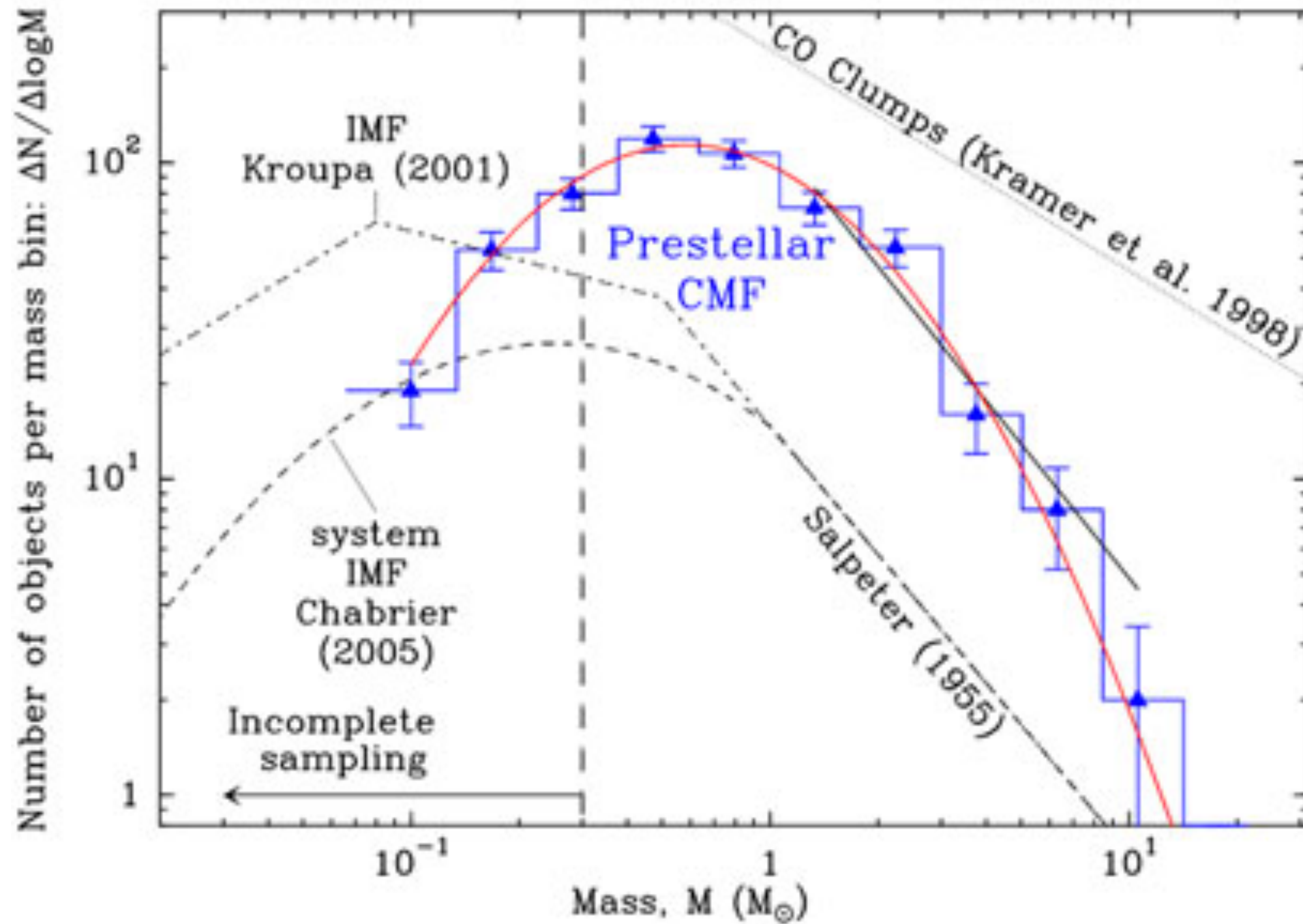


Initial Mass Function (IMF)



Open Clusters

- ◆ Loosely bound stellar association (~50 -1000 stars)
- ◆ Not gravitationally bound
- ◆ In general, they tend to be younger & metal-rich



Pleiades

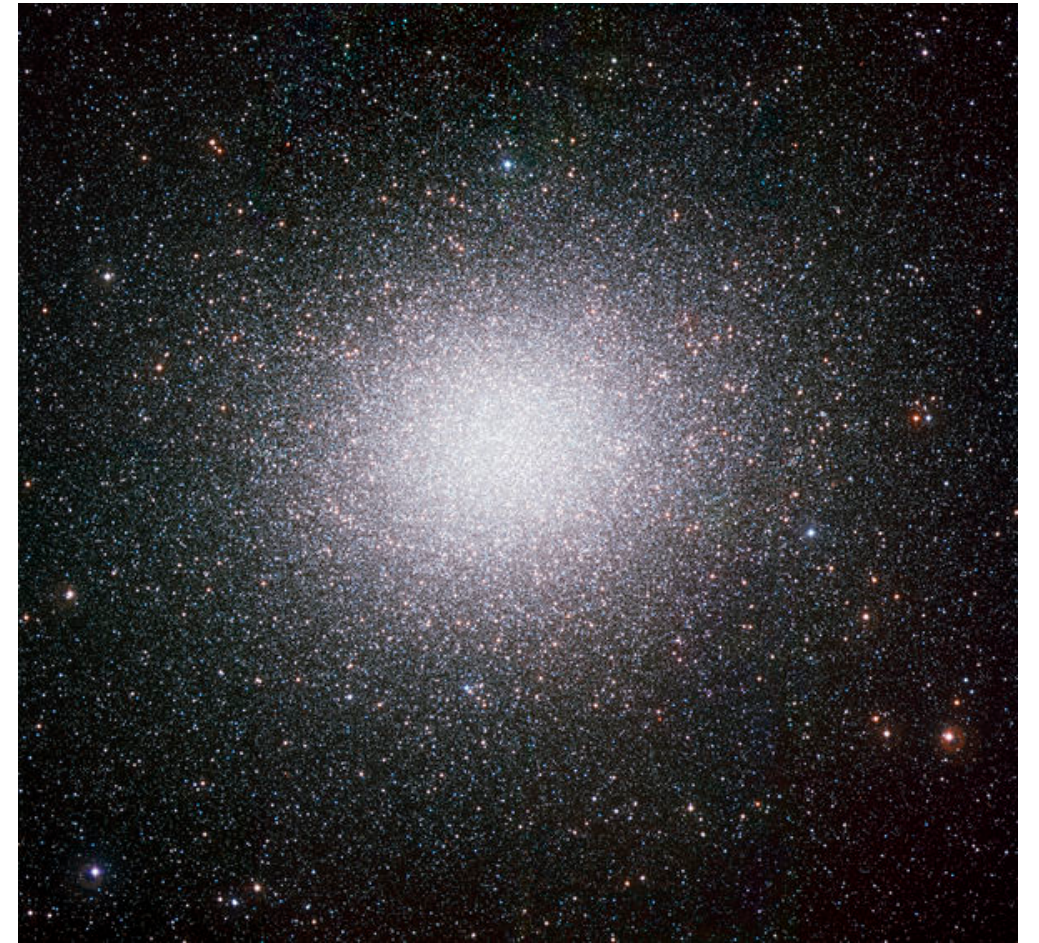
Globular Clusters

◆ **Gravitationally-bound** stellar association

◆ ($\sim 10^4 - 10^6$ stars)

◆ In general, they tend to be
Older & metal-poor

◆ Mostly spherical , with
radius $\sim$ few pc

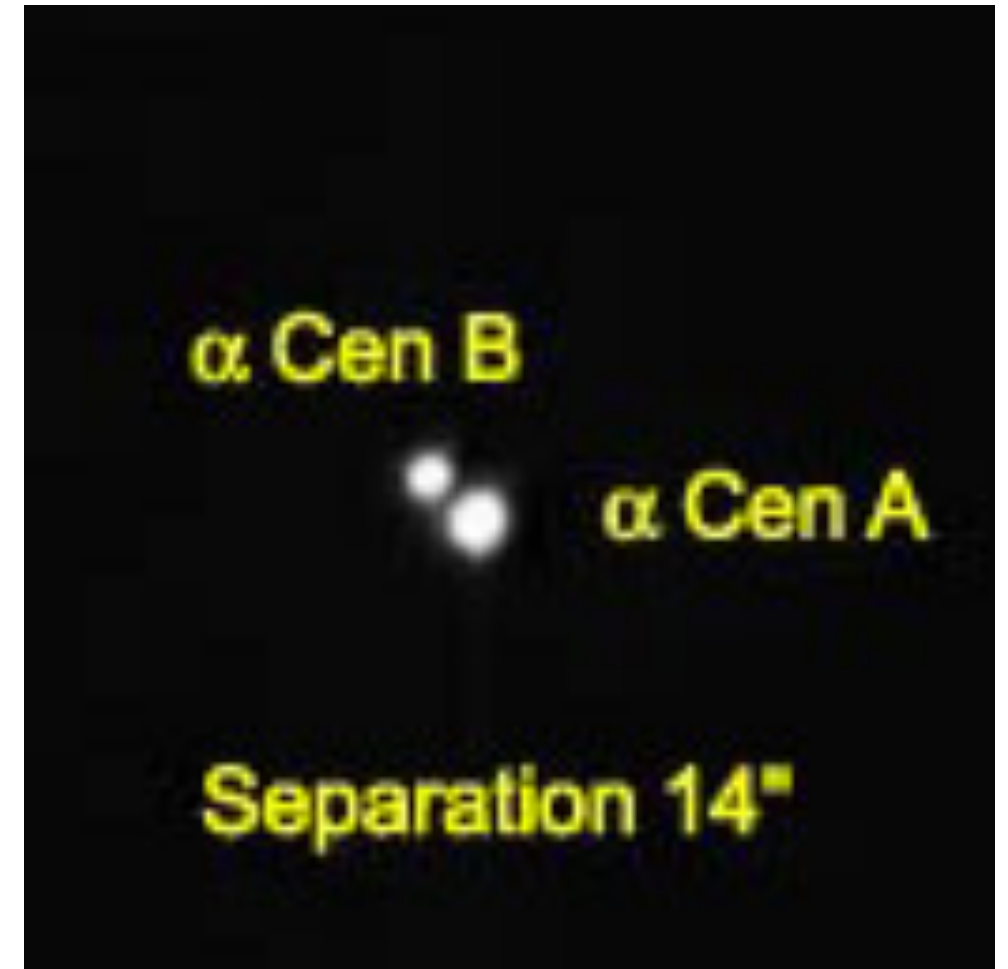


Omega Centauri

(Largest known globular cluster
in the Milky Way)

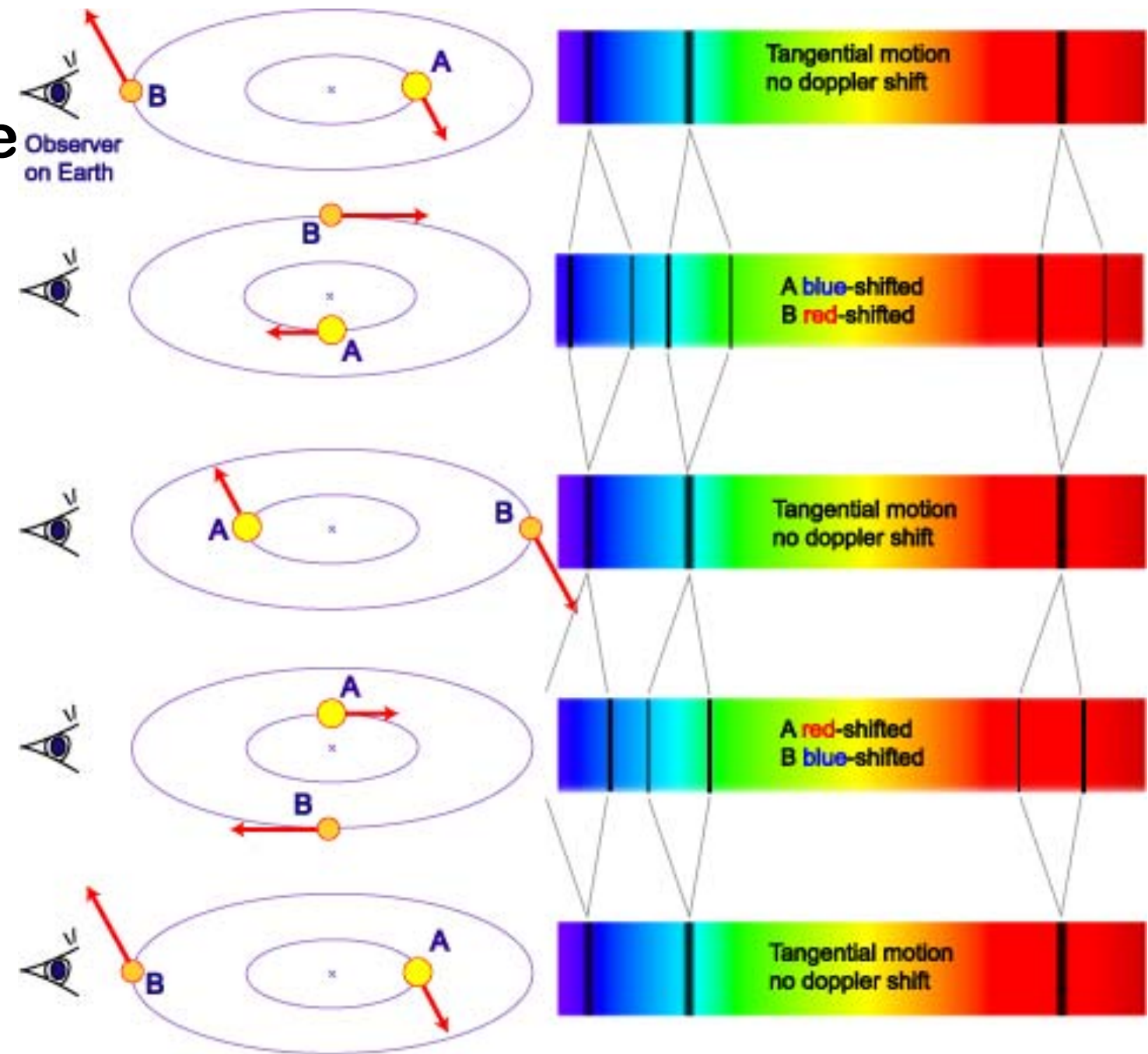
Type of binary stars. I. - visual binary

- ◆ Component stars can be identified/resolved individually
- Mostly works for nearby binaries
- Different from ‘optical pairs’



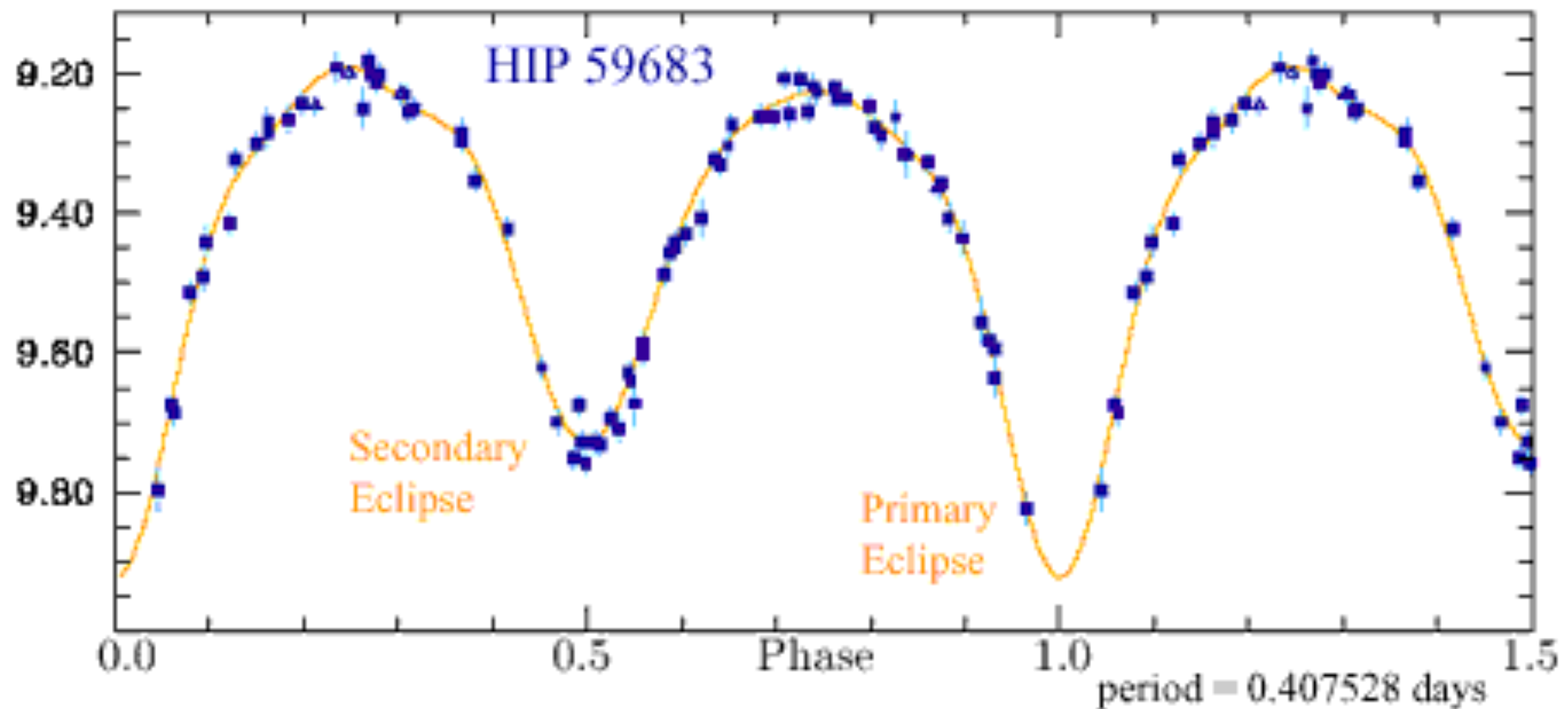
Type of binary stars. II. - spectroscopic binary

- Too close to detect/separate
- However, they 'reveal' themselves via spectral lines (Doppler shift)



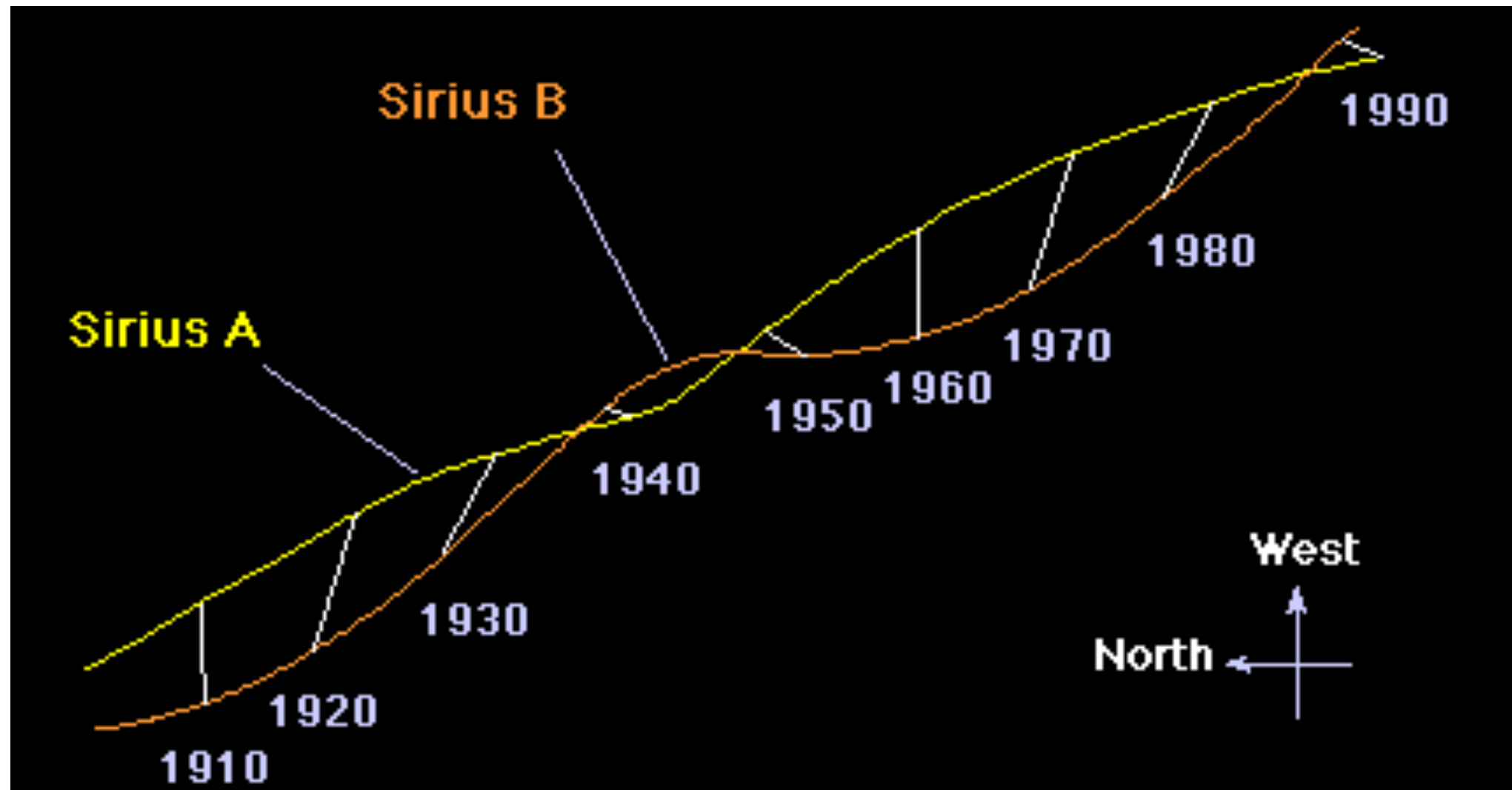
Type of binary stars. III. - eclipsing binary

- Detected via (periodic) changes in brightness of the binary system



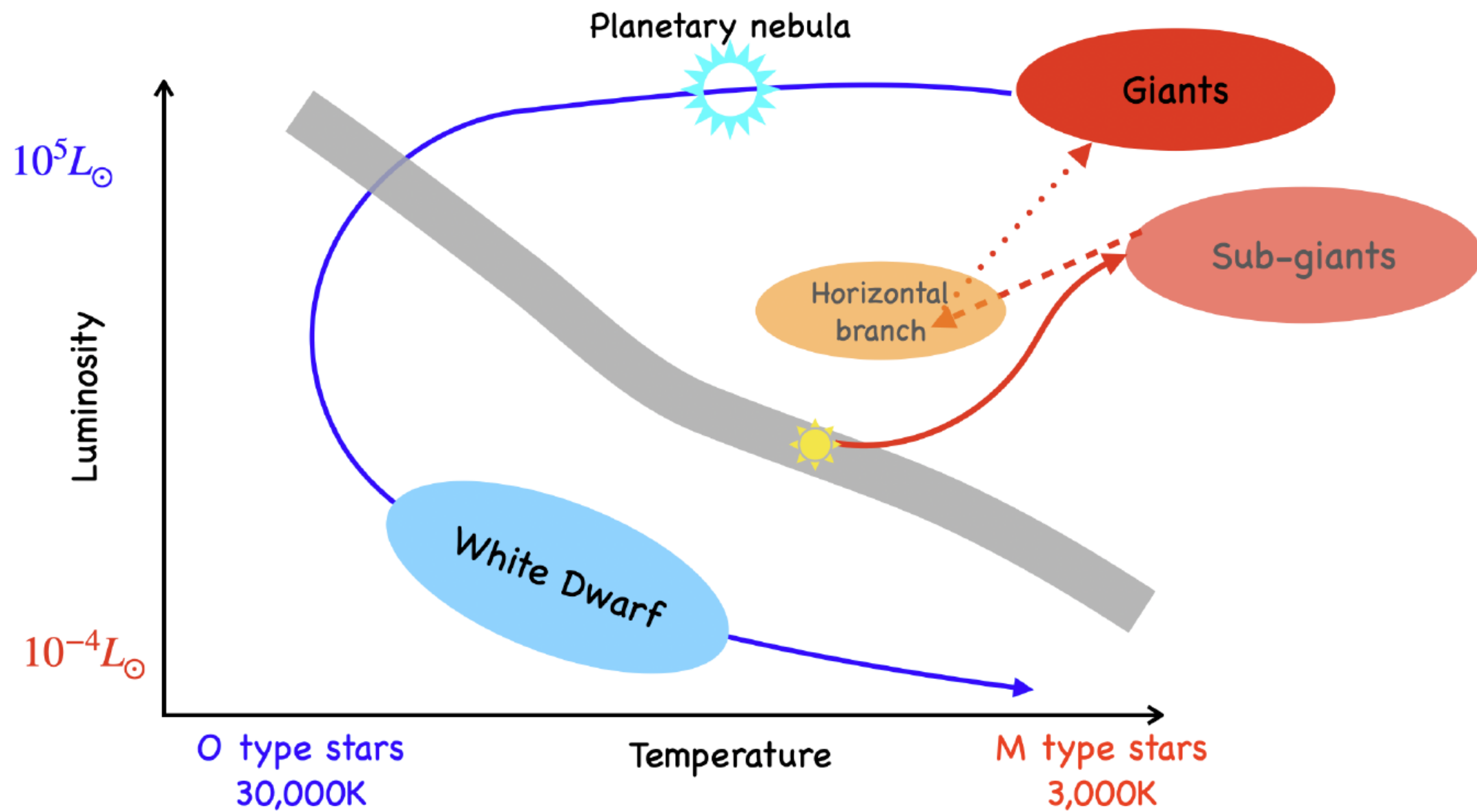
Type of binary stars. IV. - astrometric binary

- Detected via wobbling motion of stars due to the effect of gravity



End game of massive stars...

(A small recap...)



End game of massive stars ($M > 8M_{\odot}$)

