# Dr. Audronė Virbickaitė

Curriculum Vitae

# Affiliation and Contact Information

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## **Research interests**

Bayesian econometrics Financial econometrics Time-varying volatility models Sequential Monte Carlo Methods Particle filters Copulas Time series analysis

# **Current and Past Positions**

- 2020 : Assistant Professor, Departamento de Métodos Cuantitativos, Colegio Universitario De Estudios Financieros (CUNEF), Madrid.
- 2017 2020: Assistant Professor (*Profesora Contratada Doctora Interina*), Departament d'Economia Aplicada, UIB, Palma de Mallorca.
- 2015 2017: Post Doctoral researcher at University of Konstanz, Chair of Economics and Econometrics, Germany.
- 2012 2015: Lecturer, course coordinator at Department of Statistics, Universidad Carlos III de Madrid.
- 2009 2012: Teaching assistant Department of Statistics, Universidad Carlos III de Madrid, Spain.
- 2008 2009: Intern of Accounting & Finance at Kaanapali Beach Watercraft Rentals, HI, USA.

#### Publications in Scientific Journals and Book Chapters

- Virbickaitė, A., Ausín, C., Galeano, P. (2020). Copula Stochastic Volatility in oil returns: Approximate Bayesian Computation with volatility prediction, *Energy Economics*, 92 (October), 104961.
- Virbickaitė, A., Frey, C., Macedo, D.N (2020). Sequential Stock Return Prediction Through Copulas, *The Journal of Economic Asymmetries*, 22 (November), 1-16.
- Virbickaitė, A., Lopes, H.F. (2019). Bayesian Semi-Parametric Markov Switching Stochastic Volatility Model, *Applied Stochastic Models in Business and Industry*, 35(4), 978-997.
- Sansó, A., Virbickaitė, A. (2019). Capítol I: Escenaris Demogràfics i de Consum, pp. 23-47, *Estudio Horizonte* 2030, ISBN: 978-84-09-09772-2.
- Virbickaitė, A., Lopes, H.F., Ausín, C., Galeano, P. (2019). Particle learning for Bayesian semi-parametric stochastic volatility model, *Econometric Reviews*, 38 (9), 1007-1023.
- Macedo, D.N, Virbickaitė, A. (2018). El rol de los requerimientos de capital en el mercado interbancario, *Revista Empresarial*, 46 (12).
- Virbickaitė, A., Ausín, C., Galeano, P. (2016). A Bayesian Non-Parametric Approach to Asymmetric Dynamic Conditional Correlation Model With Application to Portfolio Selection, *Computational Statistics and Data Analysis*, 100, 814–829.
- Virbickaitė, A., Ausín, C., Galeano, P. (2015). Bayesian Inference Methods for Univariate and Multivariate GARCH Models: a Survey, *Journal of Economic Surveys*, 29 (1), 76–96.

#### Works-in-Progress

Dynamic mixed-frequency pooled copula (with H.Lopes), Revise & Resubmit.

- How local tourism managers can benefit from national surveys (with J.Rosselló and A. Sansó), *Revise* & *Resubmit*.
- Semiparametric Bayesian Forecasting for Copula Stochastic Volatility Model (with M.Zaharieva and F. Goessling)
- The impact of financial, macroeconomic and non-economic factors on the hospitality industry in Spain and the UK (with X.Zhang).

Stochastic Volatility and DPM<sup>2</sup> (with H.Lopes and P.Marques).

Seasonality in High-Frequency Data (with H.Lopes & R.Tsay).

## **Conference Presentations and Invited Seminars**

- 2020: A presenter at the 14th International Conference on Computational and Financial Econometrics (CFE2020), London, December.
- 2019: Presented at the Spring Meeting of Young Economists 2019 (SMYE2019), Brussels, April. Invited speaker at Bayesian Data Analysis and Modeling Workshop in University of Greenwich, London, September. Invited seminar at Statistics Department in University of Carlos III, Madrid, November. Invited seminar at INSPER Institute of Education and Research, Sao Paulo, Brasil, December
- 2018: Invited seminar at Westfälische Wilhelms-Universität Münster, Center for Quantitative Economics, Germany, July.
- 2017: Invited seminar at Universitat de les Illes Balears, Applied Economics Department, Spain, January. Invited talk at the 1st International Conference on Econometrics and Statistics (EcoSta 2017), Hong Kong, June. Invited talk at The 11th International Conference on Computational and Financial Econometrics (CFE 2017), London, December.
- 2016: Invited talk at the 9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016), Seville, Spain, December. Invited talk at Computational Social Sciences Workshop, Konstanz, Germany, July. Invited talk at Workshop in Bayesian Econometrics, UC3M, Madrid, Spain, June. Contributed talk at German Statistical Week, Augsburg, Germany, September 13-16th.
- 2015: Young Invited Speaker at 9th Workshop on Bayesian Inference in Stochastic Processes, Istanbul, Turkey, June. Invited seminar at Westfälische Wilhelms-Universität Münster, Center for Quantitative Economics, Germany, June. Invited talk at the 9th International Conference on Computational and Financial Econometrics (CFE 2015), London, UK, December.
- 2014: Thesis seminar at UC3M, Statistics Department, December. Invited talk at *Workshop Métodos Bayesianos'14. Madrid*, at Universidad Complutense, Madrid, Spain, November. Presented a talk at the IVt Workshop in Time Series Econometrics, Zaragoza, Spain, April.
- 2013: Invited to participate at the 7th CSDA International Conference on Computational and Financial Econometrics (CFE 2013), London, UK, December. Intermediate thesis seminar at UC3M, Statistics Department, November. Invited to give a seminar at the School of Computing & Mathematics, Plymouth University, UK, October.
- 2012: Invited to participate at the 6th CSDA International Conference on Computational and Financial Econometrics (CFE 2012), Oviedo, Spain, December.

# Education

- 2011 2015: Doctoral Degree in Business Administration and Quantitative Methods, Statistics department, UC3M. Thesis title *Bayesian non-parametrics for time-varying volatility models*. Advisors: C. Ausín and P. Galeano. Cum Laude and international doctorate mention.
- 2009 2011: Master's degree in Business Administration and Quantitative Methods, UC3M, Spain.
- 2004 2008: Bachelor's degree in Economics, Vilnius University, Lithuania.
- 2007 2008: International Erasmus exchange student, Comenius University of Bratislava, Slovakia.

#### **Research Stays**

- 2019: Research stay at Insper, Institute of Education and Research, Sao Paulo, 3 weeks, working with prof. Hedibert F. Lopes.
- 2019: Research stay at the UC3M, 3 months, working with P.Galeano and C.Ausín.
- 2018: Research stay at Insper, Institute of Education and Research, Sao Paulo, 1 month, working with prof. Hedibert F. Lopes.
- 2018: Research stay at the UC3M, 2 months, working with P.Galeano and C.Ausín.
- 2013: Visiting PhD student at the University of Chicago Booth School of Business, 4 months, working with prof. Hedibert F. Lopes.

## Participation in Research and R&D Projects

- 2019: Contributor at the "Estudi sobre la prospectiva econòmica, social i mediambiental de les Illes Balears que pren com a horitzó l'any 2030", as a part of *Conveni de collaboració entre el Consell Econòmic i Social de les Illes Balears i la Universitat de les Illes Balears*.
- 2019: Collaborator at an educational innovation project "Evaluación, personalidad y habilidades no cognitivas: evidencia mediante evaluaciones mediante Moodle", UIB, PI: Pau Balart Castro.
- 2018: Collaborator at a research project "Estacionaliad, cointegración, memoria larga y datos con distinta periodicidad", UIB, PI: Tomás del Barrio Castro.
- 2013: Collaborator at a research project "Potenciación de la divulgación científica de la UCC+I de la UC3M", UC3M, PI: Maria Luz Neira Jimenez.
- 2012: Collaborator at a research project "Analisis de datos de muy alta dimensión", UC3M, PI: Juan Romo Urroz.

#### **Grants and Scholarships**

- 2019: Travel grant from "Subprograma d'Ajuts per a Estades de Treball pertanyent al Programa de Foment de la Recerca" at the UIB for a research stay at Insper, Sao Paulo, 3 weeks.
- 2018: Travel grant from "Subprograma d'Ajuts per a Estades de Treball pertanyent al Programa de Foment de la Recerca" at the UIB for a research stay at Insper, Sao Paulo, 1 month.
- 2011: Visiting PhD student scholarship from the UC3M for a research stay at the University of Chicago Booth School of Business, 4 months.
- 2011: Scholarship for the Research Personnel in training from the UC3M, 2 years.

2009: Master's scholarship from the UC3M, 2 years.

#### **Supervision of Master Theses**

Nan Sun (2020, UIB), Polina Ovsyannikova (2019, UIB), Xun Zhang (2018, UIB), Alexander Thierschmidt (2017, UKon), Christian Blonczewski (2016, UKon)

#### Short courses

- 2020: Introduction to STATA (10hrs), Universitat de les Illes Balears.
- 2018: Bayesian Econometrics course (9hrs) as a part of Topics in Advanced Econometrics in Graduate School of Decision Sciences, Doctoral Programme in Quantitative Economics and Finance, University of Konstanz, Germany.
- 2017: Statistics course (36hrs) in the bachelor degree program "Corporate Management & Economics", Zeppelin Universität, Germany.

# Teaching

2020-2021: CUNEF

- Statistics for Business I

- 2019 2020: Universitat de les Illes Balears
  - Finances i Econometria amb Dades d'Alta Freqüència (Master's Degree in Big Data Analysis in Economics and Business, in Spanish)
  - Analysis and interpretation of results (Master in Economics of Tourism: Monitoring and Evaluation, in English)
  - Anàlisi de Dades Econòmiques (double degree in Business Adm. & Tourism, in Spanish)
- 2018 2019: Universitat de les Illes Balears

– Finances i Econometria amb Dades d'Alta Freqüència (Master's Degree in Big Data Analysis in Economics and Business, in Spanish)

– Analysis and interpretation of results (Master in Economics of Tourism: Monitoring and Evaluation, in English)

- Microeconometrics (undergraduate degree in Economics, in Spanish and English)
- Anàlisi de Dades Econòmiques (double degree in Business Adm. & Tourism, in Spanish)
- 2017 2018: Universitat de les Illes Balears
  - Econometrics (undergraduate degree in Economics, in Spanish)
  - Analysis and interpretation of results (Master in Economics of Tourism: Monitoring and Evaluation, in English)
  - Microeconometrics (undergraduate degree in Economics, in Spanish and English)
- 2016 2017: University of Konstanz
  - Econometrics I (undergraduate course, in English)
  - Microeconometrics (master's course, in English), with Prof. Dr.W.Pohlmeier and Dr.R.Halbleib
  - Advanced Econometrics (master's course, in English), with Dr.R.Halbleib
  - Financial Econometrics (master's course, in English), with Dr.R.Halbleib
- 2015 2016: University of Konstanz
  - Statistics I (undergraduate course, in English)
  - Financial Econometrics (master's course, in English)
- 2012 2015: Universidad Carlos III de Madrid – Lecturer of the Bachelor's Statistics I course, in Spanish and English
- 2009 2013: Universidad Carlos III de Madrid
  - TA for PhD course in Econometrics
  - TA undergraduate courses: Statistics I, Statistics II, Econometrics II, Statistics applied to journalism, Statistical inference techniques

### Miscellaneous

- Chair of the Program Committee for Spring Meeting of Young Economists 2019 (SMYE2019), Brussels
- Board member in the European Association of Young Economists (EAYE), 2018-2020.
- Member of the LOC for Spring Meeting of Young Economists 2018 (SMYE2018), Palma de Mallorca.
- Acreditada por ANECA y AQUIB como Profesora Contratada doctora.
- Member of a University's Government Council (*Consejo de Gobierno*), representing post-graduate students, 2013-2014 & 2014-2015, UC3M.
- Elected member of University's Senate (*el Claustro*), representing post-graduate students, 2012-2013 & 2013-2014 & 2014-2015, UC3M.
- Represented UC3M and finalist at the Econometric Games in Amsterdam, Netherlands, 2012.
- Referee for: Bayesian Analysis, Statistics & Computing, Econometric Reviews, Journal of Financial Econometrics, Central European Journal of Economic Modelling and Econometrics, Studies in Nonlinear Dynamics & Econometrics, Journal of Forecasting, Computational Statistics.
- Languages: Native Lithuanian; Fluent English & Spanish; Beginner Russian.
- Programming skills: R, Matlab, Stata, beginner Python

## References

Prof.Dr. H.F.Lopes, Full Professor at Insper, Institute of Education and Research, Sao Paulo, Brasil email: HedibertFL@insper.edu.br

Dr. P.Galeano, Associate Professor at Department of Statistics, UC3M, Madrid, Spain email: pedro.galeano@uc3m.es

Dr. C.Ausín, Associate Professor at Department of Statistics, UC3M, Madrid, Spain email: concepcion.ausin@uc3m.es

Prof.Dr. Andreu Sansó Rosselló, Full Professor at Department of Applied Economics, UIB, Palma de Mallorca, Spain email: andreu.sanso@uib.es