Hedibert Freitas Lopes

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1 Employment and Education History

Employment

Associate Professor of Econometrics and Statistics, Chicago GSB – Starting in September 2007.

Former positions

1. Associate Professor of Econometrics and Statistics, The University of Chicago Graduate School of Business – From September 2007.
2. Assistant Professor of Econometrics and Statistics, The University of Chicago Graduate School of Business – From September 2003 to August 2007.
3. Assistant Professor of Statistics, Department of Statistical Methods, Federal University of Rio de Janeiro, UFRJ – from June 2000 to August 2003.
4. Lecturer of Statistics, Department of Statistical Methods, Federal University of Rio de Janeiro, UFRJ – from May 1996 to May 2000.
5. Lecturer of Statistics, Department of Statistics, Fluminense Federal University – from April 1992 to April 1996.
6. Research Associate, Macroeconometric Modeling Group, Brazilian Research Institute of Applied Economics, March 1991 - July 1996.

PhD degree

Bayesian Analysis in Latent Factor and Longitudinal Models, Institute of Statistics and Decision Sciences, Duke University, April 2000. Advisors: Mike West and Peter Müller.

MSc degrees

Model Uncertainty in Factor Models, MSc. in Statistics and Decision Sciences, Institute of Statistics and Decision Sciences, Duke University, May 1998. Advisors: Mike West and Peter Müller

Applications of Bayesian Vector Autoregression Models, MSc. in Statistics, Department of Statistical Methods, Federal University of Rio de Janeiro, November 1994. Advisor: Hélio Santos Migon.

BSc degree

A Software for Statistical Quality Control, BSc. in Statistics, Department of Statistical Methods, Federal University of Rio de Janeiro, September 1991. Advisor: Paulo Bravo.

2 Publications

Working papers

1. **Lopes, H.**, Salazar, and Gamerman. Dynamic spatial factor model.
2. **Lopes, H.**, McCulloch, and Tsay. Choleski stochastic volatility.
3. Hore, **Lopes, H.**, and McCulloch. General equilibrium option pricing under recursive preferences.
4. Silva and **Lopes, H.** Copula mixture: a Bayesian approach.
5. Silva and **Lopes, H.** Copula selection via deviance information criteria.
6. Ausin and **Lopes, H.** Time-varying variances through copulas.
7. **Lopes, H.** and Liang. Generalized Pareto models with time-varying tail behavior.
8. Abanto, **Lopes, H.** and Migon. Stochastic volatility estimation: a modern dynamic model viewpoint
9. Zambaldi, Aranha, **Lopes, H.** and Politi. Credit products for small and medium size business enterprizes in Brazil: an adaptive marking approach

Refereed papers

10. Ausin, M. and **Lopes, H.** (2007) Bayesian estimation of ruin probabilities with heterogeneous and heavy-tailed insurance claim size distribution, *Australian & New Zealand Journal of Statistics* (in press).
11. **Lopes, H.**, Müller, P., and Ravishanker, N. (2007) "Bayesian Computational Methods in Biomedical Research", In Khattree, R. and Naik, D. N. (Eds.) *Computational Methods in Biomedical Research*, (in press).
12. **Lopes, H.** (2007) Discussion of "Sequential Monte Carlo for Bayesian Computation" by Del Moral, P., Doucet, A. and Jasra, A., in J.M. Bernardo, M.J. Bayarri, J.O. Berger, A.P. Dawid, D. Heckerman, A.F.M. Smith and M. West (Eds.) *Bayesian Statistics 8*, Oxford University Press (in press).
13. **Lopes, H.** and Carvalho, C. (2007) Factor stochastic volatility with time varying loadings and Markov switching regimes, *Journal of Statistical Planning and Inference*, 137, 3082-91.
14. Carvalho, C. M. and **Lopes, H.** (2007) Simulation-based sequential analysis of Markov switching stochastic volatility models, *Computational Statistics and Data Analysis*, 51, 4526-4542.
15. **Lopes, H.** and Salazar, E. (2006) Bayesian model uncertainty in smooth transition autoregressions, *Journal of Time Series Analysis*, 27, 99-117.
16. **Lopes, H.** and Salazar, E.(2006) Time series mean level and stochastic volatility modeling by smooth transition autoregressions: a Bayesian approach, In Fomby, T.B. (Ed.) *Advances in Econometrics: Econometric Analysis of Economic and Financial Time Series: Part B*, **20**, 229-242.
17. Silva, R., **Lopes, H.** and Migon, H.(2006) The extended generalized inverse Gaussian distribution for log-linear and stochastic volatility models, *Brazilian Journal of Probability and Statistics*, 20, 67-91.
18. Migon, H., Gamerman, D., **Lopes, H.** and Ferreira, M. (2005) Dynamic models, In Dey, D. and Rao, C.R. (Eds.) *Handbook of Statistics*, **25**, 553-588.
19. Nobre, A.A., Schmidt, A.M. and **Lopes, H.** (2005) Spatio-temporal models for mapping the incidence of malaria in Pará, *Environmetrics*, 16, 291-304.
20. **Lopes, H.** and West, M. (2004) Model Uncertainty in Factor Analysis, *Statistica Sinica*, 14, 41-67.
21. Behrens, C., **Lopes, H.** and Gamerman, D. (2004) Bayesian analysis of extreme events with threshold estimation, *Statistical Modelling*, 4, 227-244.
22. Mendes, B. V. M. and **Lopes, H.** (2004) Data driven estimates for mixtures, *Computational Statistics and Data Analysis*, 47, 583-598.
23. **Lopes, H.**, Muller, P. and Rosner, G. L. (2003) Bayesian Meta-Analysis for Longitudinal Data Models using Multivariate Mixture Priors, *Biometrics*, 59, 66-75.

24. **Lopes, H.** (2003) Expected Posterior Priors in Factor Analysis. *Brazilian Journal of Probability and Statistics*, 17, 91-105.
25. **Lopes, H.** and Migon, H. S. (2002) Comovements and contagion in emergent markets: stock indexes volatilities. *Case Studies in Bayesian Statistics*, Volume VI, 285-300. Springer-Verlag.
26. Huerta, G. and **Lopes, H.** (2001) Bayesian Forecasting and Inference in Latent Structure for the Brazilian Industrial Production Index. *Brazilian Review of Econometrics*, 20, 1-26.
27. **Lopes, H.**, Moreira, A. R. and Schmidt, A. M. (1999) Hyperparameter Estimation in Forecasting Models. *Computational statistics and data analysis*, 29, 387-410.
28. Moreira, A. R. B., Fiorencio, A. and **Lopes, H.** (1997) A Multivariate Model to forecast GNP, inflation and liquidity (In Portuguese). *The Brazilian Review of Econometrics*, 17, 67-111.
29. Moreira,A. R. B., Fiorencio, A. and **Lopes, H.** (1996) Identification of the Common Trends of GNP, Inflation and Liquidity. *Perspective of the Brazilian Economy, Chapter 5*, IPEA.
30. Lima, E. C. R., **Lopes, H.**, Moreira, A. R. B. and Pereira,P. L. V. (1995) Stochastic Trends of the Brazilian GNP. *Economic Research and Planning*, 25,249-278.
31. Migon, H. S., Lima, E. C. R. and **Lopes, H.** (1993) Dynamic Effects of Aggregate Demand and Supply Disturbances: The Brazilian Case. *The Brazilian Review of Economics*, 47, 177-204.

3 Work in progress

1. Ensemble sampling (with Polson).
2. Sequential Bayesian design with backward particle filtering (with Polson).
3. General equilibrium options pricing under recursive preferences (with Satadru and McCulloch).
4. Bayesian grouped factor models and industry and debt classification (with Liechty and Liechty).
5. Spatially hierarchical factor models (with Schmidt).

4 Books

1. Gamerman, D. and **Lopes, H.** (2006) *Markov Chain Monte Carlo: Stochastic Simulation for Bayesian Inference (2nd Edition)*, Boca Raton: Chapman & Hall/CRC.
2. Parmigiani, G. and Inoue, L.Y.T. (with contributions by **Lopes, H.**) *Decision Theory*, Chichester: Wiley (in progress).

5 Conference and university talks

Conference talks

1. *Choleski stochastic volatility*, Talk ministered at the XXVI Brazilian Colloquium of Mathematics, Rio de Janeiro, July 2007.
2. *Dynamic spatial factor models*, Talk ministered at the 2007 International Meeting of the Psychometric Society, Tokyo, Japan, July 2007.
3. *Choleski time-varying volatility models*, Talk ministered at the V Workshop on Bayesian Inference in Stochastic Processes, Valencia, Spain, June 2007.
4. *Time-varying joint distributions through copulas*, Talk ministered at the Seminar on Bayesian Inference in Econometrics and Statistics, Washington University in St. Louis, Missouri, May 2007.
5. *Dynamic spatial factor models*, Talk ministered at the 32th Spring Lecture Series, University of Arkansas Spatial and Spatio-Temporal Statistics Fayetteville, April 2007.

6. *Dynamic spatial factor models*, Talk ministered at the Workshop on Stochastic Processes and Spatial Statistics, University of São Paulo, São Paulo, October 2006.
7. *Dynamic Factor Model with Space-time Varying Loadings*, Talk ministered at the 2006 Joint Statistical Meeting, Seattle, August 2006.
8. *Factor stochastic volatility time-varying loadings and switching regime*, Invited talk, VI Brazilian Meeting of Finance, Espírito Santo, Brazil, July 2006.
9. *Dynamic Factor Model with Space-time Varying Loadings*, Invited talk, XVII Brazilian Symposium of Probability and Statistics, Caxambu, Minas Gerais, July 2006.
10. *Time-varying variances through copulas*, Invited talk, XVII Brazilian Symposium of Probability and Statistics (SINAPE), Caxambu, Minas Gerais, July 2006.
11. Discussant of the paper *Sequential Monte Carlo for Bayesian Computation*, by Del Moral, Doucet and Jasra, VIII Bayesian world meeting, Valencia, June 2006.
12. *Time-varying covariances: a Cholesky decomposition approach.* Invited talk, Seminar on Bayesian Inference in Econometrics and Statistics Iowa City, April 2006.
13. *Time-varying covariances: a Choleski decomposition approach*, Talk ministered at the 2005 Joint Statistical Meeting, Minneapolis, August 2005.
14. *Time-varying covariances: a Choleski decomposition approach*, Invited talk, XI School of Time Series and Econometrics, Espírito Santo, Brazil, August 2005.
15. *Factor Stochastic Volatility Time-varying loadings and switching regime*, Invited talk, XI School of Time Series and Econometrics, Espírito Santo, Brazil, August 2005.
16. *Factor Stochastic Volatility Time-varying loadings and switching regime*, Invited talk, IV Workshop on Bayesian Inference in Stochastic Processes, Italy, June 2005.
17. *Time series mean level and stochastic volatility modeling by smooth transition autoregressions: a Bayesian approach*, Invited speaker - II Congreso Bayesiano de América Latina, Los Cabos in San José del Cabo, Baja California, Mexico, February 2005.
18. *Stock return and trading volume: a bivariate Bayesian Markov switching stochastic volatility analysis by MCMC and SMC*, Invited speaker - International Workshop on Bayesian Statistics and its Applications, Varanasi, India, January 6-8, 2005.
19. *Time series mean level and stochastic volatility modeling by smooth transition autoregressions: a Bayesian approach*, Invited speaker - the 3rd Annual Advances in Econometrics Conference, Louisiana State University, November 5-7, 2004.
20. *Bayesian Inference and Model Assessment for the Analysis of Smooth Transition Autoregressive Time Series Models*, Invited speaker - 82th Symposium of the Behaviormetric Society of Japan on Recent Developments in Latent Variables Modelling, Tokyo University, August 2004.
21. *Bayesian analysis of extreme events with threshold estimation*, Talk ministered at the XVI Brazilian Symposium of Probability and Statistics, Caxambu, Minas Gerais, July 2004.
22. *Bayesian Model Assessment in Factor Analysis*, Invited speaker - ISBA 2004 World Meeting, Hotel Marina Del Rey, Viña Del Mar, Chile, May 23-27, 2004.
23. *Factor Stochastic Volatility through Smooth Transition autoregressions*, Invited talk, VII Brazilian Meeting of Bayesian Statistics, São Carlos, Brazil, February 8-11, 2004.
24. *Model Assessment in Factor Analysis*, Invited speaker, Statistical Analysis of the Structure with the Latent Variable Model, Kobe University, Japan, December 2003.
25. *Bayesian Inference in Smooth Transition Autoregressive Models*, Poster presented at the Science of Modeling, The 30th Anniversary of the Information Criterion (AIC), Pacifico Yokohama, Japan, December 14-17, 2003.
26. Discussion of the paper Compound Markov Mixture Models with Applications in Finance by John Geweke and Giovanni Amisano. 2003 NBER/NSF Time Series Conference. In Honor of George Tiao's Retirement, September 19-20, 2003, Chicago.

27. *Malaria and rainfall in the state of Pará: a spatio-temporal analysis*, Poster presented at the VII Workshop on Case Studies in Bayesian Statistics. Carnegie-Mellon University, Pittsburgh, USA, September 2003.
28. *Simulation-based sequential analysis of Markov switching stochastic volatility models*, Invited talk, X Brazilian School of Time Series and Econometrics, São Pedro, Brazil, August 2003.
29. *Bayesian Inference and Selection in Smooth Transition Autoregressive Models*, Invited talk, XLVIII Annual Meeting of the Brazilian Chapter of the International Biometry Society, Universidade Federal de Lavras, July 2003.
30. *Univariate Stochastic Volatility through WinBugs*, Talk ministred at the Workshop on Volatility, Graduate School of Economics, Fundação Getúlio Vargas, Rio de Janeiro, May 2003.
31. *Factor Stochastic Volatility: Portfolio Allocation, Financial Contagion and Regime Switch*, Invited speaker - Stochastic Computation Meeting, SAMSI, Research Triangle Park, USA, October 2002;
32. *Bayesian Meta-analysis for longitudinal data models using multivariate mixture priors*, Invited talk, XV Brazilian Symposium of Probability and Statistics, São Paulo, July 2002;
33. *Some Factor Stochastic Volatility Models: Financial Contagion and Portfolio Allocation*, Poster presentation, VII Valencia International Meeting on Bayesian Statistics, Tenerife, Spain, June 2002;
34. *Factor Stochastic Volatility Models: Contagion and Switching Regimes in Latin American Markets.* Invited talk, I Latin American Meeting of Bayesian Statistics, São Paulo, Brazil, February 2002;
35. *Comovements and Contagion in Emergent Markets: Stock Indexes Volatilities*, Invited talk, XXIII Brazilian Meeting of Econometrics, Bahia, Brazil, December 2001.
36. *Comovements and Contagion in Emergent Markets: Stock Indexes Volatilities*, Poster, VI Case Studies in Bayesian Statistics, Pittsburgh, September 2001.
37. *Simulation-based Sequential Analysis of Hidden Markov Dynamic Models*, Invited talk, IX Brazilian School of Time Series and Econometrics, Belo Horizonte, Brazil, August 2001.
38. *Factor Stochastic Volatility Models: Measuring Contagion in Latin American Stock Markets*, Poster presentation, NSF/NBER Time Series Annual Meeting, Raleigh, USA, September 2001.
39. *Bayesian Inference and Forecast in Univariate and Multivariate Latent Structure Models*, Invited talk, VII School of Regression Models, São Carlos, Fevereiro 2001.
40. *Time-varying Covariance Structures in Currency Markets*, Invited talk, XXII Brazilian Meeting of Econometrics, São Paulo, December 2000.
41. *Recent developments in Bayesian Factor Analysis*, Invited talk, XIV Brazilian Symposium of Probability and Statistics, Caxambú, Brazil, July 2000.
42. *Meta-analysis for longitudinal data models using multivariate mixture priors*, Invited talk, XLV Meeting of the Brazilian Chapter of the Biometry International Society, São Carlos, July 2000.
43. *Meta-analysis for longitudinal data models using multivariate mixture priors*, Poster presentation, 6th World Meeting of the International Society for Bayesian Analysis, Crete, Greece, May 2000.
44. *Meta-analysis for longitudinal data models using multivariate mixture priors*, Poster presentation, 5th Workshop on Case Studies in Bayesian Statistics, Pittsburgh, September 1999.
45. *Multivariate mixture model in meta analysis for hematology data*, Poster presenation, Second European Conference on Highly Structured Stochastic Systems (HSSS), Pavia, Italy, September 1999;
46. *Factor models: time-varying loadings and stochastic volatility*, Invited speaker - Workshop on Inference and Prediction in Financial Risk Management - Tirano, Italy, September 1999.
47. *Some developments in Bayesian Factor Models*, Invited talk, XXIII Brazilian Colloquium of Mathematics, Rio de Janeiro, July 1999.
48. *Model Uncertainty in Factor Models*, Invited speaker - Highly Structured Stochastic Systems (HSSS) Workshop on Structural Learning in Graphical Models, Tirano, September 1998.
49. *Model Uncertainty in Factor Models*, Poster presentation, Sixth Valencia International Meeting on Bayesian Statistics, Valencia, Spain, June 1998.

50. *A Multivariate Model to forecast GNP, inflation and liquidity*, Invited speaker - Latin American Meeting of the Econometric Society, Rio de Janeiro, Brazil, August 1996.

University talks

51. *Spatial dynamic factor model*, Invited talk, Facultad de Ciencias Económicas y Empresariales, University of Zaragoza, June 2007.
52. *Time-varying covariances: a Cholesky decomposition approach*, Invited talk, Departament of Probability and Statistics, Universidad Autonoma de Mexico (UNAM), March 2007.
53. *Spatial dynamic factor model*, Invited talk, Department of Statistics, University of Connecticut, November 2006.
54. *Factor stochastic volatility with time varying loadings and Markov switching regimes*, Talk ministred at the Instituto de Pesquisa Econômica Aplicada (IPEA) do Ministério do Planejamento do Brasil, September 2006.
55. *Spatial dynamic factor model*, Invited talk, Institute of Advanced Studies, Vienna, March 2006.
56. *Spatial dynamic factor analysis*, Invited talk, Department of Applied Mathematics and Statistics, University of California at Santa Cruz, November 2005.
57. *Time-varying covariances: a Cholesky decomposition approach*, Invited talk, Department of Statistics, Pennsylvania State University, November 2005.
58. *Spatial dynamic factor analysis*, Invited talk, Department of Statistics, University of Chicago, October 2005.
59. *Bayesian Analysis of Extreme Events with Threshold Estimation*, Invited talk, Department of Statistics, University of New Mexico, April 2005.
60. *Bayesian Analysis of Extreme Events with Threshold Estimation*, Invited talk, Department of Mathematics, Statistics and Computer Sciences, University of Illinois at Chicago, Chicago, Oct 2004.
61. *Análise Bayesiana de Eventos Extremos com Estimação do Limiar*, Invited talk, EPGE-FGV, Rio de Janeiro, August 2004.
62. *Multivariate Stochastic Volatility: factor analysis and alternatives*, Invited talk, Federal University of Rio de Janeiro, August 2004.
63. *Bayesian Inference and Model Assessment for the Analysis of Smooth Transition Autoregressive Time Series Models*, Invited talk, Department of Economics, Pontifícia Universidade Católica (PUC), Rio de Janeiro, August 2004.
64. *Bayesian Inference and Model Assessment for the Analysis of Smooth Transition Autoregressive Time Series Models*, Invited talk, Department of Statistics, Federal University of Paraná, August 2004.
65. *Univariate and multivariate Bayesian analysis for smooth transition autoregressive model*, Talk ministred at Northern Illinois University, March 19th 2004.
66. *Aplicações de Modelos Longitudinais em Farmacocinética*, Talk ministred at the "Celebração do Dia do Estatístico", Federal University of Rio de Janeiro, Rio de Janeiro, May 2003.
67. *Measuring Financial Contagion through Multivariate Stochastic Volatility Models*, Invited talk, Federal Reserve Bank of Atlanta, Atlanta, February 2003.
68. *Model Uncertainty in Factor Analysis*, Invited Talk, University of Chicago Graduate School of Business, February 2003.
69. *Measuring Contagion through Factor Stochastic Volatility Models*, Talk ministred at the Seminar Series, Economics Department, Pontifícia Universidade Católica (PUC), Rio de Janeiro, October 2002;
70. *Meta-analysis for longitudinal data models using multivariate mixture priors*, Talk ministred at the Seminar Series, Department of Statistics, UNICAMP, Campinas, May 2002.
71. *Factor Models and Stochastic Volatility: Emergent Markets Contagion*, Talk ministred at Instituto Brasileiro de Mercado de Capitais (IBMEC), São Paulo, November 2001;

72. *Factor Stochastic Volatility: Simulation-based Filtering and smoothing*, Palestra ministrada na Escola de Pós-Graduação em Economia, Fundação Getúlio Vargas, Rio de Janeiro, November 2001;
73. *Simulation-based Smoothing and Filtering in Factor Stochastic Volatility Models*, Talk ministred at the Institute of Statistics and Decision Sciences, Universidade de Duke, Outubro 2001.
74. *Comovements and Contagion in Emergent Markets: Stock Indexes Volatilities*, Talk ministred at the Institute for Applied Economic Research, Brasil, July 2001.
75. *Comovements and Contagion in Emergent Markets: Stock Indexes Volatilities.* Invited talk at the Centro de Investigaciones en Matematicas (CIMAT), Guanajuato, Mexico, July 2001.
76. *Bayesian Forecasting and Inference in Latent Structure for the Brazilian Industrial Production Index*, Talk ministred at the Instituto de Ciências Exatas, Universidade Federal de Minas Gerais, Brazil, December 2000;
77. *Meta-analysis for longitudinal data models using multivariate mixture priors*, Talk ministred at the Núcleo de Estudos de Saúde Coletiva, Federal University of Rio de Janeiro, Rio de Janeiro, September 2000.

6 PhD, MSc and BSc students

1. Esther Salazar, *Spatial dynamic factor models*, December 2007, Ph.D. in Statistics, Institute of Mathematics, Federal University of Rio de Janeiro.
2. Ralph Silva, *Bayesian skewed models*, December 2006, Ph.D. in Statistics, Institute of Mathematics, Federal University of Rio de Janeiro.
3. Carlos Abanto, *Stochastic simulation methods in nonlinear dynamic models: applications in stochastic volatility models*, August 2005, Ph.D. in Statistics, Institute of Mathematics, Federal University of Rio de Janeiro.
4. Cibele Behrens, *Análise Bayesiana de Eventos Extremos com Estimação do Limiar*, August 2004, Ph.D. in Operations Research, Coppe-UFRJ.
5. Edison Tito, *Abordagens de Inferência evolucionária em modelos adaptativos*, March 2003, PhD in Electrical Engineer, Department of Electrical Engineering, PUC/RJ.
6. Tao Liang, *Bayesian analysis of extreme events with time-varying parameters*, October 2005, M.Sc. in Statistics, Department of Statistics, University of Chicago.
7. Ou Jin, *Smooth Transitional Autoregressive Stochastic Volatility (STAR-SV) Modeling: Bayesian Inference Through C++ Programming*, November 2004, M.Sc. in Statistics, Department of Statistics, University of Chicago.
8. Na Peng, *Deviance Information Criterion with Stochastic Volatility Models*, July 2004, M.Sc. in Statistics, Department of Statistics, University of Chicago.
9. Esther Salazar, *Bayesian Inference for Mean and Variance Smooth Transition Autoregressive models*, February 2004, M.Sc. in Statistics, Institute of Mathematics, Federal University of Rio de Janeiro.
10. Aline Nobre, *Malaria $\times$ Rain in the State of Pará: Applications of Spatio-Temporal Models*, March 2003, M.Sc. in Statistics, Institute of Mathematics, Federal University of Rio de Janeiro.
11. Gabriela Azevedo, *Dirichlet Process Mixture: A Hierarchical Modeling Approach*, May 2002, M.Sc. in Statistics, Institute of Mathematics, Federal University of Rio de Janeiro.
12. Carlos Carvalho, *Bayesian Analysis of Stochastic Volatility Models with Multiple Regimes*, April 2002, M.Sc. in Statistics, Institute of Mathematics, Federal University of Rio de Janeiro.
13. Carla Lôbo, *Vulnerability to endemic diseases from social-economical and epidemiological factors*, Institute of Mathematics, UFRJ, 08-12/2003.
14. Oswaldo Junior, *Vulnerability to endemic diseases from social-economical and epidemiological factors*, Institute of Mathematics, UFRJ, 08-12/2003.

15. Luis Brito, *Bayesian stochastic volatility models - an exercise in WinBUGS*, Institute of Mathematics, UFRJ, 08/2002 - 07/2003.
16. Rodrigo Vallim, *Brownian motion and finance*, Institute of Mathematics, UFRJ, 08/2002 - 07/2003.
17. André Souza, *Smooth transition autoregressions - an exercise in WinBUGS*, Institute of Mathematics, UFRJ, 01/2003 - 08/2003.
18. Tarciso Nogueira, *Basic statistics in R*, Institute of Mathematics, UFRJ, 08/2001 - 07/2002.
19. Lilian Migon, *Basic statistics through applets*, Institute of Mathematics, UFRJ, 08/2001 - 07/2002.

7 MSc and PhD committees

1. Romy Rodríguez, *An efficient sampling scheme for generalized dynamic linear models with applications in transfer function models*, Institute of Mathematics, Federal University of Rio de Janeiro, December 2005, PhD Defense.
2. Luiz Medrano, *Bayesian analysis in stochastic production frontier: theory and application* Institute of Mathematics, Federal University of Rio de Janeiro, December 2006, PhD Thesis Proposal.
3. Shang Chiou, *Testing and Dating Financial Contagion*, Graduate School of Business, University of Chicago, May 2006, PhD Thesis Proposal.
4. Elena-Claudia Moise, *Stochastic Volatility and Stock Returns: Evidence from Microstructure Data*, Graduate School of Business, University of Chicago, April 2006, PhD Defense.
5. Romy Rodríguez, Institute of Mathematics, Federal University of Rio de Janeiro, December 2005, PhD Thesis Proposal.
6. Juan Artigas, *Estimation of Stochastic Diffusion Models with Leverage Effects, Jumps and Time-Varying Drift*, GSB, University of Chicago, May 2005, PhD Thesis Proposal.
7. Elena-Claudia Moise, *Is market volatility priced?*, Graduate School of Business, University of Chicago, January 2005, PhD Thesis Proposal.
8. Carlos Abanto, Production Engineering Program (PEP)-COPPE/UFRJ, August 2004. PhD Thesis Proposal.
9. Luiz Medrano, *Fronteira de Produção Estocástica*, Institute of Mathematics, Federal University of Rio de Janeiro, July 2003. Master Thesis Defense.
10. Katia Carrillo, Electrical Engineer Department, Pontifícia Universidade Católica of Rio de Janeiro (DEE-PUC/RJ), December 2002. PhD Thesis Defense.
11. Sérgio Contreras, Electrical Engineer Department, Pontifícia Universidade Católica of Rio de Janeiro (DEE-PUC/RJ), December 2002. PhD Thesis Defense.
12. Alba, *Bivariate Extreme Value: Models and Estimation*, Production Engineering Program (PEP)-COPPE/UFRJ, September 2002. PhD Thesis Defense.
13. Bernardo Mota, *Performance of the estimators of IBOVESPA's volatility*, Graduate School of Economics, Getúlio Vargas Foundation (EPGE-FGV), June 2002. Master Thesis Defense.
14. Luz Santander, *Fractional Cointegration: Estimation and Tests*, Production Engineering Program, COPPE/UFRJ, December 2001. PhD proposal.
15. Edison Tito, *Genetic Particle Filters on Sequential Learning of Adaptative Models*, Electrical Engineer Department, Pontifícia Universidade Católica of Rio de Janeiro (DEE-PUC/RJ), June 2001. PhD proposal.
16. Erika Médici, *Bayesian Hierarchical Models for Stochastic Production Frontier*, Institute of Mathematics, Federal University of Rio de Janeiro, December 2000. Master Thesis Defense.
17. Lilia Costa, *Hiearchical Models for Mapping Malnutrition in Brazil*, Institute of Mathematics, Federal University of Rio de Janeiro, November 2000. Master Thesis Defense.

8 Short courses and tutorials

1. *Modern Bayesian Econometrics*, ministered during the IX Brazilian Meeting of Bayesian Statistics, São Paulo, February 2008.
2. *MCMC methods for Latent Variable Models*, ministered during the 2007 International Meeting of the Psychometric Society, Tokyo, Japan, July 2007.
3. *Bayesian Econometrics*, ministered at the Institute for Advanced Studies, Vienna, February 2006.
4. *Simulated-based sequential dynamic models*, ministered at the Institute of Mathematics, Federal University of Rio de Janeiro, Rio de Janeiro, August 2004.
5. *Factor Models in Multivariate Financial Econometrics*, ministered at the Departament of Statistics, Federal University of Parana, Curitiba, Parana, August 2004.
6. *Factor Models in Multivariate Financial Econometrics*, ministered during the IV Brazilian Meeting of Finance, COPPE-AD, Rio de Janeiro, July 2004.
7. *Computationally Intensive Statistical Methods through WinBugs*, ministered during the Workshop on Applied Mathematics and Computing in Engineering, COPPE/UFRJ, April 2003.
8. *Bayesian Decision Analysis*, ministered during the I Biannual Meeting of the Brazilian Mathematical Society, October 2002.
9. *Bayesian Decision Analysis: Practical Aspects*, ministred during the XV Brazilian Symposium of Probability and Statistics, July 2002.
10. *Computationally Intensive Statistical Methods through WinBugs*, ministered during the Workshop on Applied Mathematics and Computing in Engineering, COPPE/UFRJ, April 2002.
11. *Computationally Intensive Statistical Methods*, ministered during the Workshop on Applied Mathematics and Computing in Engineering, COPPE/UFRJ, April 2001.
12. *Tutorial in MCMC*, Workshop on Computational Methods in Statistics, UFSCar, São Carlos, São Paulo, November 2000.
13. *Vector Autoregressions, Cointegration, Common Trends and Bayesian Dynamic Models*, ministered at the Research Institute of Applied Economics, July 1996.
14. *VAR Models, Cointegration and the Econometrics of the Unit Root*, ministered during the V Brazilian School of Time Series and Econometrics, July 1995.
15. *Vector Autoregressions and Cointegration*, ministered at the Department of Statistics, Federal University of Minas Gerais, June 1994.

9 PhD, MSc, MBA and BSc courses

1. Applied Econometrics 41903-01 - Spring 2007
2. Business Statistics 41000-81 - Spring 2007
3. Business Statistics 41000-81 - Spring 2007
4. Bayesian Econometrics 41913-01 - Winter 2007
5. Applied Econometrics 41903-01 - Spring 2006
6. Business Statistics 41000-81 - Spring 2006
7. Business Statistics 41000-03 - Fall 2005
8. Business Statistics 41000-85 - Fall 2005
9. Applied Econometrics 41903-01 - Spring 2005
10. Business Statistics 41000-81 - Spring 2005
11. Business Statistics 41000-03 - Fall 2004
12. Business Statistics 41000-81 - Fall 2004
13. Business Statistics 41000-04 - Fall 2003
14. Business Statistics 41000-85 - Fall 2003

15. Computational Statistics - 4th-year undergraduate - Summer 2003
16. Statistical Inference - 1st-year PhD - Summer 2003
17. Introduction to Probability - MBA in Actuarial Sciences - Spring 2003
18. Statistical Laboratory - 4th-year undergraduate - Spring 2003
19. Foundations of Decision Theory — 1st-year PhD - Fall 2002
20. Nonlinear Linear Classification and Regression — 1st-year PhD - Fall 2002
21. Computational Statistics — 3rd-year undergraduate - Fall 2002
22. Statistical Inference — 1st-year PhD - Summer 2002
23. Exploratory Data Analysis — 1st-year undergraduate - Spring 2002
24. Computational Statistics — 3rd-year undergraduate - Spring 2002
25. Computational Statistics — 1st-year PhD - Fall 2001
26. Computational Statistics — 3rd-year undergraduate - Fall 2001
27. Computational Statistics — 3rd-year undergraduate - Summer 2001
28. Recent Developments in Dynamic Modeling — 1st-year PhD - Spring 2001
29. Exploratory Data Analysis — 1st-year undergraduate - Spring 2001
30. Recent Developments in Bayesian Model Selection — 1st-year PhD - Fall 2000
31. Computational Statistics — 1st-year PhD - Fall 2000
32. Computational Statistics — 3rd-year undergraduate - Fall 2000

10 Fellowships

1. Antonio Luiz Vianna Award for Junior Faculty, Federal University of Rio de Janeiro - 2002-2003.
2. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) - Phd studies - 08/1996 - 06/2000.
3. Research Institute for Applied Economics - Research assistance - 03/1991 - 07/1996.
4. Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) - Master studies - 03/1991 - 02/1994.
5. Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) - Scientific iniciation for undergraduate studies - 03/1990 - 02/1991.

11 Ad hoc reviewer

Wiley and Sons, Springer-Verlag, Chapman & hall/CRC, Journal of the American Statistical Association, Journal of the Royal Statistical Society-Series B, Journal of Computational and Graphical Statistics, Biometrics, Journal of Econometrics, Journal of Applied Econometrics, Journal of Financial Econometrics, Econometrics Journal, Quantitative Marketing and Economics, Journal of Applied Finance, Journal of Statistical Planning and Inference, Statistical Modelling, Psychometrika, Environmetrics, Brazilian Journal of Probability and Statistics, Applied Stochastic Models in Business and Industry, International Journal of Statistics and Systems, International Journal of Statistics, International Statistical Review, Revista de Estatística, Brazilian Review of Econometrics, Economic Research and Planning, The Brazilian Review of Economics.

12 Other

1. Savage award committee member 2006/2007.
2. Scientific committee, XII School of Time Series and Econometrics, Brazil, July 2007.
3. Scientific committee, VIII Brazilian Meeting of Bayesian Statistics, March 2006.
4. Savage award committee member 2005/2006.
5. Editor In-Chief of the ISBA Bulletin from May 2002 to June 2004.
6. Vice-President of the Brazilian Chapter of ISBA during 2000/2002.
7. Committee member of the Graduate Program in Statistics, UFRJ.
8. Scientific committee member of the VIII Brazilian School of Regression, Feb 2003.
9. Co-organizer of the First Latin American Meeting of Bayesian Statistics, Feb 2002.