PART 1:

1. Generate simulated data using simdata\_gen script.
2. For each set of simulated data:
   1. Run parameter estimation using given scripts (simulation0, simulation1, etc.)
   2. Run KFS script to filter simulated data using estimated parameters from above step.

PART 2:

1. Execute run.sh from code/Experiments/RealData folder to ensure scripts work on given “real data”

PART 3:

1. For each subject scan in BNU dataset:
   1. Run R-script to convert time-series graph to MATLAB object
      * dimensions = numROIs x numTimeSteps
   2. Run parameter estimation script on subject:
      * Y = subject scan
      * A = identity
      * C = identity
      * Q = identity
      * R = identity
      * Pi = first column of subject scan (ROIs values at first time-step)
      * V = identity
      * Tolerance = 1e-6
      * Iterations = 20
      * Output = [a, c, q, r, pi, v]
   3. Use estimated parameters to run KFS script on subject:
      * Input = [a, c, q, r, pi, v, y] from above, where y = subject scan
      * Output = [Fv1, Fv2, Fx1, Fx2, Sx, Sv, Scov]
   4. Save filtered outputs as .mat file
2. Run check\_mnr R-script on filtered subject time-series (Fx1) to get discriminability score.