Aishameriane Venes Schmidt

Florianópolis, Santa Catarina, Brazil.
Skype: aishameriane | Email: aishameriane@gmail.com | aishameriane.schmidt@posgrad.ufsc.br
Github: https://github.com/aishameriane | LinkedIn: https://br.linkedin.com/in/aishameriane

Education

MSC IN ECONOMICS | 2017-2019 (EXPECTED)
FEDERAL UNIVERSITY OF SANTA CATARINA (UFSC), BRAZIL

- **Thesis topic:** *Bayesian inference for a TVP-VAR with Wishart stochastic volatility.*
- **Expected thesis defense date:** March 2019.
- **Average mark for the second last year:** 9/10 | **Average mark for the last year:** 10/10.

BSC IN ECONOMICS | 2015-2019 (EXPECTED)
STATE UNIVERSITY OF SANTA CATARINA (UDESC), BRAZIL

- **Thesis Advisor:** Prof. MSc. Fernando Pozzobon.
- **Thesis title:** *Bayesian estimation of linear models with applications in economics* (grade: 10/10).
- **Expected date to graduate:** August 2019.
- **Average mark for the second last year:** 9.7/10 | **Average mark for the last year:** 9.7/10.

BSC IN STATISTICS | 2004-2009
FEDERAL UNIVERSITY OF RIO GRANDE DO SUL (UFRGS), BRAZIL

- **Monograph Advisor:** Prof. Cleber Bisognin, Ph.D..
- **Monograph title:** *Inference in K-factor GARMA processes (grade: A).*
- **Graduation date:** March 2010.

Teaching experience

- TA for the Bayesian Econometrics course (graduate level at UFSC, 2018/01); TA for all the statistics related courses at the Business and Economics department (undergraduate level at UDESC, 2016/01-02); TA for the Statistical Methods in Economics (undergraduate level at UFRGS, 2009-01). Lecturer of two summer short courses on Statistics and Probability preparatory for Bayesian Econometrics and Econometrics I (graduate level at UFSC, 2017 and 2018). Invited lecture on Bayesian Econometrics at the Economics undergraduate week (UFSC, 2018).
- Lecturer of five R programming short-courses (UFRGS - 2008; UDESC - 2016 and UFSC - 2017-2018). Lecturer of one SPSS short-course (UFRGS, 2008). Lecturer of a short-course on Statistical Fundamentals for Performance Analysis at the ERAD/RS 2017 (Regional School on High Performance Computing) held in Ijuí-Brazil, for approximately 100 participants (jointly with F.Z. Boito and L.L. Pilla).
- Free-lancer for 5+ years as private instructor and consultant on statistics and probability for graduate and undergraduate students. Voluntary mathematics teacher at a preparatory course for students from underserved communities who were preparing for University's entrance exams (at Associação Beneficente Sargento Cordeiro in Porto Alegre, Brazil, 2005).

Employment History

- **Regional Board of Statistics –** Porto Alegre, Brazil | 2013 – Current. **Role:** Board member. The Regional Boards are part of the Brazil's Federal Government Administration whose role is to

regulate aspects related to the profession of Statistician. All board members are elected for biannual terms (with possibility of re-election) and act as public voluntary servants.

- **Bravi software –** Florianópolis, Brazil | 2014-2015. **Role**: Part-time consultant in statistics. Development of prediction models (focused on educational area) and in-company training in statistical models.
- **Meritt software – Florianópolis, Brazil | 2013-2015. Role**: Statistician and HR Manager. Full-time employee (44h/week).
- **Chaordic Systems –** Florianópolis, Brazil | 2012-2013. **Role**: Statistician, client metrics team. Full-time employee (40h/week).
- **Cassol Centerlar –** São José, Brazil | 2012. **Role**: Intelligence Market Analyst (credit and finance department). Full-time employee (44h/week).
- **Rede brasil sul media (RBS) –** Porto Alegre, Brazil | 2010-2011. **Role**: Intelligence Market Analyst for the newspaper department. Full-time employee (40h/week).

Publications

ARTICLES IN PEER-REVIEWED JOURNALS

1. *GSTM1, GSTT1, and GSTP1 polymorphisms, breast cancer risk factors and mammographic density in women submitted to breast cancer screening*. **In: Revista Brasileira de Epidemiologia**, 2012. Online version. Co-authored with E Aguiar, J. Giacomazzi, H. Bock, M. L. Saraiva-Pereira, L. Schuler-Faccini, D. Duarte Filho, P. A. C. Santos, R. Giugliani, M. Caleffi, S. A. Camey and P. Ashton-Prolla.

2. *Breast cancer risk estimates, body mass index and breast density in women submitted to mammographic screening in an underserved population*. **In: Cadernos Saúde Coletiva** (UFRJ), v. XX, p. 367, 2012. Online version. Co-authored with V. Belo-Reyes, J. Giacomazzi, P. S. Silva, G. Skonieski, D. Duarte Filho, M. Caleffi, R. Giugliani, P. Ashton-Prolla and S. A. Camey.

3. *Prevalence of ERα-397 PvuII C/T, ERα-351 XbaI A/G and PGR PROGINS polymorphisms in Brazilian breast cancer-unaffected women.* **In: Brazilian Journal of Medical and Biological Research**, 2012. Online version. Co-authored with J. Giacomazzi, E. Aguiar, E. I. Palmero, G. Skonieski, D. Duarte Filho, H. Bock, M. L. Saraiva-Pereira, I. P. Ewald, L. Schuler-Faccini, S. A. Camey, M. Caleffi, R. Giugliani and P. Ashton-Prolla.

4. *Prevalence of the BRCA1 founder mutation c.5266dup in Brazilian individuals at-risk for the Hereditary Breast and Ovarian Cancer Syndrome.* **In: Hereditary Cancer in Clinical Practice** (Online), 2011. Online version. Co-authored with I. P. Ewald, P. R. Izetti, F. R. Vargas, M. A. M. Moreira, A. S. Moreira, C. A. Moreira-Filho, D. R. Cunha, S. Hamaguchi, S. A. Camey, M. Caleffi, P. Koehler-Santos, R. Giugliani and P. Ashton-Prolla.

5. *Prevalence of the STK15 F31I polymorphism and its relationship with mammographic density*. **Brazilian Journal of Medical and Biological Research** on line, v44, p. 291-296, 2011. Online version. Co-authored with J. Giacomazzi, E. Aguiar, E. I. Palmero, G. Skonieski, D. Duarte Filho, H. Bock, M. L. Saraiva-Pereira, L. Schuler-Faccini, S. A. Camey, M. Caleffi, R. Giugliani and P. Ashton-Prolla.

6. *Development and validation of a simple questionnaire for the identification of hereditary breast cancer in primary care*. **BMC Cancer (Online)**, 2009. Online version. Co-authored with P. Ashton-Prolla, J. Giacomazzi, F. L. Roth, E. I. Palmero, L. Kalakun, E. S. Aguiar, S. M. Moereira, E. Batassini, V. Belo-Reyes, L. Schuler-Faccini, R. Giugliani, M. Caleffi and S. A. Camey.

CHAPTER IN CONFERENCE ANNALS BOOK

7. *Fundamentos de Estatística para Análise de Desempenho*. In: Edson Luiz Padoin; Márcia Cristina Cera; Andrea Schwertner Charão. (Org.). Annals of the VXII Regional School on High Performance (ERAD/RS). 1st Ed. Porto Alegre: Brazilian Computing Society (SBC), 2017. Title translation: **Fundamentals of Statistics for Performance Analysis**. Online Version (in Portuguese). Co-authored with F. Z. Boito and L. L. Pilla.

Participation in events

WORKS ACCEPTED IN SCIENTIFIC CONFERENCES

8. *Redistribution effect of monetary policy*: *evidence from Brazil* - accepted for poster presentation at the European Seminar on Bayesian Econometrics (ESOBE 2018) which will be held on New Orleans, USA. With G. V. Moura.

WORKS PRESENTED IN SCIENTIFIC CONFERENCES

9. *Impact of monetary policy on income inequality: evidence from Brazil* - accepted for oral presentation at the 23rd SINAPE (Brazilian symposium of probabilistic and statistics), which will be held on São Paulo, Brazil. With G. V. Moura.
10. *Bayesian Estimation of Linear Models with applications in Economics* - accepted for poster presentation at the 23rd SINAPE. With F. Pozzobon.
11. *Impact of monetary policy on income distribution – evidence from Brazil*. Oral presentation on the Young Scholars Initiative Latin America Convening, sponsored by Institute of New Economic Thinking. July 2018. Received travel grant from the conference. With G. V. Moura.
12. *Is there a wage gender gap in IT professions in Santa Catarina?* Poster presentation at the XIV Brazilian Meeting on Bayesian Statistics. Rio de Janeiro, Brazil. March 2018. With F. Pozzobon.
13. *Estimação em processos GARMA.* In: 13th School on Time Series and Econometrics, São Paulo, 2009. Title translation: ***Estimation in GARMA processes*.** With C. Bisognin and S.R.C. Lopes.
14. *Geração e estimação em processos Gegenbauer.* In: 4th UFRGS Undergraduate Exposition, Porto Alegre, 2009. Title translation: ***Simulating and estimating Gegenbauer processes*.** With C. Bisognin and S.R.C. Lopes.
15. *Desenvolvimento e validação de um questionário para identificação de casos de câncer de mama e câncer colorretal hereditários a nível de saúde primária*. In: Poster and oral presentation at the scientific week of the University. Title translation: **Development and validation of a simple questionnaire for the identification of hereditary breast and colorectal cancer in primary care**. Co-authored with Giacomazzi, J; Roth, F L; Palmero, E.I.; Kalakun, L.; Aguiar, E. S.; Moreira, S. M.; Batassini, E.; Belo-Reyes, V.; Caleffi, M. and Camey, S. A..
16. *Correlation between Claus, Gail and Tyrer-Cuzick models in a population-based cohort study.* Poster presentation at the XXIVth International Biometric Conference, 2008. **Recipient of the Best Poster Presentation Award**. With S.A. Camey and P. Ashton-Prolla.
17. *Correlação entre os modelos de predição de risco para câncer de mama Gail, Tyrer-Cuzick e as tabelas de Claus em um estudo de coorte na região sul do Brasil.* Poster and oral presentation at the scientific week of the University. Title translation: **Correlation between the Claus tables, Gail and Tyrer-Cuzick breast cancer risk models in a population-based cohort study in South Brazil**. With Giacomazzi, J.; Camey, S. A.; Ashton-Prolla, P. and Caleffi, M..
18. *Informações Equivocadas sobre Câncer de Mama: um estudo em mulheres atendidas nas unidades básicas de saúde (UBS) de Porto Alegre*. Poster presentation at the 28th Scientific Week of the Clinicas Hospital from Porto Alegre. Title translation: **Breast Cancer misinformation: a study with female patients from primary care units in Porto Alegre**. Co-authored with J. Giacomazzi, E. I. Palmero, F.L. Roth, L. Kalakun, M. Caleffi, P. Ashton-Prolla and S. A. Camey.
19. *Conhecimento sobre câncer de mama hereditário, escolaridade e risco genético individual: um estudo em mulheres atendidas nas unidades básicas de saúde (UBS) de Porto Alegre*. Poster presentation at the 28th Scientific Week of the Clinicas Hospital from Porto Alegre. Title translation: **Knowledge about hereditary breast cancer, scholarity and individual genetic risk – a study with women from the basic health unit care units from Porto Alegre**. Co-authored with Giacomazzi, J.; Palmero, E. I.; Roth, F. L.; Kalakun, L.; Caleffi, M.; Ashton-Prolla, P.; Camey, S. A..

20. *Correlação entre os modelos de predição de risco para câncer de mama Claus, Gail e Tyrer-Cuzick em um estudo de coorte na região sul do Brasil***.** Brazilian's Genetics National Meeting, 2008, Gramado-RS. Title translation*:* **Correlation between Claus, Gail and Tyrer-Cuzick breast cancer prediction models in a cohort study at Brazil's south region**. Co-authored with Giacomazzi, J. ; Ashton-Polla, P. ; Camey, S. A. .
21. *Conhecimento sobre câncer de mama hereditário, escolaridade e risco.* XVIII World Epidemiology Congress and VII Brazilian Epidemiology Congress, 2008. Title translation: **Knowledge about hereditary breast cancer, education and risk.** Co-authored with J. Giacomazzi, E. I. Palmero, F.L. Roth, L. Kalakun, M. Caleffi, P. Ashton-Prolla and S. A. Camey.

OTHER EVENTS

- Selected to attend the 1st Brazil Financial Mathematics Team Challenge held in August 2018, at the Applied Mathematics School of the Fundação Getúlio Vargas, Rio de Janeiro. My team's project was to develop a methodology to calculate the derivatives of a Gaussian Processes in order to estimate some financial quantities of interest (the Greeks) under the supervision of professor M. Ludkovski. Received travel grant from the event.
- 2017 – *Um dia na vida de um cientista de dados*. Talk presented in the Data Science and Machine Learning area at the The Developer's Conference Florianópolis, 2017. Translation: **A day in the life of a data scientist.** With M. B. Magrin. Video (in Portuguese).
- Member of the State University of Santa Catarina's team at the 1st Brazil Econometric Games (2016), a competition organized by the University of São Paulo for Economics undergraduate students.

Honours and Grants

22. **2017** - **Best Student** from the 2017's graduate cohort, for having the highest GPA among master and PhD students from the Economics Graduate Program at Federal University of Santa Catarina.
23. **2017** – **Master Scholarship** from the National Council for Scientific and Technological Development (CNPq).
24. **2016** – **Undergraduate Teaching Assistant Scholarship** from the State University of Santa Catarina to be TA in the Statistics-related courses offered in Business and Economics departments.
25. **2015** – **Undergraduate Scholarship** from the State University of Santa Catarina to work in the Habilis Project under the supervision of professor I. Ramos, Ph.D..
26. **2009** - **Honourable mention**, poster presentation at the 30rd Clinicas Hospital Research Week. Poster title: *Comparison between breast cancer models using data from a cohort study in South Brazil.*
27. **2008** - **Best Poster Award** at the XXIVth International Biometric Conference in Dublin, Ireland. Poster title: *Correlation between Claus, Gail and Tyrer-Cuzick models in a population-based cohort study*.
28. **2009** - **Undergraduate Teaching Assistant Scholarship** from the Federal University of Rio Grande do Sul to be TA in the Statistics for Economics undergraduate course.
29. **2007-2009** – **Undergraduate Research Assistant Scholarships** at the project "*Consolidation of a pilot project on populational identification of risk factors for hereditary breast cancer: characterization of individuals at risk for hereditary breast cancer in Brazil"* which was partially funded by Suzan G. Komen and the Rio Grande do Sul State Research Foundation, under the supervision of professors P. Ashton-Prolla, Ph.D. and S. A. Camey, Ph.D..
30. **2002** - **First place** for the Best Brazilian individual research work at MOSTRATEC (it is an International Science Fair for high school students). Brazil. Award included invitation to present the work at 2003 Intel ISEF in Cleveland, Ohio.

Research summary

The papers listed in (1)-(6) and presentations (15)-(21) are related to the work developed during my research assistant internship (27) in a Genetics Laboratory at the University's Hospital. I was the only student from the statistics department there (there were approximately 15 members at the lab) and had two professors supervising me, one from the Statistics Department (prof. Camey), and the other from the Medicine Department (prof. Ashton-Prolla). Although I also provided assistance in other projects from the researchers in the Laboratory, the listed works in my CV are linked to a Cohort Study in which 10.000 women from Porto Alegre city were enrolled and had multidisciplinary teams based in two different research facilities and a public primary health care unit. The produced outputs range from genetical and medical characterization of the sample, including evaluation of hereditary breast, colorectal and related cancers risk, assessment of the knowledge of the population regarding its health and the development of a questionnaire intended to be used as screening tool to identify women at risk for hereditary breast cancer.

Presentations (15-21) are the ones which I personally presented, but there are at least more 15 works (either poster or oral presentations) which I co-authored during my internship at the lab. My contribution was in the statistical analysis (performing the tests, doing graphs, tables, etc) and the final preparation of the slides/poster. Presentations (16), (17) and (20) are related to my individual research (still related to the cohort, but not part of any other student or professor research). My idea back in that time was to verify if the traditional tools to assess hereditary breast cancer risk were suitable for that sample and agreed in terms of their results when applied to our population, which in some way would help to justify the development of our screening tool. The poster in (16) received the Best Post Award in a major international conference in the area (26). In addition to my two advisors, the other co-authors are either students or researchers involved in the project.

Papers (1)-(5) are related to Ph.D. and/or master's research from the first authors, and my contribution was in the statistical analysis. In paper (6) I had major role, having participated since its conception through all the analysis and modifications before and during submission processes. The major scientific contribution of this paper is that we were able to develop a simple 7 question tool that could be easily employed in primary care units without requiring a nurse or a doctor supervision (which was the case of the screening tools available back in that time). This tool is currently listed in the Final Recommendation Statement at US. Preventive Service Task Force.

Regarding my master thesis, my main goal is to generalize Uhlig's BVAR model (1997) to a time varying parameter model using the propositions from Windle & Carvalho (2014) in order to obtain the model filtered and smoothed estimates. As economic application, I'm using this model combined with macroeconomic data from Brazil to investigate the impact of monetary policy shocks on income distribution. With the preliminary results I obtained so far, I had accepted papers to three conferences (8), (9), (11) (the other co-author is my advisor).

In 2017, I worked in my undergraduate thesis in economics in order to finish it before starting the master thesis. It was the first Bayesian research developed in the Business and Economics department (and, as far as I know, the second text in this area produced in the entire University). Therefore, my idea was to make an introductory text that could be understood by undergraduates interested in Bayesian Econometrics. In the thesis, I explored theoretical and empirical (using both Monte Carlo simulations and real data) aspects of the Bayesian linear regression model with conjugate Normal-Gamma prior and compared with the results obtained by the frequentist ordinary least square estimator. As application, I used data from the Brazilian Employment Ministry to investigate the gender wage gap in IT professions in the State of Santa Catarina and compared the results with a previous work from Pozzobon & Bonini (2014). Poster presentations (10) and (12) are related to this research and the other co-author is my advisor.

In my first undergraduate thesis in statistics I studied theoretical properties of K-factor GARMA processes (like invertibility, stationarity, spectral density, etc) and used Monte Carlo simulation to compare different parametric and semiparametric estimators under different model specifications, including a likelihood-based estimator that was developed by me. I had two conference presentation (13)-(14), where besides my advisor, the other co-author is a professor from the department that helped acted as informal co-advisor.