



Cornell University

Cornell Statistics Graduate Society (SGS)

2016 Newsletter



SGS members during Open House Day, Mar 11, 2016

Newly established in Spring 2016, we are the official graduate student organization of Cornell University's Statistics field. Run by graduate students, SGS aims to make all aspects of graduate student life - academic, social, and professional - more enjoyable, and is responsible for representing graduate students' concerns to the Statistics department, graduate school, and Computing and Information Science (CIS).

SGS membership is open to all Cornell-affiliated graduate and professional students. To join SGS, register at <https://orgsync.com/143652/>.

In 2016, we organized...

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- Bi-weekly **student seminars** where students presented their research in a friendly environment.
- Weekly **reading group** to read and discuss papers, both cutting-edge and classic.
- Bi-weekly **lunch with faculty** to discuss research in an intimate setting.
- End-of-semester **farewell dinner (May 26, 2016)** to commemorate the graduating class and celebrate the end of the academic year.



Lunch with faculty on Mar 18, 2016.

From left to right: Professor Jacob Bien, Yichen Zhou, Benjamin Baer, and Chang Chao

- “**Cornellians at JSM 2016**” mixer (Aug 1, 2016), inaugural mixer for alumni, current students, faculty, and colleagues at the Joint Statistical Meetings.
- “Welcome to Cornell” incoming first years **orientation dinner** (Aug 22, 2016).
- Welcome-back-to-fall **pizza and bowling party** (Sep 16, 2016).
- End-of-the-semester **social event**: board games and skating (Nov 13, 2016).



Alumni in attendance (graduation year, current position):

- Irina Gaynanova (2015, assistant professor at Texas A&M University)
- Benjamin Risk (2015, postdoctoral researcher at University of North Carolina Chapel Hill and SAMSI)
- Muting Wan (2014, statistician at New York Life)
- Pengsheng Ji (2012, assistant professor at University of Georgia)
- Luo Xiao (2012, assistant professor at North Carolina State University)
- Benjamin Shaby (2009, assistant professor at Penn State University)

Stay tuned for the 2017 edition, at JSM 2017 Baltimore!

We also set up:

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- A new **LinkedIn group**¹ for alumni and current students
- A **list of resources**² for graduate students, covering printing, communication, funding, software, etc.
- A new **microwave** for Malott 101

Finally, we helped out with...

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- **CIS Social Hour**, a weekly gathering with our CIS friends in Gates Hall
- **CIS Staff Appreciation Day (Mar 21, 2016)**, in collaboration with the Computer Science and Information Science graduate societies, to celebrate CIS administrative and IT staff

In the works...

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- **Free t-shirts!**

¹ <https://www.linkedin.com/groups/8485441>

² <https://github.com/siriuz42/CSGS/blob/master/resources.md>

Kudos

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graduation



Congratulations to **Laurie Tupper** and **Will Nicholson**, who defended their PhD dissertations in Summer 2016. Pictured here with their advisor, Professor David Matteson. Laurie accepted an assistant professor position at Williams College, and Will joined Quantbot Technologies, an investment firm based in NYC.

Congratulations to **MPS students** who graduated in 2016! MPS graduates found jobs as data analysts, statisticians, programmers, and consultants. More information in the post-graduation report.³

³ <http://stat.cornell.edu/news/heres-how-well-our-mps-grads-fared-job-market>

Publications (published or accepted in 2016)

Dan Kowal

- *A Bayesian Multivariate Functional Dynamic Linear Model*, co-authored with Professor David Matteson and Professor David Ruppert, published in **Journal of the American Statistical Association**.
- *Functional autoregression for sparsely sampled data*, co-authored with Professor David Matteson and Professor David Ruppert, accepted by **Journal of Business & Economic Statistics**.
- *Mechanical heterogeneities in the subendothelial matrix develop with age and decrease with exercise*, in collaboration with Cornell Biomedical Engineering colleagues, published in **Journal of Biomechanics**.

Amy Willis

- *Extrapolating abundance curves has no predictive power for estimating microbial biodiversity*, accepted by **Proceedings of the National Academy of Sciences**.
- *Improved detection of changes in species richness in high-diversity microbial communities*, co-authored with Professor John Bunge, accepted by **Journal of the Royal Statistical Society: Series C**.
- *Influencing the tumor microenvironment: Phase 2 Study of Copper depletion with tetrathiomolybdate in high risk breast cancer and preclinical models of lung metastases*, in collaboration with Weill Cornell Medical colleagues, published in **Clinical Cancer Research**.
- *Nonstandard regular variation of in-degree and out-degree in the preferential attachment model*, co-authored with Professor Sidney Resnick, published in **Journal of Applied Probability**.

Keegan Kang - *Improving the Recovery Of Principal Components with Semi Deterministic Random Projections*, co-authored with Professor Giles Hooker, in proceedings of **IEEE Conference on Information Sciences and Systems 2016**.

Guo Yu - *Learning Local Dependence In Ordered Data*, co-authored with Professor Jacob Bien, accepted by **Journal of Machine Learning Research**.

Ze Jin

- *The Difference-of-Datasets Framework: A Statistical Method to Discover Insight*, in proceedings of [IEEE International Conference on Big Data 2016](#).
- *The analysis of the regression-discontinuity design in R*, co-authored with Professor Felix Thoemmes, published in [Journal of Educational and Behavioral Statistics](#).

Will Nicholson - VARX-L: Structured Regularization for Large Vector Autoregressions with Exogenous Variables, co-authored with Professor David Matteson and Professor Jacob Bien, accepted by [International Journal of Forecasting](#).

Awards

Dan Kowal - American Statistical Association Section on Bayesian Statistical Science Student Travel Award

Sarah Tan - American Sociological Association CITAMS and CBSM Sections Best Paper Award, American Statistical Association Section for Section for Statistical Programmers and Analysts Student Travel Award, Cornell Graduate School Research Travel Grant, Harmony Institute Research Fellowship

Cornell Graduate School Conference Travel Grant

Ze Jin

Dan Kowal

Keegan Kang

Will Nicholson

Xiaoyun Quan

Sarah Tan

Laurie Tupper

Xiaohan Yan

Guo Yu

Software

Will Nicholson - BigVAR R package for dimension reduction for multivariate time series now available on CRAN.

Amy Willis - breakaway R package for species richness estimation and modeling updated on CRAN.

Xiaohan Yan - hsm: A Path-Based BCD for Proximal Function of Latent Group Lasso R package now available on CRAN.

Conferences and Workshops

Dan Kowal, Xiaohan Yan, Guo Yu, Laurie Tupper, Ze Jin, and Sarah Tan presented their work at JSM 2016 Chicago.

Xiaoyun Quan presented her work at IWSM 2016 Rennes.

Xiaohan Yan presented his work at the Amazon Graduate Research Symposium and Google PhD Summit.

Ze Jin presented his work at the Institute of Education Sciences 2016 Principal Investigators Meeting.

Sarah Tan participated in the SAMSI IMSM 2016 workshop in North Carolina, and presented her work at NIPS 2016 Barcelona workshops and the 2016 Atlantic Causal Inference Conference.

Internships

Several of our own spent summer 2016 interning at exciting places, including research labs, hedge funds, pharmaceutical and biotechnology companies, game companies, insurance companies, etc. Congratulations **Ben Athiwaratkun, Daniel Gilbert, Ze Jin, Keegan Kang, Skyler Seto, David Sinclair, Xiaohan Yan, Wenyu Zhang, and Yichen Zhou.**

Academic Service

Amy Willis taught workshops on R and statistics at STAMPS 2016, a 10-day workshop for microbiologists. This is Amy's fourth consecutive year teaching at STAMPS.

Sarah Tan co-organized the 11th Women in Machine Learning workshop, co-located with NIPS, and a session on "Statistics for Social Good" at JSM 2016.

Stay in Touch

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If you're a current student, the **department representative** (Benjamin Baer) is your advocate for any issues.

Alumni and current students - join our **LinkedIn group**⁴ for job postings and event invitations.

To reach Cornell Statistics graduate students directly with job opportunities, tutoring requests, collaboration or consulting opportunities, contact us at **statsociety@cornell.edu**

⁴ <https://www.linkedin.com/groups/8485441>

We thank our Spring & Summer 2016 board members for their service, and welcome our new board members for the 2016-2017 academic year.

SGS Executive Board, Spring & Summer 2016

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Faculty advisors, Professor Martin Wells and Professor Giles Hooker

Student advisor, Will Nicholson

President & CIS representative, Sarah Tan

Secretary, Wenyu Zhang

Treasurer, Yang Liu

Department & graduate school representative, Benjamin Baer

Faculty lunch organizer, Daqian Sun

Student seminar organizer, Xiaohan Yan

Reading group organizer, Chang Cao

Alumni relations manager, Xiaoyun Quan

Webmaster, Yichen Zhou

Social Planners, Skyler Seto & Ben Athiwaratkun

SGS Executive Board, 2016-2017

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Faculty advisor, Professor Martin Wells

President, Sarah Tan

Secretary, Wenyu Zhang

Treasurer, Yang Liu

Department representative, Benjamin Baer

Graduate school representative, Seowon Jeong

CIS representative, Megan Gelsinger

Faculty lunch organizer, Ziyi Chen

Student seminar organizer, Daniel Kowal

Reading group organizer, Skyler Seto & Ben Athiwaratkun

Alumni relations manager, Zhengze Zhou

Webmaster, Yichen Zhou

Social Planners, Huijie Feng, Indrayudh Ghosal, Yi Su