Problem Set #3: Catalogs

Due Sunday, October 13 by 5pm to Dickinson 104

Choose any named star (there are lots of lists of named stars on the internet). For the purposes of this problem set, please:

- Choose a star you have never heard of (i.e. **not** Betelgeuse, Rigel, Vega, etc.)
- If you work with another student, you should each choose your own star.

Using Simbad (https://simbad.u-strasbg.fr/simbad/), execute a "basic search" and answer the following questions, based on the information on the Simbad page:

1. What is the Uranometria (i.e. Bayer, Greek letter) catalog designation? What can you conclude about your star from its specific designation in the Uranometria?
2. What is the Flamsteed (i.e. numeric) catalog designation? What can you conclude about your star from its specific designation in the Flamsteed catalog?
3. Choose any one of the *many* other "Identifiers" listed on the Simbad page. What is catalog that the designation comes from (give a journal reference)? What can you conclude (if anything) about your star from its inclusion in the catalog? What can you conclude (if anything) about your star from its designation in the catalog of your choosing?
4. What is the distance to your star? How do you know?
5. What is the proper motion of your star? What is the *total angular distance* of proper motion that your star will exhibit in 100 years?
6. What is the radial velocity of your star? By how many angstroms would the Hα absorption line (λ_0=6563 Å) be shifted in this star?