

Longitudinal social network analysis with RSiena

Thursday, 10 January 2019 (10:00–18:00)

Instructor: [Dr Guido Conaldi](#)

The workshop will give an introduction to statistical modelling of longitudinal social network data and the basics of using the RSIENA computer programme.

The longitudinal network data are repeated observations of a directed graph on a given node set, where ties may depend both on nodes' own attributes (individual qualities and forms of similarity between individuals) and on the existence of other ties (with phenomena such as reciprocity, transitivity, cycles, popularity).

This workshop teaches statistical models to analyse data implemented in the RSIENA software, focusing on: the bases of statistical methodology; examples of possible applications to the social and economic sciences; and the use of the programme.

Requirements

It will be helpful for participants to know how to run R and how to give basic R commands on their machine (further knowledge of R is not required). Participants are advised to read in advance: the tutorial given in Snijders, T.A.B., Steglich, C.E.G., and van de Bunt, G.G. (2010); Introduction to actor-based models for network dynamics; *Social Networks*, 32, 44–60, and the RSIENA website instructions.

Learning outcomes

Participants will gain a non-technical understanding of the statistical models specifiable in RSIENA. Participants will also learn: how to manipulate their data in order to estimate stochastic actor-oriented using RSIENA; advanced modelling techniques for the simultaneous of structural and behavioural dynamics; goodness-of-fit assessment of estimate models.