Highlights

- Because of the intractability of most models, methods for estimating Exponential Random Graph Models (ERGMs) are centered around approximations.

- On the other hand, *modern computers* make it feasible to enumerate sufficient statistics for large arrays of networks in a rather fast way.

- We wrote an R package that allows us estimate ERGMs for small networks, in particular, pooled models using exact statistics, and hence, obtaining Maximum Likelihood Estimates directly without using approximations.

- We find that in some cases using this "exact" estimation method makes a significant difference from both practical and statistical point of view. We call this extension ERGMito.

- Finally, exact calculation of ERGMs likelihoods opens a big window for new methodological innovations relative to small networks.