CURRICULUM VITAE
Marco A. R. Ferreira

Virginia Tech
Department of Statistics
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EDUCATION

- Ph.D. in Statistics, Duke University, 2002. (Thesis advisor: M. West)
- M.Sc. in Statistics, Federal University of Rio de Janeiro, 1994.
- B.Sc. in Statistics, Federal University of Rio de Janeiro, 1993.

WORK EXPERIENCE

- *Director of Graduate Programs.* Dept Statistics. Virginia Tech. May 2016 – present.
- *Associate Professor.* Dept Statistics. Virginia Tech. Aug 2014 – present.
- *Associate Professor.* Dept Statistics. University of Missouri – Columbia. Sep 2010 – July 2014.
- *Assistant Professor.* Dept Statistics. University of Missouri – Columbia. Sep 2006 – Aug 2010.
- *Associate Professor.* Dept Statistics. Federal University of Rio de Janeiro. Aug 2002 – Aug 2006.

GRANTS AND FELLOWSHIPS

- UMC Research Board, "Multiscale Analysis to Improve fMRI Temporal Resolution," PI, $35,000, Percent credit: 35.9%, 2012–2014.
- NSF, DMS-0907064, "Bayesian Optimal Sequential Design for Random Function Estimation," PI, $130,000 (Indirect costs: $37,664), Percent credit: 100%, 2009–2013.
- SAMSI Research Fellowship, "Program on Statistical and Computational Methodology for Massive Datasets," $23,700, Percent credit: 100%, 2012–2013.

BOOKS

1. M.A.R. Ferreira and H.K.H. Lee (2007), Multiscale Modeling – A Bayesian Perspective, Springer Series in Statistics, New York: Springer.

PUBLISHED ARTICLES

Note: * indicates students.

1. T.C.O. Fonseca* and M.A.R. Ferreira (2017), Dynamic Multiscale Spatiotemporal Models for Poisson Data, Journal of the American Statistical Association, vol. 112, pp. 215–234.
2. N. Sanyal* and M.A.R. Ferreira (2017), Bayesian Wavelet Analysis Using Nonlocal Priors with an Application to fMRI analysis, Sankhya – Series B, vol. 79, pp. 361–388.
3. M.A.R. Ferreira and J.C. Vivar* (201X), Spatiotemporal models for Poisson areal data with an application to the AIDS epidemic in Rio de Janeiro, in Recent Advances in Spatiotemporal Modeling (Editors: D. Sun and M.A.R. Ferreira), Likely publisher: Society for Industrial and Applied Mathematics, to appear.

4. M.A.R. Ferreira (201X), Using Proper Markov Random Fields to Build Highly Structured Models for Gaussian Areal Data, in Recent Advances in Spatiotemporal Modeling (Editors: D. Sun and M.A.R. Ferreira), Likely publisher: Society for Industrial and Applied Mathematics, to appear.
5. A. Hoegh, M.A.R. Ferreira, S. Leman (2016), Spatiotemporal Model Fusion: Multiscale Modeling of Civil Unrest, Journal of the Royal Statistical Society - Series C, vol. 65, 529–545.
6. H.-H. Wu*, M.A.R. Ferreira, M.E. Gompper (2016), Consistency of hyper-g-prior-based Bayesian variable selection for generalized linear models, Brazilian Journal of Probability and Statistics, vol. 30, 691–709.
7. C.T. Rota, M.A.R. Ferreira, R.W. Kays, T.D. Forrester, E.L. Kalies, W.J. McShea, A.W. Parsons, J.J. Millspaugh (2016), A multi-species occupancy model for two or more interacting species, Methods in Ecology and Evolution, vol. 7, 1164–1173.
8. M. C. T. Santos, A. N. Tegge, B. R. Correa, S. Mahesula, L. Q. Kohnke, M. Qiao, M. A. R. Ferreira, E. Kokovay and L. O. F. Penalva (2016), miR-124, -128 and -137 orchestrate neural differentiation by acting on overlapping gene sets containing a highly connected transcription factor network, Stem Cells, vol. 34, 220–232.
9. M.A.R. Ferreira (2015), Inhomogeneous evolutionary MCMC for Bayesian optimal sequential environmental monitoring, Environmental and Ecological Statistics, vol. 22, 705-724.
10. S. Cui*, S. Guha, M.A.R. Ferreira, and A.N. Tegge (2015), A Hidden Markov Model for Detecting Differentially Expressed Genes from RNA-Seq Data, Annals of Applied Statistics, vol. 9, 901-925.
11. M.A.R. Ferreira and N. Sanyal* (2014), Bayesian optimal sequential design for nonparametric regression via inhomogeneous evolutionary MCMC, Statistical Methodology, vol. 18, 131–141.
12. M.A.R. Ferreira, E. Salazar (2014), Bayesian reference analysis for exponential power regression models, Journal of Statistical Distributions and Applications (Special issue for ICOSDA 2013), 1:12.
13. M.A.R. Ferreira, M.A. Jaramillo (2014), Bayesian multiscale phylogenetics, Journal of the Indian Society of Agricultural Statistics (Special issue on large and massive datasets), vol. 68, 285-292.
14. M.A.R. Ferreira (2013), Invited discussion on "Large covariance estimation by thresholding principal orthogonal complements" by J. Fan, Y. Liao, M. Mincheva, Journal of the Royal Statistical Society – Series B, vol. 75, 603–680.
15. D. Karpman*, M.A.R. Ferreira, C.K. Wikle (2013), A Point Process Model for Tornado Report Climatology, Stat, vol. 2, 1–8.
16. N. Sanyal* and M.A.R. Ferreira (2012), Bayesian Hierarchical Multi-subject Multiscale Analysis of Functional MRI Data, NeuroImage, vol. 63, 1519–1531.
17. R. Ruiz-Cárdenas*, M.A.R. Ferreira and A.M. Schmidt (2012), Evolutionary Markov Chain Monte Carlo Algorithms for Optimal Monitoring Network Designs, Statistical Methodology (Special Issue on Astrostatistics and Spatial Statistics), vol. 9, 185–194.
18. M.A.R. Ferreira (2012), Invited Discussion of Spatial quantile multiple regression using the asymmetric Laplace process by K. Lum and A.E. Gelfand, Bayesian Analysis, vol. 7, 235–276.
19. T.C.O. Fonseca*, H.S. Migon and M.A.R. Ferreira (2012), Bayesian analysis based on the Jeffreys prior for the hyperbolic distribution, Brazilian Journal of Probability and Statistics (Special Issue for the 2010 Bayesian Brazilian Meeting), vol. 26, 327–343.
20. E. Salazar, M.A.R. Ferreira and H.S. Migon (2012), Bayesian Analysis for the Exponential Power Regression Model, Sankhya – Series B, vol. 74, 107–125.
21. M.A.R. Ferreira, S.H. Holan and A.I. Bertolde* (2011), Dynamic Multiscale Spatio-Temporal Models for Gaussian Areal Data, Journal of the Royal Statistical Society – Series B, vol. 73, 663–688.
22. E. Salazar and M.A.R. Ferreira (2011), Temporal Aggregation of Lognormal Autoregressive Processes, Journal of Time Series Analysis, vol. 32, 661–671.
23. M.A.R. Ferreira (2011), Invited Discussion on "Characterizing Uncertainty of Future Climate Change Projections Using Hierarchical Bayesian Models" by Claudia Tebaldi, Richard L. Smith and Bruno Sansó, in Bayesian Statistics 9, (Editors: J. M. Bernardo, M. J. Bayarri, J. O. Berger, A. P. Dawid, D. Heckerman, A. F. M. Smith and M. West), 639–658, Oxford University Press.

24. V. de Oliveira and M.A.R. Ferreira (2011), Maximum Likelihood and Restricted Maximum Likelihood Estimation for a Class of Gaussian Markov Random Fields, Metrika, vol. 74, 167–183.
25. M.A.R. Ferreira (2011), Invited Discussion on "An explicit link between Gaussian fields and Gaussian Markov random fields: the stochastic partial differential equation approach" by F. Lindgren, H. Rue, and J. Lindstrom, Journal of the Royal Statistical Society – Series B, vol. 73, pp 423–498.
26. M.A.R. Ferreira, A.I. Bertolde* and S.H. Holan (2010), Analysis of economic data with multi-scale spatio-temporal models, Handbook of Applied Bayesian Analysis, Editors: O'Hagan and West, pp. 295–318, Oxford University Press.
27. S.H. Holan, D. Toth, M. A.R. Ferreira and A.F. Karr (2010), Bayesian Multiscale Multiple Imputation with Implications to Data Confidentiality, Journal of the American Statistical Association 105, 564–577.
28. M.B. Alves*, D. Gamerman and M.A.R. Ferreira (2010), Transfer functions in dynamic generalized linear models, Statistical Modelling 10, 3–40.
29. R. Ruiz-Cárdenas*, M.A.R. Ferreira and A.M. Schmidt (2010), Stochastic Search Algorithms for Optimal Monitoring Network Designs, Environmetrics 21, 102–112.
30. J.C. Vivar* and M.A.R. Ferreira (2009), Spatio-temporal models for areal data, Journal of Computational and Graphical Statistics 18, 658–674.
31. M.A.R. Ferreira (2009), Invited discussion on "Approximate Bayesian inference for latent Gaussian models by using integrated nested Laplace approximations" by H. Rue, S. Martino and N. Chopin, Journal of the Royal Statistical Society – Series B, vol. 71, 319–392.
32. T.C.O. Fonseca*, M.A.R. Ferreira and H.S. Migon (2008), Objective Bayesian analysis for the Student-t regression model, Biometrika 95, 325–333.
33. M.A.R. Ferreira and M. A. Suchard (2008), Bayesian analysis of elapsed times in continuous-time Markov chains, Canadian Journal of Statistics 36, 355–368.
34. M.A.R. Ferreira and V. de Oliveira (2007), Bayesian reference analysis for Gaussian Markov Random Fields, Journal of Multivariate Analysis 98, 789–812.
35. R. Ruiz-Cárdenas*, M.A.R. Ferreira and A.M. Schmidt (2007), Evolutionary Markov chain Monte Carlo algorithms for optimal monitoring network designs, Proceedings of the Joint Statistical Meetings 2007, Section on Bayesian Statistical Science, 1332–1338.
36. M.A.R. Ferreira, M. West, H.K.H. Lee and D. Higdon (2006), Multi-scale and hidden resolution time series models, Bayesian Analysis 1, 947–968.
37. H.S. Migon, D. Gamerman, H.F. Lopes and M.A.R. Ferreira (2005), Dynamic Models, In Dey, D. and Rao, C.R. (Eds.) Handbook of Statistics, Volume 25: Bayesian Thinking, Modeling and Computation, Chapter 19.
38. M.A.R. Ferreira (2005), Discussion of "Conceitos Estatísticos: Reflexões" by Carlos A. B. Pereira, (in Portuguese), Revista Brasileira de Estatística 66, 7–49.
39. M.A.R. Ferreira, M. West, H.K.H. Lee, D. Higdon and Z. Bi (2003), Multi-scale modeling of 1-D permeability fields, in Bayesian Statistics 7, (Editors: Bernardo, Berger, Dawid and Smith), Oxford: University Press.
40. H. Lee, D. Higdon, Z. Bi, M.A.R. Ferreira and M. West (2002), Markov random field models for high-dimensional parameters in simulations of fluid flow in porous media, Technometrics, vol. 44, n. 3, 230–241.
41. M.A.R. Ferreira and D. Gamerman (2000), Dynamic Generalized Linear Models, in Generalized Linear Models: a Bayesian Perspective, pp. 57–72, (Editors Dey, Ghosh and Mallick), Marcel Dekker, New York.
42. H. Lee, D. Higdon, Z. Bi, M.A.R. Ferreira and M. West (2000), Markov random field models for high-dimensional parameters in simulations of fluid flow in porous media, Proceedings of the 2000 Joint Statistical Meeting, Indianapolis, Indiana. (Award of Best Contributed Paper by the Statistical Computing Section).
43. F.A.S. Moura, H.S. Migon and M.A.R. Ferreira (2000), Small area estimation for binary data via Bayesian Hierarchical Models. Statistics in Transition, vol. 4, 665–677.

44. M.A.R. Ferreira and D. Gamerman (1999), Bayesian analysis of epidemiologic count series via dynamic generalized Bayesian models (In Portuguese), Cadernos de Saúde Coletiva, vol. 6, 145–155.
45. M.A.R. Ferreira, D. Gamerman and H.S. Migon (1997), Bayesian Dynamic Hierarchical Models: Covariance Matrices Estimation and Nonnormality, Brazilian Journal of Probability and Statistics, vol. 11, 67–79.
46. M.A.R. Ferreira (1997), Predictive distribution and model comparison (In Portuguese), Bulletin of the Brazilian Statistical Association 38, pp. 28–31.

SUBMITTED PAPERS

Note: * indicates students.

1. M.A.R. Ferreira, The Limiting Distribution of the Gibbs Sampler for the Intrinsic Conditional Autoregressive Model, under revision.
2. M. Elkhouly*, A. Hoegh, and M.A.R. Ferreira, Increased atmospheric instability and changes in tornado risk, under revision.
3. M.J. Keefe*, M.A.R. Ferreira, and C.T. Franck, Objective Bayesian Analysis for Gaussian Hierarchical Models with Intrinsic Conditional Autoregressive Priors, Bayesian Analysis, under review.
4. H.-H. Wu*, M.A.R. Ferreira, T. Ji, Nonlocal priors for variable selection in generalized linear models, Sankhya, under review.
5. M.J. Keefe*, M.A.R. Ferreira, and C.T. Franck, On the formal specification of sum-zero constrained intrinsic conditional autoregressive models, Spatial Statistics, under revision.

SOFTWARE

1. bosd – R package for Bayesian optimal sequential design for monitoring stations networks and for nonparametric regression.
2. mrm - R package with functions to support hidden resolution models for time series analysis and Gaussian process modeling of 1D and 2D (spatial) data via multiscale convolution methods, as described in the book 'Multiscale Modeling – A Bayesian Perspective,' by Ferreira and Lee (2007).
3. BHMSMA - R package for the analysis of fMRI data from multiple subjects. This is based on Sanyal and Ferreira (2012) and uses wavelet basis priors that borrow strength across subjects.

INVITED TALKS

INTERNATIONAL INVITED TALKS

1. Bayesian Time Series Analysis for Environmental Science and Neuroscience (Invited workshop), 2018 World Meeting of the International Society for Bayesian Analysis (ISBA 2018), Edinburg, United Kingdom, June 2018.
2. Small Area Estimation: A Celebration of Professor Danny Pfeffermann's 75th Birthday, Shanghai, China, June 2018.
3. Objective Bayesian Analysis for Gaussian Hierarchical Models with Intrinsic Conditional Autoregressive Priors, Brazilian Meeting on Bayesian Statistics (EBEB 2018), Rio de Janeiro, Brazil, March 2018.
4. On the Formal Specification of Sum-zero Constrained Intrinsic Conditional Autoregressive Models, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil, March 2018.
5. Scale Mixtures of Nonlocal Priors for Variable Selection in Generalized Linear Models (Presenter: Ho-Hsiang Wu), ICOSDA 2016, Niagara Falls, Canada, October 2016.
6. Objective Bayesian Analysis for Gaussian Improper CAR Models (Presenter: Matthew Keefe), ICOSDA 2016, Niagara Falls, Canada, October 2016.

7. Dynamic Multiscale Spatiotemporal Models for Gaussian and Poisson Processes, Workshop on Big Data in Environmental Science, Vancouver, Canada, May 2015.
8. An analysis of functional MRI with a three components hemodynamic response function, XIV Regression Models Meeting, Campinas, SP, Brazil, March 2015.
9. Bayesian Hierarchical Multi-subject Multiscale Analysis of Functional MRI Data, International Workshop on Bayes Model Selection, Shanghai, China, January 2013.
10. Bayesian Hierarchical Multi-subject Multiscale Analysis of Functional MRI Data, ISBA 2012 Meeting, Kyoto, Japan, June 2012.
11. Bayesian optimal sequential design for nonparametric regression, XI Brazilian Meeting on Bayesian Statistics, Amparo, Brazil, March 2012.
12. Dynamic Multiscale Spatio-Temporal Models for Gaussian Areal Data, Seventh Workshop on Bayesian Inference In Stochastic Processes, Madrid, Spain, September 2011.
13. Objective Bayesian Analysis for Exponential Power Regression Models, OBAYES 2011, Shanghai, China, June 2011.
14. Dynamic Multiscale Spatio-Temporal Models for Gaussian Areal Data, Federal University of Rio de Janeiro, Brazil, May 2011.
15. Invited Discussion on Characterizing Uncertainty of Future Climate Change Projections Using Hierarchical Bayesian Models by Tebaldi, Smith and Sanso, Ninth Valencia International Meeting on Bayesian Statistics, Benidorm, Spain, June 3–8, 2010.
16. Spatio-temporal models for Gaussian areal data, X Bayesian Meeting on Bayesian Statistics, Angra dos Reis, Brazil, March 21–24, 2010.
17. Gaussian multiscale spatio-temporal models, Federal University Rio de Janeiro, Brazil, Aug 13, 2008.
18. Objective Bayesian analysis for the Student-t regression model, Universidad Nacional, Bogota, Colombia, December 6, 2007.
19. Bayesian Analysis of Continuous-Time Markov Chains, Workshop on Bayesian Time Series and Econometrics, Rio de Janeiro, Brazil, July 27, 2007.
20. Objective Bayesian analysis for the Student-t regression model, VI International Workshop on Objective Bayes Methodology, Rome, Italy, June 8–12, 2007.
21. Objective Bayesian analysis for the Student-t regression model, Universidade Técnica de Lisboa, Lisbon, Portugal, May 30, 2007.
22. Spatio-Temporal Models for Areal Data, First Workshop on Spatial Statistics and Computationally Intensive Methods, Curitiba, Brazil, October 17–18, 2005.
23. Bayesian Multiscale Modeling, Second Latin American Conference on Bayesian Statistics, Los Cabos, Mexico, February 8, 2005.
24. Bayesian Multiscale Modeling, 8th Regression Models Meeting, Conservatória, Brasil, Feb 2003.
25. A Class of Multi-Scale Time Series Models, First Latin American Conference on Bayesian Statistics, Ubatuba, Brazil, February 3–7, 2002.

INVITED TALKS IN THE UNITED STATES

1. Bayesian Time Series Analysis and Forecasting (Short course), Joint Statistical Meetings 2017, Baltimore, MD, August 2017.
2. Objective Bayesian Analysis for Gaussian Hierarchical Models with Intrinsic Conditional Autoregressive Priors, Annual Kliakhandler Conference, Houghton, MI, August 2017.
3. Dynamic Multiscale Spatiotemporal Models for Poisson data, ISBIS 2017, Yorktown Heights, NY, June 2017.
4. Dynamic Multiscale Spatiotemporal Models for Poisson data, ENAR 2017, Washington, DC, March 2017.
5. Dynamic multiscale spatiotemporal models for Poisson data (Presenter: T.C.O. Fonseca), JSM 2014, Boston, MA, August 2014.

6. Looking at the world at multiple scales of resolution, Interdisciplinary Modeling Group, University of Missouri, Columbia, MO, April 2014.
7. Bayesian Reference Analysis for Exponential Power Regression Models, University of Missouri, Columbia, MO, April 2014.
8. Bayesian Multiscale Analysis for fMRI Datasets, International Conference in Honor of H.N. Nagaraja, Dallas, TX, March 2014.
9. Multiscale Spatiotemporal Modeling, University of Virginia, Charlottesville, VA, February 2014.
10. Multiscale Spatiotemporal Modeling, Virginia Tech, Blacksburg, VA, February 2014.
11. Dynamic multiscale spatiotemporal models for Poisson data, Washington University, Saint Louis, MO, November 2013.
12. Dynamic multiscale spatiotemporal models for Poisson data, Virginia Tech, Blacksburg, VA, November 2013.
13. Looking at the world at multiple scales of resolution, Truman State University, Kirksville, MO, November 2013.
14. Bayesian Analysis for Exponential Power Regression Models, International Conference on Statistical Distributions and Applications – ICOSDA 2013, Mount Pleasant, MI, October 2013.
15. Dynamic multiscale spatiotemporal models for Poisson data, SAMSI Program on Statistical and Computational Methodology for Massive Datasets – Transition Workshop, Research Triangle Park, NC, May 2013.
16. Bayesian Hierarchical Multi-subject Multiscale Analysis of Functional MRI Data, Penn State University, October 2012.
17. Looking at the World at Multiple Scales of Resolution, SAMSI Undergraduate Workshop, Durham, North Carolina, October 2012.
18. Multiscale Spatio-Temporal Models for Gaussian Areal Data, 25th Anniversary Celebration of the Department of Statistical Science at Duke University, October 2012.
19. Bayesian Hierarchical Multi-subject Multiscale Analysis of Functional MRI Data, University of North Carolina, October 2012.
20. Evolutionary Markov chain Monte Carlo for Bayesian optimal sequential design, Cedars-Sinai Medical Center, September 2012.
21. Multiscale Spatio-Temporal Models for Gaussian Areal Data, George Washington University, Washington D. C., March 2012.
22. Dynamic Multiscale Spatio-Temporal Models for Gaussian Areal Data, 4th Lehmann Symposium, Houston, Texas, May 2011.
23. Dynamic Multiscale Spatio-Temporal Models for Gaussian Areal Data, University of Minnesota, February 2011.
24. Hierarchical Multiscale Analysis of Functional MRI Data, Joint Statistical Meetings 2010, Vancouver, Canada, August 1–5, 2010.
25. Dynamic Multiscale Spatio-Temporal Models for Gaussian Areal Data, SAMSI Spatial Transition Workshop, Durham, NC, October 11–13, 2010.
26. Dynamic Multiscale Spatio-Temporal Models for Areal Data, Duke University, April 16, 2010.
27. Objective Bayesian Analysis for Exponential Power Regression Models, University of Chicago, October 22, 2009.
28. Dynamic Bayesian Multiscale Modeling, Iowa State University, April 5, 2009.
29. Dynamic Bayesian Multiscale Modeling, University of Connecticut, Storrs, November 5, 2008.
30. Dynamic multiscale modeling, M. D. Anderson Cancer Center, Houston, Texas, Oct 8, 2008.
31. Gaussian multiscale spatio-temporal models, 2008 International Indian Statistical Association Meeting, Storrs, Connecticut, May 22–24, 2008.
32. Gaussian multiscale spatio-temporal models, 2008 Spring Research Conference on Statistics in Research and Technology, Atlanta, May 19–21, 2008.

33. Spatio-temporal models for Gaussian areal data, Division of Biostatistics, Washington University, St Louis, February 1, 2008.
34. Bayesian Reference Analysis for the Generalized Hyperbolic Distribution, Graduate School of Business, University of Chicago, December 9, 2004.
35. Bayesian Multiscale Modeling, 16th Brazilian Symposium on Probability and Statistics, Caxambu, Brazil, July 2004.
36. Bayesian Reference Analysis for Gaussian Markov Random Fields, University of Campinas, Brazil, May 13, 2004.
37. Multiscale and Hidden Resolution Models, 10th Time Series and Econometrics Meeting, São Pedro, Brazil, August 11–13, 2003.
38. Bayesian Multiscale Modeling, Joint Statistical Meetings 2003, San Francisco, California, Aug 2003.

PROFESSIONAL SERVICE

- Associate Editor of Bayesian Analysis, August 2009 – present.
- Associate Editor of Brazilian Journal of Probability and Statistics, February 2015 – present.
- Associate Editor, Journal of Statistical Distributions and Applications, December 2013 - March 2017.
- Vice President, Virginia Chapter of the American Statistical Association, June 2017 – present.
- Scientific Committee Member, ICOSDA 2016, Niagara Falls, Canada, October 2016.
- Mitchell Prize Award Committee member, ISBA, Aug 2015 – Aug 2016.
- Savage Award Committee member, International Society Bayesian Analysis, Aug 2014 – Aug 2015.
- Organizer of invited session, 2014 JSM Meeting, Boston, MA, 2014.
- Scientific Committee member, Conference for 50th Anniversary of the Department of Statistics, University of Missouri – Columbia, Aug 2012 – Aug 2013.
- Savage Award Committee member, International Society Bayesian Analysis, Aug 2012 – Aug 2013.
- Leader, SAMSI Multiscale Modeling Working Group, September 2012 – May 2013.
- Reviewer for SBSS Student Paper Competition/Travel Awards, JSM 2012.
- Treasurer, Mid-Missouri Chapter, American Statistical Association, January 2008 – October 2010.
- Program Committee member, Use R! 2009, Rennes, France, 2009.
- Scientific Committee member, Fifth Workshop on Bayesian Inference in Stochastic Processes, Valencia, Spain, 2007.
- Chair, Scientific Committee, $8th$ Brazilian Meeting on Bayesian Statistics, Rio de Janeiro, 2006.
- Refereed papers for the following journals: Journal of the American Statistical Association, Journal of the Royal Statistical Society (Series A and C), Canadian Journal of Statistics, Scandinavian Journal of Statistics, Bayesian Analysis, Biometrics, Technometrics, Journal of Computational and Graphical Statistics, Statistics and Computing, Journal of Computational Statistics and Data Analysis, Journal of Statistical Computation and Simulation, International Statistical Review, Journal of Statistical Planning and Inference, Systematic Biology, Statistical Modeling, Brazilian Journal of Probability and Statistics, Sankhya B.

DEPARTMENTAL SERVICE

- Director of Graduate Programs, Dept Statistics, Virginia Tech, May 2016 – present.
- Chair, Graduate Program Committee, Dept Statistics, Virginia Tech, May 2016 – present.
- Chair, Graduate Admissions Committee, Dept Statistics, Virginia Tech, May 2016 – present.
- Member, Executive Committee, Dept Statistics, Virginia Tech, January 2017 – present.
- Member, Internal Review Committee, Dept Statistics, Virginia Tech, June 2016 – present.
- Chair, Dept Statistics Colloquium Series, Virginia Tech, August 2015 – May 2016.

- Co-chair, Dept Statistics Colloquium Series, Virginia Tech, August 2014 – May 2015.
- Director of Graduate Studies, Dept Statistics, UMC, September 2013 – July 2014.
- Advisory Committee member, Dept Statistics, UMC, September 2012 – July 2014.
- Faculty Search Committee member, Dept Statistics, UMC, May 2012 – April 2014.
- Chair, Dept Statistics Colloquium Series, UMC, August 2011 – May 2012.
- Chair, Dept Statistics Ph.D. Qualifying/Preliminary Exam Committee, UMC, Aug 2010 – Feb 2011.
- Chair, Dept Statistics Search Committee for Teaching Assistant Professor position, UMC, 2009.
- Chair, Committee to assess statistics courses needs for Informatics Institute students, Spring 2009.
- Organizer, UMC Bayesian Reading Group. Aug 2007 – December 2009.
- Co-chair, Dept Statistics Colloquium Series, UMC, Aug 2007 – May 2008.
- Reviewer, UMC Research Board grant applications, 2007 and 2009.

PAST GRADUATE STUDENTS

- Ph.D. Students
  - Matthew Keefe (co-advisor with C. Franck), Statistical Monitoring and Modeling for Spatial Processes, 2017.
  - Ho-Hsiang Wu (co-advisor T. Ji), Nonlocal Priors for Bayesian Variable Selection in Generalized Linear Models and Generalized Linear Mixed Models and Their Applications in Biology Data, 2016.
  - Yuan Cheng, Bayesian Analysis of fMRI Data and RNA-Seq Time Course Experiment Data, 2015.
  - Shiqi Cui (co-advisor with S. Guha), Bayesian Analysis for Detecting Differentially Expressed Genes from RNA-Seq Data, 2014.
  - Nilotpal Sanyal, Bayesian fMRI data analysis and Bayesian optimal design, 2012.
  - Juan Vivar, Spatio-temporal models for areal data in the exponential family, 2007.
  - Adelmo I. Bertolde, Multiscale spatio-temporal modeling, 2007.
  - Ramiro Ruiz-Cárdenas (co-advisor A. Schmidt), Optimal design of pollutant monitoring networks, 2007.
  - Mariane B. Alves (co-advisor with D. Gamerman), Bayesian analysis of state-space models with transfer functions, 2006.

- M.Sc. Students
  - Wensheng Kang, A Bayesian Method to Extract a Latent Dynamic Factor of Nonstationary Time Series Panel Data, 2008.
  - Elizabeth B. Hypolito, A Bayesian response to Suzuki's paradox, 2005.
  - Cristiane Duarte, A Bayesian analysis of educational data, 2004.
  - Thaís C. O. Fonseca (co-advisor H. S. Migon), Bayesian reference analysis for the class of generalized hyperbolic distributions, 2004.
  - Juan C. Vivar, A new class of spatio-temporal models for areal data, 2004.

CURRENT GRADUATE STUDENTS

- Ph.D. Students
  - Mohamed El Khouly, May 2015 – present.
  - Stephen Walsh, November 2017 – present.

PAST POSTDOCTORAL ASSOCIATES

- Andre G. C. Pereira, January 2016 – December 2017.
- Viviane S. M. Campos, January 2016 – December 2017.

TEACHING

- Virginia Tech
  - STAT 6984 – Multivariate Time Series Analysis.
  - STAT 5544 – Spatial Statistics.
  - STAT 5414 – Time Series Analysis I.
- University of Missouri, Columbia
  - Undergraduate level: STAT 4710/7710 – Introduction to Mathematical Statistics.
  - Graduate level: STAT 7750 – Introduction to Probability Theory; STAT 7760 – Statistical Inference; STAT 8640 – Bayesian Analysis I; STAT 9100 – Multiscale Modeling; STAT 9250 – Statistical Computation and Simulation; STAT 9210 – Bayesian Statistics; STAT 9720 – Mathematical Statistics II.
- Federal University of Rio de Janeiro
  - Undergraduate level: Introduction to probability and statistics; Statistical inference; Probability; Nonparametric statistics; Decision theory; Survival analysis.
  - Graduate level: Computational statistics; Bayesian theory; Multiscale models; Spatio-temporal models.

PROFESSIONAL AFFILIATION

- American Statistical Association (Member)
- International Society for Bayesian Analysis (Member)