

Jonathan Stewart

CONTACT INFORMATION

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EDUCATION

Ph.D. in Statistics (Expected 2020), *Rice University*

Thesis: Statistical models, methods, and theory for exponential-family random graph models with overlapping block structure.

Committee: Dr. Michael Schweinberger (chair), Dr. Dennis Cox, and Dr. James Brown.

M.A. in Statistics (2018), *Rice University*

B.A. in Statistics (2013), *Rice University*

PUBLISHED PAPERS AND PAPERS IN PRESS

1. SCHWEINBERGER, M., AND **Stewart, J.** Concentration and consistency results for canonical and curved exponential-family models of random graphs. *Annals of Statistics*, to appear (2019). [PDF]
2. SCHWEINBERGER, M., KRIVITSKY, P. N., BUTTS, C. T., AND **Stewart, J.** Exponential-family models of random graphs: Inference in finite-, super-, and infinite-population scenarios, *Statistical Science*, to appear (2019). [PDF]
3. **Stewart, J.**, SCHWEINBERGER, M., MORRIS, M., AND BOJANOWSKI, M. Multi-level network data facilitate statistical inference for curved ergms with geometrically weighted terms. *Social Networks*, 59 (2019), 98–119. [PDF]
4. CAMPBELL, I. M., **Stewart, J. R.**, JAMES, R. A., LUPSKI, J. R., STANKIEWICZ, P., OLOFSSON, P., AND SHAW, C. A. Parent of origin, mosaicism, and recurrence risk: Probabilistic modeling explains the broken symmetry of transmission genetics. *The American Journal of Human Genetics*, 95 (4) (2014), 345–359. [PDF]

PAPERS IN PREPARATION

5. **Stewart, J.** AND SCHWEINBERGER, M. Generalized β -models with dependent edges and parameter vectors of increasing dimension, in preparation (2019).
6. FUJIMOTO, K., **Stewart, J.**, WESTHERIM, J., BRAUCHLE, N., HALLMARK, C., BENBOW, N., D'AQUILA, R., SCHNEIDER, J.A., SCHWEINBERGER, M. Characterizing hotspot HIV transmission networks, in preparation (2019).

SOFTWARE

R package mlergm (*Creator, author, maintainer*)

Exponential-family random graph models for multilevel network data with known structure
More than 4,500 downloads since December, 2018

R package hergm (*Author*)

Hierarchical exponential-family random graph models with local dependence
More than 48,000 downloads

PRESENTATIONS AND SESSIONS

2020 Co-organizer, Workshop on Multilevel and Hierarchical Exponential-Family Random Random Graph Models With Local Dependence

*International Sunbelt Social Networks Conference, Paris, France
(required by NSF award DMS-1812119)*

International Conference on Computational and Methodological Statistics 2019, London, UK

Generalized β -models with dependent edges and parameter vectors of increasing dimension

International Sunbelt Social Network Conference 2019, Montreal, CA

Multilevel ERGMs with overlapping subsets of nodes: models, methods, and statistical theory

Joint Statistical Meeting, Section on Statistical Graphics 2012, San Diego, US

Graphical inference and the hanging rootogram

AWARDS

2019 Recipient of the James R. Thompson Student Award

Awarded annually to up to two PhD students in the Department of Statistics at Rice University for excellence in research

Travel Award, Department of Statistics, Rice University

Funding to attend and present at the 2019 CMStatistics conference

Travel Award, International Network for Social Network Analysis

Funding to attend and present at the 2019 INSNA Sunbelt conference in Montreal

Travel Award, Department of Statistics, Rice University

Funding to attend and present at the 2019 INSNA Sunbelt conference in Montreal

2012 Duncan College Master's Service Award, Rice University

Awarded once annually for outstanding service to the university and Duncan College

RESEARCH GRANTS

2018-2019 Consultant: NIH / NIMH award 1R01MH100021

YMAP: Young Men's Affiliation Project of HIV risk and prevention venue

PIs: Kayo Fujimoto, UTHealth Science Center, Houston and John A. Schneider, University of Chicago

SERVICE TO DEPARTMENT

Local co-organizer

A Symposium on Optimal Stopping Time, June 25–29, 2018

<http://www.optimalstopping.com>

Department Representative to the Graduate Student Association

Statistics department voting representative (Academic years 2014–2015 and 2015–2016)

SERVICE TO PROFESSION

Review for Wiley

PROFESSIONAL MEMBERSHIPS

Institute of Mathematical Statistics

SERVICE TO UNIVERSITY

Student Association Senate Parliamentarian

Academic years 2009–2010, 2010–2011, and 2011–2012

Vice President, Duncan Residential College

Academic years 2010–2011 and 2011–2012

Primary author of college constitution and governing documents

Secretary, Jones Residential College

Academic year 2009–2010

SKILLS

Languages English (fluent)

Programming R and C/C++