The Additive and Multiplicative Effects Network Model

Seminar on Statistical Modeling of Social Networks

Daniel A. Seussler Becerra

xx. Juli 2021

Introduction

Network Effects

- · Dyadic Data
- · Get out of bed

Theory

The Additive Part

$$y_{ij} = \mu + e_{ij}$$
$$e_{ij} = a_i + b_j + e_{ij}$$

The Multiplicative Part

Goodness of Fit

- Dyadic and Triadic Dependency
- Trace Plots

Extensions

- Binary Data
- · Censored Data
- · Ordinal Data

Extension: Longitudinal Networks

- · Vector Auto Regression Models
- · Time as Interaction

Application: The Alliances Data Set

Network Statistics

- Statistic 1
- Statistic 2

Visualization

• Figure 1

Towards AME Models

- · SRM Results
- · Latent Factor Results

Final

- · Comparison with model xx
- · Goodness of Fit

Longitudinal Data 19xx-20xx

- Early Results
- · Identification Issues

The End

 $\boldsymbol{\cdot}$ Thank you very much for your attention!