**Instructions for using estimPlaceFields\_3chamber\_notdeconvolved.m**

This code is to use on Calcium data that has not been deconvolved.

This version of the code asks the user to input the cell number for which you want to run the code. To run the code on all neurons just run the code inside a giant for loop.

Load data instructions

data.mat should contain the following variables

alldeltaf\_C - the deltaf value (each row is the deltaf of a neuron)

X\_scope, Y\_scope - x and y positions of the animal (1 x time series)

Variables to alter

tau\_gcamp - assumed timescale of Ca dye impulse response (s) – change this according to calcium sensor used (e.g tau\_gcamp =1 for Gcamp6s)

dtbin - assumed time bin size for data (s) – inverse of imaging frame rate

xybinwidth - grid spacing for spatial points