Research publications

Students funded by me are indicated by * and other students are indicated by **. Stewart* is tenure-track Assistant Professor, Department of Statistics, Florida State University. Babkin* is Senior Data & Applied Scientist, Microsoft.

Nandy**, Saikat, Holan, Scott H. and **Michael Schweinberger.** A socio-demographic latent space approach to spatial data when geography is important but not all-important. Submitted to the *Journal of the American Statistical Association.*

Stewart*, Jonathan R. and **Michael Schweinberger.** Pseudo-likelihood-based M-estimation of random graphs with dependent edges and parameter vectors of increasing dimension. Revised and resubmitted to *The Annals of Statistics.*

Jeon, Minjeong and **Michael Schweinberger.** Latent process models for monitoring progress towards hard-to-measure targets, with applications to mental health and online educational assessments. Revised and resubmitted to *The Annals of Applied Statistics.* **Equal contributions.**

Grieshop**, Nicholas, Feng**, Yong, Hu, Guanyu and **Michael Schweinberger.** A continuous-time stochastic process for high-resolution network data in sports. Submitted to *Statistica Sinica.* **Invited.**

Eli*, Sean and **Michael Schweinberger.** Non-asymptotic model selection for models of network data with parameter vectors of increasing dimension. Submitted to the *Journal of Statistical Planning and Inference.*

Schweinberger, Michael and Cornelius Fritz (2023). Discussion of "A tale of two datasets: Representativeness and generalisability of inference for samples of networks" by Pavel N. Krivitsky, Pietro Coletti, and Niel Hens. *Journal of the American Statistical Association.* **Invited.**

Schweinberger, Michael, Bomiriya**, Rashmi P., and Sergii Babkin* (2022). A semiparametric Bayesian approach to epidemics, with application to the spread of the coronavirus MERS in South Korea in 2015. *Journal of Nonparametric Statistics,* 34, 628–662.

Jin, Ick Hoon, Jeon, Minjeong, **Schweinberger, Michael**, Yun, Jonghyun, and Lizhen Lin (2022). Multilevel network item response modeling for discovering differences between

innovation and regular school systems in Korea. *Journal of the Royal Statistical Society, Series C (Applied Statistics),* 71, 1225–1244.

Park, Jaewoo, Jin, Ick Hoon, and **Michael Schweinberger** (2022). Bayesian model selection for high-dimensional Ising models, with applications to educational data. *Computational Statistics & Data Analysis,* 165, 1–20.

Schweinberger, Michael (2022). Discussion to: "Bayesian graphical models for modern biological applications" by Yang Ni, Veerabhadran Baladandayuthapani, Marina Vannucci, and Francesco C. Stingo. *Statistical Methods & Applications (Journal of the Italian Statistical Society),* 31, 253–260. **Invited.**

Jeon, Minjeong, Jin, Ick Hoon, **Schweinberger, Michael,** and Samuel Baugh** (2021). Mapping unobserved item-respondent interactions: A latent space item response model with interaction map. *Psychometrika,* 86, 378–403. **The first three authors made equal contributions. The order of the first three authors is alphabetical.**

Schweinberger, Michael, Stingo, Francesco C., and Maria P. Vitale (2021). Special issue on statistical analysis of networks. *Statistical Methods & Applications (Journal of the Italian Statistical Society),* 30, 1285–1288. **Invited.**

Schweinberger, Michael and Jonathan R. Stewart* (2020). Concentration and consistency results for canonical and curved exponential-family models of random graphs. *The Annals of Statistics,* 48, 374–396.

Schweinberger, Michael, Krivitsky, Pavel N., Butts, Carter T., and Jonathan R. Stewart* (2020). Exponential-family models of random graphs: Inference in finite, super, and infinite population scenarios. *Statistical Science,* 35, 627–662.

Schweinberger, Michael (2020). Consistent structure estimation of exponential-family random graph models with block structure. *Bernoulli,* 26, 1205–1233.

Schweinberger, Michael (2020). Statistical inference for continuous-time Markov processes with block structure based on discrete-time network data. *Statistica Neerlandica,* 74, 342–362.

Babkin*, Sergii, Stewart*, Jonathan R., Long**, Xiaochen, and **Michael Schweinberger** (2020). Large-scale estimation of random graph models with local dependence. *Computational Statistics & Data Analysis,* 152, 1–19.

Stewart*, Jonathan R., **Schweinberger, Michael,** Bojanowski, Michal, and Martina Morris (2019). Multilevel networks facilitate statistical inference for curved ERGMs with geometrically weighted terms. *Social Networks,* 59, 98–119.

Schweinberger, Michael (2019). Random graphs. *Wiley StatsRef: Statistics Reference Online.* Edited by Brian Everitt, Geert Molenberghs, Walter Piegorsch, Fabrizio Ruggeri, Marie Davidian, and Ron Kenett. **Invited.**

Schweinberger, Michael and Pamela Luna** (2018). hergm: Hierarchical exponential-family random graph models. *Journal of Statistical Software,* 85, 1–39.

Cao**, Ming, Chen, Yong, Fujimoto, Kayo, and **Michael Schweinberger** (2018). A two-stage working model strategy for network analysis under hierarchical exponential random graph models. *Proceedings of the 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining,* 290–298. Acceptance rate: 15%.

Schweinberger, Michael, Babkin*, Sergii, and Katherine B. Ensor (2017). High-dimensional multivariate time series with additional structure. *Journal of Computational and Graphical Statistics,* 26, 610–622.

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Schweinberger, Michael, Krivitsky, Pavel N., and Carter T. Butts (2017). A note on the role of projectivity in likelihood-based inference for random graph models.

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