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Education

- **2010 – 2015, PhD, Statistics** *University of Florida*
- **2005 – 2009, BS, Finance** *University of Florida*

Professional Experience

- **2019 – Present, Assistant Professor**, *University of Texas at Austin*, Department of Statistics and Data Sciences
- **2015 – 2019, Assistant Professor**, *Florida State University*, Department of Statistics

Title of Dissertation

Nonparametric Bayes: Inference Under Nonignorable Missingness and Model Selection

Dissertation Advisor

Michael J. Daniels and Hani Doss

Current Research Interests

Bayesian machine learning, tree-based methods, and causal inference.

Professional Societies

- International Society of Bayesian Analysis (ISBA): Member
- American Statistical Association (ASA): Member

Research Funding**1. Sponsored Research Funding****a. Previous Funding**

- Sponsor:** National Science Foundation. **Account Number:** 26101540
Name/Affiliation of PI: Antonio Linero, University of Texas at Austin.
Project Title: Leveraging Structural Information in Regression Tree Ensembles. **Funding Period:** 09/01/2019 – 08/31/2020. **Funding Amounts by Year:** Year 1: \$25,854 **Note:** *Transfer of \$100,000 grant awarded while at Florida State University.*
- Sponsor:** Florida State University. **Account Number:** 26351367
Name/Affiliation of PI: Antonio Linero, University of Texas at Austin.
Project Title: The Science of Test: Advanced Test and Evaluation in Support of the DOD Test and Evaluation Enterprise. **Funding Period:** 04/01/2020 – 12/01/2020. **Funding Amounts by Year:** Year 1: \$6,296
Note: *Subcontract of Department of Defense grant awarded to PI Eric Chicken at Florida State University.*

b. Current Funding

- i. **Sponsor:** National Science Foundation. **Account Number:** 26101906
Name/Affiliation of PI: Antonio Linero, University of Texas at Austin.
Project Title: CAREER: Foundations for Bayesian Nonparametric Causal Inference. **Funding Period:** 05/01/2022 – 04/30/2027. **Funding Amounts by Year:** Year 1 – Year 5: \$100,000/year.

Publications

¹Refereed, ²Invited

Publications while in rank of Assistant Professor

- ¹Varbanov, R., Shamp, W., Chicken, E, **Linero, A.R.**, Yang, Y. (2020) Computationally Efficient Bayesian Sequential Function Monitoring. *Journal of Quality Technology*, **54**(1) 1 - 19.
- ¹**Linero, A.R.**, Sinha, D., and Lipsitz, S.R. (2020) Semiparametric Mixed-Scale Models Using Shared Bayesian Forests. *Biometrics*, **76**(1), 131–144.
- ²Hill, J., **Linero, A.R.**, and Murray, J. (2020) Bayesian Additive Regression Trees: A Review and Look Forward. *Annual Review of Statistics and Its Application*, **7**(1), 251–278.
- ¹Varbanov, R., Chicken, E., **Linero, A.R.**, and Yang, Y. (2019) A Bayesian Approach to Sequential Monitoring of Nonlinear Profiles Using Wavelets. *Quality and Reliability Engineering International*, **35**(3), 761–775.
- ¹**Linero, A.R.** and Yang, Y. (2018) Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity. *Journal of the Royal Statistical Society, Series B*, **80**(5), 1087–1110.
- ¹**Linero, A.R.**, Bradley, J.R, and Desai, A.S. (2018) Multi-rubric Models for Ordinal Spatial Data with Application to Online Ratings. *Annals of Applied Statistics*, **12**(4), 2054–2074.
- ²**Linero, A.R.** and Daniels, M.J. (2018) Bayesian Approaches for Missing Not at Random Outcome Data: The Role of Identifying Restrictions. *Statistical Science*, **33**(2), 198–213.
- ¹**Linero, A.R.** (2018) Bayesian regression trees for high dimensional prediction and variable selection. *Journal of the American Statistical Association*, **113**(522), 626–636
- ²**Linero, A.R.** (2017) A Review of Tree-Based Bayesian Methods. *Communications for Statistical Applications and Methods*, **24**(6), 543–559.
- ¹**Linero, A.R.** (2017) Bayesian Nonparametric Analysis of Longitudinal Studies in the Presence of Informative Missingness. *Biometrika*, **104**(2), 371–341
- ¹Piekarewicz, J., **Linero, A.R.**, Giuliani, P., and Chicken, E. (2016) The power of two: Assessing the impact of a second measurement of the weak-charge form factor of 208Pb. *Physical Reviews C*, **94**(3), 034316.

Publications as graduate student

- ¹Linero, A.R. and Daniels, M.J. (2015) A flexible Bayesian approach to mono- tone missing data in longitudinal studies with nonignorable missingness with application to an acute schizophrenia clinical trial. *Journal of the American Statistical Association*, **110**(509), 45–55.

- ¹**Linero, A.R** and Rosalsky, A. (2013) On the Toeplitz lemma, convergence in probability, and mean convergence. *Stochastic Analysis and Applications*, **31**(4), 684-694.

Papers in Press

- ¹**Linero, A.R.** and Zhang, Q. Mediation Analysis using Bayesian Tree Ensembles. *Psychological Methods*. **Acceptance Date:** 3/29/2022
- ²**Linero A. R** and Antonelli, J.L. The How and Why of Bayesian Nonparametric Causal Inference. *WIREs: Computational Statistics*. **Acceptance date:** 3/16/2022
- ¹Li, Y., **Linero, A.R.**, and Murray, J.S. Adaptive Conditional Distribution estimation with Bayesian Decision Tree Ensembles. *Journal of the American Statistical Association*. **Acceptance Date:** 1/26/2022
- ¹Wright, S. **Linero, A.R.**, and Chicken, E. Bayesian Sequential Monitoring of Density Estimates. *Quality and Reliability Engineering International*. **Acceptance Date:** 11/23/2021
- ¹**Linero, A.R.**, Basak, P., Li, Y., and Sinha, D. Bayesian Survival Tree Ensembles with Submodel Shrinkage. *Bayesian Analysis*. **Acceptance Date:** 7/9/2021
- ¹**Linero, A.R.** Simulation-Based Estimators of Analytically Intractable Causal Effects. *Biometrics*. **Acceptance Date:** 4/28/2021
- ¹Basak, P., **Linero, A.R.**, Sinha, D., and Lipsitz, S.R. Semiparametric Analysis of Clustered Interval-Censored Survival Data Using Soft Bayesian Additive Regression Trees. *Biometrics*. **Acceptance Date:** 4/17/2021

Papers Submitted for Publication

- ¹**Linero, A.R.** Prior and Posterior Checking of Implicit Causal Assumptions. *Submitted to Biometrics*. **Submission date:** 5/19/2022
- ¹**Linero, A.R.** Generalized Bayesian Additive Regression Trees: Beyond Conditional Conjugacy. *Submitted to Journal of the American Statistical Association*. **Submission date:** 1/25/2022
- ¹Orlandi, V., Murray, J., **Linero, A.R.**, and Volfovsky, A. (2021+) Density Regression with Bayesian Additive Regression Trees. *Submitted to Journal of the American Statistical Association*. **Submission date:** 12/20/2021
- ¹**Linero, A.R.** (2021+) In Nonparametric and High-Dimensional Models, Bayesian Ignorability is an Informative Prior. *Reject and Resubmit at Journal of the American Statistical Association*. **Submission date:** 9/17/2021
- ¹Rene, L., **Linero, A.R.**, and Slate, E. (2021+) Causal Mediation and Sensitivity Analysis for Mixed Scale Data. *Major Revision at Statistical Methods in Medical Research*. **Submission date:** 11/10/2021
- ¹Li, Y., **Linero, A.R.**, and Walker, S.G. (2021+) A Latent Slice Sampler on Multivariate Binary Spaces. *Reject and Resubmit at Journal of Computational and Graphical Statistics*. **Submission date:** 2021

- ¹Jiang, D., **Linero, A.R.**, and Zhang, X. (2021+) Envelope Methods for Missing Response Data in Multivariate Linear Models. *Submitted to Canadian Journal of Statistics*. **Submission date:** 1/3/2022
- ¹Um, S., **Linero, A.R.**, Sinha, D., and Bandyopadhyay, D. (2021+) Bayesian Additive Regression Trees for Multivariate Skewed Responses. *Major Revision at Statistics in Medicine*. **Submission date:** 4/2021

Chapters in Books

- ²**Linero, A.R.** and Du, J. (2021) Variable Selection for Bayesian Decision Tree Ensembles. In Tadesse, M. and Vanucci, M. (Eds.) *Handbook of Bayesian Variable Selection*. Chapman and Hall/CRC.
- ²Daniels, M.J. and **Linero, A.R.** (2015) Bayesian nonparametrics for missing data in longitudinal clinical trials. *In Nonparametric Bayesian Inference in Biostatistics*.

Articles in Conference Proceedings

- ¹Du, J. and **Linero A.R.**, (2019) Incorporating Grouping Information into Bayesian Decision Tree Ensembles. In *Proceedings of the 36th International Conference on Machine Learning (ICML)*.
- ¹Du, J. and **Linero A.R.**, (2019) Interaction Detection with Bayesian Decision Tree Ensembles. In *Proceedings of the 22nd International Conference on Artificial Intelligence and Statistics (AISTATS)*.
- ¹Varbanov, R., Chicken, E., and **Linero, A.R.** (2017) Wavelet-Based Bayesian Profile Monitoring. *Proceedings of the 2017 Industrial and Systems Engineering Research Conference*.

Awards and Honors

- **CLAS Dissertation Fellowship** (2015), University of Florida.
- **Statistics Faculty Award** (2014) University of Florida.
Awarded to “the best graduating PhD student” in the Department of Statistics.
- **Laplace Award** (2014), awarded by the International Society for Bayesian Analysis and the Section of Bayesian Statistical Science of the American Statistical Association.
For best Bayesian student paper.

Service

Departmental

- Research seminar organizer, 2021 – 2022
- Committee member, undergraduate major curriculum committee 2020 - 2021.

College

- Committee member, Bioinformatics, computational biology, systems biology curriculum committee 2021 – 2022

Seminars/Lectures –

Conferences, Colloquia, or talks at other institutions

1. **6/29/2022, Invited**, ISBA World Meeting, *Mediation Analysis using Bayesian Decision Tree Ensembles*.
2. **1/12/2022, Invited**, ISBA Section on Biostatistics and Pharmaceutical Statistics, *Bayesian Survival Tree Ensembles with Submodel Shrinkage*.
3. **11/30/2021, Invited**, Binghamton University, *BART Methods for Fully-Nonparametric Problems*.
4. **9/17/2021, Invited**, Universidad Miguel Hernández de Elche, *BART Methods for Fully-Nonparametric Problems*.
5. **5/06/2021, Invited**, Bocconi University, *BART Methods for Fully-Nonparametric Problems*
6. **3/15/2021, Invited**, Rice University, *BART Methods for Fully-Nonparametric Problems*
7. **2/12/2021, Invited**, University of Louisville, *BART Methods for Fully-Nonparametric Problems*
8. **12/15/2020, Invited**, ICSA (Online), *BART Methods for Fully-Nonparametric Problems*
9. **3/23/2020, Invited**, ENAR (Online), *BART Methods for Fully-Nonparametric Problems*
10. **6/04/2019, Invited**, Ohio State University, *Bayesian Nonparametric Methods for Longitudinal Outcomes Missing Not at Random*
11. **5/24/2019, Invited**, Virginia Tech, *Finding and Leveraging Structure Using Bayesian Decision Tree Ensembles*
12. **1/24/2019, Invited**, University of Michigan, *Theory and Practice for Bayesian Regression Tree Ensembles*
13. **1/22/2019, Invited**, University of Minnesota, *Theory and Practice for Bayesian Regression Tree Ensembles*
14. **1/11/2019, Invited**, Duke University, *Theory and Practice for Bayesian Regression Tree Ensembles*
15. **1/08/2019, Invited**, University of Florida, *Theory and Practice for Bayesian Regression Tree Ensembles*
16. **12/15/2018, Invited**, CM Statistics, *Finding and Leveraging Structure with Bayesian Decision Tree Ensembles*
17. **7/30/2018, Invited**, JSM, *Finding and Leveraging Structure with Bayesian Decision Tree Ensembles*
18. **6/11/2018, Invited**, ISNPS, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity*
19. **5/19/2018, Invited**, IISA, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity*
20. **12/17/2017, Invited**, CM Statistics, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity*
21. **8/1/2017, Invited**, JSM, *Sensitivity Analysis for Longitudinal Clinical Trials with Nonmonotone Missingness*
22. **7/17/2017, Invited**, EcoSta, *Bayesian regression trees for high-dimensional prediction and variable selection*

23. **12/10/2016, Invited**, CM Statistics, *Bayesian Nonparametric Analysis of Longitudinal Studies with Informative Missingness*
24. **9/29/2016, Invited**, University of Florida Statistics Symposium, *Bayesian Regression Trees for High Dimensional Prediction and Variable Selection*
25. **6/12/2016, Invited**, ICSA Applied Statistics Symposium, *Bayesian Regression Trees for High Dimensional Prediction and Variable Selection*
26. **2/11/2016, Invited**, University of California at Irvine, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness*
27. **2/9/2015, Invited**, Texas A&M University, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness*
28. **1/28/2015, Invited**, University of Illinois at Urbana-Champaign, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness*
29. **1/20/2015, Invited**, Arizona State University, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness*
30. **1/12/2015, Invited**, Florida State University, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness*
31. **2014, Contributed**, JSM, *A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Dropout with Application to a Schizophrenia Clinical Trial*

Short Courses

1. **6/26/2022**, ISBA World Meeting, *Bayesian Nonparametric Causal Inference*, with Michael Daniels and Jason Roy.
2. **6/27/2022**, ISBA World Meeting, *Advanced Topics in Variable Selection and Model Averaging*, with Joseph Antonelli.

Professional Services

Journal Editing and Editorial Boards

- Associate Editor, *Biometrics*, 2018 - Present

Conference Chair Positions

- Chair of session *Bayesian Nonparametrics in Causal Inference* at ISBA, 2021
- Chair of session *Bayesian Methods for Dependent Data* at CM Statistics, 2016
- Chair of session *Innovative Bayesian Nonparametrics in Biostatistics* at JSM, 2014

Workshops and Specialized Conference Program Committees

- ISBA 2021, *Advanced Topics in Variable Selection and Model Averaging*

Journal, Conference, and Book Reviewing

- **Referee for:** *American Statistician*, *Annals of Applied Statistics*, *Annals of Statistics*, *Bayesian Analysis*, *Biometrics*, *Biometrika*, *Biostatistics*, *Computational Statistics and Data Analysis*, *International Journal of Approximate Reasoning*, *Journal of the American Statistical Association*, *Journal of Applied Statistics*, *Journal of Computational and Graphical Statistics*, *Journal of Epidemiology*, *Journal of the Korean Statistical Society*, *Journal of Machine Learning Research*, *Journal of the Royal Statistical Society, Series C.*, *Journal of Statistical Distributions and Applications*, *Journal of Statistical Software*, *Operations Research*, *PLOS One*, *Psychological Methods*, *Sankhya Series A*, *Statistica Sinica*, *Statistical Methods in Medical Research*, *Statistical Science*, *Statistics and Computing*, *Statistics in Medicine*, *Technometrics*.

Grant Proposal Reviewing

- Panel member for NSF-DMS Statistics Panel (2022)