Selected lines of research

Students and postdoctoral scholars funded by me are indicated by *. Students and postdoctoral scholars funded by others are indicated by **.

Causal inference under network interference (statistical models, methods, and theory, with Subhankar Bhadra*)

A regression framework for studying attributes under network interference, which is scalable and interpretable (statistical models, methods, and theory, with Cornelius Fritz*, Subhankar Bhadra*, and David R. Hunter)

High-dimensional network models (statistical models, methods, and theory, with Jonathan R. Stewart*, Pegah Golestaneh**, and Johannes Lederer)

Personalized mental health and online educational assessments (statistical models and applications, with Minjeong Jeon, Samuel Baugh, Alyssa Hu**, and Matthew Beckman)

Construction of novel stochastic models with applications to economic, social, and other phenomena involving networks, space, or time (with Cornelius Fritz*, Yubai Yuan, Angelo Mele, Co-Pierre Georg, Saikat Nandy**, and Scott Holan).

Research preprints under peer review

Students and postdoctoral scholars funded by me are indicated by *. Students and postdoctoral scholars funded by others are indicated by **.

Fritz*, Cornelius, **Schweinberger, Michael,** Bhadra*, Subhankar, and David R. Hunter. *A regression framework for studying relationships among attributes under network interference.* To be submitted to the *Journal of the American Statistical Association.*

Jeon, Minjeong and **Michael Schweinberger.** *Personalized progress: An exploratory approach based on progress maps.* Submitted to *Psychometrika* in April 2024.

Fritz*, Cornelius, Georg, Co-Pierre, Mele, Angelo and **Michael Schweinberger.** *A strategic model of software dependency networks.* Submitted to the *Twenty-Fifth ACM Conference on Economics and Computation (EC24)* in February 2024. **The order of authors is alphabetical.**

Grieshop**, Nicholas, Feng**, Yong, Hu, Guanyu and **Michael Schweinberger.** A continuous-time stochastic process for high-resolution network data in sports. Decision by *Statistica Sinica* in May 2024: invited minor revision. Revision resubmitted to *Statistica Sinica* in May 2024. **Invited.**

Stewart*, Jonathan R. and **Michael Schweinberger.** Pseudo-likelihood-based M-estimation of random graphs with dependent edges and parameter vectors of increasing dimension. Decision by *The Annals of Statistics* in June 2023: invited major revision. Revision resubmitted to *The Annals of Statistics* in December 2023.

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 Annals of Applied Statistics* in September 2023.

Accepted peer-reviewed and editor-reviewed research publications

Students and postdoctoral scholars funded by me are indicated by *. Students and postdoctoral scholars funded by others are indicated by **.

Eli*, Sean and **Michael Schweinberger** (2024+). Non-asymptotic model selection for models of network data with parameter vectors of increasing dimension. Accepted by the *Journal of Statistical Planning and Inference* in April 2024.

Jeon, Minjeong and **Michael Schweinberger** (2024+). Latent process models for monitoring progress towards hard-to-measure targets, with applications to mental health and online educational assessments. Accepted by *The Annals of Applied Statistics* in January 2024. **Equal contributions. The order of authors is alphabetical.**

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,* 118, 2225–2227. **Invited. Editor-reviewed.**

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