**How to calculate hippocampal subfield thickness using minimum line integrals**

1. Make sure you have the necessary outputs from ASHS segmentation. We need two files, the segmentation from the left and right side. Typically, this is found in the output of ASHS, under the final subdirectory. For example:
   1. Atlas/final/1234\_left\_lfseg\_heur.nii.gz
   2. Atlas /final/1234\_right\_lfseg\_heur.nii.gz
2. Open up the thickness\_calculation.sh script with your desired editor. It is currently set up for parallel processing, so you may have to create a simple for loop. Also, change the following three inputs:
   1. List of subject IDs
   2. Path to input/output directories
   3. Segmentation suffix (example: ‘lfseg\_heur’)
   4. The name of the subfield and associated threshold value, ex. CA1 is thresholded at 1, so we enter subfields[CA1]=0.9,1.1
3. This will create a subfolder under final for each subject called ‘subfield\_thickness’. This has individual binarized masks for the left and right subregions (CA1, CA23D, ERC, PHG, SUB).
4. Once this is complete, open up the MLI\_Thickness folder and open up the ‘subfield\_thickness.m’ Matlab file. This must be run locally.
5. In this Matlab script, edit the Subjects list. Note the subjects must be enclosed in single quotes. Edit the three parameters outlined in Step 3, but in the Matlab Script. Make sure the path is for the folder based on your local computer, not on the grid.
6. Run the script, which will output a .txt file.
7. Convert the .txt to a .csv file by simply changing the file extension.