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RESEARCH INTERESTS Record Linkage, Multiple-Systems Estimation, Bayesian Statistics, Spatio-Temporal Statistics, Small Area Estimation, Human Rights, Child Mortality Estimation

PROFESSIONAL POSITIONS

U.S. Census Bureau, Center for Statistical Research and Methodology 07/2023 - Present Research Mathematical Statistician

Duke University, Durham, NC

09/2022 - 06/2023

Updated: July 16, 2024

Postdoctoral Associate

Advisor: Rebecca C. Steorts, Ph.D.

EDUCATION

University of Washington, Seattle, WA

08/2022

Ph.D. in Biostatistics

Dissertation Title: "Statistical Methods for Human Rights and Child Mortality Estimation" Committee: Mauricio Sadinle (co-chair), Jon Wakefield (co-chair), and Abel Rodriguez

Boston College, Chestnut Hill, MA

05/2017

B.S. in Mathematics, Departmental Honors B.A. in Computer Science, Departmental Honors

Summa Cum Laude

Publications

- 1. **Aleshin-Guendel S** and Wakefield J. "Adaptive Gaussian Markov Random Fields for Child Mortality Estimation." *Biostatistics* (Accepted).
 - \triangleright Available on arXiv: arXiv:2309.00724
- 2. **Aleshin-Guendel S** and Steorts R. "Convergence Diagnostics for Entity Resolution." *Annual Review of Statistics and Its Application*. 2024; 11, 419-435.
- 3. **Aleshin-Guendel S**, Sadinle M, and Wakefield J. "The Central Role of the Identifying Assumption in Population Size Estimation." *Biometrics* (with discussion). 2024; 80(1), ujad028.
 - ▷ Available on arXiv: arXiv preprint arXiv:2101.09304
 - ▶ The material presented in Appendix A previously appeared in the following preprint: **Aleshin-Guendel S**. "On the Identifiability of Latent Class Models for Multiple-Systems Estimation." arXiv preprint arXiv:2008.09865.
- 4. Hood J, Aleshin-Guendel S, Poel A, Liu J, Collins H, Sadinle M, Avoundjian T, Sayre M, and Rea T. "Overdose and mortality risk following a non-fatal opioid overdose treated by Emergency Medical Services in King County, Washington." Drug and Alcohol Dependence. 2023; 253, 111009.
- Aleshin-Guendel S and Sadinle M. "Multifile Partitioning for Record Linkage and Duplicate Detection." Journal of the American Statistical Association. 2023; 118 (543), 1786-1795.
 - ▷ 2020 ASA Social Statistics, Government Statistics, and Survey Research Methods Sections Student Paper Competition First Place
 - ▶ Available on arXiv: arXiv preprint arXiv:2110.03839
- Knutson V, Aleshin-Guendel S, Karlinsky A, Msemburi W, and Wakefield J. "Estimating Global and Country-Specific Excess Mortality During the COVID-19 Pandemic." Annals of Applied Statistics. 2023; 17 (2), 1353-1374.

- ▷ Available on arXiv: arXiv:2205.09081
- Msemburi M, Karlinsky A, Knutson V, Aleshin-Guendel S, Chatterji S, and Wakefield J. "The WHO estimates of excess mortality associated with the COVID-19 pandemic." Nature. 2023; 613 (7942), 130-137.
- 8. Aleshin-Guendel S, Lange J, Goodman P, Weiss N, and Etzioni R. "A Latent Disease Model to Reduce Detection Bias in Cancer Risk Prediction Studies." *Evaluation & the Health Professions*. 2021; 44 (1), 42-49.
- 9. **Aleshin-Guendel S**, Sadinle M, and Wakefield J. Discussion of "Multiple-systems analysis for the quantification of modern slavery: classical and Bayesian approaches" by Bernard Silverman. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*. 2020; 183 (3), 724.
- 10. Ivancic M, Megna B, **Aleshin-Guendel S**, Sverchkov Y, Craven M, Reichelderfer M, Pickhardt P, Sussman M, and Kennedy G. "Noninvasive detection of colorectal carcinomas using serum protein biomarkers." *Journal of Surgical Research*. 2020; 246, 160–169.
- 11. Lim D, Gulati R, Aleshin-Guendel S, Gawne A, Wingate J, Cheng H, Etzioni R, Yu E. "Undetectable prostate-specific antigen after short- course androgen deprivation therapy for biochemically recurrent patients correlates with metastasis-free survival and prostate cancer-specific survival." The Prostate. 2018; 78 (14), 1077–1083.

SUBMITTED/IN PREPARATION

1. Kundinger B, Aleshin-Guendel S, and Steorts R. "Variational Beta Linkage." Submitted.

INVITED PRESENTATIONS

- "Multifile Record Linkage and Duplicate Detection Via a Structured Prior for Partitions" SDSS, Virtual

 2020
- "Interval-Censored Survival Analysis to Reduce Detection Bias in a Study of Family History, Race, and Cancer Risk"
 WNAR, Portland, OR

 2019

CONTRIBUTED PRESENTATIONS

- "Multifile Record Linkage and Duplicate Detection Via a Structured Prior for Partitions" JSM, Virtual

 2020
- 2. "Revisiting Log-Linear Models for Multiple-Systems Estimation"

 WNAR. Virtual

 2020
- 3. "Multifile Record Linkage and Duplicate Detection Via a Structured Prior for Partitions" *JSM*, Denver, CO **2019**

Honors and Awards

University of Washington

School of Public Health Outstanding Biostatistics PhD Student Award

2022

American Statistical Association (ASA)

Social Statistics, Government Statistics, and Survey Research Methods Sections,
Student Paper Competition First Place 2020

Boston College

Phi Beta Kappa Honor Society	2017
Pi Mu Epsilon Mathematics Honor Society	2016
McGillycuddy-Logue Travel Grant	2014

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SERVICE	Grant Reviewer

National Science Foundation	2023

Manuscript Reviewer

Journal of the Royal Statistical Society: Series A (Statistics in Society)	2023
Vaccine	2021
Journal of Survey Statistics and Methodology	$2021,\ 2022$
Annals of Applied Statistics	2019, 2020

University of Washington

Biostatistics Activities and Events Squad (BAES) Fall 2018 - Summer 2022
Department of Biostatistics Admissions Committee Fall 2020 - Winter 2021
Department of Biostatistics Student-Faculty Relations Committee Fall 2018 - Summer 2020

SKILLS Languages: R, C++, Stan, Python, Java

Other: LATEX