Contribution ID : **30**   Type : **Contribution in Organized Session**

Estimating ERGMs with Missing Attribute Data - A Tutorial

martedì 2 maggio 2023 15:45 (15)

Estimating exponential random graph models (ERGMs) with missing data on nodal attributes (e.g., missing gender, age, ethnicity, ...) is currently not possible with the ergm() function of the ergm R-package, the most used software to estimate ERGMs. We have developed a new estimation of Bayesian ERGMs, implemented in the bergmM() function in the Bergm R-package, capable of estimating (Bayesian) ERGMs with missing nodal (and missing tie) data. The algorithm also provides, if desired, multiple imputation of the attributes (and tie-variables) to be used for additional analyses. In this presentation, we will explain the algorithm, its limitations and assumptions, as well as how to use it in practice.

Keywords

missing data, ergm, bergm

Topics

• Statistical methods and models for network analysis

Primary author(s) :   KRAUSE, Robert (University of Kentucky);   Prof. NIEZINK, Nynke (Carnegie Mellon University)

Presenter(s) :   KRAUSE, Robert (University of Kentucky)

Session Classification : Statistical models for networks

Track Classification : Statistical models for networks