

# Giulia Mantoan

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Warwick Business School (WBS)  
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Nov/2018

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## EDUCATION

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<b>Ph.D. in Finance and Econometrics</b> Economic Modelling & Forecasting group University of Warwick, Warwick Business School (WBS) Supervisors: Prof. Ana Galvão and Prof. James Mitchell	2016-2020
<b>M.S. in Models and Methods for Economics</b> Ca' Foscari University (Italy) Supervisor: Prof. Roberto Casarin.	2013-2015
<b>B.S. in Economics</b> , Ca' Foscari University (Italy) Supervisor: Prof. Stefano Magrini.	2010-2013

## RESEARCH INTERESTS

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Primary: Bayesian Econometrics, Forecasting  
Secondary: Macroeconomics, Monetary policy

## PUBLICATIONS

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- “Bayesian Calibration of Generalized Pools of Predictive Distributions” (2016), with R. Casarin and F. Ravazzolo, **Econometrics**, 4(1), p.17.

## WORK IN PROGRESS

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- “Optimal Pooling and Finite Mixture Distribution Combinations of Probabilistic Forecasts”.

## PRESENTATIONS AT CONFERENCES

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2018 Computational and Financial Econometrics Conference (CFE), Pisa (Italy)  
NBP Workshop on Forecasting, Narodowy Bank Polski (NBP) Warsaw (Poland)

## AWARDS

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2016-2020 Ph.D. scholarship from Warwick Business School.  
2016-2020 Ph.D. scholarship from Economic and Social Research Council (ESRC).  
2016 Riccardo Faini Award for the best master thesis (Ca' Foscari).

## TEACHING EXPERIENCE

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2017-2018 University of Warwick, UK  
*Teaching Assistant*  
Advanced Econometric Theory - Ph.D. students in Economics - Module leader: Dr. Giovanni Ricco.

2017-2018 University of Warwick, UK  
*Teaching Assistant*  
Quantitative Methods for Finance - Master students - Module leader: Prof. Cesare Robotti.

2007-2018 University of Warwick, UK  
*Teaching Assistant*  
Global Integrative Project – Module leader: Dr. Frederik Dahlmann.

## PROFESSIONAL AND ACADEMIC EXPERIENCE

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- 2015-2016   Prometeia SPA, Italy  
*Junior Economist*, Financial Markets Analysis Unit  
Prometeia is an outstanding leader in the private sector for research and forecasting. My main role was developing models for estimation and forecasts for the Italian and European banking financial institutions.
- 2015          Univerisit Paris 1 Panthon Sorbonne, France  
*Visiting Student*  
Modules in Population Economics and Labour Economics, French course (level B2).
- 2015          Harvard National Model United Nations 2015 edition; Boston, Massachusetts  
As part of the Ca Foscari delegation, I represented Armenia at the United Nations Model in the Disarmament and International Security Committee in Boston.
- 2014          CFA Institute Research Challenge 2014; Milan, Italy.  
As part of the Ca Foscari team, I participated in the 2014 edition of the global competition. In particular, I built a macro analysis of Luxury Market.

## LANGUAGES

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English (fluent), Italian (native) and French (basic)

## PROGRAMMING SKILLS

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MATLAB, Stata, R, L<sup>A</sup>T<sub>E</sub>X.

## PERSONAL INFORMATION

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Full name: Giulia Mantoan  
Date of birth: 29/Mar/1991  
Citizenship: Italian

### **Optimal Pooling and Finite Mixture Distribution Combinations of Probabilistic Forecasts**

The combination of two or more density forecasts entails a long tradition the statistics and forecasting literature. However, little attention in econometrics has been given to the finite mixture distribution as a statistical model for combining density forecasts. Combination procedures based on a mixture density distribution are able to account for parameter uncertainty in addition to weights uncertainty, which are features normally not considered in the traditional “two-step” approaches. The aim of this paper is to compare the “one-step” mixture approach with a more traditional “two step” approach for combining density forecasts. The superiority of the “one-step” approach is accessed thought analytical analyses, Monte Carlo simulations and a macroeconomic application.

### **Bayesian Calibration of Generalized Pools of Predictive Distributions,**

with Prof. R. Casarin (Ca’ Foscari University) and Prof. F. Ravazzolo (Free University of Bozen-Bolzano)

Decision-makers often consult different experts to build reliable forecasts on variables of interest. Combining more opinions and calibrating them to maximize the forecast accuracy is consequently a crucial issue in several economic problems. This paper applies a Bayesian beta mixture model to derive a combined and calibrated density function using random calibration functionals and random combination weights. In particular, it compares the application of linear, harmonic and logarithmic pooling in the Bayesian combination approach. The three combination schemes, i.e., linear, harmonic and logarithmic, are studied in simulation examples with multimodal densities and an empirical application with a large database of stock data. All of the experiments show that in a beta mixture calibration framework, the three combination schemes are substantially equivalent, achieving calibration, and no clear preference for one of them appears. The financial application shows that the linear pooling together with beta mixture calibration achieves the best results in terms of calibrated forecast.