

CONTACT INFORMATION	<div>Faculty of Sciences Scuola Normale Superiore of Pisa Piazza dei Cavalieri, 7 56124 Pisa, Italy</div> <div>Date of birth: 30/01/1989 Citizenship: Italian</div>	<div>✉: matteo.iacopini@sns.it 📧 matteo.iacopini1@gmail.com ☎: +39 3407517248 web 🌐: https://matteoiacopini.github.io web: https://sites.google.com 🆔 orcid.org/0000-0002-3551-4891 🌐 www.researchgate.net 📄 scholar.google.it</div>
RESEARCH INTERESTS	Tensor calculus - Bayesian Statistics - Graphical models - High dimensional data - Copula models - Econometrics - Functional data analysis - Nonparametric statistics.	
REFERENCES	<div>Monica Billio – <i>Full Professor</i> Department of Economics, Ca' Foscari University of Venice Cannaregio 873/b, 30121 Venezia - Italy E-mail: billio@unive.it</div> <div>Dominique Guégan – <i>Full Professor</i> Centre d'Économie de la Sorbonne, Université Paris I - Panthéon-Sorbonne 106-112 Boulevard de l'Hôpital - 75647 Paris cedex 13 - France E-mail: Dominique.Guegan@univ-paris1.fr</div>	<div>Roberto Casarin – <i>Associate Professor</i> Department of Economics, Ca' Foscari University of Venice Cannaregio 873/b, 30121 Venezia - Italy E-mail: r.casarin@unive.it</div> <div>Federico Bassetti – <i>Associate Professor</i> Department of Mathematics, Polytechnic University of Milan Piazza Leonardo da Vinci 32, 20133 Milan - Italy E-mail: federico.bassetti@polimi.it</div>
POSITIONS	<div>- April 2019 – present Research Fellow. Scuola Normale Superiore of Pisa - Italy.</div> <div>- July 2018 – March 2019 Research Fellow. Department of Economics, Ca' Foscari University of Venice - Italy.</div>	
EDUCATION	September 2014 – July 2018 joint Ph.D. in Economics (Ca' Foscari University of Venice - Italy) and Ph.D. in Applied Mathematics (Université Paris I - Panthéon-Sorbonne - France). <ul style="list-style-type: none">Supervisors: prof. Monica Billio, prof. Dominique Guégan, prof. Roberto Casarin.	
VISITING PERIODS	<div>► Vrije University of Amsterdam, Department of Econometrics and Operations Research, (19-23 March 2019).</div> <div>► Vrije University of Amsterdam, Department of Econometrics and Operations Research, (28-31 January 2019).</div> <div>► University of Pavia, Department of Mathematics, Italy (9-13 April 2018).</div> <div>► Université Paris I - Panthéon-Sorbonne, France (September 2016 - June 2017).</div>	
JOB MARKET PAPER	“Bayesian dynamic tensor regression” (with Billio, M., Casarin, R. and S. Kaufmann) Multidimensional arrays (i.e. tensors) of data are becoming increasingly available and call for suitable econometric tools. We propose a new dynamic linear regression model for tensor-valued response variables and covariates that encompasses some well known multivariate models such as SUR, VAR, VECM, panel VAR and matrix regression models as special cases. For dealing with the over-parametrization and over-fitting issues due to the curse of dimensionality, we exploit a suitable parametrization based on the parallel factor (PARAFAC) decomposition which enables to achieve both parameter parsimony and to incorporate sparsity effects. Our contribution is twofold: first, we provide an extension of multivariate econometric models to account for both tensor-variate response and covariates; second, we show the effectiveness of proposed methodology	

in defining an autoregressive process for time-varying real economic networks. Inference is carried out in the Bayesian framework combined with Monte Carlo Markov Chain (MCMC). We show the efficiency of the MCMC procedure on simulated datasets, with different size of the response and independent variables, proving computational efficiency even with high-dimensions of the parameter space. Finally, we apply the model for studying the temporal evolution of real economic networks.

PUBLICATIONS **Published**

6. *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.
5. 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.
4. 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.
3. 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.
2. 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.
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.

Working Papers

3. Billio, M., Casarin, R., Kaufmann, S. and *Iacopini, M.*, (2018), “Bayesian dynamic tensor regression”, [arXiv preprint 1709.09606](#)
2. Billio, M., Casarin, R. and *Iacopini, M.*, (2018), “Bayesian Markov switching tensor regression for time-varying networks”, [arXiv preprint 1711.00097](#)
1. Guégan, D. and *Iacopini, M.* (2018), “Nonparametric forecasting of multivariate probability density functions”, [arXiv preprint 1803.06823](#)

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- SCHOLARSHIPS AND GRANTS
- [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)
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PRESENTATIONS **Invited Presentations and Seminars**

- Seminar at Department of Econometrics and Operations Research, Vrije University of Amsterdam, Netherlands (March 21, 2019).
- Seminar at School of Business and Economics, University of Maastricht, Netherlands (January 22, 2019)
- Seminar at Department of Mathematics, Polytechnic University of Milan, Italy (November 8, 2018)

Contributed Presentations

- ICEEE 2019 - 8th Italian Congress of Econometrics and Empirical Economics. Lecce, Italy (January 24-26, 2019)
- 12th CFENetwork International Conference on Computational and Financial Econometrics. Pisa, Italy (December 14-16, 2018)
- 29th EC² Conference on Big Data Econometrics with Applications. Rome, Italy (December 13-14, 2018)
- 6th SIde Workshop for PhD students in Econometrics and Empirical Economics (WEEE). Perugia, Italy (August 23-24, 2018)
- 49th SIS - Scientific meeting of the Italian Statistical Society. Palermo, Italy (June 20-22, 2018)
- 12th Annual RCEA Bayesian Workshop. Rimini, Italy (June 14-15, 2018)
- 1st QFFE - International Conference on Quantitative Finance and Financial Econometrics. Marseille, France (May 30 - June 1, 2018)
- 8th MAF - International Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance. Madrid, Spain (April 4-6, 2018)
- 11th CFENetwork International Conference on Computational and Financial Econometrics. London, United Kingdom (December 16-18, 2017)
- 8th ESOBE - European Seminar on Bayesian Econometrics Annual Workshop. Maastricht, Netherlands (October 26-27, 2017)
- 41st AMASES Annual Meeting. Cagliari, Italy (September 14-16, 2017)
- 1st EcoSta - International Conference on Econometrics and Statistics. Hong Kong, Hong Kong (June 15-17, 2017)
- 3rd Workshop on High-Dimensional Time Series in Macroeconomics and Finance. Wien, Austria (June 8-9, 2017)
- ICEEE 2017 - 7th Italian Congress of Econometrics and Empirical Economics. Messina, Italy (January 25-27, 2017)
- 10th CFENetwork International Conference on Computational and Financial Econometrics. Seville, Spain (December 9-11, 2016)
- 22nd COMPSTAT International Conference on Computational Statistics. Oviedo, Spain (August 23-26, 2016)
- Joint PhD Workshop - Economics Management. Ca' Foscari University of Venice, Italy (June 23, 2016)

Poster Presentations

- High Dimensional Small Data Workshop. Venice, Italy (October 19-20, 2018)
- 4th 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 - 11th Conference on Bayesian Nonparametrics. Paris, France (June 26-30, 2017)
- BISP-10 - 10th Workshop on Bayesian Inference in Stochastic Processes. Milan, Italy (June 13-15, 2017)
- 7th ESOBE - European Seminar on Bayesian Econometrics Annual Workshop. Venice, Italy (October 27-28, 2016)

SERVICE TO PROFESSION

Scientific and Organising Committee of Scientific Events

- “*Reading group on Stochastic Modelling*”. Venice, Italy (A.Y. 2018-2019)
- “*2nd Italian-French Statistics Workshop*”. Grenoble, France (September 6-7, 2018).
- Workshop on “*Advances in Bayesian modelling*”. Venice, Italy (July 5, 2018)
- “*1st Italian-French Statistics Workshop*”. Venice, Italy (October 16-17, 2017).

Organizer of Scientific Events

- Organizer and chair of the session “*Bayesian High-dimensional Sparse Models*” at 12th Annual

RCEA Bayesian Workshop. Rimini, Italy (June 14-15, 2018)

- Chair of the session “*Network Econometrics*” at 8th 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)

Referee

- International Journal of Forecasting (2018 - present)
 - Econometrics & Statistics (2018 - present)
 - Studies in Nonlinear Dynamics & Econometrics (2017 - present)
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TEACHING EXPERIENCE

Ca' Foscari University of Venice, Department of Economics

Academic year 2018/2019

- Teacher – [Mathematics pre-course](#) (Graduate Course - “*Master II livello*” – English).
- Tutor – [Optimization](#) (Graduate Course - PhD and Master – English).

Academic year 2017/2018

- 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

- Tutor – [Econometrics](#) (Graduate Course – English).
 - Tutor – [Econometrics](#) (Undergraduate Course – Italian).
 - Tutor – [Optimization](#) (Graduate Course – English).
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POST- GRADUATE FORMATION

- CIRM Research School “[Masterclass in Bayesian Statistics](#)”. Marseille Luminy, France (22-26 October, 2018)
 - SIIdE Econometrics Summer School on “[Recent Developments in Financial Econometrics](#)”. Perugia, Italy (23-27 July, 2018)
 - 37th 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)
 - SIIdE Econometrics Summer School on “[Big Data and High-Dimensional Econometric models](#)”. Perugia, Italy (June 29 - July 3, 2015)
 - SIIdE Econometrics Summer School on “[The Econometrics of Systemic Risk and Tail Correlations](#)”. Perugia, Italy (July 14-19, 2014)
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LANGUAGES & **Languages**

PROGRAMMING - *Italian* (Mother Tongue)

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

Programming Skills

Advanced MATLAB, R, \LaTeX , Microsoft Office (Excel, Word, PowerPoint)
Intermediate STATA13
Basic C++, HTML5, GRETL