

Mauricio Sadinle

Curriculum Vitae

May 30, 2019

Biographical Information

Legal Name	Sadinle Garcia-Ruiz, Mauricio
Name in Publications	Sadinle, Mauricio
Address	Department of Biostatistics University of Washington Health Sciences Building F653, Box 357232 Seattle, WA 98195, USA
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Education

NATIONAL UNIVERSITY OF COLOMBIA, Bogota, Colombia

Bachelor of Science, Statistics, 2009

CARNEGIE MELLON UNIVERSITY, Pittsburgh, PA, USA

Master of Science, Statistics, 2011

Ph.D., Statistics, May 2015

Dissertation: A Bayesian Partitioning Approach to Duplicate Detection and Record Linkage

Advisor: Stephen E. Fienberg

Professional Positions

Research Assistant, CONFLICT ANALYSIS RESOURCE CENTER — CERAC, Bogotá, Colombia, 2007–2009.

Description: Characterization of human rights violations using clustering techniques, merging datafiles using probabilistic record linkage, estimation of population sizes using capture–recapture/multiple systems estimation, assessment on data reliability, simulation studies, population projections and interpolations.

Teaching and Research Assistant, DEPARTMENT OF STATISTICS, CARNEGIE MELLON UNIVERSITY, Pittsburgh, PA, August 2010 – January 2015.

Postdoctoral Associate, DEPARTMENT OF STATISTICAL SCIENCE, DUKE UNIVERSITY, and NATIONAL INSTITUTE OF STATISTICAL SCIENCE — NISS, Durham, NC, February 2015 – August 2017.

Mentor: Jerome P. Reiter

Assistant Professor, DEPARTMENT OF BIostatISTICS, UNIVERSITY OF WASHINGTON, Seattle, WA, Sept. 2017 –

- Affiliate Faculty, Center for Statistics & the Social Sciences (CSSS), U. of Washington, March 2018 –
- Affiliate Faculty, Department of Statistics, U. of Washington, April 2018 –
- Affiliate Faculty, Center for Studies in Demography & Ecology (CSDE), U. of Washington, September 2018 –

Honors, Awards, Scholarships

- Francisco Torres plenary speaker, VI Latin American Congress of Bayesian Statistics (COBAL VI), International Society for Bayesian Analysis, 2019.
- Genentech Distinguished Assistant Professorship, Department of Biostatistics, University of Washington, 2017 – 2018.
- Young ISBA Travel Award for IV Latin American Congress of Bayesian Statistics (COBAL IV), International Society for Bayesian Analysis, 2015.
- Wray Jackson Smith Scholarship, Government Statistics and Social Statistics Sections, American Statistical Association, 2014.
- Student Paper Competition Winner, Social Statistics, Government Statistics, and Survey Research Methods Sections, American Statistical Association, 2010 and 2014.
- Poster Session Winner, Pittsburgh Chapter Annual Banquet, American Statistical Association, 2012 and 2013.
- Commencement Speaker, Faculty of Sciences, National University of Colombia – Bogotá, 2009.
Honor equivalent to a valedictorian speech in North America.
- Biannual Honors Tuition Scholarships (“Matricula de Honor”), Faculty of Sciences, National University of Colombia, Bogotá, 2007 to 2009 (six times).
Honor granted every semester to the student with the best grades in their cohort.

Professional Activities

- PAPER REFEREE for *Annals of Applied Statistics*, *Annals of Mathematics and Artificial Intelligence*, *Biometrics*, *Electronic Journal of Statistics*, *Entropy*, *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, *International Conference on Information Systems*, *International Journal of Approximate Reasoning*, *Journal of Business and Economic Statistics*, *Journal of Computational and Graphical Statistics*, *Journal of Survey Statistics and Methodology*, *Journal of the American Statistical Association (Applications and Case Studies, Theory and Methods)*, *Journal of the Korean Statistical Society*, *Journal of the Royal Statistical Society (Series A)*, *Metrika*, *PLOS ONE*, *Revista Colombiana de Estadística (Colombian Journal of Statistics)*, *Statistical Methods in Medical Research*, *Statistics in Medicine*.
- SUMMER AT CENSUS SCHOLAR, Center for Statistical Research & Methodology, U.S. Bureau of the Census, 2019.
- REVIEWER FOR STUDENT PAPER COMPETITION, Health Policy Statistics Section, American Statistical Association, 2018.
- GRANT REVIEWER for the Netherlands Organisation for Scientific Research — NWO, 2018.
- EXAMINER FOR RESEARCH PAPER PRELIM PH.D. EXAM, Department of Statistics, University of Washington, Spring 2018.
- MEMBER OF PLANNING COMMITTEE FOR PH.D. APPLIED EXAM, Department of Biostatistics, University of Washington, 2018.

- DEPARTMENTAL SEMINAR ORGANIZER, Department of Biostatistics, University of Washington, Spring and Fall 2018, Winter 2019.
- MEMBER OF THE STANDING COMMITTEE FOR THE AMERICAN OPPORTUNITY STUDY – PHASE 1, National Academies of Sciences, Engineering and Medicine, 2016.
- ORGANIZER OF INVITED SESSIONS, JSM 2017: “Nonparametric Saturated Methods to Handle Nonignorable Missing Data,” Baltimore, MD; JSM 2015: “Bayesian Approaches to Record Linkage,” Seattle, WA.
- STUDENT REPRESENTATIVE of Carnegie Mellon University in the Pittsburgh Chapter of the American Statistical Association, 2012–2014.
- PROFESSIONAL MEMBERSHIPS: American Statistical Association (since 2008), International Society for Bayesian Analysis (since 2015), International Biometric Society (since 2017).

Bibliography

Refereed Research Articles

1. **Mauricio Sadinle** (2008). Linking the Negative Binomial and Logarithmic Series Distributions via their Associated Series. *Revista Colombiana de Estadística (Colombian Journal of Statistics)* **31**(2), 311–319.
2. **Mauricio Sadinle** (2009). Transformed Logit Confidence Intervals for Small Populations in Single Capture-Recapture Estimation. *Communications in Statistics – Simulation and Computation* **38**(9), 1909–1924.
3. **Mauricio Sadinle** and Stephen E. Fienberg (2013). A Generalized Fellegi-Sunter Framework for Multiple Record Linkage With Application to Homicide Record Systems. *Journal of the American Statistical Association* **108**(502), 385–397.
4. **Mauricio Sadinle** (2014). Detecting Duplicates in a Homicide Registry Using a Bayesian Partitioning Approach. *Annals of Applied Statistics* **8**(4), 2404–2434.
5. **Mauricio Sadinle** (2017). Bayesian Estimation of Bipartite Matchings for Record Linkage. *Journal of the American Statistical Association* **112**(518), 600–612.
6. **Mauricio Sadinle** and Jerome P. Reiter (2017). Itemwise Conditionally Independent Nonresponse Modeling for Incomplete Multivariate Data. *Biometrika* **104**(1), 207–220.
7. **Mauricio Sadinle** and Jerome P. Reiter (2018). Sequential Identification of Nonignorable Missing Data Mechanisms. *Statistica Sinica* **28**(4), 1741–1759. Special Issue on Data Missing Not At Random.
8. **Mauricio Sadinle** (2018). Bayesian Propagation of Record Linkage Uncertainty into Population Size Estimation of Human Rights Violations. *Annals of Applied Statistics* **12**(2), 1013–1038. Special Section in Memory of Stephen E. Fienberg.
9. **Mauricio Sadinle**, Jing Lei and Larry Wasserman (2018+). Least Ambiguous Set-Valued Classifiers with Bounded Error Levels. Accepted in *Journal of the American Statistical Association*.
10. **Mauricio Sadinle** and Jerome P. Reiter (2019+). Sequentially Additive Nonignorable Missing Data Modeling Using Auxiliary Marginal Information. Accepted in *Biometrika*.

11. Yen-Chi Chen and **Mauricio Sadinle** (2019+). Nonparametric Pattern-Mixture Models for Inference with Missing Data. *Submitted*.
12. Tigran Avoundjian, Julia C. Dombrowski, Matthew R. Golden, James P. Hughes, Brandon R. Guthrie, Janet Baseman, and **Mauricio Sadinle** (2019+). Record Linkage for Public Health Action: A Comparison of Matching Algorithms. *Submitted*.

Other Refereed Scholarly Publications

1. R. C. Steorts, S. L. Ventura, **M. Sadinle**, and S. E. Fienberg (2014). A Comparison of Blocking Methods for Record Linkage. *Privacy in Statistical Databases*.

Books and Book Chapters

1. Jorge A. Restrepo and **Mauricio Sadinle** (2009). Grupos armados y tenencia de tierras en el desplazamiento forzado interno en Colombia: una aproximación desde la población atendida por la Iglesia católica colombiana (Armed Groups and Land Ownership in the Internal Forced Displacement in Colombia: An Approach from the Population Assisted by the Colombian Catholic Church), in *Guerra y violencias en Colombia: herramientas e interpretaciones (War and Violence in Colombia: Tools and Interpretations)*. ISBN: 978-958-716-268-4, Editorial Pontificia Universidad Javeriana, 395–421. (In Spanish).

Other Non-Refereed Published Scholarly Publications

1. **Mauricio Sadinle** (2008). Metodología para interpolar tamaños poblacionales (Methodology to Interpolate Population Sizes). CERAC Working Paper, No. 7, February 2008. (In Spanish).
2. **Mauricio Sadinle** (2008). On the Performance of Dual System Estimators of Population Size: A Simulation Study. CERAC Working Paper, No. 13, December 2008.
3. **Mauricio Sadinle**, Rob Hall, and Stephen E. Fienberg (2011). Approaches to Multiple Record Linkage. *Proceedings of the 58th World Statistics Congress*, International Statistical Institute, Dublin, Ireland.
4. **Mauricio Sadinle**, Mike Finegold, Stephen E. Fienberg, and Ee-Peng Lim (2012). Modeling Latent Relationships in the myGamma Network. LARC Technical Report.
5. **Mauricio Sadinle** (2013). The Strength of Arcs and Edges in Interaction Networks: Elements of a Model-Based Approach. LARC Technical Report.

Funding History

Pending Applications

1. *Advancing record linkage research: optimal linkage decisions and propagating linkage uncertainty*; **NSF-MMS, role: PI**.

Conferences and Symposia

Invited Discussant

1. Statistical Analysis of Linked Data. *Joint Statistical Meetings (JSM)*, Vancouver, Canada, 2018.

Invited Oral Presentations

1. Approaches to Multiple Record Linkage. *58th World Statistics Congress*, International Statistical Institute, Dublin, Ireland, 2011.
2. Multiple Record Linkage Using a Generalized Fellegi–Sunter Framework. *Classification Society Annual Meetings*, Pittsburgh, PA, 2012.
3. A Bayesian Framework for Duplicate Detection, Record Linkage, and Subsequent Inference with Linked Files. *Workshop on Computational Methods for Censuses and Surveys*, BUREAU OF LABOR STATISTICS, Washington, DC, 2014.
4. Detecting Killings Reported Multiple Times to the United Nations Truth Commission for El Salvador. *Program on Computational Methods in Social Sciences*, STATISTICAL AND APPLIED MATHEMATICAL SCIENCES INSTITUTE (SAMSI), Research Triangle Park, NC, 2014.
5. An Overview of Record Linkage. *Workshop on Computational Methods for Survey and Census Data in the Social Sciences*, CANADIAN STATISTICAL SCIENCES INSTITUTE (CANSSI), Montréal, Québec, Canada, 2014.
6. Bayesian Estimation of Bipartite Matchings for Record Linkage. *IV Latin American Congress of Bayesian Statistics (COBAL IV)*, Medellin, Colombia, 2015.
7. Bayesian Estimation of Bipartite Matchings for Record Linkage. *2016 International Methodology Symposium*, STATISTICS CANADA, Gatineau, Québec, Canada, 2016.
8. Itemwise Conditionally Independent Nonresponse Modeling for Incomplete Multivariate Data. *NSF–Census Research Network (NCRN) Spring 2016 Meeting*, U.S. CENSUS BUREAU, Washington, DC, 2016.
9. A Bayesian Partitioning Approach to Duplicate Detection and Record Linkage. *Data Linkage and Anonymisation Programme*, ISAAC NEWTON INSTITUTE FOR MATHEMATICAL SCIENCES, Cambridge, UK, 2016.
10. Bayesian Estimation of Bipartite Matchings for Record Linkage. *2016 International Conference on Advances in Interdisciplinary Statistics and Combinatorics*, UNIVERSITY OF NORTH CAROLINA AT GREENSBORO, NC, 2016.
11. Itemwise Conditionally Independent Nonresponse Modeling for Incomplete Multivariate Data. *V Latin American Congress of Bayesian Statistics (COBAL V)*, Guanajuato, Mexico, 2017.
12. Combining Identifying Assumptions to Handle Nonignorable Missing Data. *Joint Statistical Meetings (JSM)*, Baltimore, MD, 2017.
13. Accounting for Record Linkage Uncertainty in Population Size Estimation. *ENAR Spring Meeting*, EASTERN NORTH AMERICAN REGION, INTERNATIONAL BIOMETRIC SOCIETY, Atlanta, GA, 2018.
14. Nonparametric Identified Methods to Handle Nonignorable Missing Data. *ICSA Applied Statistics Symposium*, INTERNATIONAL CHINESE STATISTICAL ASSOCIATION, New Brunswick, NJ, 2018.
15. Introduction to Probabilistic Record Linkage. *Colombian Symposium of Statistics*, Bucaramanga, Colombia, 2018.
16. The Promises and Challenges of Data Integration. *Joint Statistical Meetings (JSM)*, Vancouver, Canada, 2018.

17. Bayesian Propagation of Record Linkage Uncertainty into Subsequent Analyses. *Francisco Torres plenary talk, VI Latin American Congress of Bayesian Statistics (COBAL VI)*, Lima, Peru, 2019.

Invited Institutional Seminars

1. UNIVERSITY OF SOUTHAMPTON, SOUTHAMPTON STATISTICAL SCIENCES RESEARCH INSTITUTE, Southampton, UK, September 2016.
2. UNIVERSITY OF MINNESOTA, SCHOOL OF STATISTICS, Minneapolis, MN, January 2017.
3. UNIVERSITY OF CALIFORNIA AT DAVIS, DEPARTMENT OF STATISTICS, Davis, CA, January 2017.
4. UNIVERSITY OF WASHINGTON, DEPARTMENT OF BIostatISTICS, Seattle, WA, January 2017.
5. PENNSYLVANIA STATE UNIVERSITY, DEPARTMENT OF STATISTICS, State College, PA, January 2017.
6. OHIO STATE UNIVERSITY, DEPARTMENT OF STATISTICS, Columbus, OH, January 2017.
7. UNIVERSITY OF ILLINOIS AT URBANA–CHAMPAIGN, DEPARTMENT OF STATISTICS, Urbana–Champaign, IL, February 2017.
8. UNIVERSITY OF WATERLOO, DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE, Waterloo, ON, Canada, February 2017.
9. UNIVERSITY OF MICHIGAN, DEPARTMENT OF STATISTICS, Ann Arbor, MI, February 2017.
10. COLUMBIA UNIVERSITY, DEPARTMENT OF STATISTICS, New York City, NY, February 2017.
11. UNIVERSITY OF WASHINGTON, CENTER FOR STATISTICS AND THE SOCIAL SCIENCES, Seattle, WA, November 2017.
12. INDIANA UNIVERSITY, DEPARTMENT OF STATISTICS, Bloomington, IN, November 2017.
13. FRED HUTCHINSON CANCER RESEARCH CENTER, Seattle, WA, February 2018.
14. KAISER PERMANENTE WASHINGTON HEALTH RESEARCH INSTITUTE, Seattle, WA, March 2018.
15. PORTLAND STATE UNIVERSITY, MASEEH MATHEMATICS AND STATISTICS COLLOQUIUM SERIES, Portland, OR, June 2018.
16. UNIVERSITY OF WASHINGTON, HARBORVIEW INJURY PREVENTION AND RESEARCH CENTER, Seattle, WA, September 2018.
17. UNIVERSITY OF WASHINGTON, CENTER FOR STUDIES IN DEMOGRAPHY AND ECOLOGY, Seattle, WA, October 2017.
18. UNIVERSITY OF CALIFORNIA LOS ANGELES, DEPARTMENT OF STATISTICS, Los Angeles, CA, February 2019.
19. UNIVERSITY OF WASHINGTON, DEPARTMENT OF STATISTICS, Seattle, WA, March 2019.
20. UNIVERSITY OF MICHIGAN, SURVEY RESEARCH CENTER, Ann Arbor, MI, April 2019.

Contributed Oral Presentations

1. Logit–Based Confidence Intervals for Single Capture–Recapture Estimation (Poster). *Joint Statistical Meetings*, Washington, DC, 2009.
2. Descriptive Comparison of Populations by Rates: The Analysis of Departures from the Equirates Model. *Joint Statistical Meetings*, Vancouver, British Columbia, Canada, 2010.
3. Multiple Record Linkage: Generalizing the Fellegi–Sunter Theory. *Joint Statistical Meetings*, Miami Beach, FL, 2011.
4. Modeling Latent Tie Strength in Social Networks Using Interaction Count Data. *Joint Statistical Meetings*, San Diego, CA, 2012.
5. Transitive Probabilistic Deduplication of Record Systems Using a Stochastic Blockmodel. *Joint Statistical Meetings*, Montréal, Québec, Canada, 2013.
6. Detecting Duplicate Homicide Records Using a Bayesian Partitioning Model. *Joint Statistical Meetings*, Boston, MA, 2014.
7. Bipartite Matching Estimation for Record Linkage. *Joint Statistical Meetings*, Seattle, WA, 2015.
8. Itemwise Conditionally Independent Nonresponse Modeling for Incomplete Multivariate Data. *Joint Statistical Meetings*, Chicago, IL, 2016.

Teaching History

Formal Courses

- Introduction to Probability and Statistics for Social Scientists, NATIONAL UNIVERSITY OF COLOMBIA, Bogotá, Colombia. Instructor, 2010.
- Discrete Multivariate Analysis, CARNEGIE MELLON UNIVERSITY, DEPARTMENT OF STATISTICS, Pittsburgh, PA, USA. Co-instructor, with Stephen E. Fienberg. Fall 2014.
- Computational Skills for Biostatistics II, UNIVERSITY OF WASHINGTON, DEPARTMENT OF BIOSTATISTICS, WA, USA. Winter 2018.
- Introduction to R for Data Analysis in the Health Sciences, UNIVERSITY OF WASHINGTON, DEPARTMENT OF BIOSTATISTICS, WA, USA. Autumn 2018.
- Statistical Methods for Missing Data, UNIVERSITY OF WASHINGTON, DEPARTMENT OF BIOSTATISTICS, WA, USA. Winter 2019.

Other Teaching

- TEACHING ASSISTANT AT CARNEGIE MELLON UNIVERSITY. Probability Theory and Random Processes, Statistical Methods, Introduction to Probability Theory, Introduction to Statistical Inference, Intermediate Statistics, Social Network Models. 2010 – 2014.
- GUEST LECTURER AT DUKE UNIVERSITY. STA 321 Statistics of Surveys, Fall 2016.
- GUEST LECTURER AT UNIVERSITY OF WASHINGTON. HSERV 524 Advanced Health Services Research Methods II - Hierarchical and Incomplete Data, Winter 2018; BOST 526 Bayesian Biostatistics, Spring 2018; BOST 111 Lectures in Applied Statistics, Spring 2018.

- LECTURER AT COLOMBIAN SYMPOSIUM OF STATISTICS. Mini-course “Introduction to Missing Data Methods.” Bucaramanga, Colombia, July 2018.

Independent Studies at the University of Washington

- Yiqun Chen (Fall 2017, Winter 2018)
- Yunhua Xiang (Fall 2017, Winter 2018)
- Serge Aleshin-Guendel (Winter, Spring, Summer, Fall 2018)
- Zimeng (Parker) Xie (Spring, Summer, Fall 2018)
- Spencer Hansen (Fall 2018)

Teaching Training

- Training and Certification for International Teaching Assistants, CARNEGIE MELLON UNIVERSITY, THE INTERCULTURAL COMMUNICATION CENTER, Pittsburgh, PA, USA, 2010–2013. *Description: Training leading to a test that certifies a strong English proficiency level and allows, under Pennsylvania law, a non-native English speaker to give lectures, recitations, labs and studios, as well as serve as sole instructor for a course.*
- Future Faculty Program, CARNEGIE MELLON UNIVERSITY, THE EBERLY CENTER FOR TEACHING EXCELLENCE AND EDUCATIONAL INNOVATION, Pittsburgh, PA, USA, 2014–2015. *Description: This program helps prepare graduate students for a faculty career. It includes a number of teaching seminars, teaching feedback consultations, a course design project, and a statement of teaching philosophy project.*

Advising and Formal Mentoring

MS and PhD Committees in Non Chair Role

- Xiaochen Dai, MS Student, Department of Biostatistics.
- Sarah Stansfield, PhD Student, Department of Anthropology.
- Youngjun Choi, PhD Student, School of Social Work.

Academic Advising

- Yunhua Xiang, PhD Student, Department of Biostatistics.
- Charles Wolock, PhD Student, Department of Biostatistics.