CONTACT Information Vrije Universiteit Amsterdam School of Business and Economics

Department of Econometrics and Data

Science

De Boelelaan 1105

1081 HV Amsterdam, The Netherlands

Date of birth: 30/01/1989

Citizenship: Italian

RESEARCH INTERESTS

Tensor calculus - Bayesian statistics - High dimensional data - Econometrics - Functional data analysis

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S matteo.iacopini1

- Nonparametric statistics - Copula models - Graphical models.

# Positions

# **Current Position**

- October 2020 – present

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.

- ullet 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

- 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. (2021), "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, chapter XX, pages XX, Springer Emerging Topics in Statistics and Biostatistics. (forthcoming)
- 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)
- 5. *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.
- 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.

# Manuscripts Submitted and under Review

- 3. Billio, M., Casarin, R. and *Iacopini*, M., (20XX), "Bayesian Markov switching tensor regression for time-varying networks", arXiv preprint 1711.00097 (under review)
- 2. 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 (under review)
- 1. Santagiustina, C.R.M.A. and *Iacopini*, M. (20XX), "Visualizing and comparing distributions with half-disk density strips" (submitted)

# Working Papers

- 2. *Iacopini*, M. and Rossini, L. (2019), "Bayesian nonparametric graphical models for time-varying parameters VAR", arXiv preprint 1906.02140
- Guégan, D. and *Iacopini*, M. (2018), "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

- ▶ Paris Lodron University of Salzburg, Department of Economics, Austria (7-8 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

- 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

- $5^{th}$  Workshop on High-Dimensional Time Series in Macroeconomics and Finance. Wien, Austria (June 9-10, 2022)
- 3<sup>rd</sup> IWEEE International Workshop on Econometrics and Empirical Economics. Rimini, Italy (January 20-21, 2022)
- CFENetwork International Conference on Computational and Financial Econometrics. London, United Kingdom (December 18-20, 2021)
- 4<sup>th</sup> Annual Workshop on Financial Econometrics. Örebro, Sweden (November 15-16, 2021)
- 11<sup>th</sup> ESOBE European Seminar on Bayesian Econometrics Annual Workshop. Madrid, Spain (September 2-3, 2021)
- IAAE 2021 Annual Conference of the International Association of Applied Econometrics. Rotterdam, The Netherlands (June 22-25, 2021)
- BISP-12 12<sup>th</sup> Workshop on Bayesian Inference in Stochastic Processes. Milan, Italy (May 27-28, 2021)
- Dynamic Econometrics Conference. Virtual (March 18-19, 2021)
- 11<sup>th</sup> EC<sup>2</sup> Conference on Big Data Econometrics with Applications. Paris, France (December 11-12, 2020)
- Annual Meeting of the Econometrics Society. Milan, Italy (August 17-21, 2020)
- 2<sup>nd</sup> IWEEE International Workshop on Econometrics and Empirical Economics. Venice, Italy (January 23-24, 2020)
- $\bullet$ 8<br/>th CoDaWork International Workshop on Compositional Data Analysis. Terrassa, Spain (June 4-7, 2019)
- 4<sup>th</sup> Workshop on High-Dimensional Time Series in Macroeconomics and Finance. Wien, Austria (May 16-17, 2019)
- ICEEE 2019 8<sup>th</sup> Italian Congress of Econometrics and Empirical Economics. Lecce, Italy (January 24-26, 2019)
- 12<sup>th</sup> CFENetwork International Conference on Computational and Financial Econometrics. Pisa, Italy (December 14-16, 2018)
- 9<sup>th</sup> EC<sup>2</sup> Conference on Big Data Econometrics with Applications. Rome, Italy (December 13-14, 2018)
- $\bullet$  6<sup>th</sup> SIdE Workshop for PhD students in Econometrics and Empirical Economics (WEEE). Perugia, Italy (August 23-24, 2018)

- 49<sup>th</sup> SIS Scientific meeting of the Italian Statistical Society. Palermo, Italy (June 20-22, 2018)
- 12<sup>th</sup> Annual RCEA Bayesian Workshop. Rimini, Italy (June 14-15, 2018)
- 1<sup>st</sup> QFFE International Conference on Quantitative Finance and Financial Econometrics. Marseille, France (May 30 June 1, 2018)
- 8<sup>th</sup> MAF International Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance. Madrid, Spain (April 4-6, 2018)
- 11<sup>th</sup> CFENetwork International Conference on Computational and Financial Econometrics. London, United Kingdom (December 16-18, 2017)
- 8<sup>th</sup> ESOBE European Seminar on Bayesian Econometrics Annual Workshop. Maastricht, The Netherlands (October 26-27, 2017)
- 41<sup>st</sup> AMASES Annual Meeting. Cagliari, Italy (September 14-16, 2017)
- 1<sup>st</sup> EcoSta International Conference on Econometrics and Statistics. Hong Kong, Hong Kong (June 15-17, 2017)
- 3<sup>rd</sup> Workshop on High-Dimensional Time Series in Macroeconomics and Finance. Wien, Austria (June 8-9, 2017)
- ICEEE 2017 7<sup>th</sup> Italian Congress of Econometrics and Empirical Economics. Messina, Italy (January 25-27, 2017)
- 10<sup>th</sup> CFENetwork International Conference on Computational and Financial Econometrics. Seville, Spain (December 9-11, 2016)
- 22<sup>nd</sup> COMPSTAT International Conference on Computational Statistics. Oviedo, Spain (August 23-26, 2016)

# Poster Presentations

- BNP 12 12<sup>th</sup> Conference on Bayesian Nonparametrics. Oxford, United Kingdom (June 24-28, 2019)
- High Dimensional Small Data Workshop. Venice, Italy (October 19-20, 2018)
- 4<sup>th</sup> BAYSM Bayesian Young Statisticians Meeting. Warwick, United Kingdom (July 2-3, 2018)
- ISBA 2018 World Meeting. Edinburgh, United Kingdom (June 24-29, 2018)
- BNP 11 11<sup>th</sup> Conference on Bayesian Nonparametrics. Paris, France (June 26-30, 2017)
- $\bullet$  BISP-10  $10^{th}$  Workshop on Bayesian Inference in Stochastic Processes. Milan, Italy (June 13-15, 2017)
- 7<sup>th</sup> ESOBE European Seminar on Bayesian Econometrics Annual Workshop. Venice, Italy (October 27-28, 2016)

# CONFERENCES AND SCHOOLS ATTENDED

#### Conferences

- ITASEC17 Italian Conference on Cybersecurity. Venice, Italy (January 17-20, 2017)
- Workshop on Forecasting in Finance and Macroeconomics. Bozen, Italy (September 12, 2016)
- A conference in honour of Eugenio Regazzini. University of Pavia, Italy (June 10-11, 2016)
- 15<sup>th</sup> CREDIT. Venice, Italy (October 1-2, 2015)
- IWcee14 International Workshop on Computational Economics and Econometrics. Rome, Italy (June 26-27, 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 (May 30 June 3, 2016)
- Postgraduate Course on "Data Analysis and Programming with R". Bozen, Italy (November 18-20, 2015)
- Postgraduate Course on "Bayesian Methods in Economics and Finance". Perugia, Italy (September 7-11, 2015)
- SIdE Econometrics Summer School on "Big Data and High-Dimensional Econometric models". Perugia, Italy (June 29 July 3, 2015)
- SIdE Econometrics Summer School on "The Econometrics of Systemic Risk and Tail Correlations". Perugia, Italy (July 14-19, 2014)

# TEACHING EXPERIENCE

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

- Workshop "3<sup>rd</sup> Italian-French Statistics Seminar (IFSS)". Italy (2020).
- Workshop "1st EDEEM Doctoral Summer Workshop in Economics". Venice, Italy (June 13-14, 2019).
- "Reading group on Stochastic Modelling". Venice, Italy (A.Y. 2018-2019)
- Workshop "2<sup>nd</sup> Italian-French Statistics Seminar (IFSS)". Grenoble, France (September 6-7, 2018).
- Workshop on "Advances in Bayesian modelling". Venice, Italy (July 5, 2018)
- Workshop "1st Italian-French Statistics Seminar (IFSS)". Venice, Italy (October 16-17, 2017).

# Organizer of Scientific Events

- ullet Organizer and chair of the session "Bayesian High-dimensional Sparse Models" at  $12^{th}$  Annual RCEA Bayesian Workshop. Rimini, Italy (June 14-15, 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 (April 4-6, 2018)

# Discussant

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

# AND GRANTS

- SCHOLARSHIPS Marie Skłodowska-Curie Individual Fellowship financed by the European Commission (October 2020–
  - 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)

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 Forecasting, Journal of Economics and Finance, Statistics and Probability Letters, STAT, Frontiers in Big Data, Computational Statistics and Data Analysis, Journal of Econometrics, Journal of Business & Economic Statistics, Journal of Financial Risk and Management, Bayesian Analysis, Journal of Financial Stability, International Journal of Forecasting, Econometrics & Statistics, 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**

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

#### References

# Monica Billio – Full Professor

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# André Lucas – Full Professor

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Netherlands

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# Roberto Casarin - Full Professor

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# Federico Bassetti – Full Professor

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