

- Homework review
- Hour angle and declination – a problem with constantness
- The definition of right ascension
- Sidereal time
- The geometric representation of sidereal time
 - what happens at the meridian?
 - what happens when γ is at the meridian?
 - what happens when γ next crosses the meridian?
- The ecliptic – w.r.t. Sun, w.r.t. Earth
- Vernal (spring) equinox, autumnal equinox, summer and winter solstices
- So where is this γ thingie anyhow?
- Right ascension and declination of the Sun are always changing!
 - what happens when the Sun is at a vernal equinox?
 - what happens when the Sun is at any of the other extrema?
- Ecliptic (celestial) latitude and longitude (leave some space for the transformations!)
- Sidereal time vs. local time
- Example: observing from Villanova ($\phi=40.0372^\circ$, $\lambda=75.3492^\circ$), at what time tonight do we expect Betelgeuse (α Ori; R.A.= $05^{\text{h}}55^{\text{m}}10^{\text{s}}$, Dec= $+07^\circ24'25''$) to culminate? When will it set?