Assignment 3, part II
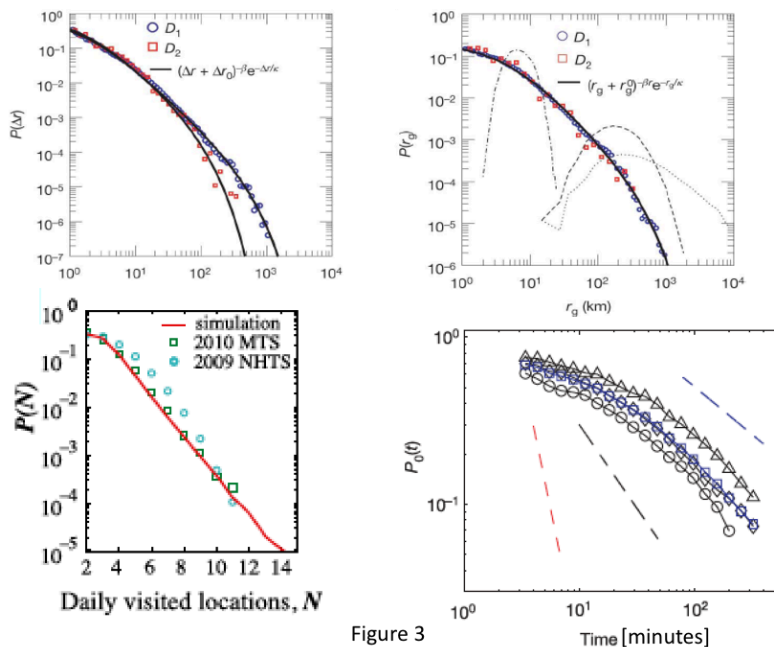
Note: The work on Problem 1 is optional, this 30 points will be uniformly added as the percentage you got in Assignment 3 part I if you choose not to reply it.

The advisers of the CEE department has received a request from graduate students, that given the circumstances, the faculty should consider scaling down the covered material and assignments. With that in mind I am making this question optional, such that the people most interested in the topic choose to work on it, the others could learn by reading the posted solution.

Problem 1: Analyzing Survey Data (30 pts)

Use day trip reported in the MassDOT travel survey. The data is explained in data mass2010 trip.xlsx and meta data.xlsx.
Merging the results of all the users plot the distributions of radius of gyration, haversine distance between stops, visited locations in the day and duration of stays. See figure 1 as guideline.

Figure 3

Problem 2: Project Preparation Guidelines (20 pts)

The goal for the final project is to evaluate how you create a story based on the analysis out of a dataset of your choice. The three parts of this problem are guidelines to lead you the content that you need to create a report and a mini project presentation.

Ideally you can dedicate most of your time in data analysis and exploration that is why I am asking that you have it already by the last week of October. Yet, if you need extra time to gather your data, let me know. The main goal is to have a meaningful project and an opportunity to learn.

Part I: Data Gathering and Reading (10 pts)

You have to select one or more data sets where you can apply the methods of analysis selected in class, and have some of it available for start reading and visualizing it. Describe here your data sets, demonstrate what you can read at this point and list other data sets that you may extract. Display an illustrative image of your data.

Part II: Data Analysis Plan (5pts)

Which methods studied in class you plan to apply. (note: you have to distribute different measurements for each member of the projects in groups).

Part III: Research Story (5pts)

Select a paper related with the selected dataset. It does not have to be exactly the same data. It is only important that you read and refer here something published about an analysis of the similar kind of network you chose. After you select a data set of your interest, we can help you to find an appropriate article for you to write about in you mini-project written report.