

Statistical Analysis of Multivariate Egocentric Networks

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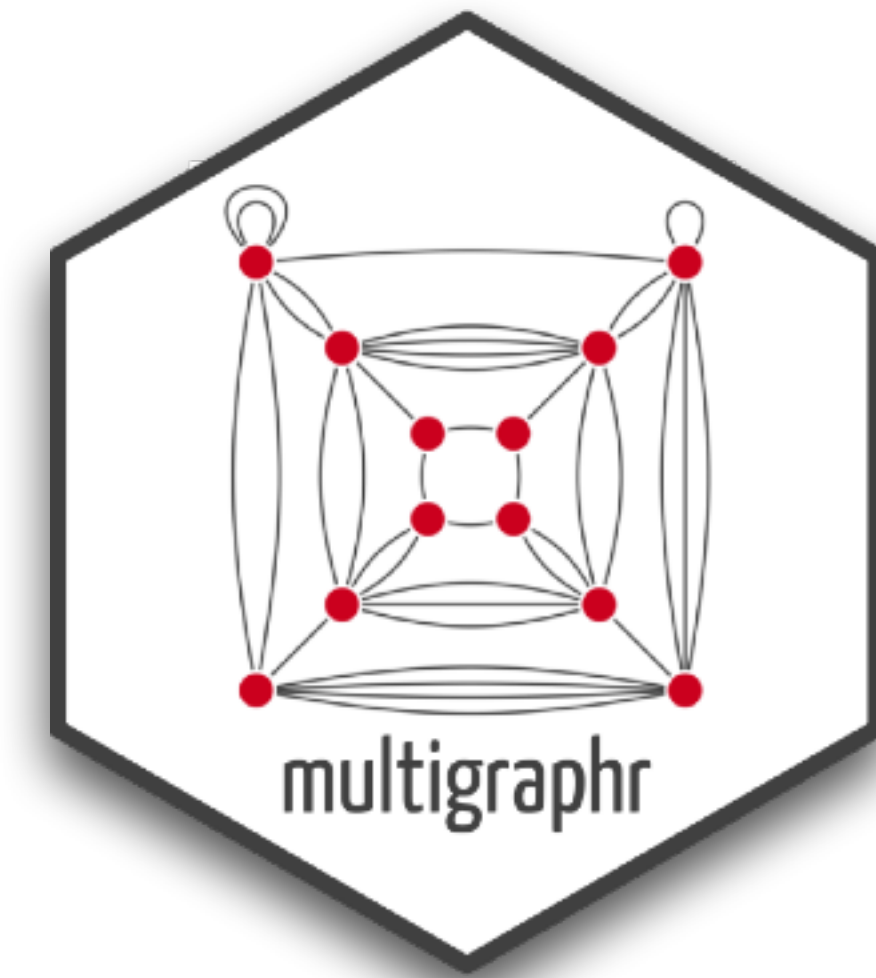
multigraph representation of network data

multivariate network data represented as multigraphs:
“graphs where multiple edges and self-edges are permitted”

methodological developments and software:

- ☑ two random multigraph models
- ☑ definition of several statistics to analyse structural features
- ☑ formal goodness of fit tests
- ☑ R package:

<https://cran.r-project.org/package=multigraphr>



limitation: currently only implemented for exact distributions of multigraphs

possible solutions:

- ☑ MC methods for approximating probability distributions
- ☑ focus on small networks such as ego nets