

# Matlab Assignment - 10% of your grade, due 15th April

## Experiment 1

- Observe the time gaps between your next 30 WhatsApp messages. (You may replace WhatsApp with any instant messaging app of your choice.)
- Plot a histogram of your data using Matlab.
- Fit a density function on to your histogram, by using the appropriate Matlab tools.
- Based on your distribution, find the probability that the time elapsed until your next message is less than the expected time gap.

# Assignment - continued.

## Experiment 2

Repeat Experiment 1, but this time, record the time gaps between messages from one person - a person you communicate with sufficiently often.

Do the following for both experiments:

- Observe the time gaps between the next 10 messages you receive. If a time gap is less than the expected time gap, mark the observation as a Heads, otherwise as Tails.
- Record the number of Heads and Tails.

Upload your code as a text file into Google Classroom. **Make sure the name of your text file includes your name and roll number, otherwise your assignment will not be graded.** Type up the rest of your answer separately and upload that as well.