

Maria E. Kamenetsky

mkamenetsky@wisc.edu
mariakamenetsky.com
GitHub: [mkamenet3](https://github.com/mkamenet3)

Research Interests

Spatial and spatio-temporal cluster detection

Spatial epidemiology methods and applications

Education

2016–Present **Ph.D. Candidate, Epidemiology**, *University of Wisconsin-Madison*.
Department of Population Health Sciences
Minor: Computer Sciences
Advisors: Ronald Gangnon, Ph.D. & Jun Zhu, Ph.D.

2014–2016 **M.S., Statistics**, *University of Wisconsin-Madison*.
Department of Statistics

2007–2011 **B.A., Economics, Political Science, International Studies**.
Comprehensive Honors in Liberal Arts, *University of Wisconsin-Madison*.

Research Experience

2016–Present **Project Assistant (Statistical Consultant)**, *University of Wisconsin-Madison*.
College of Agricultural and Life Sciences (CALS) Statistical Consulting Group,
Department of Computing & Biometry *Madison, Wisconsin*

2017–2018 **Statistical Consultant**.
Madison Water Utility Madison, Wisconsin

2016 **Data Science Fellow**, *University of Chicago*, Center for Data Science & Public Policy.
Eric & Wendy Schmidt Data Science for Social Good Fellowship *Chicago, Illinois*

2015 **Graduate Research Assistant**, *University of Wisconsin-Madison*.
Center for Demography & Ecology *Madison, Wisconsin*

2011–2014 **Research Professional**, *University of Chicago*, Accounting Research Center.
University of Chicago Booth School of Business Chicago, Illinois

Research Publications

- 1 Lee, J., **Kamenetsky, M.**, Zhu, J., Gangnon, R. (2020). "Clustered spatio-temporal varying coefficient regression model." *Statistics in Medicine*.

- 2 Mallinson, D., **Kamenetsky, M.**, Hagen, E., Peppard, P. (2019). "Subjective sleep measurement: comparing sleep diary to questionnaire." *Nature and Science of Sleep* 11: 197-206.
- 3 Skarlupka, J., **Kamenetsky, M.**, Jewell, K., Suen, G. (2019). "The ruminal bacterial community in lactating dairy cows has limited variation on a day-to-day basis." *Journal of Animal Science and Biotechnology* 10: 66.
- 4 **Kamenetsky, M.**, Chi, G., Wang, D., Zhu, J. (2019). "Spatial Regression Analysis of Poverty in R." *Spatial Demography* 7(2-3): 1-35.

Oral Presentations

- Dec. 2020 Identification of Breast Cancer Spatial Structures Based on the Wisconsin Women's Health Study.
Kamenetsky, M.*, Trentham-Dietz, A., Newcomb, P., Gangnon, R.
 Society for Epidemiologic Research (SER) Annual Meeting *Virtual*
- Aug. 2020 Detecting Disease Clusters Across Space and Time Using Model Averaging.
Kamenetsky, M.*, Gangnon, R.
 American Statistical Association Joint Statistical (ASA) Meetings (JSM) *Virtual*
- Sep. 2019 Statistical Analysis of Madison Water Utility Main Breaks.
Kamenetsky, M.*, McClure, S.*
 Wisconsin Section of the American Water Works Association *Madison, WI*
- Aug. 2016 Predicting Enforcement of Pollution and Hazardous Waste Violations in New York State.
 Potash, E., Jin, J., **Kamenetsky, M.***, Magee, D., Van der Boor, P., Ghani, R.
 Data Science for Social Good Conference *Chicago, IL*

* indicates presenter.

Poster Presentations

- Mar. 2020 Space and Space-Time Cluster Detection Using the LASSO.
Kamenetsky, M., Lee, J., Zhu, J., Gangnon, R.
 UW-Madison Department of Population Health Sciences Annual Poster Session *Madison, WI*
- Jan. 2020 Space and Space-Time Cluster Detection Using the LASSO.
Kamenetsky, M., Lee, J., Zhu, J., Gangnon, R.
 UW-Madison Data Science Hub: Data Science Research Bazaar *Madison, WI*

Jun. 2019 Space and Space-Time Cluster Detection Using the LASSO.
Kamenetsky, M., Lee, J., Zhu, J., Gangnon, R.
Society for Epidemiologic Research (SER) Annual Meeting *Minneapolis, MN.*

Teaching

Instructor (Lecturer Student Assistant).

Spring 2019, Spatial Statistics for Lattice Data (STAT 679-III) *University of Wisconsin-Madison*
2020, 2021

Teaching Assistant.

Fall 2014 Introductory Statistics (STAT 301) *University of Wisconsin-Madison*

Workshop Instructor.

- 2020 Geospatial Carpentry
 - *Instructor:* Raster Data (Jul. 2020)
- 2020 Reproducible Research: Practical Tools & Applications Workshop
 - *Instructor:* Reproducible Visualization
- 2019 R for Researchers Workshop Series
 - *Instructor:* Introduction to the Unix Shell (Nov. 2019)
 - *Helper:* Visualization with ggplot2, Data Wrangling with dplyr (Mar. 2019)
- 2019 Geospatial Workshop Carpentry
 - *Instructor:* Raster Data (Jul. 2019)
- 2019 Data Carpentry: Health Sciences Workshop
 - *Instructor:* Introduction to ggplot2 (Jun. 2019)
 - *Instructor:* Introduction to RMarkdown (Jun. 2019)
- 2018-2019 Data Carpentry: Ecology Workshop
 - *Instructor:* Introduction to R (Jun. 2018, Aug. 2018)
 - *Instructor:* Introduction to ggplot2 (Jan. 2019)
 - *Instructor:* Introduction to RMarkdown (Jan. 2019)
- 2017-2020 Software Carpentry: Unix Shell, Python, & Git
 - *Helper* (Aug. 2017, Jan. 2018, Apr. 2020)

Reviewer

International Journal of Health Geographics
The R Journal

Awards, Grants, and Fellowships

- 2020 Robert F. and Jean E. Holtz Center for Science and Technology Studies Virtual Conference Grant
- 2020 American Statistical Association (ASA) Wisconsin Chapter Student Virtual Travel Award
- 2020 Catherine Allen Outstanding Student Poster Award, Department of Population Health Sciences, University of Wisconsin-Madison
- 2019 Student Research Travel Grant, University of Wisconsin-Madison
- 2016 Outstanding New Student Scholarship, Department of Population Health Sciences, University of Wisconsin-Madison
- 2016 The Eric & Wendy Schmidt Data Science for Social Good Summer Fellowship

■ Certification

- 2018 Certified Instructor - Data and Software Carpentry (The Carpentries)

■ Professional Society Membership

International Biometric Society (East North American Region)
 Society for Epidemiologic Research
 American Statistical Association

■ Leadership

Service.

- 2017-present Population Health Sciences Student Organization, *University of Wisconsin-Madison*
 - Social Media Chair (2020-21)
 - Curriculum Committee Representative (Epidemiology) (2020-21; 2018-19)
 - Admissions Committee Representative (2019-20)
 - Social Chair (2017-18)

Mentorship.

- 2020 Women in Scientific Education and Research, *University of Wisconsin-Madison*
 - Mentor to Undergraduate
- 2019, 2020 Population Health Sciences Peer Connections, *University of Wisconsin-Madison*
 - Mentor to MS Population Health Sciences Student

Volunteering.

- 2019 Biostatistics Tutor, *University of Wisconsin-Madison*
 - Provided weekly biostatistics tutoring for coursework in Regression Methods for Population Health (PHS/BMI 552) for two graduate students.
- 2014 Statistics Tutorial Lab, *University of Wisconsin-Madison*

- *Statistics Tutor*: Tutored undergraduate students enrolled in introductory through intermediate statistics courses.

Software Development

- 2020 `strm`, an R package that fits a spatio-temporal regression model based on Chi & Zhu [Spatial Regression Models for the Social Sciences](#) (2020) (maintainer & developer: M. Kamenetsky)
- 2020 `coefclust`, an R package for detecting spatial clusters in regression coefficients (developer: J. Lee; maintainer: M. Kamenetsky)

Technical Skills

Statistical	R (advanced), SAS (intermediate), STATA (intermediate)
Scripting	Python (intermediate), Unix Shell (intermediate), C++ (beginner)
Databases	PostgreSQL (beginner), MySQL (beginner)
Markup	Markdown (intermediate), \LaTeX (intermediate)
OS	Unix/Linux (Ubuntu, RedHat), MacOS, MS Windows
Version Control/Software	Git (intermediate), SaTScan (advanced), QGIS (beginner)

Additional Education

- 2012-14 *University of Chicago*
 - *Graduate Student At-Large*: Completed coursework in multivariate calculus, linear algebra, statistical theory and methodology I & II.

Languages

Russian	Fluent
Spanish	Intermediate
English	Native