

# Newsletter n. 02/2019

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### **Events for SIdE members**

#### **SIdE Summer Schools 2019**

Applications to the Summer School are now open, deadline: **May 30**<sup>th</sup> Detailed information are available at: <u>www.side-iea.it/events/summer-schools</u>.

Lectures on principles, ideas and theory in econometric time series: with examples from cointegration, bootstrap, ARCH, state space and big data models.

Bertinoro (FC), June 16-22

Lecturers: Søren Johansen, University of Copenhagen; Anders Rahbek, University of Copenhagen.

- The course will be in two main parts: The first part discusses econometric methods and theory, which are applied in the second part, where selected topics from cointegration, state space models, the bootstrap and multivariate ARCH models, as well as big data modelling will be discussed in detail from recent research.

In part I, we give an introduction, aimed for graduate/Ph.D. level students in econometrics, to (i) asymptotic theory for stationary, i.i.d. as well as non-stationary (integrated of order one) variables; (ii) theory for the bootstrap; (iii) theory for cointegration and for (multivariate) ARCH models; and, (iv) theory for the Kalman filter. All theory presented will be in terms of examples where details are explained, rather than providing a general introduction to the field(s).

In part II, we discuss recent research with reference to the theory and methodology introduced in Part I. The topics include: (i) cointegration and adjustment in a common trends causal model and the role of weak exogeneity; (ii) optimal hedging and cointegration in the presence of heteroscedastic errors; (iii) bootstrap based inference in stationary and non-stationary (conditionally heteroscedastic) autoregressive models; (iv) models, methods and Big Data

#### **Machine Learning Algorithms for Econometricians**

Bertinoro (FC), July 14-20

Lecturers: Arthur Charpentier, Université du Québec à Montréal; Emmanuel Flachaire, Aix-Marseille University.

- Do you feel lost in the random forests? Do you need some career boosting? Would you like to demystify magic words like cross-validation, bagging, shrinkage, etc? Or discover what is hidden behind wild acronyms like GAM, LASSO, GBM, etc. that you heard during that meeting or at the coffee machine or at that seminar with a fancy title? If so then you should consider attending this one-week intensive course on machine learning techniques. These lectures have been conceived by econometricians for econometricians. The sessions proceed step by step, recalling the fundamental statistical concepts at the heart of the modern learning techniques. Their relative merits are illustrated by means of several case studies with real data. The course will present Machine Learning Techniques to econometricians. In particular, the lecturers will: (i) present various concepts intensively used in the Machine Learning literature such as cross-validation, bootstrap, optimization routines; (ii) describe and explain popular machine learning techniques such as random trees, random forests, boosting, neural nets and deep learning, and their natural extensions to time series analysis and causal inference.

#### **SIdE WEEE 2019**

Applications are now open to the 7th edition of the Workshop for PhD students in Econometrics and Empirical Economics (WEEE). For more information, please visit http://www.side-iea.it/events/workshops.

#### **Workshop for PhD students in Econometrics and Empirical Economics**

Bertinoro (FC), August 29-30

The Italian Econometric Association (SIdE-IEA), in collaboration with the Bank of Italy, organizes the 7th Workshop for PhD students in Econometrics and Empirical Economics (WEEE). The aim of the workshop is twofold: first, we want to give junior researchers an opportunity to present their research project and receive feedback from senior reviewers and from the audience of the workshop. Second, we want to provide a natural prosecution to the introductory and advanced courses in econometrics for PhD students organized by the SIdE-IEA and enlarge the already rich community of junior and senior researchers in econometrics and empirical economic and business disciplines.

Doctoral students and young researchers are invited to submit preliminary, medium or advanced stage papers that can mature into a chapter of the final dissertation and/or submitted for publication on international journals. A wide range of topics on econometrics and empirical economics can be submitted for presentation at the workshop. Contributions in business disciplines and applied marketing are also warmly encouraged for submission.

#### **SIdE PhD Courses 2019**

The 2018 edition of the SIdE Postgraduate Courses has been approved. Applications are now open, **deadline has been extended to May 12**<sup>th</sup>. For more information, please visit <a href="https://www.side-iea.it/events/postgraduate-courses">www.side-iea.it/events/postgraduate-courses</a>.

#### **Introductory Econometrics**

Bertinoro (FC), June 24-29

Coordinator: Giorgio Calzolari, University of Firenze.

Lecturers: Francesca Di Iorio, University of Napoli Federico II; Marco Lippi, Einaudi Institute for Economics and Finance, Roma; Umberto Triacca, University of L'Aquila.

- The course aims at providing students with the basic concepts related to linear regression model, seemingly unrelated regressions, simultaneous equations, and maximum likelihood. Instrumental variables estimation, as well as limited-information methods will be taken into account. Practical applications will be discussed using the free software package Gretl.

Coordinator: Maria Elena Bontempi University of Bologna.

Lecturers: Maria Elena Bontempi, University of Bologna; Roberto Golinelli, University of Bologna; Irene Mammi, University of Venezia Ca' Foscari.

- The course provides an overview, both methodological and applied, of econometric models for panel data, discussing the fields of micro panel data (in which a large number of units, N, is observed over a short time period, T) and macro panel data (where T is larger than N). At each step of the course, the methodologies will be accompanied by hands-on empirical applications with an econometric software. At the end of the course, participants will be able to critically evaluate the empirical literature based on panel data, and to model and estimate their own issue of interest, according to the problems at hand: static versus dynamic approaches, heterogeneity and clustering, exogeneity versus endogeneity of covariates, GMM, unit roots and long/short run relationships.

Financial Time Series Bertinoro (FC), July 8-13

Coordinator: Alessandra Amendola & Giuseppe Storti, University of Salerno.

Lecturers: Alessandra Amendola, University of Salerno; Massimiliano Caporin, University of Padua; Walter Di Staso, Imperial College & University of Messina; Giuseppe Storti, University of Salerno.

- The course is intended to achieve postgraduate training in financial econometrics for students, researchers and data scientists. Starting from basic concepts, the focus is on time series modelling and forecasting with particular emphasis on the following topics: models for daily returns, ex-post estimation of volatility (including realized measures based on intra-daily information), multivariate volatility models, conditional variance and covariance forecasts, estimation of risk measures such as VaR and ES and their backtesting. Theoretical lectures will be associated with working sessions that will introduce the audience to the use of statistical programming languages that can be used by the attendees as flexible tools for running their own empirical analyses. Namely, numerical applications will be performed through the software R and some MATLAB packages.

#### **Bayesian Methods in Economics and Finance**

Bertinoro (FC), August 26-30

Coordinator: Gaetano Carmeci, University of Trieste.

Lecturers: Gaetano Carmeci, University of Trieste; Roberto Casarin, University of Venice Ca' Foscari; Matteo Ciccarelli, European Central Bank.

- The course is an introduction on Bayesian Inference, starting from first principles and covering topics of interest for applied econometricians in economics and finance. The course is addressed to students without previous knowledge of Bayesian Econometrics. The methods introduced in the lectures will be illustrated with hands-on applications in MATLAB based on reasoned statistical and economic examples.

### **IWEEE 2020: keynote speaker and scientific committee**

We thank Tommaso Proietti (*Chair of the Program Committee*) and Monica Billio (*Chair of the Local Organizing Committee*) who are organizing the

2nd Italian Workshop of Econometrics and Empirical Economics - IWEEE 2020 "Time Series Models: Theory and Applications"

at University Ca' Foscari, Venice, January 23-24, 2020.

The keynote speakers will be:

- **Oliver Linton** (University of Cambridge)
- Sylvia Frühwirth-Schnatter (Wirtschaftsuniversität Wien)

#### The **Program Committee** is composed of:

Roberto Casarin, University Ca' Foscari of Venice; Luca Fanelli, University of Bologna; Marta Banbura, European Central Bank; Paolo Santucci De Magistris, LUISS; Valentina Corradi, University of Surrey; Martin Wagner, TU Dortmund; Anders Rahbek, University of Copenhagen; Jean-Michel Zakoian, CREST, University of Lille; Massimo Franchi, University of Rome La Sapienza; Francesco Ravazzolo, Free University of Bozen-Bolzano; Ana Beatrix Galvao, University of Warwick; Katerina Petrova, University of St Andrews; Roberto Renò, University of Verona; Anders Bredahl Kock, University of Oxford; Eric Hillebrand, Aarhus University

## Workshop & Conferences around the world

The following events might be of interest to our members.

Seminar by Pesaran, H. Milan, May 29

Hashem Pesaran (University of Cambridge & University of Southern California) will present:

A Residual-based Threshold Method for Detection of Units that are Too Big to Fail in Large Factor Models

at the University of Milano-Bicocca, on May 29 at 12pm (Building U6, Room 01f, Piazza Ateneo Nuovo 1, Milan). For further information: <a href="mailto:claudio.morana@unimib.it">claudio.morana@unimib.it</a>.

#### **Econometric Models of Climate Change Conference**

Milan, August 29-30

The Center for European Studies (CefES) and the Department of Economics, Management and Statistics (DEMS) at the University of Milano-Bicocca, together with CREATES at Aarhus University, the Department of Economics and Finance (DEF) at the University of Rome-Tor Vergata, Climate Econometrics at the University of Oxford and

the Department of Economics at the University of Victoria, are hosting the 4th Conference on Econometric Models of Climate Change at the **University of Milano-Bicocca (Milan, Italy) on 29-30 August 2019**: <a href="https://sites.google.com/unimib.it/emcc-iv">https://sites.google.com/unimib.it/emcc-iv</a>

The conference aims at promoting an interdisciplinary approach to the detection and attribution of climate change, cross-fertilization between climate science, economics and econometrics, and econometric estimates of climate impacts and policy evaluation.

#### CALL FOR PAPERS

We solicit submissions of papers whose novelty stems from the development and introduction of new econometric methods to models of climate change – inviting both papers using econometric methods to analyze climate data, as well as economic, financial and econometric studies of climate impacts. We also particularly welcome submissions in the field of climatology highlighting interesting statistical challenges to which econometric methods can contribute.

Deadline for submission: May 31.

Keynote speakers: Prof. D.F. Hendry (Oxford); Prof. S. Battiston (UTH, Zurich), Dr. S. Gualdi (CMCC, Bologna).

For further information, please visit the conference webpage: https://sites.google.com/unimib.it/emcc-iv

Financial support for young researchers is available upon formal application. Up to six research prizes for young researchers are also available.

# **Job Openings**

# Call for Interest: Positions of Senior Assistant Professors in Economics, Econometrics, Accounting and Management

University of Cagliari

The Department of Economics and Business (Scienze Economiche e Aziendali, SEA) of the University of Cagliari (https://www.unica.it/unica/it/dip\_scienzeecoaziend.page) is seeking potential candidates for positions of three-year tenure track Assistant Professor in Economics, Econometrics, Accounting and Management, Mathematical methods for economics, finance and actuarial sciences.

We aim at recruiting scholars who can enhance the Department standing by providing research leadership and outstanding teaching, and by contributing to the departmental strategic management and governance. Candidates have to meet the following teaching and research qualification criteria:

**Research**: candidates should demonstrate to be productive in terms of research publications in international highly ranked journals.

**Teaching**: candidates are expected to provide high quality teaching in undergraduate, postgraduate and PhD programme courses.

Knowledge of Italian language is appreciated but it is not required, whereas ability to teach in English is compulsory. There are no restrictions regarding the nationality of the applicants. Equal gender opportunities are guaranteed.

The salary is defined by the rules of the Italian academic system.

The SEA Department will carry out the recruitment procedures following the official selection policy. All the relevant information will be published in the Department's homepage.

For preliminary enquires or to directly express their interest, candidates are invited to send an email to direttoresea@unica.it, subject: SEA - CALL FOR INTEREST 2019, along with their curriculum vitae, detailed information about their current academic position, publications, research and teaching activities and a brief description of their interest for this call.

The deadline for expressions of interest is May 10th, 2019.

All applications will be processed confidentially.

Thanks to the high quality of its research publications, last year the SEA Department was one of the 13 departments in Economics, Management and Statistics that have benefited from competitive funding granted by the Italian Ministry of Universities, Education and Research (MIUR) under the Italian "Departments of Excellence" program based on the Italian research quality evaluation exercise.

Please note that this is a call for interest, not a job vacancy announcement. The Department will advertise job vacancies later in the year.

# New Master's degrees with Econometric contents in Italy

#### **University of Bologna**

From the academic year 2019-20, the Master's Degree in Economics (LMEC) at the University of Bologna will offer a new track in Econometrics, in addition to the traditional track in Economics.

During the first year, common to both tracks, students will learn the core elements of micro and macroeconomic theory, mathematical economics, econometrics and finance. Developing on these fundamental competences, during the second year students will choose between the two tracks, selecting activities from a list of advanced courses in economics and econometrics.

Further information is available at <a href="https://corsi.unibo.it/2cycle/lmec/admission">https://corsi.unibo.it/2cycle/lmec/admission</a>.

#### "Sapienza" University of Rome

Active from academic year 2018-19, the Master's Degree in "Statistical Methods and Applications" (SMA) at the Statistics Department of "Sapienza" University offers a track in "Quantitative Economics", and that in "Scienze Attuariali e Finanziarie" (SAF) a track in "Quantitative Finance".

Students enrolling in the SMA Master will follow courses in Stochastic Processes, Statistics, Economics and Econometrics, with optional choices to be selected among courses in Finance, Operational Research and Computer Science.

The SAF Master is instead oriented towards Finance, with courses mostly in Stochastic Processes, Statistics, Finance and Econometrics, and optional choices to be selected among courses in Economics, Computer Sciences and Actuarial Sciences.

Further information for SMA is available at <a href="http://sma.dss.uniroma1.it/">http://sma.dss.uniroma1.it/</a> and for SAF at <a href="http://www.dss.uniroma1.it/sites/default/files/files/SAF">http://www.dss.uniroma1.it/sites/default/files/files/SAF</a> 2.pdf

## **New SIdE Members**

We welcome the following new members of our society: Arianna Agosto, Carmelo Algeri, Ugochukwu Anyanwu, Alessia Arcidiacono, Davide Brignone, Giovanni Burro, Leonardo Cei, Luca Coraggio, Luca D'Alonzo, Gabriele Dente, Rosaria Distefano, Benedetta Falsetti, Marco Fruzzetti, Enrico Gabriele, Roberto Galli, Martino Gilli, Paolo Grignani, Alessandro Grimaldi, Demetrio Lacava, Daniele Mantegazzi, Paolo Maranzano, Alessia Marrocco, Marco Martinez, Raffaele Mattera, Enrico Minnella, Cecilia Morvillo, Cristian Navarro Serrano, Luigi Oddo, Enza Persiani, Alfonso Russo, Ramiz Salman, Silvia Sanasi, Luca Scaffidi Domianello, Chiara Scarfato, Giovanni Secondin, Alessio Tomelleri, Md Taslim Uddin.

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