# CONTACT Information

Queen Mary University of London School of Mathematical Sciences 327 Mile End Road

London E1 4NS, United Kingdom

Date of birth: 30/01/1989 Citizenship: Italian ☐ matte.iaco@gmail.com
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Scholar.google.it

# RESEARCH INTERESTS

Tensor calculus - Bayesian Statistics - High-dimensional data - Time series analysis - Functional data analysis - Nonparametric statistics - Networks.

#### Positions

- September 2022 – present

**Lecturer in Statistics**. Queen Mary University of London, School of Mathematical Sciences, United Kingdom.

- October 2020 – August 2022

Research Fellow (Marie Sklodowska-Curie fellowship). Vrije Universiteit Amsterdam, Department of Econometrics and Data Science, The Netherlands.

- April  $2019-March\ 2020$ 

Research Fellow. Scuola Normale Superiore of Pisa, Italy.

- July 2018 - March 2019

Research Fellow. Ca' Foscari University of Venice, Department of Economics, Venice, Italy.

### Others

- September 2018 – present

"Cultore della materia" in Econometrics. Ca' Foscari University of Venice, Venice, Italy.

- May 2018 – present

Member of Science of Complexity Team. Ca' Foscari University of Venice, Venice, Italy.

#### **EDUCATION**

September 2014 – July 2018

**Ph.D. in Economics**. Ca' Foscari University of Venice, Department of Economics, Venice, Italy. **Ph.D. in Applied Mathematics**. Université Paris I - Panthéon-Sorbonne, Centre d'Économie de la Sorbonne, Paris, France.

- Thesis: Essays on the Econometric modelling of Temporal Networks
- Supervisors: prof. Monica Billio, prof. Dominique Guégan, prof. Roberto Casarin

September 2011 - July 2014

M.Sc. in Economics. Department of Economics and Management, University of Pisa and Sant'Anna School of Advanced Studies of Pisa, Pisa, Italy

- Thesis: Aggregate Fluctuations in a Sectoral Economy: A Network Approach
- Supervisor: prof. Davide Fiaschi

September 2008 - July 2011

**B.S.** in Business Administration. University of Pisa, Department of Economics and Management, Pisa, Italy

- Thesis: The Long Slump and the Real Interest rate: the thesis of Robert Hall
- Supervisor: prof. Enrico Ghiani

# Publications Published

- 17. Costola, M. and *Iacopini*, M. (2023), "Measuring sovereign bond fragmentation in the Eurozone", Finance Research Letters, 51:103354, (article)
- 16. Billio, M., Casarin, R. and *Iacopini*, M., (2022), "Bayesian Markov switching tensor regression for time-varying networks", *Journal of the American Statistical Association (forthcoming)*, (article)

- 15. Billio, M., Casarin, R., *Iacopini*, M. and Kaufmann, S. (2022), "Bayesian dynamic tensor regression", Journal of Business and Economic Statistics (forthcoming), (article)
- 14. *Iacopini*, M., Ravazzolo, F. and Rossini, L. (2022), "Proper scoring rules for evaluating density forecasts with asymmetric loss functions", *Journal of Business and Economic Statistics* (forthcoming), (article)
- 13. Billio, M., Casarin, R., Costola, M. and *Iacopini*, M. (2022), "Matrix-variate Smooth Transition Models for Temporal Networks", in Arashi, M., Bekker, A., Che, D., and Ferreira, J., Innovations in Multivariate Statistical Modeling: Navigating Theoretical and Multidisciplinary Domains, pages 137–167, Springer Emerging Topics in Statistics and Biostatistics.
- 12. Billio, M., Casarin, R., Costola, M. and *Iacopini*, M. (2021), "COVID-19 spreading in financial networks: A semiparametric matrix regression model", *Econometrics and Statistics* (forthcoming), (article)
- 11. Costola, M., *Iacopini, M.* and Santagiustina, C.R.M.A. (2021), "On the "mementum" of meme stocks", *Economics Letters*, 207, 110021, (article)
- 10. Billio, M., Casarin, R., Costola, M. and *Iacopini*, M. (2021), "A matrix-variate t model for networks", Frontiers in Artificial Intelligence 4, 49, (article)
- 9. *Iacopini*, M. and Santagiustina, C.R.M.A. (2021), "Filtering the intensity of public concern from social media count data with jumps", *Journal of the Royal Statistical Society: Series A*, 184:1283–1302, (article)
- 8. Costola, M., *Iacopini*, M. and Santagiustina, C. (2020), "Google search volumes and the financial markets during the COVID-19 outbreak", *Finance Research Letters*, 42:101884, (article)
- 7. *Iacopini*, M., Ravazzolo, F. and Rossini, L. (2020), "A discussion on: On a Class of Objective Priors from Scoring Rules by F. Leisen, C. Villa and S. G. Walker", *Bayesian Analysis*, 15(4):1392–1393.
- 6. Casarin, R., *Iacopini*, M., Molina, G., ter Horst, E., Espinasa, R., Sucre, C. and Rigobon, R. (2020), "Multilayer network analysis of oil linkages", *The Econometrics Journal*, utaa003, (article)
- Iacopini, M. and Tonellato, S. (2018), "A discussion on: Using stacking to average Bayesian predictive distributions by Y. Yao, A. Vehtari, D. Simpson and A. Gelman", Bayesian Analysis, 13(3):994–996.
- 4. Billio, M., Casarin, R. and *Iacopini*, M., (2018), "Bayesian tensor regression models", In Mathematical and Statistical Methods for Actuarial Sciences and Finance. MAF 2018. Eds. Corazza, M., Durbán, M., Grané, A., Perna, C., Sibillo, M., Springer, 149–153.
- 3. Billio, M., Casarin, R. and *Iacopini*, M., (2018), "Bayesian tensor binary regression", In Mathematical and Statistical Methods for Actuarial Sciences and Finance. MAF 2018. Eds. Corazza, M., Durbán, M., Grané, A., Perna, C., Sibillo, M., Springer, 143–147.
- 2. Casarin, R., *Iacopini*, M. and Rossini, L., (2017), "A discussion on: Sparse graphs using exchangeable random measures by F. Caron and E. B. Fox", *Journal of the Royal Statistical Society: Series B*, 79(5):51–53.
- 1. Billio, M., Casarin, R. and *Iacopini*, M., (2017), "Bayesian tensor regression models", In Proceedings of the Conference of the Italian Statistical Society. Statistics and Data Science: new challenges, new generations. Eds. Alessandra Petrucci and Rosanna Verde, Firenze University Press, 179–186.

### Working Papers

- 7. Pintado, M.F., *Iacopini, M.*, Rossini, L. and Shestopaloff, A.Y. (20XX), "Uncertainty Quantification in Bayesian Reduced-Rank Sparse Regressions",
- 6. *Iacopini*, M., Ravazzolo, F. and Rossini, L. (20XX), "Bayesian Multivariate Quantile Regression with alternative Time-varying Volatility Specifications", arXiv preprint 2211.16121
- 5. *Iacopini*, M., Poon, A., Rossini, L. and Zhu, D. (20XX), "Bayesian Mixed-Frequency Quantile Vector Autoregression: Eliciting tail risks of Monthly US GDP", arXiv preprint 2209.01910
- 4. Bianchi, D., *Iacopini*, M. and Rossini, L. (20XX), "Stablecoins and Cryptocurrency Returns: Evidence from large Bayesian VARs". Available at SSRN: https://dx.doi.org/10.2139/ssrn.3605451

- 3. Santagiustina, C.R.M.A. and *Iacopini*, M. (20XX), "Visualizing and comparing distributions with half-disk density strips"
- 2. *Iacopini*, M. and Rossini, L. (20XX), "Bayesian nonparametric graphical models for time-varying parameters VAR", arXiv preprint 1906.02140
- 1. Guégan, D. and *Iacopini*, M. (20XX), "Nonparametric forecasting of multivariate probability density functions", arXiv preprint 1803.06823

#### Others

1. *Iacopini*, M., (2016), "Basics of optimization theory with applications in MATLAB and R", Quaderni di didattica, Department of Economics, Ca' Foscari University of Venice.

# VISITING PERIODS

- ▶ LUISS of Rome, Department of Economics and Finance, Italy (2-4 November 2022)
- ▶ Paris Lodron University of Salzburg, Department of Economics, Austria (7-8 June 2022)
- ▶ University of Milan, Department of Economics, Management, and Quantitative Methods, Italy (29 May 1 June 2022)
- ▶ Polytechnic University of Milan, Department of Mathematics, Italy (8-12 November 2021)
- ▶ University of Milan, Department of Economics, Management, and Quantitative Methods, Italy (11-15 October 2021)
- ▶ Palacky University in Olomuc, Department of Mathematical Analysis and Applications of Mathematics, Czech Republic (29 October - 2 November 2019)
- ▶ Polytechnic University of Milan, Department of Mathematics, Italy (6-10 May 2019)
- ▶ Vrije University of Amsterdam, Department of Econometrics and Operations Research, The Netherlands (19-23 March 2019)
- ▶ Vrije University of Amsterdam, Department of Econometrics and Operations Research, The Netherlands (28-31 January 2019)
- ▶ University of Pavia, Department of Mathematics, Italy (9-13 April 2018)
- ▶ Université Paris I Panthéon-Sorbonne, France (September 2016 June 2017)

# PRESENTATIONS Invited Presentations and Seminars

- Seminar at Department of Economics and Finance, LUISS of Rome, Italy (2 November 2022)
- Invited Speaker at "Bayesian Nonparametrics Networking workshop", Nicosia, Cyprus (25-29 April 2022)
- Seminar at Department of Economics, Ca' Foscari University of Venice, Italy (2 February 2022)
- Seminar at Department of Mathematical Analysis and Applications of Mathematics, Palacky University in Olomuc, Czech Republic (1 November 2019)
- Seminar at School of Business and Economics, University of Maastricht, The Netherlands (26 April 2019)
- Seminar at Department of Econometrics and Operations Research, Vrije Universiteit Amsterdam, The Netherlands (21 March 2019).
- Seminar at School of Business and Economics, University of Maastricht, The Netherlands (22 January 2019)
- Seminar at Department of Mathematics, Polytechnic University of Milan, Italy (8 November 2018)

# Contributed Presentations

- $\bullet$  ICEEE 2023  $10^{th}$  Italian Congress of Econometrics and Empirical Economics. Cagliari, Italy (26-28 May 2023)
- 5<sup>th</sup> Annual Workshop on Financial Econometrics. Örebro, Sweden (7-8 November 2022)
- IAAE 2022 Annual Conference of the International Association of Applied Econometrics. London, United Kingdom (21-24 June 2022)
- 5<sup>th</sup> Workshop on High-Dimensional Time Series in Macroeconomics and Finance. Wien, Austria (9-10 June 2022)
- 3<sup>rd</sup> IWEEE International Workshop on Econometrics and Empirical Economics. Rimini, Italy (20-21 January 2022)
- CFENetwork International Conference on Computational and Financial Econometrics. London, United Kingdom (18-20 December 2021)
- 4<sup>th</sup> Annual Workshop on Financial Econometrics. Örebro, Sweden (15-16 November 2021)
- 11<sup>th</sup> ESOBE European Seminar on Bayesian Econometrics Annual Workshop. Madrid, Spain (2-3 September 2021)

- IAAE 2021 Annual Conference of the International Association of Applied Econometrics. Rotterdam, The Netherlands (22-25 June 2021)
- BISP-12 12<sup>th</sup> Workshop on Bayesian Inference in Stochastic Processes. Milan, Italy (27-28 May 2021)
- Dynamic Econometrics Conference. Virtual (18-19 March 2021)
- Annual Meeting of the Econometrics Society. Milan, Italy (17-21 August 2020)
- 8<sup>th</sup> CoDaWork International Workshop on Compositional Data Analysis. Terrassa, Spain (4-7 June 2019)
- 4<sup>th</sup> Workshop on High-Dimensional Time Series in Macroeconomics and Finance. Wien, Austria (16-17 May 2019)
- ICEEE 2019 8<sup>th</sup> Italian Congress of Econometrics and Empirical Economics. Lecce, Italy (24-26 January 2019)
- 12<sup>th</sup> CFENetwork International Conference on Computational and Financial Econometrics. Pisa, Italy (14-16 December 2018)
- 9<sup>th</sup> EC<sup>2</sup> Conference on Big Data Econometrics with Applications. Rome, Italy (13-14 December 2018)
- 6<sup>th</sup> SIdE Workshop for PhD students in Econometrics and Empirical Economics (WEEE). Perugia, Italy (23-24 August 2018)
- 49<sup>th</sup> SIS Scientific meeting of the Italian Statistical Society. Palermo, Italy (20-22 June 2018)
- 12<sup>th</sup> Annual RCEA Bayesian Workshop. Rimini, Italy (14-15 June 2018)
- 1<sup>st</sup> QFFE International Conference on Quantitative Finance and Financial Econometrics. Marseille, France (30 May 1 June 2018)
- 8<sup>th</sup> MAF International Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance. Madrid, Spain (4-6 April 2018)
- 11<sup>th</sup> CFENetwork International Conference on Computational and Financial Econometrics. London, United Kingdom (16-18 December 2017)
- 8<sup>th</sup> ESOBE European Seminar on Bayesian Econometrics Annual Workshop. Maastricht, The Netherlands (26-27 October 2017)
- 41<sup>st</sup> AMASES Annual Meeting. Cagliari, Italy (14-16 September 2017)
- 1<sup>st</sup> EcoSta International Conference on Econometrics and Statistics. Hong Kong, Hong Kong (15-17 June 2017)
- 3<sup>rd</sup> Workshop on High-Dimensional Time Series in Macroeconomics and Finance. Wien, Austria (8-9 June 2017)
- ICEEE 2017 7<sup>th</sup> Italian Congress of Econometrics and Empirical Economics. Messina, Italy (25-27 January 2017)
- 10<sup>th</sup> CFENetwork International Conference on Computational and Financial Econometrics. Seville, Spain (9-11 December 2016)
- 22<sup>nd</sup> COMPSTAT International Conference on Computational Statistics. Oviedo, Spain (23-26 August 2016)

# Poster Presentations

- 12<sup>th</sup> ESOBE European Seminar on Bayesian Econometrics Annual Workshop. Salzburg, Austria (8-9 September 2022)
- 31<sup>st</sup> EC<sup>2</sup> Conference on High dimensional modeling in time series. Paris, France (11-12 December 2020)
- 2<sup>nd</sup> IWEEE International Workshop on Econometrics and Empirical Economics. Venice, Italy (23-24 January 2020)
- BNP 12 12<sup>th</sup> Conference on Bayesian Nonparametrics. Oxford, United Kingdom (24-28 June 2019)
- High Dimensional Small Data Workshop. Venice, Italy (19-20 October 2018)
- 4<sup>th</sup> BAYSM Bayesian Young Statisticians Meeting. Warwick, United Kingdom (2-3 July 2018)
- ISBA 2018 World Meeting. Edinburgh, United Kingdom (24-29 June 2018)
- BNP 11 11<sup>th</sup> Conference on Bayesian Nonparametrics. Paris, France (26-30 June 2017)
- BISP-10 10<sup>th</sup> Workshop on Bayesian Inference in Stochastic Processes. Milan, Italy (13-15 June 2017)
- 7<sup>th</sup> ESOBE European Seminar on Bayesian Econometrics Annual Workshop. Venice, Italy (27-28 October 2016)

# CONFERENCES CAND SCHOOLS

ATTENDED

# Conferences

- ITASEC17 Italian Conference on Cybersecurity. Venice, Italy (17-20 January 2017)
- Workshop on Forecasting in Finance and Macroeconomics. Bozen, Italy (12 September 2016)

- A conference in honour of Eugenio Regazzini. University of Pavia, Italy (10-11 June 2016)
- 15<sup>th</sup> CREDIT. Venice, Italy (1-2 October 2015)
- IWcee14 International Workshop on Computational Economics and Econometrics. Rome, Italy (26-27 June 2014)

# Schools and Advanced Courses

- CIRM Research School "Masterclass in Bayesian Statistics". Marseille Luminy, France (22-26 October, 2018)
- SIdE Econometrics Summer School on "Recent Developments in Financial Econometrics". Perugia, Italy (23-27 July, 2018)
- 37<sup>th</sup> Finnish Summer School on Probability and Statistics. Lammi, Finland (30 May 3 June 2016)
- Postgraduate Course on "Data Analysis and Programming with R". Bozen, Italy (18-20 November 2015)
- Postgraduate Course on "Bayesian Methods in Economics and Finance". Perugia, Italy (7-11 September 2015)
- SIdE Econometrics Summer School on "Big Data and High-Dimensional Econometric models". Perugia, Italy (29 June 3 July 2015)
- SIdE Econometrics Summer School on "The Econometrics of Systemic Risk and Tail Correlations". Perugia, Italy (14-19 July 2014)

# TEACHING EXPERIENCE

Academic year 2022/2023

Queen Mary University of London, School of Mathematical Sciences

• Teacher – Computational Statistics with R (Graduate – English)

Academic year 2021/2022

Italian Econometric Society (SIdE)

• Teacher – Summer School in Network Econometrics (Graduate – English)

Academic year 2020/2021

Italian Econometric Society (SIdE)

• Teacher - Summer School in Network Econometrics (Graduate - English)

Academic year 2019/2020

Ca' Foscari University of Venice, Department of Economics

• Teacher – Mathematics pre-course (Graduate Course - "Master II livello" – English).

Academic year 2018/2019

Ca' Foscari University of Venice, Department of Economics

- Teacher Mathematics pre-course (Graduate Course "Master II livello" English).
- Tutor Optimization (Graduate Course PhD and Master English).

Academic year 2017/2018

Ca' Foscari University of Venice, Department of Economics

- Teacher Introduction to Trigonometry (Undergraduate Course English).
- Teaching Assistant Mathematics for Economics (Undergraduate Course Italian).
- Teaching Assistant Statistics (Undergraduate Course English).
- Tutor Optimization (Graduate Course English).

Academic year 2015/2016

Ca' Foscari University of Venice, Department of Economics

- Tutor Econometrics (Graduate Course English).
- Tutor Econometrics (Undergraduate Course Italian).
- Tutor Optimization (Graduate Course English).

### SERVICE TO PROFESSION

# Scientific and Organising Committee of Scientific Events

- Organiser of the research seminar series of the Statistics and Data Science group at Queen Mary University of London (a.y. 2022-2023).
- Workshop "3<sup>rd</sup> Italian-French Statistics Seminar (IFSS)". Italy (2020).
- Workshop "1st EDEEM Doctoral Summer Workshop in Economics". Venice, Italy (13-14 June 2019).
- "Reading group on Stochastic Modelling". Venice, Italy (A.Y. 2018-2019)

- Workshop "2<sup>nd</sup> Italian-French Statistics Seminar (IFSS)". Grenoble, France (6-7 September 2018).
- Workshop on "Advances in Bayesian modelling". Venice, Italy (5 July 2018)
- Workshop "1st Italian-French Statistics Seminar (IFSS)". Venice, Italy (16-17 October 2017).

# Organizer of Scientific Events

- Organizer and chair of the session "Bayesian High-dimensional Sparse Models" at 12<sup>th</sup> Annual RCEA Bayesian Workshop. Rimini, Italy (14-15 June 2018)
- Chair of the session "Network Econometrics" at 8<sup>th</sup> MAF International Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance. Madrid, Spain (4-6 April 2018)

### Discussant

- Workshop on Forecasting in Finance and Macroeconomics. Bozen, Italy (12 September 2016)
- European Doctorate in Economics Erasmus Mundus (EDEEM) Summer Meeting. Venice, Italy (16-18 July 2015)

# AND GRANTS

- Scholarships Marie Skłodowska-Curie Individual Fellowship financed by the European Commission (October 2020– September 2022)
  - Research Fellowship financed by INDAM at Scuola Normale Superiore of Pisa (April 2019–March 2020)
  - Research Fellowship from Ca' Foscari University of Venice (September 2017–March 2019)
  - co-editor of the financing proposal (competition won) "Bando Label Scientifico UIF/UFI 2018" from Université Franco-Italienne (2018)
  - Ph.D. scholarship at Ca' Foscari University of Venice financed by the Ministry of Education, University and Research - MIUR (September 2014–August 2017)
  - co-editor of the financing proposal (competition won) "Bando Visiting Professor UIF 2017" from Université Franco-Italienne (2017)
  - co-editor of the financing proposal (competition won) "Bando Label Scientifico UIF/UFI 2017" from Université Franco-Italienne (2017)
  - winner of the grant "Bando Vinci 2016" from Université Franco-Italienne (2016–2017)
  - "Percorso di Eccellenza" scholarship from University of Pisa (2011-2012)
  - "Percorso di Eccellenza" scholarship from University of Pisa (2008-2011)

# National

National Academic Qualification as Associate Professor in the Italian higher education system, in the Professional call 2021/2023 (Ministerial Decree n. 553/2021 and 589/2021) for the disciplinary fields:

- Qualification 13/A5 Econometrics (Academic Recruitment Field 13/A Economics, according to the national classification).
  - 13/D2 Economic Statistics (Academic Recruitment Field 13/D Statistics and mathematical methods for decisions, according to the national classification).

Memberships International Society for Bayesian Analysis (ISBA), Italian Statistical Society (SIS), Italian Econometric Association (SIdE), Computational and Financial Econometrics (CFE), The Econometric Society (ES), Institute of Mathematical Statistics (IMS), young statistician section of Royal Statistical Society (YSS), Associazione per la Matematica Applicata alle Scienze Economiche e Sociali (AMASES).

# Referee ACTIVITY

Journal of Business & Economic Statistics, Journal of Computational and Graphical Statistics, International Journal of Forecasting, Journal of Econometrics, Bayesian Analysis, International Journal of Forecasting, PLOS One, Statistics and Probability Letters, Computational Statistics and Data Analysis, Journal of Forecasting, Scientific Reports, Econometrics & Statistics, Finance Research Letters, Journal of Economics and Finance, STAT, Frontiers in Big Data, Journal of Financial Risk and Management, Journal of Financial Stability, Studies in Nonlinear Dynamics & Econometrics.

### Languages & Languages

 ${\tt PROGRAMMING -} \ \, \textit{Italian} \, \, (\text{Mother Tongue})$ 

SKILLS

- English (Fluent) certifications: IELTS (C1), GRE
- French (Fluent) certifications: DELF (B2)
- Spanish (Basic)

# **Programming Skills**

Advanced MATLAB, R, LATEX, Microsoft Office Basic C++, HTML5, STATA13, Mathematica

# References

Silvia Liverani – Reader

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E-mail: s.j.koopman@vu.nl

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Federico Bassetti – Full Professor

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