

*Curriculum Vitae*

**Rebecca Graziani, Ph.D.**

Department of Social and Political Sciences

**1. Degrees**

**2002** PhD in Methodological Statistics from University of Trento. Title of the PhD dissertation *Bayesian Nonparametric Regression with Splines*. Advisor Prof. Donato Michele Cifarelli, Bocconi University.

**1997** Degree in Economics and Social Sciences (DES) from Bocconi University. Title of the thesis *A Bayesian approach to the analysis of Dynamic Models* (title in Italian: Un approccio bayesiano all'analisi dei Modelli Dinamici). Advisor Prof. Donato Michele Cifarelli, co-advisor Prof. Piero Veronese.

**2. Current position**

Ricercatore confermato in Statistica (settore SECS-S/01) at the Department of Social and Political Sciences, Bocconi University, Milan (Italy)

**3. Previous employment positions**

**2002-2003** Post-doc in Statistics at Bocconi University

**2001-2003** Teaching contract for the courses Statistics I and Statistics II at "Carlo Cattaneo" University, Castellanza, Italy.

**1997** Consultant at Statistics Division, Unesco, Paris

**4. Visiting positions**

**September 2000 - May 2001** Visiting Ph.D. student at the Department of Mathematics, Imperial College, London. Scientific Collaboration with Professor Christopher Holmes.

**May-July 2009** Visiting professor at the Department of Economics, Oslo University, Norway. Scientific collaboration with Professor Nico Keilman.

**September 2011-June 2012** Visiting professor at Center Estudis Demografics, Barcelona, Spain. Scientific collaboration with Professors Anna Cabré and Daniel Devolder.

**5. Publications**

- Graziani R. (2020) Stochastic Population Forecasting: A Bayesian Approach Based on Evaluation by Experts. In: Mazzuco S., Keilman N. (eds) *Developments in Demographic Forecasting. The Springer Series on Demographic Methods and Population Analysis*, vol 49. Springer.
- Graziani R., Venturini S. 2020. A Bayesian approach to discrete multiple outcome network meta-analysis. *Plos One*.
- Magni C. A., Veronese P., Graziani R. 2018. Chisini means and rational decision making: equivalence of investment criteria. *Mathematics and Financial Economics*, 12(2), 193-217.
- R. Graziani, M. Guindani, P. Thall 2015. "Bayesian Nonparametric estimation of targeted effects on biomarker change to predict clinical outcome". *Biometrics*, 71 (1): 188-197.
- G. Fattore, D. Numerato, M. Peltola, H. Banks, R. Graziani, R. Heijnk, E. Over, ST. Klitkou, E. Fletcher, P. Mihalicza, S. Sverèus 2015. "Variation and determinants of mortality and length of stay of very low birth weight and very low for gestational age infants in 7 European countries". *Health Economics* 24 (Suppl. 2): 65-87.
- F. Billari, R. Graziani, E. Melilli 2014. "Stochastic Population Forecasting based on combinations of Expert Evaluations within the Bayesian Paradigm". *Demography*, 51 (5): 1933-1954.

- A. Arbore, R. Graziani, S. Venturini 2014. "Understanding Personal Mobile Technologies: Decomposing and De-averaging the Value of a Smartphone". *Journal of Information Systems*, 28 (1): 167-185.
- F. Billari, R. Graziani, E. Melilli 2012. "Stochastic Population Forecasting based on Conditional Experts Opinions". *Journal of the Royal Statistical Society, A*, 175 (2): 491-511.
- R. Graziani, P. Veronese 2009. How to Compute a Mean? The Chisini Approach and Its Applications. *The American Statistician*, 63(1): 33-36.
- Cifarelli D.M., Graziani R., Melilli E. 2008. Bayesian Inference for Lancaster's Probabilities. *Applied Mathematical Sciences*, 2 (33): 1619-1633.

## 6. Working papers

- Graziani R., Keilman N. 2010. The sensitivity of the Scaled Model of Error with respect to the choice of the correlation parameters: A simulation study. Memorandum. Department of Economics, Oslo University.
- R. Graziani, C. Holmes, Bayesian free knot polynomial splines of random order, *Studi Statistici N.75*, Università Bocconi, Milano, 2003
- R. Graziani, E. Melilli. "Stochastic Population Forecast: a supra-Bayesian approach to combine experts opinions and observed past forecast errors." Annual Meeting of the Population of America Association. Washington, March 2011.
- R. Graziani, M. Marsili, E. Melilli. "Using simple but flexible stochastic population forecasts to extend official population forecasts." XXVI International Population Conference. Marrakech, September 2009.
- F. Billari, R. Graziani, E. Melilli. "Simple but Flexible Stochastic Population Forecasting based on Conditional Experts Opinions." European Population Conference 2008. Barcelona, July 2008.
- R. Graziani e F. Billari: Bayesian Sample Selection Models. 8th Workshop of the ERCIM Working Group on Matrix Computations and Statistics-Satellite Meeting of COMPSTAT. Salerno, September 2006.
- D.M. Cifarelli, R. Graziani e E. Melilli: Bayesian Inference for Lancaster's Probabilities. German Open Conference on Probability and Statistics 'Frankfurter Stochastik-Tage 2006'. Frankfurt, March 2006.

## 7. Other publications

Translation in Italian of the book "Business Statistics: A First Course, 2nd ed.", di D. M. Levine, T. C. Krehbiel, M. L. Berenson (chapters 1, 3, 5, 6, 9, 10, title in Italian "Statistica" edizione italiana a cura di R. Piccarreta, 2002, Milano: APOGEO).

## 8. Participation in International Conferences

- R. Graziani and A. Compagni. "A topic modelling analysis of the Italian discursive debate on vaccinations" International Biometric Conference, 2020.
- R. Graziani and S. Venturini. "Multiple Outcome Meta-Analysis: A discrete multivariate approach using Gaussian copulas." 2<sup>nd</sup> International Conference On Econometric and Statistics, Hong Kong, 2018.
- R. Graziani and S. Venturini. "Multiple Outcome Meta-Analysis: A discrete multivariate approach using Gaussian copulas." International Biometric Conference, Barcelona, 2018.
- R. Graziani, M. Guindani, P. Thall. "Bayesian Non-parametric identification of Pre-versus-Post treatment biomarker effects on Progression Free Survival". International Biometric Conference. Firenze 2014.
- F. Billari, R. Graziani, E. Melilli. "Expert-Based Stochastic Population Forecasting: Conditional: a Bayesian Approach to the Combination of Expert Evaluations. Joint Eurostat/Unece Work Session on Demographic Projections. Roma 2013.
- R. Graziani, M. Guindani, P. Thall. "Bayesian Nonparametric Identification of Pre-versus- Post Treatment Biomarker Effect on Progression Free Survival. SCo 2013 Conference. Milano 2013.

- F. Billari, R. Graziani, E. Melilli. "Expert-Based Stochastic Population Forecasting: Conditional Elicitation Procedure and Combination of Experts Evaluations within the Bayesian Paradigm." Giornate di Studio sulla Popolazione 2013. Bressanone 2013.
- R. Graziani, M. Guindani, P. Thall. "Bayesian Nonparametric Identification of Pre-versus- Post Treatment Biomarker Effects on Progression Free Survival. IRB BioMed Conference on Bayesian Methods in biostatistics and bioinformatics. Barcelona 2012.
- F. Billari, R. Graziani, E. Melilli. "Stochastic Population Forecasting based on a Combination of Experts Evaluations and accounting for Correlation of Demographic Components" European Population Conference 2012. Stockholm, June 2012

## **9. Major research grants**

- 2004** Stability and Instability of Couples. Statistical Methodology and analysis: a life course approach, Italian Ministry of Research and University research project [PI: F. Billari ]
- 2007** Analysis of discrete data with unobserved heterogeneity: applications to health and education [PI: V. Dardanoni]
- 2009** Childbearing, Childrearing and Wellbeing: Life Course, Context and Potential Futures, Italian Ministry of Research and University research project [PI: **A. Aassve**]

## **10. Scientific Committee membership**

Member of the Italian Society of Statistics and of the International Biometric Society  
Fellow of Dondena Center for Research on Social Dynamics and Affiliate of BIDSa, Bocconi University

## **11. Main Bocconi teaching activities**

- 2012-present** Quantitative Methods for Management (Course Director, Master of Science in Economics and Management in Arts, Culture, Media and Entertainment, taught in English)
- 2016-present** Quantitative Methods II, Statistics (Course Instructor, Bachelor of Science in International Politics and Government, taught in English)
- 2017- present** Statistics (Course Instructor, Bachelor of Science in Economics and Management for Arts, Culture and Communication, taught in English)
- 2018- present** Statistics and Probability (Master of Science in Data Science and Business Analytics, taught in English)
- 2005-2021** Computational Statistics (Course Instructor, Doctoral Program in Statistics, taught in English)
- 2015-2016** Applications for Economic, Management and Finance (Bachelor in International Economics, Management and Finance, taught in English)
- 2009-2012** Advanced Statistics for Economics and Social Sciences (Master of Science Economic and Social Sciences, taught in English)
- 2009-2012** Statistica-Progettazione e analisi dei questionari obbligatorio (Course Director, Bachelor of Science in Economy and Management for art, culture and communication, taught in Italian).
- 2006-2009** Quantitative Approaches and Policy Analysis (Course Director, taught in English)
- 2003-2006** Mathematics and Statistics (Bachelor of Science in Economy and Management for art, culture and communication, taught in English in 2003-2004).

## **12. Comments on teaching activity**

I teach statistics for different degrees, undergraduate, graduate and PhD, and with different approaches. I have as well been making changes and innovating in my teaching in all courses I am Director, also thanks to the help and support coming from the University divisions, I particularly refer to Built.

### **13. Teaching experience (other Institutions)**

**2014 - 2017** Teaching contract for the courses Statistics for the Social Sciences I and Statistics for the Social Sciences II at the Graduate School in Social and Political Sciences, Università di Milano, Milan, Italy.

### **14. Institutional roles and services in Bocconi**

**2003 – present** Member of the Scientific Board of the PhD program in Statistics, Bocconi University

**2012– present** Member of the ACME program Committee

**2019 – present** Member of the BIG program Committee

**2020 – present** Member of the Commissione paritetica – Area Technology

**2004-2011** Assistant of the Director of the Master of Science program in Economic and Social Science.

### **15. Other useful information to evaluate the candidate professional career**

#### *Awards*

2017 Teaching Innovation Award Graduate School

2018 Teaching Innovation Award PhD School

2012 and 2015 Research Excellence Award, Bocconi University

#### *Projects for the innovation of teaching funded by Bocconi University*

2017-2018 Project for teaching innovation for the course in Quantitative Methods for Management, Master of Science in Economics and Management in Arts, Culture, Media and Entertainment: Blackboard-based companions for ACME students for practicing in advanced data analysis with SPSS.

2017-2018 Project for teaching innovation for the course in Quantitative Methods, Statistics, Bachelor of Science in International Politics and Government: A Blackboard-based e-workbook for policy analysis with Stata.

2014-2015 Project for improving teaching activity for the Master of Science in Economics and Management in Arts, Culture, Media and Entertainment: Examples of applied quantitative research in the field of management in arts, culture, media and entertainment.

2005 Project for improving teaching activity for the Economics and Social Sciences: The use of Matlab for the applications in Mathematics and Statistics.