Assignments $\mathcal{N}^{\underline{o}}$ 5 - PART II

released: 16.01.2013   **due:** 22.01.2013, 10AM

Task 1: Number of Panels in SAOMs   5 points

(a) Within the examples in the lecture there were only a few panel observations. What conceptual problem might arise, if we apply the same estimation on many (say 15) consecutive panel observations? What workaround would you propose?

(b) You are planing to analyze the development of friendships within a group of university freshmen which are initially mutual strangers. What is a good schedule to collect your data, keeping in mind that each survey is costly and trying to prevent the resulting Jaccard indices to be less than 0.3?

Task 2: Parameter Interpretation in SAOMs   5 points

Within a longitudinal network analysis on *advice seeking* within a company, it was monitored whether people were senior employees (coded: 2) or not (coded: 1). One out of four employees was a senior employee. Assume the parameters for this *senior* covariate have been estimated as $\beta_{ego} = -0.5$, $\beta_{alter} = 0.7$ and $\beta_{same} = 0.4$, all of them significant. What kind of information is provided by these parameters? What are the *senior*-related contributions to the objective function?