

Wenna Xi

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RESEARCH INTERESTS

Co-Location Networks, Social Networks, Human Activity Space/Patterns, Spatial Statistics, Longitudinal Data, Bayesian Modeling and Computation, Correlated Data, Mixture Models.

EDUCATION

The Ohio State University, Columbus OH

- Ph.D., Biostatistics Expected: Aug 2019
 - *Advisor*: Catherine A. (Kate) Calder
 - *Dissertation*: Bayesian Non-Negative Matrix Factorization for Analyzing Co-Location Networks
- M.S., Statistics Dec 2018
- M.S., Public Health Aug 2014
 - *Advisor*: Michael L. Pennell
 - *Thesis*: Comparing the Statistical Power of Analysis of Covariance after Multiple Imputation and the Mixed Model in Testing the Treatment Effect for Pre-Post Studies with Loss to Follow-up

University of Science and Technology of China, Hefei China

- M.S., Biomathematics Jun 2012
 - *Advisor*: Yi Wang
 - *Thesis*: Principle of Competitive Exclusion in Chemostat with Almost Periodic/Quasiperiodic Nutrient Input

Northwest Normal University, Lanzhou China

- B.S., Mathematics Jun 2010
 - *Thesis*: Some Problems of Modern Intraclass Correlation Coefficients in the Sight of the Original Definition

WORK EXPERIENCE

The Ohio State University

Research Associate, Center of Excellence in Regulatory Tobacco Science (OSU-CERTS) Sep 2015 – Aug 2018
Research Associate, College of Public Health May 2015 – Aug 2015
Teaching Associate, College of Public Health Aug 2014 – May 2015
Research Intern, Department of Otolaryngology May 2013 – Aug 2013

University of Science and Technology of China

Research Assistant, Department of Mathematics Feb 2012 – Jun 2013
Teaching Assistant, Department of Mathematics Feb 2011 – Jan 2012

PUBLICATIONS

Methodology

1. Xi, W., Pennell, M. L., Andridge, R. R., and Paskett, E. D. (2018). Comparison of intent-to-treat analysis strategies for pre-post studies with loss to follow-up. *Contemporary Clinical Trials Communications*, 11:20–29. <https://doi.org/10.1016/j.conctc.2018.05.008>

Applications

7. Burgoon, M. L., Albani, T., Keller-Hamilton, B., Lu, B., Roberts, M. E., Craigmile, P. F., Browning, C. R., **Xi, W.**, and Ferketich, A. K. (2019) Between home and school: Exposures to the tobacco retail environment among adolescent boys. *In Press at The American Journal of Drug and Alcohol Abuse*. <https://doi.org/10.1080/00952990.2018.1549562>
6. Sweet, L., Brasky, T. M., Cooper, S., Doogan, N., Hinton, A., Klein, E. G., Nagaraja, H., Quisenberry, A., **Xi, W.**, and Wewers, M. E. (2018). Quitting behaviors among dual cigarette/e-cigarette users and cigarette smokers enrolled in the tobacco user adult cohort (TUAC). *Nicotine & Tobacco Research*. <https://doi.org/10.1016/j.addbeh.2018.08.035>
5. Roberts, M. E., Keller-Hamilton, B., Hinton, A., Browning, C. R., Slater, M. D., **Xi, W.**, and Ferketich, A. K. (2019). The magnitude and impact of tobacco marketing exposure in adolescents' day-to-day lives: An ecological momentary assessment (EMA) study. *Addictive behaviors*, 88:144–149. <https://doi.org/10.1016/j.addbeh.2018.08.035>
4. Quisenberry, A. J., Klein, E. G., Hinton, A., Doogan, N. J., Brasky, T. M., **Xi, W.**, Cooper, S., Nagaraja, H. N., and Wewers, M. E. (2018). E-cigarette and combustible tobacco use motivations among exclusive and dual e-cigarette users. *Tobacco Regulatory Science*, 4(4):63–72. <https://doi.org/10.18001/TRS.4.4.7>
3. Doogan, N. J., Cooper, S., Quisenberry, A. J., Brasky, T. M., Browning, C. R., Klein, E. G., Hinton, A., Nagaraja, H. N., **Xi, W.**, and Wewers, M. E. (2018). The role of travel distance and price promotions in tobacco product purchase quantity. *Health & place*, 51:151–157. <https://doi.org/10.1016/j.healthplace.2018.03.009>
2. Brasky, T. M., Hinton, A., Doogan, N. J., Cooper, S. E., Nagaraja, H. N., **Xi, W.**, Shields, P. G., and Wewers, M. E. (2018). Characteristics of the tobacco user adult cohort in urban and rural ohio. *Tobacco regulatory science*, 4(1):614–630. <https://doi.org/10.18001/TRS.4.1.8>
1. Wong, P., Wang, X., **Xi, W.**, Li, L., and Yu, X. (2014). Mothers do not enhance phonemic contrasts of mandarin lexical tones in child-directed speech. *The Journal of the Acoustical Society of America*, 135(4):2316–2316. <https://doi.org/10.1121/1.4877637>

Manuscripts under Review

2. Quisenberry, A. J., Hinton, A., **Xi, W.**, Klein, E. G., Brasky, T. M., Cooper, S. E., Nagaraja, H. N., and Wewers, M. E. The association between ENDS flavor and tobacco product reduction and cessation in dual cigarettes/ENDS and ENDS only users. *Under Review at Tobacco Regulatory Science*.
1. **Xi, W.**, Hinton, A., Sukasih, A., Krotki, K., Keller-Hamilton, B., Ferketich, A. K., and Lu, B. Analysis of combined probability and non-probability samples: A simulation evaluation and application to a teen smoking behavior survey *Under Review at Journal of Survey Statistics and Methodology*.

Manuscripts in Preparation

2. **Xi, W.**, Calder, C. A., and Browning, C. R. Community detection in co-location networks.
1. **Xi, W.**, Calder, C. A., and Browning, C. R. Bayesian non-negative matrix factorization for analyzing co-location networks.

PRESENTATIONS AND POSTERS

Presentations

1. **Xi, W.**, Calder, C. A., and Browning, C. R. Detecting Communities in Co-location Networks Using Bayesian Non-Negative Matrix Factorization.
- Seminar in Social Networks, OSU, Columbus OH, Oct 2018.

Posters

3. **Xi, W.**, Calder, C. A., and Browning, C. R.. Bayesian Co-Location Networks: Construction, Privacy Concerns, and Latent Structure Identification.
 - Privacy in Graphs (PiG) Workshop at UC Santa Cruz, Santa Cruz CA, Nov 2018
2. **Xi, W.**, Calder, C. A., and Browning, C. R.. Bayesian Non-Negative Matrix Factorization for Analyzing Co-Location Networks.
 - ICMDs (International Conference on Mathematics of Data Science), Norfolk VA, Nov 2018.
 - Received the Best Presentation Award
 - OSU Statistics/Biostatistics Graduate Student Poster Session, Columbus OH, Sep 2017/2018.
 - Joint Statistical Meetings (JSM), Vancouver Canada, Aug 2018.
 - OSU/CCF/CWRU Joint Biostatistics Symposium, Columbus OH, Apr 2018.
 - OSU Statistics Program Graduate Information Day (For Prospective Students), Columbus OH, Feb 2018.
1. **Xi, W.**, Pennell, M. L., Andridge, R. R., and Paskett, E. D.. Comparing the Statistical Power of Analysis of Covariance after Multiple Imputation and the Mixed Model in Testing the Treatment Effect for Pre-Post Studies with Loss to Follow-Up.
 - OSU/CCF/CWRU Joint Biostatistics Symposium, Cleveland OH, Apr 2015.
 - ENAR Spring Meeting, Miami FL, Mar 2015.
 - OSU Statistics/Biostatistics Graduate Student Poster Session, Columbus OH, Sep 2014.

TEACHING EXPERIENCE

The Ohio State University

- Summer 2015 (Grader w/ Office Hours)
 - PUBHBIO 7194 Group Studies in Biostatistics
- Spring 2015 (Grader w/ Office Hours)
 - PUBHBIO 6210 Design and Analysis of Studies in the Health Sciences I
 - PUBHBIO 7215 Design and Analysis of Clinical Trials
- Autumn 2014 (Grader w/ Office Hours)
 - PUBHBIO 6210 Design and Analysis of Studies in the Health Sciences I
 - PUBHBIO 6212 Regression Methods for the Health Sciences
 - PUBHBIO 7235 Applied Survival Analysis
 - PUBHBIO 7240 Applied Statistical Analysis with Missing Data

University of Science and Technology of China

- Autumn 2011 (Grader w/ Recitation Classes & Office Hours)
 - Calculus I (for Undergraduates in Computer Sciences)
- Spring 2011 (Grader w/ Recitation Classes & Office Hours)
 - Calculus II (for Undergraduates in Computer Sciences)

Northwest Normal University

- Autumn 2009 (Teaching Practicum)
 - High School Math in Chongqing, China

HONORS AND AWARDS

The Ohio State University

- Travel Fund for the PiG Workshop 2018 (\$1,200) Nov 2018
- Best Poster Presentation at ICMDs 2018 Nov 2018
- Travel Fund for ICMDs 2018 (\$500) Nov 2018
- Dr. Gary G. Koch and Mrs. Carolyn J. Koch Fellowship Aug 2018 - Aug 2019
- Delta Omega Since May 2015

University of Science and Technology of China

- Early Admission to USTC Graduate School with National Entrance Examination Waived
Oct 2009

Northwest Normal University

- Provincial “Three-Good” Student Honor Jun 2009
- National Encouragement Scholarship Nov 2008
- University “Three-Good” Student Honor Nov 2008
- University Learning Excellence Scholarship Nov 2008, 2009
- University Good Morality Scholarship Nov 2007, 2008

SERVICES

The Ohio State University

- *Panelist*, Graduate School Survival Skills Autumn 2018
- *Member*, College of Public Health Excellence in Teaching Award Committee Spring 2018
- *Chair*, ENAR Contributed Papers: Statistical Methods for Genomics Spring 2015

CERTIFICATES

- Suicide Prevention Program REACH® Training (OSU) Autumn 2018
- Diversity and Implicit Bias Training (OSU) Spring 2018
- Teaching Certificate (High School Math in China) Spring 2010
- Intel Future Oriented Teaching Diploma (China) Autumn 2007

PROFESSIONAL SKILLS

| | |
|-----------------|---|
| Software | R (tidyverse, NIMBLE, Shiny, doParallel), SAS, Stata, JMP, Minitab, L ^A T _E X |
| System | UNIX/Linux, macOS, Windows |

PROFESSIONAL MEMBERSHIP

- Caucus for Women in Statistics (CWS) Since 2018
- American Statistical Association (ASA) Since 2017
- Delta Omega Since 2015

REFERENCES

Catherine A. (Kate) Calder, Ph.D. *Advisor*

Professor, Department of Statistics, The Ohio State University
 Co-Director of the Mathematical Biosciences Institute (MBI), The Ohio State University
 Phone: (614)688-0004 E-mail: calder.13@osu.edu

Bo Lu, Ph.D. *Committee Member/Supervisor*

Professor, Division of Biostatistics, College of Public Health, The Ohio State University
 Member, Center of Excellence in Regulatory Tobacco Science, The Ohio State University
 Phone: (614)247-7913 E-mail: lu.232@osu.edu

Christopher R. Browning, Ph.D. *Committee Member/Collaborator*

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 Member, Center of Excellence in Regulatory Tobacco Science, The Ohio State University
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Haikady N. (Raj) Nagaraja, Ph.D. *Supervisor*

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 Core Director, Center of Excellence in Regulatory Tobacco Science, The Ohio State University
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