as check

HERTZSPRUNG-RUSSELL DIAGRAM



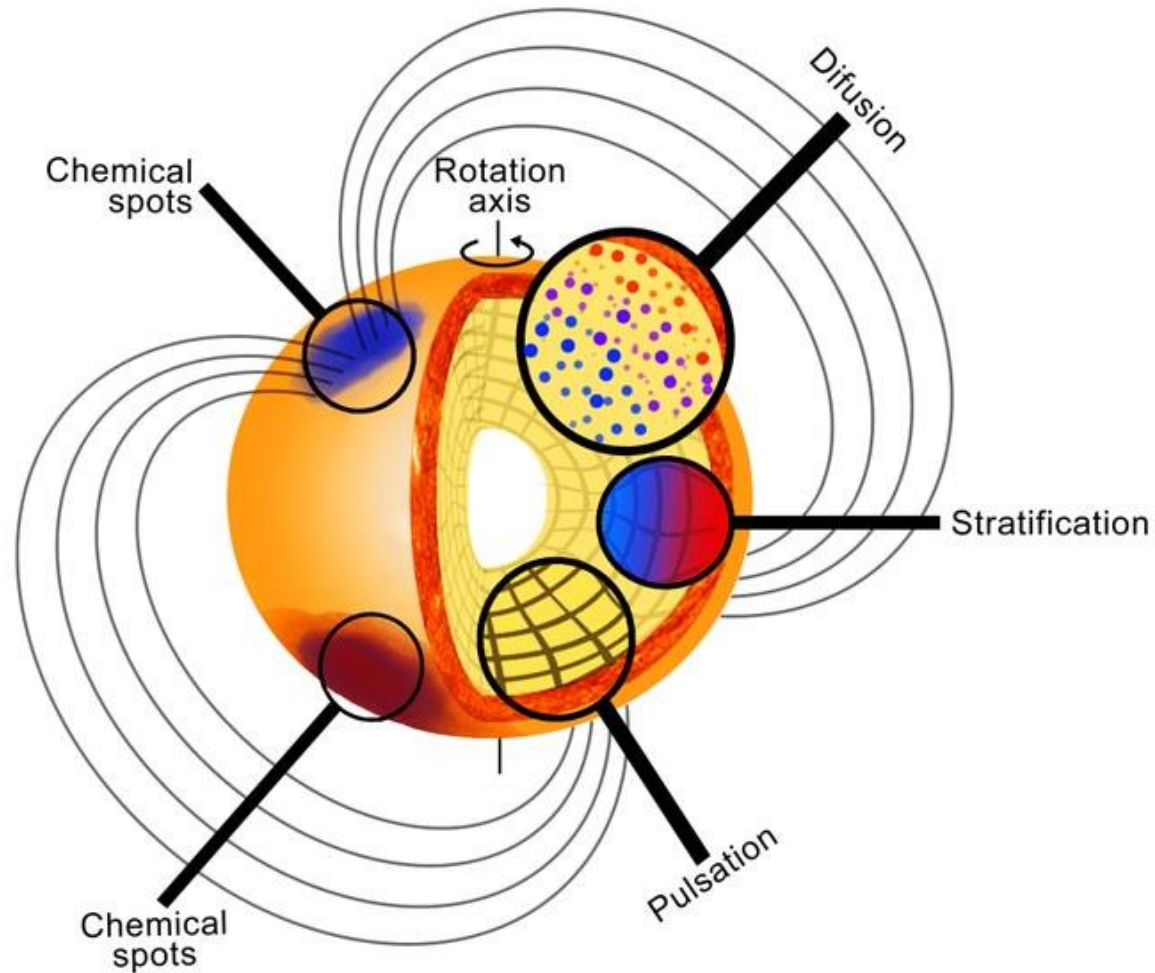
HERTZSPRUNG-RUSSELL DIAGRAM



Classical chemically peculiar stars

- Upper main sequence stars, spectral region B2 to F2
- Low rotational rate (< 100 km/s)
- Some have stable and organized stellar magnetic field
- Diffusion and stratification
- Spots

Classical chemically peculiar stars



What can we learn from CP stars in open clusters?

- Do we find CP stars at all ages?
- Are there very young, especially magnetic CP stars existing?
- Timescales for the formation of the local stellar magnetic field and diffusion.
- Is there an influence of the local metallicity on the peculiarity?
- Single star determination correct?