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Employment & Education

Academic positions

1. **Professor of Statistics and Econometrics** – Insper — Sept. 2013 – present *(on leave 2021–2023)*
2. **Professor of Statistics, Head of the Statistics Group** – Arizona State University — 2021 – 2023
3. **Associate Professor of Econometrics and Statistics** – Chicago Booth — Sept. 2007 – Aug. 2013
4. **Assistant Professor of Econometrics and Statistics** – Chicago Booth — Sept. 2003 – Aug. 2007
5. **Assistant Professor of Statistics** – Federal University of Rio de Janeiro — June 2000 – Aug. 2003
6. **Lecturer of Statistics** – Federal University of Rio de Janeiro — May 1996 – May 2000
7. **Lecturer of Statistics** – Fluminense Federal University — Apr. 1992 – Apr. 1996
8. **Research Associate** – Brazilian Research Institute for Applied Economics (IPEA) — Mar. 1991 – July 1996

Education

1. **Ph.D. in Statistics** – Duke University, Institute of Statistics and Decision Sciences — April 2000
   Bayesian Analysis in Latent Factor and Longitudinal Models. Advisors: Mike West and Peter Müller.
2. **M.Sc. in Statistics** – Duke University, Institute of Statistics and Decision Sciences — May 1998
   Model Uncertainty in Factor Models. Advisors: Mike West and Peter Müller.
3. **M.Sc. in Statistics** – Federal University of Rio de Janeiro, Institute of Mathematics — Nov. 1994
   Applications of Bayesian Vector Autoregression Models. Advisor: Hélio Migon.
4. **B.Sc. in Statistics** – Federal University of Rio de Janeiro, Institute of Mathematics — Sept. 1991
   A Software for Statistical Quality Control. Advisor: Paulo Bravo.

Research

Published and submitted papers

1. Lopes, Polson and Sokolov. *Uncertainty quantification: from weighted bootstrap to generators*. Submitted.
2. Lopes, Polson and Sokolov. *Generative Bayesian hyperparameter tuning*. Submitted.
3. Piantino and Lopes. *Gaussian Process Mixture Model: A Covariate-Dependent Bayesian Nonparametric Approach*. Submitted.
4. Lima, Carvalho and Lopes (2026). *Minnesota BART*. Journal of Business and Economic Statistics (submitted).
5. Alcântara, Hahn and Lopes (2026). *Learning CATE in RDD using BART*. Submitted.
6. Virbickaite, Martins, Nguyen and Lopes (2026). *Volume-driven time-of-day effects in intraday volatility models*. International Journal of Forecasting (R&R).
7. Virbickaite, Martins, Nguyen and Lopes (2026). *Fast and slow level shifts in intraday stochastic volatility*. Journal of Financial Econometrics (R&R).
8. Lopes and Ascolani (2026). *A Conversation with Mike West*. Statistical Science (accepted).
9. Soyer, Zhang and Lopes (2026). *MCMC and particle filtering for dynamic INAR processes*. Applied Stochastic Models in Business and Industry (accepted).
10. Bolfarine, Carvalho and Lopes (2026). *Lower-dimensional posterior density and cluster summaries from over-parameterized Bayesian models*. Statistics and Computing, 36:107.
11. Lopes and Uribe (2025). *Dynamic sparsity on dynamic regression models*. Brazilian Journal of Probability and Statistics, 39(3): 366–386.
12. Martins and Lopes (2025). *What events matter for exchange rate volatility?*. Quarterly Review of Economics and Finance, 104, 102073.
13. Frühwirth-Schnatter, Hosszejni and Lopes (2025). *Sparse Bayesian factor analysis when the number of factors is unknown*. Bayesian Analysis (with discussion), 20(1): 213–344.
14. Bolfarine, Carvalho, Lopes and Murray (2024). *Decoupling shrinkage and selection in Gaussian linear factor analysis*. Bayesian Analysis, 19(1), 181–203.

15. Virbickaitė, Lopes and Zaharieva (2025). *Multivariate dynamic mixed-frequency density pooling for financial forecasting*. International Journal of Forecasting, 41(3), 1184–1198.
16. Martins and Lopes (2024). *Stochastic volatility models with skewness selection*. Entropy, 26(2), 142.
17. Fava, Marques Jr. and Lopes (2024). *Probabilistic nearest neighbors classification*. Entropy, 26(1), 39.
18. Levy and Lopes (2024). *Dynamic ordering learning in multivariate forecasting*. In Chiann, Pinheiro and Toloi (Eds.), *Time Series and Wavelets Analysis: Festschrift in Honor of Pedro A. Morettin*, Springer Nature.
19. Frühwirth-Schnatter, Hosszejni and Lopes (2023). *When it counts: Econometric identification of the basic factor model based on GLT structures*. Econometrics, 11(4), 26.
20. Theoharidis, Guillen and Lopes (2023). *Deep learning models for inflation forecasting*. Applied Stochastic Models in Business and Industry, 39(3), 447–470.
21. Lopes, McCulloch and Tsay (2022). *Parsimony-inducing priors for large-scale state-space models*. Journal of Econometrics, 230(1), 39–61.
22. Graziadei, Lopes and Marques (2022). *Bayesian generalizations of the integer-valued autoregressive model*. Journal of Applied Statistics, 49, 336–356.
23. Fava and Lopes (2021). *The illusion of the illusion of sparsity: An exercise in prior sensitivity*. Brazilian Journal of Probability and Statistics, 34(4), 699–720.
24. Izbicki, Bastos, Izbicki, Lopes and Santos (2021). *How many hospitalizations has the COVID-19 vaccination already prevented in São Paulo?*. Clinics, 76:e3250.
25. Berrett, Christensen, Sain, Sandholtz, Coats, Tebaldi and Lopes (2020). *Modeling sea level processes on the US Atlantic coast*. Environmetrics, 31(4), e2609.
26. Graziadei, Lijoi, Lopes, Marques and Prünster (2020). *Prior sensitivity analysis in a semi-parametric integer-valued time series model*. Entropy, 22, 69.
27. Ascari, Bonomolo and Lopes (2019). *Walk on the wild side: Multiplicative sunspots and temporarily unstable paths*. American Economic Review, 109, 1805–1842.
28. Hahn, He and Lopes (2019). *Efficient sampling for Gaussian linear regression with arbitrary priors*. Journal of Computational and Graphical Statistics, 28, 142–154.
29. Virbickaite, Lopes, Ausín and Galeano (2019). *Particle learning for Bayesian semi-parametric stochastic volatility model*. Econometric Reviews, 38, 1007–1023.
30. Schmidt and Lopes (2019). *Dynamic models*. In Gelfand, Fuentes, Hoeting and Smith (Eds.), *Handbook of Environmental and Ecological Statistics*, 57–80, Chapman & Hall.
31. Virbickaite and Lopes (2019). *Bayesian semi-parametric Markov switching stochastic volatility model*. Applied Stochastic Models in Business and Industry, 35, 978–997.
32. Lopes and Polson (2019). *Bayesian hypothesis testing: Redux*. Brazilian Journal of Probability and Statistics, 33, 745–755.
33. Lopes, Taddy and Gardner (2019). *Semi-parametric inference for the means of heavy-tailed distributions*. In Tobias and Jeliazkov (Eds.), *Advances in Econometrics*, Vol. 40, Part B.
34. Carvalho, Lopes and McCulloch (2018). *On the long run volatility of stocks*. Journal of the American Statistical Association, 113, 1050–1069.
35. Warty, Lopes and Polson (2018). *Sequential Bayesian learning for stochastic volatility with variance-gamma jumps in returns (with discussion)*. Applied Stochastic Models in Business and Industry, 34, 460–483.
36. Hahn, He and Lopes (2017). *Bayesian factor model shrinkage for linear IV regression with many instruments*. Journal of Business and Economic Statistics, 36, 278–287.
37. Kastner, Frühwirth-Schnatter and Lopes (2017). *Efficient Bayesian inference for multivariate factor stochastic volatility models*. Journal of Computational and Graphical Statistics, 26(4), 905–917.
38. Shirota, Omori and Lopes (2017). *Cholesky realized stochastic volatility model*. Econometrics and Statistics, 3, 34–59.
39. Lopes and Polson (2016). *Particle learning for fat-tailed distributions*. Econometric Reviews, 35, 1666–1691.
40. Nascimento, Gamerman and Lopes (2016). *Time-varying extreme pattern with dynamic models*. Test, 25, 131–149.
41. Lopes and Polson (2014). *Bayesian IV: likelihoods and priors*. Econometric Reviews, 33, 100–121.
42. Heckman, Lopes and Piatek (2014). *Treatment effects: a Bayesian perspective*. Econometric Reviews, 33, 36–67.
43. Lopes (2014). *Modern Bayesian factor analysis*. In Jeliazkov and Yang (Eds.), *Bayesian Inference in the Social Sciences*, Ch. 5, 115–153, Wiley.
44. Kastner, Frühwirth-Schnatter and Lopes (2013). *Analysis of exchange rates via multivariate Bayesian factor stochastic volatility models*. In Lanzarone and Leva (Eds.), *The Contribution of Young Researchers to Bayesian Statistics*, 181–186.
45. Lopes and Carvalho (2013). *Online Bayesian learning in dynamic models: An illustrative introduction to*

particle methods. In Damien, Dellaportas, Polson and Stephens (Eds.), *Bayesian Theory and Applications*, Ch. 11, 203–228.

46. Rios and Lopes (2013). *The extended Liu and West filter: PL in MSSV models*. In Zeng and Wu (Eds.), *State-Space Models: Applications in Economics and Finance*, Ch. 2, 23–61.
47. Prado and Lopes (2013). *Sequential parameter learning and filtering in structured AR models*. Statistics and Computing, 23, 43–57.
48. Dukic, Lopes and Polson (2012). *Tracking epidemics with Google Flu Trends data and a state-space SEIR model*. Journal of the American Statistical Association, 107, 1410–1426.
49. Lopes, Schmidt, Salazar, Gómez and Achkar (2012). *Measuring vulnerability via spatially hierarchical factor models*. Annals of Applied Statistics, 6, 284–303.
50. Nascimento, Gamerman and Lopes (2012). *A semiparametric Bayesian approach to extreme values*. Statistics and Computing, 22, 661–675.
51. Lopes, Polson and Carvalho (2012). *Bayesian statistics with a smile: a resampling-sampling perspective*. Brazilian Journal of Probability and Statistics, 26, 358–371.
52. Vibranovski, Zhang, Kemkemer, VanKuren, Lopes, Karr and Long (2012). *Segmental dataset and whole body expression data do not support the hypothesis that non-random movement is an intrinsic property of Drosophila retrogenes*. BMC Evolutionary Biology, 12, 169.
53. Vibranovski, Zhang, Kemkemer, Lopes, Karr and Long (2012). *Re-analysis of the larval testis data on meiotic sex chromosome inactivation revealed evidence for tissue-specific gene expression related to the* Drosophila *X chromosome*. BMC Biology, 10, 49.
54. Lopes, Carvalho, Polson and Johannes (2011). *Particle learning for sequential Bayesian computation (with discussion)*. In Bernardo et al. (Eds.), *Bayesian Statistics 9*, 317–360.
55. Lopes and Tsay (2011). *Particle filters and Bayesian inference in financial econometrics*. Journal of Forecasting, 30, 168–209.
56. Lopes, Salazar and Gamerman (2011). *Generalized spatial dynamic factor models*. Computational Statistics and Data Analysis, 55, 1319–1330.
57. Lopes and Tobias (2011). *Confronting prior convictions: On issues of prior and likelihood sensitivity in Bayesian analysis*. Annual Review of Economics, 3, 107–131.
58. Nascimento, Gamerman and Lopes (2011). *Regression models for exceedance data via the full likelihood*. Environmental and Ecological Statistics, 18, 495–512.
59. Carvalho, Lopes and Aguilar (2011). *Dynamic stock selection strategies: A structured factor model approach (with discussion)*. In Bernardo et al. (Eds.), *Bayesian Statistics 9*, 69–90.
60. Lopes and Dias (2011). *Bayesian mixture of parametric and nonparametric density estimation: A misspecification problem*. Brazilian Review of Econometrics, 31, 19–44.
61. Zambaldi, Aranha, Lopes and Politi (2011). *Credit granting to small firms: a Brazilian case*. Journal of Business Research, 64, 309–315.
62. Carvalho, Johannes, Lopes and Polson (2010). *Particle learning and smoothing*. Statistical Science, 25, 88–106.
63. Carvalho, Lopes, Polson and Taddy (2010). *Particle learning for general mixtures*. Bayesian Analysis, 5, 709–740.
64. Lopes and Polson (2010). *Extracting SP500 and NASDAQ volatility: The credit crisis of 2007–2008*. In O'Hagan and West (Eds.), *Handbook of Applied Bayesian Analysis*, 319–342.
65. Lopes and Polson (2010). *Bayesian inference for stochastic volatility modeling*. In Böcker (Ed.), *Rethinking Risk Measurement, Management and Reporting*, 515–551.
66. Ausín and Lopes (2010). *Bayesian prediction of risk measurements using copulas*. In Böcker (Ed.), *Rethinking Risk Measurement, Management and Reporting*, 553–578.
67. Hore, Johannes, Lopes, McCulloch and Polson (2010). *Bayesian computation in finance*. In Chen et al. (Eds.), *Frontiers of Statistical Decision Making and Bayesian Analysis – In Honor of James O. Berger*, 383–396.
68. Ausín and Lopes (2010). *Time-varying joint distributions through copulas*. Computational Statistics and Data Analysis, 54, 2383–2399.
69. Abanto, Migon and Lopes (2010). *Bayesian modeling of financial returns: a relationship between volatility and trading volume*. Applied Stochastic Models in Business and Industry, 26, 172–193.
70. Vibranovski, Chalopin, Lopes, Long and Karr (2010). *Direct evidence for postmeiotic transcription during* Drosophila melanogaster *spermatogenesis*. Genetics, 186, 431–433.
71. Vibranovski, Lopes, Karr and Long (2009). *Stage-specific expression of* Drosophila *spermatogenesis suggests that meiotic sex chromosome inactivation drives the genomic relocation of testis-expressed genes*. PLoS Genetics, 5, e1000731.
72. Lopes, Salazar and Gamerman (2008). *Spatial dynamic factor analysis*. Bayesian Analysis, 3, 759–792.
73. Silva and Lopes (2008). *Copula, marginal distributions and model selection: A Bayesian note*. Statistics and Computing, 18, 313–320.

74. Ausín and Lopes (2007). *Bayesian estimation of ruin probabilities with heterogeneous and heavy-tailed insurance claim size distribution*. Australian & New Zealand Journal of Statistics, 49, 415–434.
75. Lopes, Müller and Ravishanker (2007). *Bayesian computational methods in biomedical research*. In Khattree and Naik (Eds.), *Computational Methods in Biomedical Research*, 211–259.
76. Lopes and Carvalho (2007). *Factor stochastic volatility with time varying loadings and Markov switching regimes*. Journal of Statistical Planning and Inference, 137, 3082–3091.
77. Carvalho and Lopes (2007). *Simulation-based sequential analysis of Markov switching stochastic volatility models*. Computational Statistics and Data Analysis, 51, 4526–4542.
78. Lopes and Salazar (2006). *Bayesian model uncertainty in smooth transition autoregressions*. Journal of Time Series Analysis, 27, 99–117.
79. Lopes and Salazar (2006). *Time series mean level and stochastic volatility modeling by smooth transition autoregressions: a Bayesian approach*. In Fomby (Ed.), *Advances in Econometrics*, 229–242.
80. Silva, Lopes and Migon (2006). *The extended generalized inverse Gaussian distribution for log-linear and stochastic volatility models*. Brazilian Journal of Probability and Statistics, 20, 67–91.
81. Migon, Gamerman, Lopes and Ferreira (2005). *Dynamic models*. In Dey and Rao (Eds.), *Handbook of Statistics*, 553–588.
82. Nobre, Schmidt and Lopes (2005). *Spatio-temporal models for mapping the incidence of malaria in Pará*. Environmetrics, 16, 291–304.
83. Lopes (2005). *Factor stochastic volatility with time-varying loadings*. Estadística, 57, 75–91.
84. Lopes and West (2004). *Bayesian model assessment in factor analysis*. Statistica Sinica, 14, 41–67.
85. Behrens, Lopes and Gamerman (2004). *Bayesian analysis of extreme events with threshold estimation*. Statistical Modelling, 4, 227–244.
86. Mendes and Lopes (2004). *Data driven estimates for mixtures*. Computational Statistics and Data Analysis, 47, 583–598.
87. Lopes, Müller and Rosner (2003). *Bayesian meta-analysis for longitudinal data models using multivariate mixture priors*. Biometrics, 59, 66–75.
88. Lopes (2003). *Expected posterior priors in factor analysis*. Brazilian Journal of Probability and Statistics, 17, 91–105.
89. Lopes and Migon (2002). *Comovements and contagion in emergent markets: stock indexes volatilities*. In Gatsonis et al. (Eds.), *Case Studies in Bayesian Statistics*, Vol. VI, 285–300.
90. Huerta and Lopes (2001). *Bayesian forecasting and inference in latent structure for the Brazilian industrial production index*. Brazilian Review of Econometrics, 20, 1–26.
91. Lopes, Moreira and Schmidt (1999). *Hyperparameter estimation in forecasting models*. Computational Statistics and Data Analysis, 29, 387–410.
92. Moreira, Fiorencio and Lopes (1997). *Um modelo para a previsão conjunta do PIB, inflação e liquidez*. Revista de Econometria, 17, 67–111.
93. Moreira, Fiorencio and Lopes (1996). *Identificação das tendências comuns do PIB, inflação e meios de pagamento*. *A Economia Brasileira em Perspectiva*, Vol. 1, Ch. 6, 129–139.
94. Lima, Lopes, Moreira and Pereira (1995). *Tendência estocástica do produto no Brasil: efeitos das flutuações da taxa de crescimento da produtividade e da taxa de juro real*. Pesquisa e Planejamento Econômico, 25, 249–278.
95. Migon, Lima and Lopes (1993). *Efeitos dinâmicos dos choques de oferta e demanda agregada sobre o nível de atividade econômica do Brasil*. Revista Brasileira de Economia, 47, 177–204.

Technical reports

1. Levy and Lopes (2021). *Time series momentum predictability via dynamic binary classification*. arXiv:2106.08420.
2. Levy and Lopes (2021). *Dynamic portfolio allocation in high dimensions using sparse risk factors*. arXiv:2105.06584.
3. Santos and Lopes (2018). *Tree-based Bayesian treatment effect analysis*. arXiv:2106.08420.
4. Conti, Heckman, Lopes and Piatek (2010). *Constructing economically justified aggregates: An application of the early origins of health*. ResearchGate publication 241641216.
5. Hore, McCulloch and Lopes (2008). *Put option implied risk-premia in general equilibrium under recursive preferences*. hedibert.org.

Books and monographs

1. Gamerman and Lopes (2006). *MCMC: Stochastic Simulation for Bayesian Inference (2nd Edition)*. Chapman & Hall/CRC.
2. Parmigiani and Inoue, with contributions by Lopes (2009). *Decision Theory: Principles and Approaches*. Wiley.
3. Lopes (2008). *Modern Bayesian Econometrics*. ISBrA, São Paulo.
4. Migon and Lopes (2002). *Análise Bayesiana de Decisões: Aspectos Práticos*. ABE, São Paulo.
5. Migon and Lopes (2002). *Análise Bayesiana de Decisões*. SBM, Rio de Janeiro.

6. Lopes and Lima (1995). *Co-integração: Enfoques Clássico e Bayesiano*. ABE, São Paulo.

Reviews, discussions, interviews and other contributions

1. Lopes (2013). *Review of* Handbook of Markov Chain Monte Carlo *by Brooks, Gelman, Jones and Meng*. Biometrics, 69, 800–801.
2. Lopes (2011). *Review of* Introducing Monte Carlo Methods with R *by Robert and Casella*. Journal of the American Statistical Association, 106, 177.
3. Lopes (2011). *Invited discussion of "Separable covariance arrays via the Tucker product…" by Hoff*. Bayesian Analysis, 6, 203–204.
4. Lopes (2008). *Brazilian Bayesians*. ISBA Bulletin, 15(4), 7–8.
5. Lopes (2007). *Invited discussion of "Sequential Monte Carlo for Bayesian computation" by Del Moral, Doucet and Jasra*. Bayesian Statistics 8, Oxford University Press, 139–140.
6. Lopes (2003). *Factor models*. ISBA Bulletin, 10(3), 7–10.
7. Lopes (2003). *Interview with Helio Migon (in Portuguese)*. ISBrA Bulletin, 1(1), 2–6.
8. Lopes (2001). *Sailing the Bayesian boat in a hostile sea*. ISBA Bulletin, 8(2), 12–13.

Scientific Presentations

Selected conference talks

A complete list of 175+ conference talks (1992–2026) is available on request. Highlights since 2020 are listed below.

1. 2026. *Lower-dimensional posterior density and cluster summaries from over-parameterized Bayesian models*. XVII Workshop de Verão, UFJF, March 2026.
2. 2025. *Fast and slow level shifts in intraday stochastic volatility*. I WECDAF, UFBA, December 2025.
3. 2025. *Minnesota BART*. Bayesian Macroeconometric Modelling Workshop, University of Queensland, August 2025.
4. 2025. *Learning CATE in RDD using BART*. ESOBE 2025, University of Melbourne, August 2025.
5. 2025. *Minnesota BART*. Joint Statistical Meetings, Nashville, August 2025.
6. 2025. *Large Bayesian Additive Vector Autoregressive Tree Models*. São Paulo School of Advanced Science on High-Dimensional Models, EESP/FGV, April 2025.
7. 2024. *Mike and the Brazilian Dynamic Modelers: A Success Story*. StatSci Research Alumni Symposium, Duke University, November 2024.
8. 2024. *Cutoff-aware BART for estimating heterogeneous treatment effects in regression discontinuity designs*. 2024 ISBA World Meeting, Venice, July 2024.
9. 2023. *What events matter for exchange rate volatility?*. Conference in Honor of Ruey S. Tsay's 70th Birthday, Chicago, May 2023.
10. 2022. *Prior sensitivity analysis in a semi-parametric integer-valued time series model*. XIII International Conference on Bayesian Nonparametrics, Puerto Varas, Chile, October 2022.
11. 2021. *Dynamic ordering learning in multivariate forecasting*. NSF–NBER Time Series Conference, Rice University, October 2021.
12. 2020. *The illusion of the illusion of sparsity: An exercise in prior sensitivity*. XV Encontro Científico de Pós-Graduandos, IMECC, November 2020.

Selected invited seminars

Approximately 125 university and institute talks since 2000. Recent highlights:

1. 2025. *Minnesota BART*. FGV/EASP; UFMG; CIMAT.
2. 2024. *Dynamic ordering learning in multivariate forecasting*. Central Bank of Colombia.
3. 2021. *Decoupling shrinkage and selection in Gaussian linear factor analysis*. Arizona State University; UFRJ.
4. 2021. *Dynamic ordering learning in multivariate forecasting*. Itaú Asset; Emap/FGV; Virginia Tech.
5. 2020. *The illusion of the illusion of sparsity*. Federal University of Minas Gerais; ITAM, Mexico City; SoMSS/ASU.
6. 2020. *Dynamic sparsity on dynamic regression models*. UFRGS; Temple University; Arizona State University.
7. 2019. *Bayesian learning in high-dimensional state-space models*. UT Austin; ASU; Insper; IMPA; UC Santa Cruz; UC Irvine.

Research Supervision

Doctoral graduates and current students

1. Newton Oliveira (expected Dec. 2028). . PhD in Business Economics, Insper.
2. Pietro Consonni (expected Dec. 2027). . PhD in Business Economics, Insper.
3. Guilherme Piantino (expected Dec. 2027). . PhD in Business Economics, Insper.
4. Renata Tavanielli (Dec. 2025). *Time-varying copula modeling: A Cholesky approach*. D.Sc. in Statistics, IME-USP.
5. Igor Ferreira Batista Martins (Feb. 2024). *Essays in Bayesian Financial Econometrics*. PhD in Business Economics, Insper.
6. Rafael Alcântara (Feb. 2024). *A Constrained BART Model for Identifying Heterogeneous Treatment Effects in Regression Discontinuity Designs*. PhD in Business Economics, Insper.
7. Bruno do Prado Costa Levy (Dec. 2021). *Essays on Dynamic Bayesian Model Uncertainty in Finance*. PhD in Business Economics, Insper.
8. Henrique Bolfarine (Oct. 2021). *Decoupling Shrinkage and Selection in Factor and Mixture Models*. D.Sc. in Statistics, IME-USP.
9. Helton Graziadei (Feb. 2020). *Some Bayesian generalizations of the integer-valued autoregressive model*. D.Sc. in Statistics, IME-USP.
10. Paloma Waissman Uribe (Aug. 2017). *Dynamic sparsity on time-varying Cholesky-based covariance matrices*. D.Sc. in Statistics, IME-USP.
11. Samir Warty (June 2014). *Sequential Bayesian Learning for Stochastic Volatility With Variance-Gamma Jumps in Returns*. Ph.D. in Econometrics and Statistics, Chicago Booth.
12. Paolo Bonomolo (2012). *Does Inflation Walk on Unstable Paths? A Rational Sunspots Approach*. Ph.D. in Economics, Università di Pavia.
13. Maria Paula Rios (April 2012). *Essays on Applications of Particle Learning in Financial Econometrics*. Ph.D. in Econometrics and Statistics, Chicago Booth.
14. Bruno Lund (Dec. 2009). *Term structure models with non-affine dynamics and macro-variables*. D.Sc. in Economics, FGV/EPGE, Rio de Janeiro.
15. Fernando F. Nascimento (Dec. 2009). *Bayesian nonparametric approach to extreme value analysis*. D.Sc. in Statistics, UFRJ.
16. Esther Salazar (Feb. 2008). *Spatial dynamic factor models*. D.Sc. in Statistics, UFRJ.
17. Ralph Silva (Dec. 2006). *Bayesian skewed models*. D.Sc. in Statistics, UFRJ.
18. Carlos Abanto (Aug. 2005). *Stochastic simulation methods in nonlinear dynamic models: applications in stochastic volatility models*. D.Sc. in Statistics, UFRJ.
19. Cibele Behrens (Aug. 2004). *Análise Bayesiana de Eventos Extremos com Estimação do Limiar*. D.Sc. in Operations Research, COPPE-UFRJ.
20. Edison Tito (Mar. 2003). *Abordagens de Inferência evolucionária em modelos adaptativos*. D.Sc. in Electrical Engineering, PUC-Rio.

Master's graduates

22 M.Sc. theses supervised between 2000 and 2026 at Insper, IME-USP, UFRJ and Chicago. Recent highlights:

1. Everton Shibuya Kida (Jan. 2026). *Modelagem Bayesiana hierárquica para dados de contagem: estimação de elasticidade-preço e previsão de demanda no setor de autopeças*. Insper.
2. João V. A. T. L. Monetti (Jan. 2026). *Construção de intervalos dinâmicos de previsão para a inflação Norte-Americana via Random Forest e Predição Conformal*. Insper.
3. Renzo Rocha Suarez (Jan. 2026). *Dinâmica da curva de juros no Brasil: Desvendando o papel dos choques externos*. Insper.
4. Matheus Lazzari Nicola (Jan. 2025). *Estratégias de competição para transportadores de cargas rodoviárias*. Insper.
5. Alejandro Ortiz Cruceno (Jan. 2025). *Brazilian inflation dynamics during the pandemic: the role of policies*. Insper.
6. Carlos Danilo de Oliveira Maciel (Jan. 2025). *Depósitos de poupança na era das fintechs e no pós-pandemia*. Insper.
7. Lucas Marin Avelleda (Jan. 2021). *Sailing through uncertainty: Forecasting volatility on the manganese seaborne market*. Insper.
8. Alexandre F. Theoharidis (Jan. 2021). *Forecasting inflation using deep learning*. Insper.
9. Yuri Verges (Sept. 2019). *The Bivariate Integer-Valued GARCH Model: A Bayesian Estimation Framework*. IME-USP.
10. Pedro Filipini (May 2019). *Análise de efeitos de tratamento em modelos de árvores Bayesianas*. IME-USP.

Undergraduate research

Nine undergraduate research projects supervised between 2001 and 2019 at Insper and UFRJ.

Service & Editorial

Editorial boards

1. **Associate Editor, *Journal of Computational and Graphical Statistics*** – Since July 2024
2. **Associate Editor, *Bayesian Analysis*** – April 2010 – December 2021
3. **Associate Editor, *Journal of Business & Economic Statistics*** – July 2012 – June 2020
4. **Associate Editor, *Brazilian Journal of Probability and Statistics*** – May 2015 – December 2018
5. **Editor-in-Chief, *ISBA Bulletin*** – May 2002 – June 2004

Society leadership

1. **President** – ISBrA – Brazilian Chapter of ISBA 2019 – 2020
2. **Chair** – ISBA Economics, Finance and Business (EFaB) Section 2018
3. **Chair-Elect** – ISBA EFaB Section 2017
4. **ISBA Treasurer** – January 2011 – July 2011
5. **ISBA Board of Directors** – January 2008 – December 2010
6. **Executive Secretary** – ISBrA January 2000 – December 2002

Award and prize committees

1. 2025–2026. . Selection committee, Best Discussion Papers Award, Central Bank of Brazil; 2025 International Prize in Statistics; 2024 & 2025 Jabuti Academic Award (Mathematics, Probability and Statistics).
2. 2019–2022. . ISBA Prize Committee.
3. 2023. . Evaluation committee, j-ISBA Blackwell–Rosenbluth Award.
4. 2014–2015. . CAPES Best D.Sc. Thesis Award Committee.
5. 2006–2017. . Member, Savage Award Committee (multiple terms); 2013 Mitchell Award; 2012 DeGroot Prize; 2015 ISBA Prize.

Examination boards (selected)

25 PhD defences and 24 PhD prospectus examinations, plus 11 M.Sc. thesis defences, at Arizona State, Duke, Chicago Booth, FGV, IME-USP, IMECC-Unicamp, UFRJ, UFMG, USP and Carlos III de Madrid. Also 10 full and associate professorship committees (USP, UFMG, Unicamp, UFRJ, FEA-USP).

Conference and workshop organisation

Scientific or organising committee for 30+ international and national meetings, including the 2026 ISBA World Meeting (Nagoya), the 2024 ISBA World Meeting (Venice), the VII and VIII Latin American Meetings on Bayesian Statistics, the XVII and XVIII Brazilian Meetings of Bayesian Statistics, the XV and XVI Latin American Congress in Probability and Mathematical Statistics, ESOBE, and the 1st–3rd Workshops Rio–São Paulo of Econometrics.

Ad hoc reviewing

Regular reviewer for *JASA*, *JRSS-B*, *Annals of Applied Statistics*, *Statistical Science*, *Biometrics*, *Bayesian Analysis*, *JCGS*, *Computational Statistics and Data Analysis*, *Journal of Econometrics*, *JBES*, *Journal of Applied Econometrics*, *Journal of Financial Econometrics*, *Econometrics Journal*, and 20+ other journals. Grant and book reviewer for NSF, NIH, NSA Mathematical Sciences, Wiley, Springer-Verlag and Chapman & Hall/CRC.

Teaching

Graduate-level courses

1. *Bayesian Econometrics*. Insper / Chicago Booth, 2007–2026.
2. *Bayesian Learning*. 2020–2026.
3. *Advanced Econometrics*. 2024–2026.
4. *Time Series*. 2016–2023.
5. *Bayesian Statistical Learning; Causality; Multivariate Analysis; VAR and DSGE Models; Statistical Learning*. 2015–2017.
6. *Business Statistics; Applied Econometrics; Sequential Monte Carlo*. Chicago Booth, 2003–2013.
7. *Statistical Inference; Computational Statistics; Decision Theory; Dynamic Modeling; Bayesian Model Selection; Nonlinear Classification and Regression; Introduction to Probability*. UFRJ, 2000–2003.

Undergraduate-level courses

1. *Dynamic Modeling for Economics and Finance*. 2026.
2. *Advanced Econometrics – Time Series*. 2015.
3. *Econometrics*. 2014–2016.
4. *Computational Statistics; Exploratory Data Analysis; Statistical Laboratory*. UFRJ, 2000–2003.

Short courses and tutorials

38 short courses and tutorials delivered between 1994 and 2025 at, among others, Universidad Carlos III de Madrid, ISI-2015 (Rio), the Central Bank of Brazil, the Nederlandsche Bank, Università Bocconi, Pretoria University, Duke University, IME-USP, IMPA and INPE. Topics include Bayesian econometrics, modern Bayesian statistics, sequential Monte Carlo, MCMC, dynamic linear models, Bayesian regularisation, particle filtering, factor models, decision analysis and statistical machine learning.

Awards & Fellowships

1. 2022. *ISBA Fellow.*. International Society for Bayesian Analysis.
2. 2021. *ISI elected member.*. International Statistical Institute.
3. 2021–2025. *CNPq Research Fellow, Level 1C.*.
4. 2017–2021. *CNPq Research Fellow, Level 1D.*.
5. 2014–2017. *CNPq Research Fellow, Level 2.*.
6. 2002. *Antonio Luiz Vianna Award for Junior Faculty.*. Federal University of Rio de Janeiro.
7. 1996–2000. *CAPES doctoral fellowship.*. Duke University.
8. 1991–1994. *CNPq M.Sc. fellowship.*. UFRJ.
9. 1991–1996. *IPEA research-associate fellowship.*. Group of Macroeconometric Modeling.
10. 1990–1991. *CNPq undergraduate research fellowship.*. UFRJ.

Research Grants

1. 2024–2029. *Co-PI, FAPESP Grant 2024/01027-4.*. Centro de Ciência e Desenvolvimento: Procuradoria, Inovação e Tecnologia – São Paulo (PROINTE-SP).
2. 2023–2028. *Co-PI, FAPESP Grant 2023/02538-0.*. Time series, wavelets, high-dimensional data analysis and applications.
3. 2018–2023. *Co-PI, FAPESP Grant 2018/04654-9.*. Time series, wavelets and high-dimensional data analysis.
4. 2015–2018. *Co-PI, FAPESP Grant 2013/00506-1.*. Time series, wavelets and functional data analysis.
5. 2010–2015. *Co-PI, NSF grant.*. With James Heckman, Department of Economics, University of Chicago.
6. 2009–2011. *Co-PI, NIH grant.*. With Manyuan Long, Department of Ecology and Evolution, University of Chicago.
7. 2002–2003. *FAPERJ grants.*. Equipment for the Laboratory of Statistics; visit of Prof. Gabriel Huerta to UFRJ; First Latin American Meeting of Bayesian Statistics.

Last updated: May 4, 2026