

## EP 4130/PH 6130 Assignment 8

Deadline **19 April 2024** before **23:59 hrs**

Please show the source code.

1. Calculate the angular two-point correlation function of galaxies (including errors obtained by 10 bootstrap resamples) using subset of data from the Blanco Cosmology Survey with  $r$ -band magnitude between 17 and 20, and using 16 logarithmic-spaced angular bins from  $1/60^\circ$  to  $1^\circ$ . Use a linear scale for Y-axis. Galaxies in Blanco Cosmology Survey have `spread_model`  $> 0.002$ . This data can be downloaded from [http://www.iith.ac.in/~shantanud/BCS05hr\\_reduced.txt](http://www.iith.ac.in/~shantanud/BCS05hr_reduced.txt) (30 points)  
(Hint : Look at the astroML source code for Figure 6.17)