Kenneth J. Nieser

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EDUCATION

2018-2023 (expected) Ph.D. Epidemiology, Minor in Statistics
University of Wisconsin-Madison, School of Medicine and Public Health
Advisor: Amy Cochran, PhD

2009-2013 B.A. Physics and Mathematics, High Honors
Swarthmore College

PROFESSIONAL EXPERIENCE

2020-present Research Assistant, *University of Wisconsin-Madison,* Madison, WI
2019-2020 Project Assistant, *University of Wisconsin-Madison,* Madison, WI
UW Madison Center for Human Genomics and Precision Medicine Seed Grant (PI: Amy Cochran). Gene-set enrichment with mathematical biology.
2017-2018 Senior Analyst, *Healthgrades,* Madison, WI
2015-2017 Market Analyst, *Healthgrades,* Madison, WI
2014-2015 Healthcare Data Analyst for Wisconsin Medicaid, *HP Enterprise Services,* Madison, WI
2013-2014 Technical Services Analyst, *Epic,* Verona, WI

PEER-REVIEWED PUBLICATIONS

*denotes joint first author

1. Nieser, K. J., Stowe, Z. N., Newport, J., Coker J. L., Cochran, A. L. (2023). Detection of differential depressive symptom patterns in a cohort of perinatal women: an exploratory factor analysis using a robust statistics approach. *eClinicalMedicine*, 57, 101830. https://doi.org/10.1016/j.eclinm.2023.101830

2. Nieser, K. J., Cochran, A. L. (2021). Addressing heterogeneous populations in latent variable settings through robust estimation. *Psychological Methods*. Advance online publication. https://doi.org/10.1037/met0000413

3. Cochran, A. L., Nieser, K. J., Forger, D. B., Zöllner, S., & McInnis, M. G. (2020). Gene-set Enrichment with Mathematical Biology (GEMB). *GigaScience, 9*(10), giaa091. https://doi.org/10.1093/gigascience/giaa091

Liquid crystals (research done as an undergraduate)

1. Collings, P. J., Goldstein, J. N., Hamilton, E. J., Mercado, B. R., Nieser, K. J., & Regan, M. H. (2015). The nature of the assembly process in chromonic liquid crystals. *Liquid Crystals Reviews, 3*(1), 1-27. https://doi.org/10.1080/21680396.2015.1025305

2. Mercado, B. R., Nieser, K. J., & Collings, P. J. (2014). Cooperativity of the assembly process in a low concentration chromonic liquid crystal. *The Journal of Physical Chemistry. B, 118*(46), 13312–13320. https://doi.org/10.1021/jp510025j

WORKS IN PROGRESS

1. Green, R. K.*, Nieser, K. J.*, Jacobsohn, G. C., Cochran, A. L., Caprio, T. V., Cushman, J. T., Kind, A. J., Lohmeier, M., Shah, M. N. Differential effects of an ED-to-home care transitions intervention in an older adult population: a latent class analysis. *(under review)*

2. Nieser, K. J., Cochran, A. L., Quantifying and reducing inequity in average treatment effect estimation.

AWARDS AND FELLOWSHIPS

2020	Rankin/Skatrud Travel Award
2019	Biology and Medicine through Mathematics (BAMM!) Travel Award
2019	Student Research Grants Competition – Conference Presentation Funds
2018-2019	New Graduate Student Fellowship

CONFERENCE PRESENTATIONS AND POSTERS

1. Average Treatment Effects in Synthetic Samples with More Equitable Representation. Society for Epidemiologic Research Annual Meeting 2022, Chicago, IL (poster).

2. PHS Antiracism Initiative: Research Methods Toolkit. University of Wisconsin-Madison Department of Population Health Sciences Monday Seminar. April 25, 2022 (virtual talk). With Marina Jenkins, Emma Svenson, Zoe Walts, and KJ Hansmann.

3. Optimizing for whom? The role of robustness in equitable algorithms. 2021 Machine Learning Day, Arizona State University (virtual talk).

4. Detecting Inequity in the Analysis of Mental Health. 2021 Data Science Research Bazaar: *Data Science for the Social Good*, University of Wisconsin-Madison (virtual lightning talk).

5. Bias Analysis of Depression Rate Comparisons between Racial/Ethnic Groups. Society for Epidemiologic Research Annual Meeting 2020 (virtual poster).

6. Addressing Heterogeneity in Mental Illnesses through Robust Estimation. Population Health Sciences Annual Poster Session 2020, University of Wisconsin-Madison (poster).

7. Robust estimation for factor loadings with application to postpartum depression. Biology and Medicine through Mathematics (BAMM!) 2019, Virginia Commonwealth University (poster).

8. Kinetics of Assembly and Dis-assembly of Structures Forming a Chromonic Liquid Crystal at Low Concentrations. American Physical Society March Meeting 2013, Baltimore, MD (talk).

TEACHING

Teaching Associate, Swarthmore College
Spring 2013 General Physics II

Spring 2012 General Physics II with Biomedical Applications
Fall 2011 General Physics I
Fall 2011-12 Spacetime, Quanta & Cosmology

Tutor, Swarthmore College
Spring 2013 General Physics II
Spring 2012 General Physics II with Biomedical Applications
Fall 2011-12 General Physics I

PROFESSIONAL AFFILIATION

Student Member, Society for Epidemiologic Research (SER)

SERVICE

Grading for PHS 798: Epidemiologic Methods; PHS 651: Advanced Regression Methods for Population Health; MATH 888: Topics in Mathematical Data Science (Causal inference)
Conference abstract reviewer for SER Annual Meeting 2022
Ad-hoc peer review for Journal of Medical Internet Research