ASTR 121 – Spring 2016

Lab 2 – Stellar Parallax: Prelab Questions

Due Monday, [Date TBA]

Answer the following questions on a separate sheet of paper.

1. For Earth-based observations of stars, what is the parallax equation? What are the variables in this equation? What are their units?

2. On each set of images, you will make two measurements. What are they, and how will you measure them?

3. You want to calculate a value $= \frac{ab}{c}$. You experimentally determine the following values: $a = (5 \pm 0.2)\text{m}$, $b = (7 \pm 0.1)\text{m}$, and $c = (3 \pm 0.05)\text{m}$. What are x and σ_x? Report your answer using correct significant figures and units.

4. Look up and read the article "Just how far away is the Pleiades?" on Astrobites. Give at least one difference between the parallax measurements made by the Hipparcos satellite and those we will make in class.