Osvaldo Anacleto

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Education

September 2009-December 2012: PhD in Statistics - The Open University, UK
Thesis Title: *Bayesian dynamic graphical models for high-dimensional traffic flow forecasting*
Supervisors: Dr Catriona Queen and Professor Paul Garthwaite
Funded by the Department of Mathematics and Statistics, The Open University.

2003-2005: MSc in Statistics - Federal University of São Carlos, Brazil
Dissertation Title: *Graphical methodology for recurrent event data via bootstrap*
Supervisor: Professor Francisco Louzada
Average Grade: 3.6/4
Funded by the National Council for Graduate Studies (CAPES).

1999-2002: BSc in Statistics - Federal University of São Carlos, Brazil
Funded by the National Council for Scientific and Technological Development (CNPq).

Additional Academic Training

Academy for PhD Training in Statistics (throughout 2010). Courses: statistical computing, statistical inference, statistical modelling, statistical asymptotics, applied stochastic processes, computer intensive statistics, spatial and longitudinal data analysis and nonparametric smoothing.

Academic Work Experience

The Roslin Institute, University of Edinburgh **Jan/2013 - present**
Position: Research Fellow. Currently working on the development of novel statistical methods for understanding the genetic basis of infectious diseases. Also involved in other projects carried out by Andrea Doeschl-Wilson's group to assist with the development and application of statistical models to assess within and between host infection dynamics in genetically diverse livestock populations.

Federal University of São Carlos **Feb/2004 - Dec/2004**
Position: Lecturer. Fully responsible for devising and delivering the following courses: statistical inference, probability and statistics and biostatistics. Duties included consulting services in statistics to researchers from different departments of the university.

Work Experience

Itaú Holding S/A, São Paulo - SP **Feb/2005 - Sep/2009**
Last position: Research and Development Specialist. Duties included development and application of predictive statistical models and machine learning techniques to learn behaviour patterns from very large data sets of bank customers. Also responsible for supervising data analysts.

Constat/Data Analysis Consulting, São Carlos - SP **Mar/2003 - Dec/2004**
Position: Statistical Consultant. Responsible for the development and application of predictive statistical models and machine learning techniques in projects from a variety of companies. Duties included developing and teaching advanced statistical courses for on-site training.

Awards

• Savage Award 2013 (Honourable Mention). Awarded by the International Society for Bayesian Analysis (ISBA) to outstanding doctoral dissertations in Bayesian econometrics and statistics

• Best application poster award at UseR! 2011 conference, University of Warwick, UK

Conference attendance awards:

• ISBA travel award to partially cover expenses for the ISBA 2014 conference in Mexico
• Travel and accommodation award: Structure and uncertainty: modelling, inference and computation in complex stochastic systems, University of Bristol (UK), 2012
• ISBA travel award to partially cover expenses for the ISBA 2012 conference in Japan
• Travel award: Statistical modelling and inference for networks, University of Bristol (UK), 2010

Service and Professional Activities

• Journal Reviewer: Journal of the American Statistical Association (2), Statistical Modeling, Journal of Applied Statistics, Statistical Papers, British Poultry Science and Genetics, Selection, Evolution
• Event Organizer: Statistics group research lunches, The Open University (2012)

Publications

Anacleto, O., Queen, C.M. (2016). Dynamic chain graph models for time series network data *(Bayesian Analysis)* (Accepted).

Anacleto, O., Garcia-Cortez, L., Lipschutz-Powell, D., Woolliams, J.A., Doeschl-Wilson, A.B. (2015). A novel statistical model to estimate host genetic effects affecting disease transmission. *Genetics*, **201(3)**, 871-884 (highlighted article).

Anacleto, O., Queen, C.M., Albers, C.J. (2013). Multivariate forecasting of road traffic flows in the presence of heteroscedasticity and measurement errors. *Journal of the Royal Statistical Society C: Applied Statistics* , **62(2)**, 251-270.

Anacleto, O., Queen, C.M., Albers, C.J. (2013). Forecasting multivariate road traffic flows using Bayesian dynamic graphical models, splines and other traffic variables. *Australian & New Zealand Journal of Statistics*, **55(2)**, 69-86

Anacleto, O., Louzada F. (2012). Bootstrap confidence intervals for industrial recurrent event data. *Pesquisa Operacional* **32**, 103-119.

Louzada F., **Anacleto, O.**, Candolo C., Mazucheli, J. (2011). Poly-bagging predictors for classification modelling for credit scoring. *Expert Systems with Applications* **38**, 12717-12720.

Louzada, F., Diniz, C.A.R, Rocha, R.F, **Anacleto, O.** (2011). Reject inference: using combined models to boost predictive power. *Credit Technology (A Serasa Experian publication)* **77**, 7-17.

Conference Presentations and Seminars

Invited talks:

• 13^{th} Workshop on stochastic models, statistics and their applications (Germany), 2017: *Title TBC.*

• Department of Decision Sciences, Bocconi University (Italy), 2016: *A novel Bayesian dynamic model for time series network data* (seminar).

• XIII Brazilian Meeting on Bayesian Statistics, Belo Horizonte (Brazil), 2016: *Bayesian hierarchical modelling of host genetic effects in disease transmission.*

• 12^{th} World Meeting of the International Society for Bayesian Analysis, Cancun (Mexico), 2014: *Bayesian dynamic graphical models for high-dimensional time series.*

• Brazilian Symposium on Probability and Statistics, Natal (Brazil), 2014: *Using dynamic chain graphs*

to model high-dimensional time series.

• Technischen Universität Dortmund (Germany), 2013: *Using dynamic chain graphs to model high-dimensional time series* (seminar).

• 8^{th} Bayesian Inference in Stochastic Processes Workshop, Milan (Italy), 2013: *Dynamic chain graph models for multivariate time series forecasting.*

• Universidade Federal de São Carlos (Brazil), 2012: *Statistical models for road traffic flow forecasting* (seminar).

• Universidade de São Paulo (Brazil), 2012: *Dynamic graphical models for multivariate time series* (seminar).

• University of Leeds (UK), 2011: *Graphical dynamic models for road traffic networks* (seminar).

• IV Applied Statistics Workshop, Federal University of São Carlos (Brazil), 2008: *Applied statistics in the banking industry and essential characteristics of an applied statistician.*

• Brazilian Symposium on Probability and Statistics, Águas de São Pedro (Brazil), 2008: *Poly-bagging predictors for classification modeling on large data sets.*

• 16^{th} SAS User Group Meeting, São Paulo (Brazil), 2007: *A survival analysis application on the customer value estimate.*

• 1^{st} Risk Modeling Workshop, Federal University of São Carlos (Brazil), 2005. *A risk modelling application on the lifetime value.*

Contributed talks:

• Edinburgh Alliance for Complex Trait Genetics 7^{th} meeting, Royal Society of Edinburgh, 2015: *Identifying genetic superspreaders of infection*

• Network Data Analysis Workshop (European Course in Advanced Statistics), Germany, 2015: *Applying dynamic chain graph models to infer networks underlying time series gene expression data*

• Statistical Systems Biology Workshop, Warwick, 2014: *Incorporating contemporaneous relationships among gene expression time series into the model selection of gene networks*

• 10^{th} World Congress on Genetics Applied to Livestock Production, Vancouver, (Canada), 2014: *Simultaneous Inference of Genetic Parameters Underlying Susceptibility and Infectivity of Livestock from Epidemiological Data*

• 8^{th} World Congress in Probability and Statistics, Istanbul (Turkey), 2012: *Dynamic chain graph models for multivariate time series forecasting.*

• OU Statistics' Research Students Day, Milton Keynes (UK), 2012: *Modelling cross-time series covariances with chain graphs.*

• Stochastik-Tage, Mainz (Germany), 2012: *Graphical model representations of multivariate time series for road traffic flow forecasting.*

• 4^{rd} International Conference of the ERCIM Working Group on Computing & Statistics, London (UK), 2011: *Graphical model representations of multivariate time series for road traffic flow forecasting.*

• OU Statistics Research Students' Day, Milton Keynes (UK), 2011: *Extending the multiregression dynamic model for short term traffic forecasting.*

• 34^{rd} Research Students' Conference in Probability and Statistics, Cambridge (UK), 2011: *Graphical dynamic models for road traffic networks*

• TRL/OU Student-Supervisor Forum, Transport Research Laboratory, Milton Keynes (UK), 2010: *Statistical models for road traffic networks*

• 33^{rd} Research Students' Conference in Probability and Statistics, Warwick (UK), 2010: *Bayesian*

forecasting models for traffic management systems

• TRL/OU Student-Supervisor Forum, Transport Research Laboratory, Berkshire (UK), 2009: *Modelling Traffic Networks.*

• Brazilian Symposium on Probability and Statistics, Águas de São Pedro (Brazil), 2008: *A continuous non parametric lifetime value estimator.*

Selected posters (5/14)

• Structure and uncertainty: modelling, inference and computation in complex stochastic systems, University of Bristol (UK), September 2012: *Dynamic chain graph models.*

• 11^{th} World Meeting of the International Society for Bayesian Analysis, Kyoto (Japan), June 2012: *Dynamic graphical models for real-time multivariate road traffic flow forecasting.*

• The R User Conference (UseR! 2011), Coventry (UK), 2011. *Forecasting multivariate time series of flows using the DLM package.* (best application poster award-winning).

• Statistical Modelling and Inference for Networks (Statworks), University of Bristol (UK), 2010. *Graphical dynamic models for road traffic networks.*

• 9^{th} Valencia International Meetings on Bayesian Statistics 9/ISBA 2010, Benidorm (Spain), 2010. *Bayesian forecasting models for traffic management systems.*

Professional Memberships

Royal Statistical Society (RSS), International Society for Bayesian Analysis (ISBA) and the Genetics Society

Language Skills

- English: Fluent
- Portuguese: Native speaker
- German: Intermediate

Computer Skills

- Statistical programming: R, SAS, Fortran
- Applications: LaTeX, MS/Open Office
- Operating Systems: Unix/Linux, Windows