

Preliminary Estimates with Rust data

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```
### Tables for software networks

rm(list=ls())

library(tidyverse)

## -- Attaching packages ----- tidyverse 1.3.0 --
## v ggplot2 3.3.3      v purrr  0.3.4
## v tibble  3.1.7      v dplyr  1.0.7
## v tidyr   1.1.4      v stringr 1.4.0
## v readr   2.1.0      v forcats 0.5.1
## Warning: package 'ggplot2' was built under R version 3.6.2
## Warning: package 'tidyr' was built under R version 3.6.2
## Warning: package 'readr' was built under R version 3.6.2
## Warning: package 'purrr' was built under R version 3.6.2
## Warning: package 'dplyr' was built under R version 3.6.2
## Warning: package 'forcats' was built under R version 3.6.2
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()

library(lighthergm)

# Folders and files
datafolder <- "/Users/Angelo/Dropbox/SoftwareNetworks/Data/Cargo/" # Macbook 15
#datafolder <- "C:/Users/amele1/Dropbox/SoftwareNetworks/Data/Cargo/" # ResPC New
datafilename <- "first_estimate_rust.Rdata"
datafile <- paste(datafolder, datafilename, sep = "")

load(datafile)

library(texreg)

## Version: 1.38.6
## Date: 2022-04-06
## Author: Philip Leifeld (University of Essex)
##
## Consider submitting praise using the praise or praise_interactive functions.
## Please cite the JSS article in your publications -- see citation("texreg").
```

	Model 1
edges	−5.34*** (0.00)
AIC	8821699.09
BIC	8821715.89
Log Likelihood	−4410848.54
*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$	

Table 1: Statistical models

	Model 1
edges	−5.64*** (0.00)
kstar2	0.01*** (0.00)
AIC	2395631.29
BIC	2395662.01
Log Likelihood	−1197813.64
*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$	

Table 2: Statistical models

```
##
## Attaching package: 'texreg'
## The following object is masked from 'package:tidyr':
##
##      extract
texreg(estimated$est_between)
texreg(estimated$est_within)
texreg(list(estimated$est_between,estimated$est_within))
#htmlreg(estimated$est_between)
#htmlreg(estimated$est_within)
library(xtable)
xtable(table(estimated$partition))

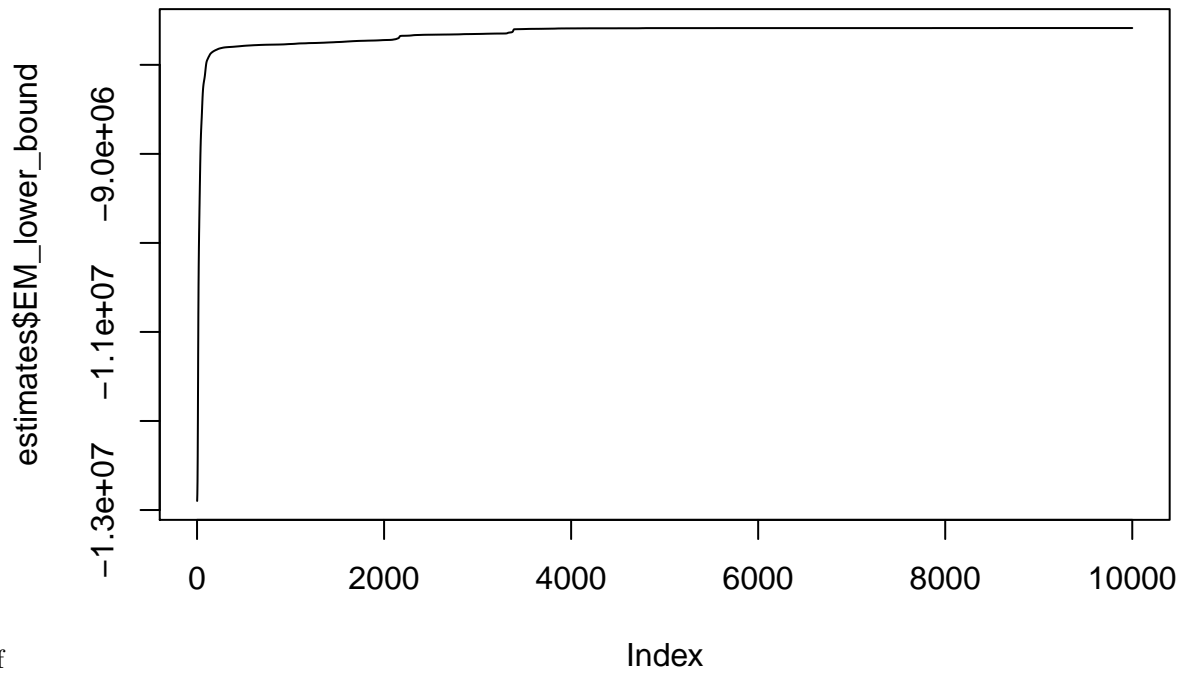
## % latex table generated in R 3.6.1 by xtable 1.8-4 package
## % Fri Oct 14 12:18:32 2022
## \begin{table}[ht]
```

	Model 1	Model 2
edges	−5.34*** (0.00)	−5.64*** (0.00)
kstar2		0.01*** (0.00)
AIC	8821699.09	2395631.29
BIC	8821715.89	2395662.01
Log Likelihood	−4410848.54	−1197813.64
*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$		

Table 3: Statistical models

```
## \centering
## \begin{tabular}{rr}
## \hline
## & V1 \\\
## \hline
## 1 & 504 \\\
## 2 & 1599 \\\
## 3 & 741 \\\
## 4 & 608 \\\
## 5 & 661 \\\
## 6 & 7489 \\\
## 7 & 2148 \\\
## 8 & 642 \\\
## 9 & 1804 \\\
## 10 & 885 \\\
## \hline
## \end{tabular}
## \end{table}
```

```
plot(estimates$EM_lower_bound, type = "l")
```



plot-1.pdf
““