# Chanmin Kim

02-760-0495 Contact 25-2, Sungkyunkwan-ro, Jongno-gu Seoul 03063, Korea chanmin.kim@skku.edu Information Research Bayesian nonparametric methods and Machine learning Interests Causal modeling and Causal mechanism Policy Evaluation, Environmental statistics, and behavioral sciences Current SungKyunKwan University, Department of Statistics, Seoul, Korea Position Assistant Professor of Statistics, Jan 2020 -Boston University, Department of Biostatistics, Boston Adjunct Assistant Professor of Biostatistics, Jan 2020 -EDUCATION / Harvard University, Department of Biostatistics, Boston, MA Training July 2014 - Aug 2017 Research Associate & Postdoctoral Research Fellow Project: Developing Bayesian causal inference methods for evaluating air pollution regulatory policies. Mentor: Corwin M. Zigler, Ph.D. University of Florida, Gainesville, FL Ph.D., Statistics Aug 2013 Thesis: Bayesian methods for inference on the causal effects of mediation. Advisor: Michael J. Daniels, Sc.D. Columbia University in the City of New York, New York, NY M.A., Statistics May 2008 Sogang University, Seoul, Korea B.B.A., B.A., Business and History (Double Major) Feb 2006 Magna Cum Laude the second highest GPA in the department. Sep 2017 - Dec 2019 Research and Assistant Professor Professional Department of Biostatistics, Boston University, Boston, MA EXPERIENCE Advisory Committee Nov 2020 - Feb 2021 Hyundai Motor Group, Seoul, Korea Postdoctoral Research Fellow Aug 2013 - Jul 2014 Department of Integrative Biology, The University of Texas, Austin - Developed Bayesian nonparametric methods for causal mediation in various settings (single, multiple, or longitudinal mediators). Mentor: Michael J. Daniels, Sc.D. Research Assistant Jan 2010 - Jul 2013 Department of Statistics, University of Florida - Causal mediation analysis in the TOURS project (weight management trial) and the Rural LITE project. Supervisor: Michael J. Daniels, Sc.D. Jan 2007 - Dec 2007 Research Assistant Applied Statistics Center, Columbia University

Jan 2006 - May 2006

Supervisor: Andrew Gelman, Ph.D. Employee, Samsung Electronics, South Korea - Worked at the HR headquarters of the Tele-Communication Business Division which is in charge of Samsung's cell phone business.

Internship, Bearing Point Consulting formerly KPMG Korea — Jul 2004 - Aug 2004 - As a member of PMO, evaluated daily outputs for a project to construct a new banking system for Korean Exchange Bank (KBE). Worked with 600 IT experts.

## AWARDS HONORS

Mitchell Prize, honorable mention (2nd place), ISBA

Jun 2020

- The Mitchell Prize is awarded in recognition of an "outstanding paper" that describes how a Bayesian analysis has solved an important applied problem. The Prize is jointly sponsored by the Section on Bayesian Statistical Science (SBSS) of the ASA, the International Society for Bayesian Analysis (ISBA), and the Mitchell Prize Founders' Committee.

# ASA Biometrics Section Paper Award

Aug 2017

- Invited to present the paper at the 2017 JSM

Winner (1st place), 2013 IASC data analysis competition

Aug 2013

- Invited to present the result at the joint meeting of the IASC Satellite Conference for the 59th ISI WSC and the 8th Conference of the Asian regional section of the IASC, Seoul, Korea (22-23 August 2013)

Honorable Mention, NSF research day poster competition, UF

Oct 2011

3rd Place, Human Consulting Group case competition, NEMO Partners, South Korea May 2003

## Travel Awards

Sackler Travel Award (granted by NSF)

Mar 2015

for the Sackler Colloquium Drawing Causal Inference from Big Data, D.C.

Graduate Student Council (GSC) at UF

May 2013

for 2013 Atlantic Causal Inference Conference, Boston, MA

College of Liberal Arts and Sciences (CLAS) at UF

May 2013

for 2013 Atlantic Causal Inference Conference, Boston, MA  $\,$ 

Jun 2012

Boyd Harshbarger Travel Award (granted by NSF) for SRCOS 2012 Summer Research Conference, GA

College of Liberal Arts and Sciences (CLAS) at UF

May 2012

for 2012 Atlantic Causal Inference Conference, Baltimore, MD

Centre de recherches mathématiques (CRM) at University of Montreal May 2011 for Workshop on Causal Inference in Health Research, Canada

Graduate Student Council (GSC) at UF

May 2011

for Workshop on Causal Inference in Health Research, Canada

# REFEREED JOURNAL PUBLICATIONS

## Publication in Statistical Methodology

Liu, X., **Kim, C.**, Han, Z., Lim, P., Roychoudhury, S., Fava, M., Doros, G., On treatment effect for the sequential parallel comparison design, to appear in *Statistics in Medicine*, 2022+.

- Kim, C., Lin, X., Nelson, K., Measuring Rater Bias in Diagnostic Tests with Ordinal Ratings, *Statistics in Medicine*, 40(17), 4014-4033, 2021.
- Kim, C., Henneman, L., Choirat, C. Zigler, C. M., Health Effects of Power Plant Emissions through Ambient Air Quality, *Journal of the Royal Statistical Society:* Series A,183(4), 1677-1703, 2020.
- Kim, C., Daniels, M. J., Hogan, J. W., Choirat, C., Zigler, C. M. Bayesian Methods for Multiple Mediators: Relating Principal Stratification and Causal Mediation in the Analysis of Power Plant Emission Controls, awarded ASA 2017 Biometrics section travel award; and awarded an honorable mention for the Mitchell Prize 2019, ISBA, The Annals of Applied Statistics, 13(3), 1927-1956, 2019.
- Kim, C., Deviance Information Criteria for Mixtures of Distributions, *Communications in Statistics Simulation and Computation*, 50(10), 2935-2948, 2021.
- Liu, Y., Kim, C., Wu, A. D., Gustafson, P., Zumbo, B. D. Investigating Causal Differential Item Functioning (DIF) via Propensity Scores Methods, *Journal of Modern Applied Statistical Methods*, 18(1), 2-26, 2019.
- Kim, C., Daniels, M. J., Li, Y., Milbury, K., Cohen, L., A Bayesian Semiparametric Latent Variable Approach to Causal Mediation, *Statistics in Medicine*, 37(7), 1149-1161, 2018.
- Kim, C., Daniels, M.J., Marcus, B., Roy, J., A framework for Bayesian nonparametric inference for causal effects of mediation, *Biometrics*, 73(2), 401-409, 2017.
- Zigler, C. M., Kim, C., Choirat, C. Hansen, J. B., Wang, Y., Hund, L., Samet, J., King, G., Dominici, F., Causal Inference Methods for Estimating Long-Term Health Effects of Air Quality Regulations, *Health Effects Institute Research Report*, 187, 5-49, 2016 (peer-reviewed).
- Daniels, M. J., Roy, J., **Kim, C.**, Hogan, J. W., Perri, M., Bayesian Inference for the Causal Effects of Mediation, *Biometrics*, 68(4), 1028-1036, 2012.

## Collaborative Publications

- Peer, K., Adams W. G., Legler, A., Sandel, M., Levy, J., Boynton-Jarrett, R., **Kim**, **C.**, Leibler, J. H., Fabian, M. P., Developing and evaluating a pediatric asthma severity computable phenotype derived from electronic health records, *The Journal of Allergy and Clinical Immunology*, 147(6), 2162-2170, 2021.
- Nguyen, M., Feeney, T., **Kim, C.**, Drake, T., Mitchell, S., Bednarczyk, M., Sanchez, S., Patient-Level Factors Influencing Palliative Care Consultation at a Safety-Net Urban Hospital, *American Journal of Hospice and Palliative Medicine*, 38(11), 1299-1307, 2021.
- Liu, Y., Beliveau, A., Besche, H., Wu, A., Zhang, X., Stefan, M., Gutlerner, J., Kim, C., Bayesian Mixed Effects Model and Data Visualization for Understanding Item Response Time and Response Order in Open Online Assessment, *Frontiers in Education, section Assessment, Testing and Applied Measurement*, 5, 274, 2021.
- Nguyen, M., Feeney, T., Kim, C., Drake, T., Mitchell, S., Bednarczyk, M., Sanchez,

S., Differential Utilization of Palliative Care Consultation between Medical and Surgical Services, *American Journal of Hospice and Palliative Medicine*, 37(4), 250-257, 2020.

Mahalingaiah, S., Lane, K.J., **Kim, C.**, Cheng, J., Hart, J., Impacts of Air Pollution on Gynecologic Disease: Infertility, Menstrual Irregularity, Uterine Fibroids, and Endometriosis: a Systematic Review and Commentary, *Current Epidemiology Reports*, 5(3), 197-204, 2018.

Zhang, Z., Zheng, C., **Kim, C.**, Van Poucke, S., Lin, S., Lan, P., Causal Mediation Analysis in the Context of Clinical Research, *Annals of Translational Medicine*, 4(21), 1-20, 2016.

Perri, M., Limacher, M., von Castel-Roberts, K., Daniels, M., Durning, P., Janicke, D., Bobroff, L., Radcliff, T., Milsom, V., **Kim, C.**, Martin, A., Comparative Effectiveness of Three Doses of Weight Loss Counseling: Two-Year Findings from the Rural LITE Trial, *Obesity*, 22, 2293-2300, 2014.

## Manuscripts Submitted or Under Revision

**Kim, C.**, Li, Y., Xu, T., Liao, Z., Bayesian Nonparametric Method for Causal Mediation Analysis in Zero-inflated Data, under review.

**Kim, C.**, Tec, M., Zigler, C., Bayesian Nonparametric Adjustment of Confounding [arXiv], under review.

Peer, K., Adams W. G., Legler, A., Sandel, M., Levy, J., Boynton-Jarrett, R., **Kim**, C., Leibler, J. H., Fabian, M. P., Beyond a reductionist approach to residential mobility definitions in the health literature: opportunities and challenges using electronic health record address data, submitted.

Lee, K.J., **Kim, C.**, Chen, R.B., Lee, K., Robust Probit Linear Mixed Models for Longitudinal Binary Data, under revision.

Kim, C., Zigler, C. M., Daniels, M. J., Choirat, C., Roy, J. A., Bayesian Longitudinal Causal Inference in the Analysis of the Public Health Impact of Pollutant Emissions [arXiv].

**Kim, C.**, Bayesian Additive Regression Trees in Spatial Data Analysis with Sparse Observations, under revision.

Cummiskey, K., **Kim, C.**, Choirat, C., Schwartz, J., Zigler, C. A Source-Oriented Approach to Coal Combustion PM<sub>2.5</sub> Health Effects [arXiv], under revision.

Park, S., Kim, C. Comparison of Tree-based Ensemble Models, under revision.

# Papers in Preparation

**Kim, C.**, Hogan, J. W., Marcus, B., Daniels, M. J., A Framework for Causal Inference for Multiple Mediators, In preparation (draft available upon request).

**Kim, C.**, Nelson, K., Enhanced Method for Measuring Rater Bias in Diagnostic Tests with Ordinal Ratings, In preparation.

Koo, D., **Kim, C.**, Lee, K., A Bayesian Method for Multinomial Probit Model, In preparation.

Liu, X., Han, Z., **Kim, C.**, Doros, G., Assessing treatment effect for the sequential parallel comparison design via stratum-specific estimands when a non-responder criterion is not present, In preparation.

**Kim, C.**, Bayesian nonparametric methods for principal stratification analysis with high dimensional covariates, In preparation.

# Package / Software

**BNPMediation**, an R package. Implements Bayesian nonparametric methods to estimate the causal effects of mediation. Available in CRAN.

BayesODT, an R package. Implements Bayesian hierarchical model to measure rater bias for ordinal classification processes. Available in lit777.github.io.

## PRESENTATIONS INVITED TALKS

Department of Statistics, Yonsei University, South Korea Dec 2021

Department of Statistics, Korea University, South Korea Nov 2021

Seminar on Causal Mediation Analysis, National Evidence-based Healthcare Collaborating Agency,  ${\rm Aug}\ 2021$ 

10th Bernoulli-IMS World Congress in Probability and Statistics, Seoul, Korea (Virtual), Jul 2021

63rd ISI World Statistics Congress, Hague (Virtual), Jul 2021

Seminar on Social Science Methods, Center of Politics and Communication, Seoul National University,

Jun 2021

4th International Conference on Econometrics and Statistics (EcoSta 2021), Hong Kong (Virtual),

Jun 2021

Working Group on Causal Inference and Machine Learning, Harvard University, May 2021

Spring Conference, The Korean Data & Information Science Society, May 2021

Invited Section for Bayesian Statistics, The Korean Statistical Society, Dec 2020

Department of Statistics, SungKyunKwan University, South Korea Oct 2020

Department of Statistics, Ewha University, South Korea Aug 2020

4th International Conference on Econometrics and Statistics, Seoul, Korea, Jul 2020 (postponed)

Bayesian Causal Inference Workshop, Ohio State University, OH (Cancelled) Jun 2019

Atlantic Causal Inference Conference, McGill University, Canada	May 2019
Institute for Computational and Experimental Research in Mathemati University, RI	cs, Brown Jan 2019
Graduate School of Future Strategy, KAIST, Daejeon, Korea	Aug 2018
2018 Joint Statistical Meeting, Vancouver, Canada	Aug 2018
The 3rd ISBA-EAC Conference , Seoul, Korea	Jul 2018
2018 ICSA China Conference with the Focus on Data Science, Qingdao, SChina	hangdong, Jul 2018
2018 IISA International Conference on Statistics, Gainesville, FL	May 2018
Statistics and Probability Seminar Series, Boston University, MA	Apr 2018
Biostatistics Student Association (BSA) Seminar, Boston University, MA	Nov 2017
Global Health Research Seminar Series, Boston University, MA	Oct 2017
Environmental Statistics Seminar, Harvard University, MA	May 2017
The 31st New England Statistics Symposium, Univ. of Connecticut, CT	Apr 2017
Department of Biostatistics, Boston University, MA	Feb 2017
Department of Biostatistics and Bioinformatics, Duke University, NC	Jan 2017
Department of Biostatistics, Indiana University, Indianapolis, IN	Jan 2017
Div. of Sleep and Circadian Disorders, Brigham and Women's Hospital	Nov 2016
P01 Retreat, Harvard University	Oct 2016
Department of Statistics, SungKyunKwan University, South Korea	Apr 2016
Environmental Statistics Seminar at Harvard Biostatistics	Sep 2015
2015 Atlantic Causal Inference Conference, Philadelphia, PA	May 2015
Department of Biostatistics, Harvard School of Public Health	Dec 2013
Joint meeting of the IASC satellite conference for the 59th ISI WSC and the 8th conference of the ARS of the IASC, South Korea	Aug 2013
PIC-CONTRIBUTED TALKS  2017 Joint Statistical Meeting, Baltimore, MD (Missed)  - Biometrics Section Award Presentation: Bayesian Methods for Multiple Availables, Principal Statisfication, and Canada Medication. An alwais	Aug 2017 Intermediate

2016 Joint Statistical Meeting, Chicago, IL

 $\mathrm{Aug}\ 2016$ 

 $Variables:\ Principal\ Stratification\ and\ Causal\ Mediation\ Analysis$ 

2014 Joint Statistical Meeting, Boston, MA	Aug 2014	
CONTRIBUTED TALKS  10th World Congress in Probability and Statistics, Seoul (Virtual)	Jul 2021	
2017 ENAR Meeting, DC	Mar 2017	
2016 ENAR Meeting, Austin, TX	Mar 2016	
P01 retreat at Harvard Biostatistics	Oct 2015	
Bayesian Causal Inference Group Seminar at Harvard Biostatistics	Jun 2015	
Bayesian Causal Inference Group Seminar at Harvard Biostatistics	Jan 2015	
Bayesian Causal Inference Group Seminar at Harvard Biostatistics	Sep 2014	
Acid Rain Program Group Seminar at Harvard Sep 201	4, Feb 2015	
2015 ENAR Meeting, Miami, FL	Mar 2015	
2014 ENAR Meeting, Baltimore, MD	Mar 2014	
2013 Joint Statistical Meeting, Montreal, Canada	Aug 2013	
Poster Presentations		
2015 International Health Policy Statistics Conference, Providence, RI	Oct 2015	
2015 Atlantic Causal Inference Conference, Philadelphia, PA	May 2015	
2013 Atlantic Causal Inference Conference, Boston, MA	May 2013	
2012 SRCOS Summer Research Conference, GA	Jun 2012	
2012 Atlantic Causal Inference Conference, Baltimore, MD	May 2012	
Workshop on Causal Inference and Graphical Models, Winter Workshop 2012, University of Florida	Jan 2012	
NSF Research Day, University of Florida	Oct 2011	
Workshop on Causal Inference in Health Research, CRM, University of Montreal, Canada	May 2011	

# Professional Service

# Reviewer (Publons)

Journal of American Statistical Association (theory and methods; applications and case studies), Biometrics, Statistics in Medicine, Bayesian Analysis, Journal of Royal Statistical Society: Series C, Journal of Causal Inference, Statistica Sinica, Annals of Applied Statistics, Biostatistics, Statistical Science, Epidemiologic Methods, BMJ Open, BMC Medical Research Methodology, Computational Statistics and Data

Analysis, The Canadian Journal of Statistics, Journal of Agricultural Biological and Environmental Statistics, BMC Public Health, WIREs Computational Statistics, The International Journal of Biostatistics, Statistical Methods and Applications, The Korean Journal of Applied Statistics, MRC grant proposal, HEI grant proposal

#### Professional Society

Elected Member of ENAR Council for Emerging and New Statisticians. 2014 - 2016 Members of ENAR, ASA, ISBA

#### CONFERENCE ORGANIZATION

Session Organizer: Invited Session at CMStatistics (2021), Invited Session at 2021 Fall Conference of KSS, Invited Session at ENAR (2019), Invited Session at JSM (2018), Invited Session at ACIC (2018), Topic-contributed sessions at JSM (2016, 2017)

Session Chair: ENAR (2015), JSM (2016), Invited Session at ENAR (2020) Others: Judge of 2014 ENAR spring meeting RAB poster competition.

## DEPARTMENTAL SERVICE

#### PhD Students

Youngho Bae (SKKU), Winter 2026

## MS STUDENTS

Youngho Bae (SKKU), Winter 2021

Awarded a poster award (2nd prize) at 2021 Spring Conference of KDISS.

Doyoung Kim (SKKU), expected Winter 2021

Awarded the best poster award (1st prize) at 2021 Spring Conference of KDISS and an honorable mention for the poster award at 2021 Spring Conference of KSS.

Sangho Park (SKKU), Winter 2021

Yeonghoon Yoo (SKKU), expected Spring 2022

Hyunwoo Lim (SKKU), expected Spring 2022

Nayeon Kwon (SKKU), expected Spring 2022

Sanghyun Lee (SKKU), expected Winter 2022

Jaehyun Seo (SKKU), expected Winter 2022

Jaeho Yoon (SKKU), expected Winter 2022

#### PhD Committees

Kevin Cummiskey (Harvard Biostatistics, 2018). Advisor: Corwin M. Zigler Aya Mitani (Boston Univ. Biostatistics, 2019). Advisor: Kerrie Nelson Komal Basra (Boston Univ. Environmental Health, 2021). Advisor: Patricia Fabian Daniel Nguyen (Boston Univ. Environmental Health). Advisor: Junenette Peters

Xiaoyan Liu (Boston Univ. Biostatistics). Advisor: Gheorghe Doros

#### MS COMMITTEES

Amelia Williams (Boston University Epidemiology, 2018). Advisor: Kimberly Shea

## Qual Examiner

Chloe Kim (Boston University Environmental Health). Advisor: Michael McClean Komal Basra (Boston University Environmental Health, 2019). Advisor: Patricia Fabian

## OTHER SERVICES

Co-Organizer, Epidemiology+Biostatistics Joint Seminar Series, Boston University 2018

Co-Organizer, Seminar Series, Department of Biostatistics, Boston University 2017 - 2019

of Biostatistics, Boston University

Convener, PhD Program Review Committee, Department of Biostatistics, Boston
University

2018

Faculty Search Committee, Department of Biostatistics, Boston University

2018 2019

Co-Organizer, Causal Inference Seminar Series, Departments of Biostatistics + Mathematics and Statistics, Boston University

2018
Biostatistics Program Advisory Committee (BPAC), Departments of Biostatistics,

2019-

Co-Chair, Course Development Task Force (Topics in Causal Inference), Department

TEACHING EXPERIENCE

## Instructor

2019-

Boston University

STA3034 - Massive Data Analysis and Visualization (Undergrad) Spring 2021

MA/PhD Admission Committee, Departments of Biostatistics, Boston University

STA2016 - Intro. to Statistical Programming (Undergrad) Fall 2020, Fall 2021, Spring 2022

Department of Statistics, SungKyunKwan University

STA5004 - Advanced Categorical Data Analysis (Grad) Fall 2020, Fall 2021 Department of Statistics, SungKyunKwan University

STA5030 - Bayesian Statistics (Grad) Spring 2020, Spring 2021 Department of Statistics, SungKyunKwan University

STA5039 - Causal Inference (Grad) Spring 2022 Department of Statistics, SungKyunKwan University

BS730 - Introduction to Statistical Computing Spring 2018, Spring 2019 Teaching core statistical concepts and computing skills with R Department of Biostatistics, Boston University

BS901 - Directed Studies in Biostatistics

Analyzing datasets using nonparametric methods

Department of Biostatistics, Boston University

POSTDOC MENTOR Summer 2017

6 weeks mentoring of summer project participants (Pipelines into Biostatistics) Department of Biostatistics, Harvard T. H. Chan School of Public Health

POSTDOC MENTOR Summer 2016

6 weeks mentoring of summer project participants (Pipelines into Biostatistics) Department of Biostatistics, Harvard T. H. Chan School of Public Health

GUEST LECTURER Fall 2018, Spring 2019, Fall 2019 Causal Mediation Analysis (3 hours) in BS852 (Bayesian Methodology in Biostatistics) Department of Biostatistics, Boston University School of Public Health

GUEST LECTURER Fall 2014
Causal Mediation Analysis (2 hours) in BIO 249 (Bayesian Methodology in Biostatistics)
Department of Biostatistics, Harvard T. H. Chan School of Public Health

GUEST LECTURER Spring, Fall 2013

2 hour BUGS tutorial in the course SSC 384.7 (spring)

1 hour BUGS tutoral in the course SSC 383C (Fall)

Division of Statistics and Scientific Computation, The University of Texas at Austin

Lab-Instructor

Fall 2008, Spring 2009

STA 2023 - Introduction to Statistics

Teaching lab sessions of the course 3 hours a week

Evaluation: 4.31/5 (Spring 2009), 4.38/5, 4.26/5, 4.35/5 (Fall 2008)

Department of Statistics, University of Florida

TEACHING ASSISTANT AT UF

Spring, Fall 2009

STA 3032 - Engineering Statistics

STA 4210 - Regression Analysis

STA 4183 - Theory of Interest

ESI 6546 - Stochastic Modeling and Analysis (Grader)

TEACHING ASSISTANT AT COLUMBIA UNIVERSITY

Spring 2007

W1211 - Introduction to Statistics (with Calculus)

GRANT FUNDING ACTIVE

NRF (PI: Chanmin Kim)

Jun 2020 - Feb 2023

Bayesian non-parametric methods for estimating causal effect heterogeneity.

Role: Principal Investigator

Sungkyun Research Fund (PI: Chanmin Kim)

Dec 2021 - Dec 2022

Heterogeneous Mediation Analysis for High-dimensional Confounders and Mediators.

Role: Principal Investigator

Completed

US-EPA (PI: Corwin Zigler)

Sep 2016 - Aug 2020

Air Climate and Energy Center: Regional Air Pollution Mixtures: The Past and Future Impacts of Emission Controls and Climate Change on AirQuality and Health, Project 4: A Causal Inference Framework to Support Policy Decisions by Evaluating the Effectiveness of Past Air Pollution Control Strategies for the Entire United States.

Role: PI on subcontract, subcontract from Harvard University

NIH (PI: Kerrie Nelson)

Feb 2018 - Aug 2022

Improving Accuracy and Reliability in Cancer Screening Tests

Role: Biostatistician

NIH (PI: David Sherr)

Sep 2012 - Aug 2020

Superfund Research Program at Boston University

Role: Biostatistician

NIH (PI: Lauren Wise and Elizabeth Hatch)

Jan 2019 - Oct 2023

A Preconception Cohort Study of Environmental Chemicals, Fertility, and Miscarriage

Role: Biostatistician

NIH (PI: Debbie Cheng)

Sep 2016 - Aug 2021

Biostatistics and Data Management (BDM) Core - URBAN ARCH Consortium

Role: Biostatistician

NIH (PI: Jason Roy)

Sep 2014 - Aug 2018

Non-Parametric Bayesian Methods of Causal Inference.

Role: PI on subcontract, subcontract from University of Pennsylvania

NIH (PI: Corwin Zigler)

Sep 2015 - Aug 2020

Causal Inference with Interference for Evaluating Air Quality Policies

Role: Investigator

NIH (PI: Kerrie Nelson)

Jan 2014 - Dec 2019

Modeling Agreement in Cancer Diagnostic Tests

Role: Biostatistician

Computing

STATISTICAL PROGRAMS (PACKAGES)

R, SAS, Stan, BUGS (WinBUGS, OpenBUGS), MATLAB

- SAS Certified Advanced Programmer for SAS 9 Credential

- SAS Certified Base Programmer for SAS 9 Credential

 $\mathrm{May}\ 2012$ 

Sep 2012

PROGRAMMING LANGUAGES

Some experience in Python, C++

OPERATING SYSTEM

Unix, Linux, Windows

Miscellaneous

Exam P pass, Society of Actuaries

Mar 2011

References

Corwin Zigler

Associate Professor Phone: 617-432-5014
Department of Biostatistics E-mail: czigler@hsph.harvard.edu

Harvard T. H. Chan School of Public Health

Michael Daniels

Professor and Chair Phone: 352-262-9892 Andrew Banks Family Endowed Chair E-mail: daniels@ufl.edu

Department of Statistics University of Florida

Jason Roy

Professor of Biostatistics Phone: 732-235-9168 Chair of Biostatistics and Epidemiology E-mail: jason.roy@rutgers.edu Co-Director, Center for Causal Inferece

Rutgers School of Public Health