

PART 1:

- 1) Generate simulated data using `simdata_gen` script.
- 2) For each set of simulated data:
 - a. Run parameter estimation using given scripts (`simulation0`, `simulation1`, etc.)
 - b. 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:
 - a. Run R-script to convert time-series graph to MATLAB object
 - `dimensions = numROIs x numTimeSteps`
 - b. 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]`
 - c. 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]`
 - d. Save filtered outputs as `.mat` file
- 2) Run `check_mnr` R-script on filtered subject time-series (`Fx1`) to get discriminability score.