5/29/18

Bootes I

RA: 14h00m06s

Dec: 14d30m00s

r half light: 12.60am

5/31/18

Dist: 60000+-6000 pc

MAIN GOAL FOR TOMORROW: Plot known members on same graph as non members to create graph similar to Simon-ufd.pdf, using data from koposov.pdf

For 6/5/18

Plot only 95-110 km/s members in blue from koposov

If does not meet minimum separation, print out distance, g value (from koposov), and RV

On position plot, make blue dots for stuff in the velocity range, and red dots outside the velocity range

Plot koposov non RV matches and matches in red and blue (respectively) as the Koposov RA and dec, not gaia ra and dec

Investigate

2 stars at ~17.5mag

2 stars offset from where they should be plotted(?) - DONE

Take stars outside of velocity range, find matches and nonmatches, plot them along the other RA’s and Dec’s - DONE

Plot motion in and out of the velocity range on PM diagram in different colors - DONE

Plot stars only in range of Gmean mag >17 and <20

Only members from martin, match RA and Dec and add pmra and pmdec for them

Calculate weighted means in mu alpha and mu delta for all matches, then the upper and lower regions (excluding that weird outlying point)

For 6/13/18

Everything is ordered now, just need to redo the algorithms for the top half and bottom half of the ra and dec

Increase sample size from gaia - DONE

Fix double count issue - DONE

Take Norris members as y/n, not M members - DONE

Figure out math errors in average and chi squared tests

Keep if > -5 in pmra

Find additive uncertainty to produce chisquare=1per dof

**CARINA**

Carina Location:

RA: 6h41m36.7s

Dec: -50d57m58s

Half light radius: 8.2 arcmins +-1.2 arcmins

Keep stars with parallax smaller than 2\*parallax\_error

Plot only pmra and pmdec that are within 2sigma of the measured value

Gaia team PMRA: 0.495

PMRA\_error: 0.015

pmDec: 0.143

PMdec\_err: 0.014

For next week:

Theta=65+-5 degrees

Ellipticity=0.33+-0.05

RA: 6h41m36.7s 100.4029166667deg

Dec: -50d57m58s -50.96611deg

Using this information, construct a density estimation of the ra and dec plots. (See tad’s email)

Python radial surface density profile

Need to adjust semimajor axis and semiminor axis to account for rotation of galaxy