Gabriele Torri

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Education

Università degli Studi di Bergamo - VŠB-TU Ostrava (co-tutelle) BERGAMO, ITALY

PhD in *Analytics for Economics and Business (Area 13/D4 - SECS-S/06)* *01.10.2015 – 15.02.2019*

Area: Computational Methods for Economics and Finance. Main topics: applied optimization, stochastic methods and statistics with focus on financial applications, including portfolio management, credit and operational risk and financial contagion.
Supervisor: Prof. R. Giacometti. Co-Supervisor: Tomáš Tichý.
Thesis title: Network Theory in Finance: Applications to Financial Contagion Analysis and Portfolio Optimization. Final evaluation: Excellent

CRoNoS LIMASSOL, CYPRUS

Spring Course on Multivariate Data Analysis and Software *03.04.2018 – 05.04.2018*

Short training. The course discusses several state-of-art application of machine learning and multivariate data analysis, with a focus on applications in the R programming language. Main topics: multivariate outlier detection, Parallelisation of machine learning models with h2o, changepoint analysis.

ARPM NEW YORK, USA

Advanced Risk and Portfolio Management Bootcamp *14.08.2016 – 20.08.2016*

Short training. The course consolidates portfolio managers' and risk managers' expertise into a structured and rigorous quantitative framework and empowers learners to gain the deep technical knowledge necessary to operate across the world of quantitative trading, asset management and risk management.

EBS University WIESBADEN, GERMANY

EBS PhD Summer School - Financial Networks *27.06.2016 – 01.07.2016*

Short training. Application of network theory to the study of financial problems and institutions. The focus is on applications in working with financial data to uncover patterns and use them to uncover predictions that would not have been possible without network analysis.

Università degli Studi di Bergamo BERGAMO, ITALY

Master's degree in *Finance and International Business* *2012 – 2015*

Thesis: *Sustainability and Financial Value. Portfolio Returns and Performance Attribution of Socially Responsible Investing*. Final grade: 110 / 110 cum laude.

Università degli Studi di Milano MILAN, ITALY

Bachelor's Degree in *Social Science for Globalization* *2008 – 2011*

Thesis: *Social business and private equity: opportunities and risks: a critical analysis on corporate social responsibility*. Final grade: 108 / 110.

Work Experience

Università degli Studi di Bergamo BERGAMO, ITALY

Ricercatore a tempo determinato (Junior, RTDa) *01.10.2019 – current*

SSD Metodi matematici dell'economia e delle scienze attuariali e finanziarie (SECS-S/06)

Postdoc (assegno di ricerca) *01.05.2019 – 30.09.2019*

Post doc position, assigned under the STARS project of the University of Bergamo. Research project: *Cause ed effetti della diffusione di portafogli sempre piú overlapping sul rischio sistemico* (Causes and consequences of the increasingly overlap of portfolio structegies on systemic risk)

European Central Bank FRANKFURT, GERMANY

PhD Trainee *15.10.2018 – 15.03.2019*

Development of a framework for the analysis of systemic risk due to interconnectedness using microstructural data. The project is carried on within the DG-MF directorate, in the *Systemic Risk and Financial Institutions* Division.

Etica Sgr MILAN, ITALY

Marketing and Communication *15.07.2013 – 15.09.2015*

Etica Sgr is an Italian asset management company specialized in sustainable and responsible investment funds. Main activities: market researches, customer analysis, internal reporting, editing promotional and educational material for the distribution network.

Teaching Experience

Università degli Studi di Bergamo — Bergamo, Italy

Lecturer — *24.11.2017 – Current*

Lecturer for the BSc. course *Financial Mathematics*. Main topics: capitalization and discounting regimes, evaluation of annuities and perpetuities, evaluation of investment projects, introduction to actuarial mathematics. Academic years 2017-18, 2018-19. (didattica integrativa, bando prot. n. 62072/VII/16 del 18.04.2018, bando prot. n. 42985/VII/16 del 15.05.2017).

May 2017, May 2018

Teaching assistance and lab sessions for the MSc. course *Credit and Operational Risk Measurement*. Main topics: Structural models, reduced form models, portfolio models, credit derivatives, operational risk in financial institutions (prot. n. 69783/VII/16 dell'1.07.2016).

28.02.2018 – 04.04.2018

Lab sessions for the BSc. course *Informatics*. Topic: introduction to Excel and Access. (prot. 4034/VII/16 del 16/01/2019, prot. 10797/VII/16 del 29/01/2018)

EBS University — Wiesbaden, Germany

Lecturer — *Apr 2017, Oct 2018*

Tutorials for the university BSc. courses *Statistics* and *Introductory Econometrics*
Prep. course in *Econometrics* for MSc course.

Research and Professional Interests

Systemic risk, financial contagion models, network theory, portfolio management, credit risk, data visualization.

Journal publications

1. G. Torri, R. Giacometti, S. Paterlini (2018), Robust and Sparse Banking Network Estimation. *European Journal of Operational Research*. 270(1):51–65. doi.org/10.1016/j.ejor.2018.03.041

2. G. Torri, R. Giacometti, S. Paterlini (2019), Sparse Precision Matrices for Minimum Variance Portfolios.*Computational Management Science*. Available online https://link.springer.com/article/10.1007/s10287-019-00344-6

3. V. Russo, G. Torri (2019), Calibration of One-Factor and Two-Factor Hull-White Models Using Swaptions. *Computational Management Science*. 16(1-2), 275–295. doi.org/10.1007/s10287-018-0323-z

Conference proceedings

1. G. Torri, T. Tichy, R. Giacometti, (2018), Network conditional tail risk estimation in the European Banking System. *Managing and Modelling of Financial Risks – 9th International Scientific Conference. Proceedings*. ISBN 978-80-248-4225-7. Ostrava, Czech Republic, 550 – 557.

2. G. Torri, R. Giacometti, S. Rachev (2017), Option Pricing in Non-Gaussian Ornstein-Uhlenbeck Markets. *Proceeding of the 11th International Scientific Conference on Financial Management of Firms and Financial Institutions (FRPFI 2017)*. ISBN 978-80-248-4138-0. Ostrava, Czech Republic, 857 – 865.

3. G. Torri, R. Giacometti, (2017), Systemic Risk and Community Structure in the European Banking System. *35th International Conference Mathematical Methods in Economics MME 2017. Conference Proceedings*. ISBN 978-80-7435-678-0. Hradec Kralove, Czech Republic, 807 – 812.

Other Publications

1. *Network Theory in Finance: Applications to Financial Contagion Analysis and Portfolio Optimization* – PhD Thesis. Available online: https://aisberg.unibg.it/handle/10446/128716

2. G. Covi, M. Montagna, G. Torri (2019) – Economic shocks and contagion in the euro area banking sector: a new micro-structural approach. *Financial Stability Review, special feature 1*, European Central Bank. Available online: https://www.ecb.europa.eu/pub/financial-stability/fsr/special/html/ecb.fsrart201905_2 073bba7192.en.html

Conference and workshop presentations

1. Joint Česká národní banka/European Central Bank/European Systemic Risk Board Workshop 2019 – Prague (Czech Republic) – 03-July 2019 – Economic shocks, financial contagion and systemic risk in the euro area (G. Torri, M. Montagna, G. Covi).
2. Challenges of Europe 2019 – Bol, Island Brač (HR) – 22-24 May 2019 – On the origins of systemic risk (G. Covi, G. Torri, M. Montagna).
3. AMASES 2018 - Naples (IT) – 13-15 September 2018 – Network tail risk estimation in the European financial system (G. Torri, R. Giacometti, T. Tichy).
4. CFE 2017 - London (UK) – 16-18 December 2017 – Sparse precision matrices for minimum variance portfolios (G. Torri, R. Giacometti, S. Paterlini).
5. ICFB 2017 - Ostrava (CZ) – 11-12 October 2017 – Financial contagion in international banking networks: a simulation study (G. Torri, R. Giacometti).
6. QFRA 2017 - Corfú (GR) – 15-16 June 2017 – Precision Matrix Regularization for Minimum Variance Portfolios (G. Torri, R. Giacometti, S. Paterlini).
7. CMS 2017 - Bergamo (IT) – 30-31 May 2017 – Covariance Estimation in Minimum Variance Portfolios: Is There a Best Method? (G. Torri, R. Giacometti, S. Paterlini).
8. 2nd Brownbag Seminar, EBS University – Wiesbaden (DE) – 07 March 2017 – Capturing Systemic Risk by Robust and Sparse Network Estimation. An analysis of the European Banking System.
9. CFE 2016 - Seville (ES) – 09-11 December 2016 – Capturing systemic risk by robust and sparse network estimation (G. Torri, R. Giacometti, S. Paterlini).

Research periods abroad

EBS University (Wiesbaden, Germany) 07.01.17 – 30.04.17
Visiting research period at the Chair of Financial Econometrics & Asset Management. Prof. Sandra Paterlini

Organization of seminars and conference

CMS 2017 – Bergamo 30.05.2017 – 01.05.2017
Member of the Organizing Committee

Participation to research projects

2018 - GACR 19-11965S – Czech Science Foundation – A network approach to optimal portfolio and index tracking selection (Research group lead by R.Giacometti).

Peer review activity

Reviewer for *Computational Management Science* and *the Journal of Empirical Finance*.

Research awards

MME 2017 – Hradec Kralove, Czech Republic – 13-15 September 2017 – 1^{st} price at the PhD student competition for best paper.

Other

- Member of AMASES (Associazione per la Matematica Applicata alle Scienze Economiche e Sociali).

Skills

Languages: Italian *(mother tongue)*, English *(professional proficiency)*, Spanish *(elementary proficiency)*.

Computer skills: Programming: *Matlab* and *R* (advanced). *Python* and *SQL* (intermediate), VBA (basic). Good knowledge of econometric software *OxMetrics PcGive* and *G@rch*, *Gretl*. Extensive knowledge of the most common productivity software (*Microsoft Office* and *LibreOffice*), LaTeX, graphical design software (*Adobe CC*, *Gimp*, *Inkscape*).

Io sottoscritto, Gabriele Torri, ai sensi degli art.46 e 47 DPR 445/2000, consapevole delle sanzioni penali previste dall'art.76 del DPR 445/2000 e successive modificazioni ed integrazioni per le ipotesi di falsitá in atti e dichiarazioni mendaci, dichiaro sotto mia propria responsabilitá la veridicitá di tutto quanto dichiarato. Autorizzo il trattamento dei miei dati personali presenti nel cv ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali" e del GDPR (Regolamento UE 2016/679).

October 7, 2019