Antonio Linero

Assistant Professor of Statistics

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Professional Experience

August 2015–Present **Assistant Professor**, *Florida State University*, Department of Statistics.

Education

2010–2015 **PhD, Statistics**, *University of Florida*.
Dissertation — *Nonparametric Bayes: Inference Under Nonignorable Missingness and Model Selection*

2005–2009 **BS, Finance**, *University of Florida*.
Minor—Statistics

External Funding

2018–2022 *The Science of Test* (PI Eric Chicken). Funded by Department of Defense, as part of the Science of Test research consortium (extension of SOT-FSU-FATs-16-06). Total award $478,000.

2017–2020 *Leveraging Structural Information in Decision Tree Ensembles* (PI). Funded by the National Science Foundation (NSF-DMS 1712870). Total award $100,000.

2016–2018 *Functional Analysis Tools (FATs)* (PI Eric Chicken). Funded by Department of Defense, as part of the Science of Test research consortium (SOT-FSU-FATs-16-06). Total award $246,000.

Awards

Spring 2016 **First Year Assistant Professor Award**, *Florida State University*.
Funding for summer research work.

Spring 2015 **CLAS Dissertation Fellowship**, *University of Florida*.
Funding for writing of PhD dissertation.

2014 **Statistics Faculty Award**, *University of Florida*.
Awarded to "the best graduating PhD student" in the Department of Statistics.

2014 **Laplace Award**, 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.

2014 **Student Travel Award**, awarded by the Section of Bayesian Statistical Science.
To attend the Joint Statistical Meeting.

Fall 2010–Spring 2011 **Mendenhall Fellow**, *University of Florida*.
Fellowship awarded to top incoming students.

Fall 2010–Spring 2013 **Grinter Fellow**, *University of Florida*.
Research and graduate program fellowship.

Publications in review

($\star \rightarrow$ graduate student)

Linero, A.R., Sinha, D., and Lipsitz, S.R. (2018+) Semiparametric Mixed-Scale Models Using Shared Bayesian Forests. Invited revision at *Biometrics*.

Publications in press

($\star \rightarrow$ graduate student)

Du, J.* and **Linero A.R.**, (2019) Incorporating Grouping Information into Bayesian Decision Tree Ensembles. To appear in *Proceedings of the 36th International Conference on Machine Learning (ICML)*.

Du, 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)*.

Varbanov, 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.

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.

Linero, A.R., Bradley, J.R, and Desaid, A.S.* (2018) Multi-rubric Models for Ordinal Spatial Data with Application to Online Ratings. *Annals of Applied Statistics,* **12**(4), 2054–2074.

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.

Linero, A.R. (2018) Bayesian regression trees for high dimensional prediction and variable selection. *Journal of the American Statistical Association,* **113**(522), 626–636

Linero, A.R. (2017) A Review of Tree-Based Bayesian Methods. *Communications for Statistical Applications and Methods,* **24**(6), 543–559.

Varbanov, R.*, Chicken, E., and **Linero, A.R.** (2017) Wavelet-Based Bayesian Profile Monitoring. *Proceedings of the 2017 Industrial and Systems Engineering Research Conference.*

Linero, A.R. (2017) Bayesian Nonparametric Analysis of Longitudinal Studies in the Presence of Informative Missingness. *Biometrika,* **104**(2), 371–341

Piekarewicz, 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 ^{208}Pb. *Physical Reviews C,* **94**(3), 034316.

Daniels, M.J. and **Linero, A.R.** (2015) Bayesian nonparametrics for missing data in longitudinal clinical trials. In *Nonparametric Bayesian Inference in Biostatistics.*

Linero, A.R. and Daniels, M.J. (2015) A flexible Bayesian approach to monotone 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.

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.

Presentations

Invited

2/05/2018 **University of Texas at Austin**, *Theory and Practice for Bayesian Regression Tree Ensembles.*

1/24/2019 **University of Michigan**, *Theory and Practice for Bayesian Regression Tree Ensembles.*

1/22/2019 **University of Minnesota**, *Theory and Practice for Bayesian Regression Tree Ensembles.*

1/11/2018 **Duke University**, *Theory and Practice for Bayesian Regression Tree Ensembles.*

1/08/2018 **University of Florida**, *Theory and Practice for Bayesian Regression Tree Ensembles.*

12/15/2018 **CM Statistics**, *Finding and Leveraging Structure with Bayesian Decision Tree Ensembles.*

7/30/2018 **JSM**, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity.*

6/11/2018 **ISNPS**, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity.*

5/19/2018 **IISA**, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity.*

12/17/2017 **CM Statistics**, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity.*

11/3/2017 **UT Austin**, *Bayesian Regression Tree Ensembles that Adapt to Smoothness and Sparsity.*

8/1/2017 **Joint Statistical Meeting**, *Sensitivity Analysis for Longitudinal Clinical Trials with Nonmonotone Missingness.*

7/17/2017 **EcoSta**, *Bayesian regression trees for high-dimensional prediction and variable selection.*

12/10/2016 **CM Statistics**, *Bayesian Nonparametric Analysis of Longitudinal Studies with Informative Missingness.*

9/29/2016 **University of Florida Statistics Symposium**, *Bayesian Regression Trees for High Dimensional Prediction and Variable Selection.*

6/12/2016 **ICSA Applied Statistics Symposium**, *Bayesian Regression Trees for High Dimensional Prediction and Variable Selection.*

2/11/2015 **University of California at Irvine**, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness.*

2/9/2015 **Texas A&M University**, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness.*

1/28/2015 **University of Illinois at Urbana-Champaign**, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness.*

1/20/2015 **Arizona State University**, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness.*

1/12/2015 **Florida State University**, *Flexible Bayesian Analysis in the Presence of Nonignorable Missingness.*

Contributed

2014 **Joint Statistical Meeting**, *A Flexible Bayesian Approach to Monotone Missing Data in Longitudinal Studies with Informative Dropout with Application to a Schizophrenia Clinical Trial.*

Service

2018 – 2020 **Associate Editor**, Biometrics.

Referee, Annals of Applied Statistics, Bayesian Analysis, Biometrics, Biometrika, Journal of the American Statistical Association, Journal of Computational and Graphical Statistics, Journal of Epidemiology, Journal of the Korean Statistical Society, Journal of Statistical Distributions and Applications, PLOS One, Psychological Methods, Sankhya Series A, Statistica Sinica, Statistical Methods in Medical Research, Statistical Science, Statistics in Medicine .

Teaching

At Florida State University

STA4442 Introduction to Probability. Fall 2015, Spring 2017, 2018

STA5168 Statistics in Applications 3. Fall 2016, 2017, 2018

STA3032 Engineering Statistics. Spring 2016

At University of Florida

STA4321 Introduction to Probability. Spring 2013

Technical Skills

Languages & Software R, BUGS/JAGS/STAN, C++, Python, LaTeX, Matlab/Octave, Julia, Linux/Windows/OSX