

# 'Analysis of Social Networks using Ucinet and Siena'

## 15 - 19 December 2008

### Programme

#### Day 1. Introduction to Longitudinal Network Modelling

09:30-11:00	An introduction to stochastic actor-oriented models for network dynamics
11:00-11:15	<i>Coffee break</i>
11:15-12:45	Introduction to <i>SIENA</i>
12:45-14:00	<i>Lunch</i>
14:00-15:30	Hypothesis testing. Model specification.
15:30-15:45	<i>Tea break</i>
15:45-17:15	Continuation of computer work

#### Day 2. Dynamics of Networks and Behavior

09:30-11:00	Models for simultaneous dynamics of networks and behavior
11:00-11:15	<i>Coffee break</i>
11:15-12:45	Dynamics of networks and behavior: examples; specification in <i>SIENA</i>
12:45-14:00	<i>Lunch</i>
14:00-15:30	Continuation of computer work
15:30-15:45	<i>Tea break</i>
15:45-17:15	Model specification issues. Structurally determined values, and their use for sensitivity analysis.

#### Day 3. Non-longitudinal Network Data; Non-directed Networks

09:30-11:00	Modelling of non-longitudinal network data: Exponential Random Graph Models
11:00-11:15	<i>Coffee break</i>
11:15-12:45	Exponential Random Graph Modeling using <i>SIENA</i>
12:45-14:00	<i>Lunch</i>
14:00-15:30	Modelling of two-sided (non-directed) relations
15:30-15:45	<i>Tea break</i>
15:45-17:15	Continuation of computer work

#### Day 4. Multilevel network analysis; practical issues.

09:30-11:00	Multilevel longitudinal network analysis: combination of results from several groups.
11:00-11:15	<i>Coffee break</i>
11:15-12:45	Practical issues: missing data, combining waves or keeping them apart, small data sets, big data sets, reporting results.

## Some Literature

- Snijders, Tom A.B., The statistical evaluation of social network dynamics. M.E. Sobel and M.P. Becker (eds.), *Sociological Methodology-2001*, 361-395. Boston and London: Basil Blackwell.
- Snijders, Tom A.B. Models for Longitudinal Network Data. Chapter 11 in P. Carrington, J. Scott, & S. Wasserman (Eds.), *Models and Methods in Social Network Analysis*. New York: Cambridge University Press (2005), p. 215-247.
- Snijders, Tom A.B., Christian E.G. Steglich, Michael Schweinberger, and Mark Huisman. (2007). *Manual for SIENA version 3*. Groningen: University of Groningen, ICS. Oxford: University of Oxford, Department of Statistics.  
[http://www.stats.ox.ac.uk/~snijders/siena/s\\_man312.pdf](http://www.stats.ox.ac.uk/~snijders/siena/s_man312.pdf) pdf
- Snijders, T.A.B., Steglich, C.E.G., and van de Bunt, G.G. (2008). Introduction to actor-based models for network dynamics. (Tutorial.) *Submitted for publication*.  
<http://www.stats.ox.ac.uk/~snijders/siena/SnijdersSteglichVdBunt2008.pdf> pdf
- Steglich, Christian E.G., Snijders, Tom A.B. and Pearson, Michael. (2007). *Dynamic Networks and Behavior: Separating Selection from Influence*. Submitted for publication.  
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