

AST 475/875 Homework #4

Due F, Sept 17th

1. Use the SIMBAD database, and look up the star SAO 59571.
What is the *HIPPARCOS* parallax satellite star # (the HIP designation)?
2. What was the most recent paper on this object (give journal info, year, author)?
3. Use the link at the top of the SIMBAD webpage to connect to the Vizier catalogue service. Access the Hipparcos catalog from the Vizier service. Look up the star according to its HIP number.
What is the Hipparcos-based RA and Dec and epoch for this star (do not use the coordinates in red on the summary page! Look at the actual Hipparcos data by clicking on the entry for this star)?
4. Using the Hipparcos proper motions for this star, and precession software of your choosing, what will the equinox and epoch 2010.0 right ascension (in h,m,s) and declination (in deg, arcmin, arcsec) of this star be?
5. Make a small finding chart of the field of this star about an arcminute on a side with cardinal directions labeled and the object star clearly indicated (you might find the linux/unix packages 'xv' or 'display' or a photoshop-like package useful for adding labels to digitized images and trimming your images). I suggest using the Aladin digital archive for your chart sources (<http://aladin.u-strasbg.fr>), but there are other finding chart websites too.
6. On the full scale Aladin images (a dozen or so arcminutes on a side) shows a similarly bright object a couple arcminutes distant. Use the coordinate search feature in SIMBAD to identify this star.