

AST 250 – Fall 2017
Homework Due: Friday September 1

6. Calculate the angular separation in degrees of two stars with coordinates (10h, +80d) and (11h, +70d). Do the problem first assuming flat Euclidean geometry and then do it correctly using spherical geometry. Show that the difference between the two answers is substantial. Hint: when you draw the spherical triangle, don't worry about alt-az/horizon coordinates – start with a sphere with the NCP at the top and the SCP at the bottom (See Figure 1).

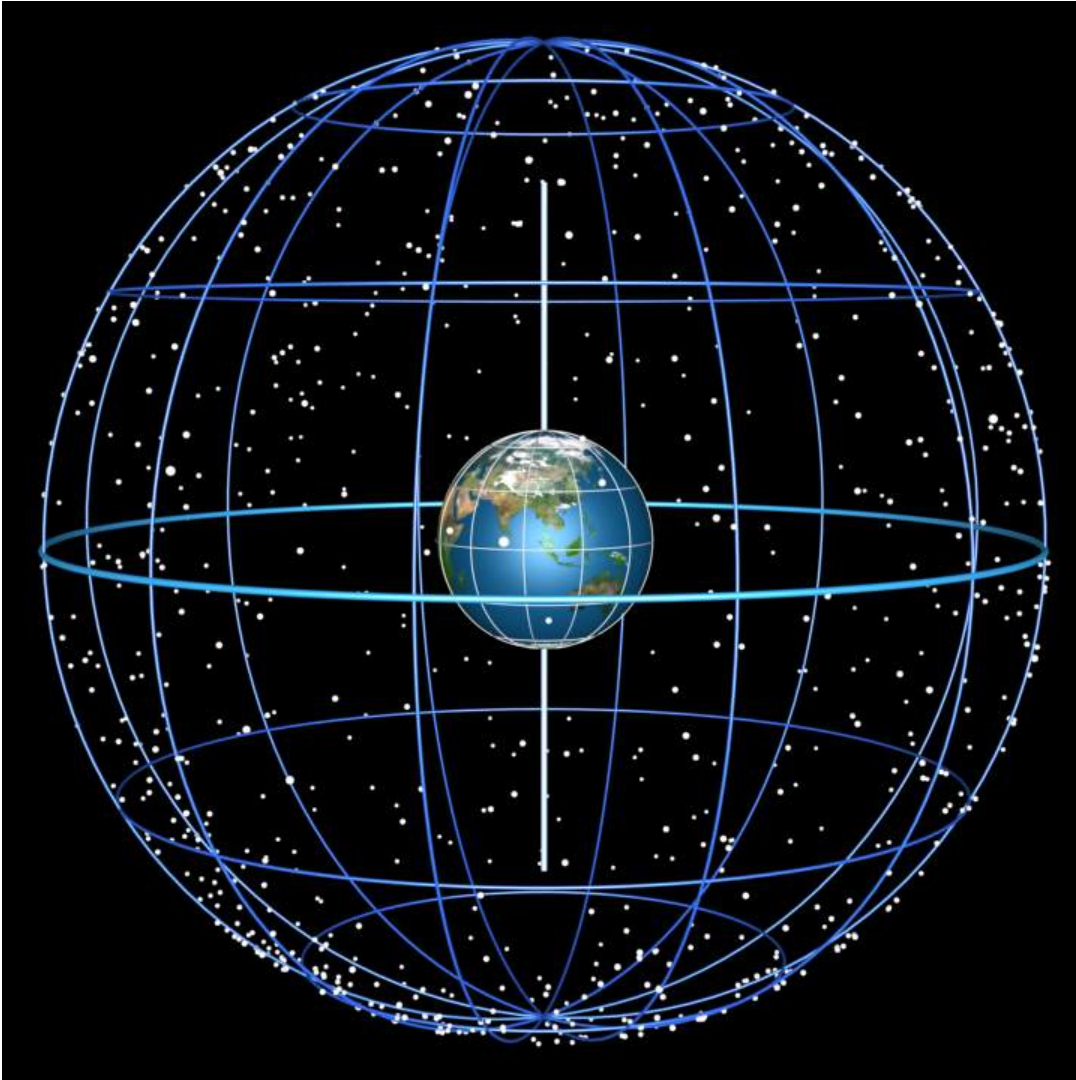


Figure 1: The celestial sphere.