

# Francesco Valentini - Curriculum Vitæ

## Personal Details

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## Current Position

Junior Assistant Professor of Statistics (SECS-S/01)  
Department of Economic and Social Sciences, Marche Polytechnic University, Ancona, Italy  
Starting date: January 1, 2023

## Research Interests

Discrete Panel Data, Network Econometrics, Microeconometrics, Time Series, Spatial Econometrics

## Past Positions

- Postdoctoral Fellow in Econometrics (SECS-P/05) on the Project:  
"Panel data models and machine learning methods for the Green Innovators' performance evaluation"  
Tutor: Prof. Claudia Pigni  
Department of Economic and Social Sciences, Marche Polytechnic University, Ancona, Italy  
September 1, 2022 - December 31, 2022
- Postdoctoral Fellow in Econometrics (SECS-P/05)  
Project: "Conditional inference for discrete panel data models"  
Tutor: Prof. Claudia Pigni  
Department of Economic and Social Sciences, Marche Polytechnic University, Ancona, Italy  
June 1, 2020 - May 31, 2022

## Education

19/03/2020 - Ph.D. in Economics, Marche Polytechnic University  
Doctoral thesis: "Three Essays on the Conditional Inference Approach for Binary Panel Data Models"  
Supervisors: Prof. Francesco Bartolucci and Prof. Claudia Pigni  
  
24/10/2015 - Master's Degree in Economics and Finance, Marche Polytechnic University,  
110/110 magna cum laude

## Publications and Research Activities

### – *Peer-Reviewed Articles*

forthcoming - Francesco Bartolucci, Claudia Pigini and Francesco Valentini. “MCMC Conditional Maximum Likelihood for the two-way fixed-effects logit”, *Econometric Reviews*

2023 - Riccardo Lucchetti and Francesco Valentini. “Kernel-based Time-Varying IV estimation: handle with care”, *Empirical Economics*, <https://doi.org/10.1007/s00181-023-02450-6>

2022 - Francesco Bartolucci, Claudia Pigini and Francesco Valentini. “Testing for state dependence in the fixed-effects ordered logit model”, *Economics Letters*, <https://doi.org/10.1016/j.econlet.2022.110964>

2022 - Francesco Bartolucci, Claudia Pigini and Francesco Valentini. “Conditional inference and bias reduction for partial effects estimation of fixed-effects logit models”, *Empirical Economics*, <https://doi.org/10.1007/s00181-022-02313-6>

2021 - Francesco Bartolucci, Francesco Valentini and Claudia Pigini. “Recursive computation of the conditional probability function of the quadratic exponential model for binary panel data”, *Computational Economics*, <https://doi.org/10.1007/s10614-021-10218-2>

2021 - Chiara Casoli, Luca Pedini and Francesco Valentini. “Do Covid-19 mobility restrictions affect economic uncertainty in Italy? Evidence from a SVAR approach”, *Economics Bulletin*

### – *Conference Proceedings*

2019 - Chiara Casoli, Luca Pedini and Francesco Valentini. “Spatial models in gretl: the SPM package” in *GRETl 2019. Proceedings of the International Conference on the Gnu Regression, Econometrics and Time-series Library*, DOI:10.6093/978-88-6887-057-7

### – *Books*

2023 - Francesco Valentini, Claudia Pigini and Francesco Bartolucci. “Advances in maximum likelihood estimation of fixed-effects binary panel data models” in *Trends and Challenges for Categorical Data Analysis*, edited by Maria Kateri and Irini Moustaki, Springer, [https://doi.org/10.1007/978-3-031-31186-4\\_9](https://doi.org/10.1007/978-3-031-31186-4_9)

### – *Work in Progress*

“Linear models with time-varying parameters in gretl: comparing different approaches” (joint with R. Lucchetti)

“Monetization, wars, and the Italian fiscal multiplier” (joint with M. Fratianni, F. Giri and R. Lucchetti)

“Persistence in the R&D intensity of top innovators” (joint with C. Pigini and A. Sterlacchini)

“Specification testing with Grouped Fixed Effects” (joint with C. Pigini and A. Pionati)

“Testing for dependence in pairs of binary outcomes by an approximating logit model”

## – *Software Components*

cquad: Conditional Maximum Likelihood for Quadratic Exponential Models for Binary Panel Data.  
R package

Francesco Bartolucci, Claudia Pigini and Francesco Valentini. 2020

<https://cran.r-project.org/package=cquad>

cquadr: run the cquad R package in Stata.

STATA package

Francesco Bartolucci, Claudia Pigini and Francesco Valentini. 2020

<https://ideas.repec.org/c/boc/bocode/s458852.html> and <https://github.com/fravale/cquadr>

ketvals: Kernel-based Time-Varying Least Squares.

gretl Function Package

Riccardo “Jack” Lucchetti and Francesco Valentini. 2021

[https://gretl.sourceforge.net/current\\_fnfiles/ketvals.zip](https://gretl.sourceforge.net/current_fnfiles/ketvals.zip)

spm: Spatial Regression Models.

gretl Function Package

Chiara Casoli, Luca Pedini and Francesco Valentini. 2019

[https://gretl.sourceforge.net/current\\_fnfiles/spm.zip](https://gretl.sourceforge.net/current_fnfiles/spm.zip)

## – *Research projects*

Member of the research project:

*Next Generation EU. Project Code: ECS00000041; Project CUP: C43C22000380007;*

*Title: Innovation, digitalization and sustainability for the diffused economy in Central Italy – VITALITY*

## Refereeing Activity

Econometrics, Psychometrika (Theory and Methods), SN Business & Economics

## Conference/Workshop Talks

2023 - The 28th International Panel Data Conference, Amsterdam, Netherlands.

Presentation: *“Specification testing with Grouped Fixed Effects”*

2023 - 8th gretl Conference, Gdańsk, Poland.

Presentation: *“Linear models with time-varying parameters in gretl: comparing different approaches”*

2023 - 10th Italian Congress of Econometrics and Empirical Economics, Cagliari, Italy.

Presentation: *“Monetization and the fiscal multiplier”*

2022 - The 27th International Panel Data Conference, Bertinoro, Italy.

Presentation: *“MCMC Conditional Maximum Likelihood for the two-way fixed-effects logit”*

2022 - Challenges for Categorical Data Analysis 2022, Perugia, Italy.

Presentation: *“Dynamic Ordered Logit with Fixed-Effects: testing for state dependence”*

2022 - 3rd Italian Workshop of Econometrics and Empirical Economics, Rimini, Italy.

Presentation: *“MCMC Conditional Maximum Likelihood for the two-way fixed-effects logit”*

2021 - 9th Italian Congress of Econometrics and Empirical Economics, Cagliari, Italy [Web].  
Presentation: *"Partial effects estimation for fixed-effects logit panel data models"*

2019 - 7th SIde Workshop for PhD students in Econometrics and Empirical Economics, Bertinoro, Italy.  
Presentation: *"A conditional approach to testing for endogenous sample and self-selection in fixed-effects logit panel data models"*

2019 - 6th gret1 Conference, Naples, Italy.  
Presentation: *"Spatial models in gretl: the SPM package"*

## Teaching

2023/2024 - Lecturer of "Statistics for technological and experimental research",  
Bachelor's Degree in Biomedical Laboratory Techniques, Faculty of Medicine and Surgery,  
Marche Polytechnic University

2019/20 ~ 2022/23 - Teaching assistant: "Microeconometrics"  
(coordinator: Prof. Matteo Picchio), Ph.D. in Economics, Marche Polytechnic University

2019/20 ~ 2022/23 - Teaching assistant: "Time Series Econometrics"  
(coordinator: Prof. Giulio Palomba), Ph.D. in Economics, Marche Polytechnic University

2020/21 ~ 2022/2023 - Teaching assistant: "Economia Politica I" (Microeconomics),  
Bachelor's Degree in Economics and Business, Marche Polytechnic University

2020 ~ 2021 - Teaching assistant: "Practice sessions in R"  
(coordinators: Prof. Riccardo Lucchetti and Prof. Maria Cristina Recchioni)  
Specialization Course in Data Science for Enterprises, Istituto Adriano Olivetti, Ancona, Italy

2019/20 - Associate Lecturer (Docente a Contratto) of "Economic and Financial Time Series Analysis",  
Master's Degree in Finance and Quantitative Methods for Economics,  
Department of Economics, University of Perugia, Perugia, Italy

2016/17 ~ 2018/19 - Tutor of "Economia Politica I" (Microeconomics),  
Bachelor's Degree in Economics and Business, Marche Polytechnic University

## Memberships

2017-2019, 2021-2023 - SIde-IEA, *Italian Econometric Association*

## Other Experiences

02/2019 ~ 07/2019 - Visiting Ph.D. student at University of Perugia, courses attendance:

"Gaussian Mixture Models for Model Based Clustering and Classification", Prof. Luca Scrucca

"Introduction to Latent Variable Models", Prof. Francesco Bartolucci

2019 - 8th Italian Congress of Econometrics and Empirical Economics, Lecce, Italy

2018 - 1st Italian Workshop of Econometrics and Empirical Economics, Milan, Italy

## Languages

Italian: Mothertongue

English: Upper Intermediate, Cambridge First Certificate in English (B2 Level)

German: Basic, basic words and phrases only

## Computer Skills

Operating Systems: GNU/Linux, Microsoft Windows

Text Editing and Office Skills:  $\text{\LaTeX}$ , LibreOffice, Microsoft Office

Software: R, gretl, STATA, MATLAB

Last update: September 22, 2023