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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

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*. 2024; kxae030.
  - $\triangleright$  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

- 1. "The Central Role of the Identifying Assumption in Population Size Estimation"

  JSM, Portland, OR

  2024
- 2. "Multifile Record Linkage and Duplicate Detection Via a Structured Prior for Partitions" JSM, Virtual 2020
- 3. "Revisiting Log-Linear Models for Multiple-Systems Estimation"

  WNAR, Virtual

  2020
- 4. "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

SERVICE	Grant Reviewer
OF RVICE	Grant neviewei

National Science Foundation	2023
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### Manuscript Reviewer

Journal of the Royal Statistical Society: Series A (Statistics in Society)	$2023,\ 2024$
Annals of Applied Statistics	2019,2020,2024
Statistical Methods & Applications	2024
Vaccine	2021
Journal of Survey Statistics and Methodology	2021, 2022

### 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 Committe	e Fall 2018 - Summer 2020

 $\begin{array}{l} \textbf{Languages:} \ R, \ C++, \ Stan, \ Python, \ Java \\ \textbf{Other:} \ \ \underline{I}\!\!^{\Delta}\!T_{\!\!\!E}\!X \end{array}$  $\mathbf{S}\mathbf{KILLS}$