

Properties of Stars

Learning goals:

are needed to see this picture.

- Explain what is meant by the parallax of a star, how we measure it and use it to find the distance to a star.
- Define brightness (see text), apparent magnitude, absolute magnitude.
- Describe the methods used to determine the temperature, luminosity, and radius of a star.



Questions:

Which stars are the brightest?

Which stars are putting out the most watts? (luminosity = energy per second)

NEED TO KNOW:

Distances

The most fundamental and accurate (within a certain range) means of finding distances is measuring the parallaxes of stars.



PARSEC: Parallax ARc SECond

A star having a parallax of 1 arc second is 1 parsec away

1 parsec (pc) = 3.26 light years

1 kiloparsec (1 kpc) = 1000 pc; 1 megaparsec (1 Mpc) = 1,000,000 pc

Baseline is 1 Astronomical Unit

Small angle formula for distance in AU's:

