Università Ca'Foscari Venezia

Dipartimento di Economia

Score-driven and nonlinear time series models, with applications in economics, finance and climate change

May 18-20, 2026 Aula Baratto, Ca' Foscari - Dorsoduro 3246, Venice

MONDAY, MAY 18TH

12.00 **Lunch & Registration**

13.20 **Welcome Remarks**: **Monica Billio**, **Dario Palumbo**, **Andrew Harvey**

13.30 **Model Selection and Neural Networks**
Chair: **Andrew Patton**
Sebastien Laurent - *Penalized QMLE and model selection of time series regressions*
Julia Schaumburg - Self-driving neural networks for yield curve modelling
Giuseppe Bucchieri - Reservoir-driven parameters

14.45 Short Break

14.55 *Invited Lecture*
Chair: **Dario Palumbo**
Mark Salmon - *Deep Simplicity*

15.35 Coffee break

16.00 **Continuous-Time and Lévy-Driven Models**
Chair: **Roberto Casarin**
Simon Godsill - *Non-Gaussian continuous-time methods for time series based on the Levy State-Space Model*
Enzo D'Innocenzo - *Continuous-time score-driven models driven by functions of a Lévy process*

16.55 *Invited Lecture*
Chair: **André Lucas**
Andrew Patton - *Score-Driven Models for Minimum Variance Portfolios*

17.40 **PANEL**
Time Series Modelling in the Age of AI: Implications for Industry, Policy, and Research:
Andrew Harvey, **Giuliano De Rossi**, **Simon Godsill**, **Andrew Patton**, **Mark Salmon**

18.15 Aperitivo

TUESDAY, MAY 19TH

9.15 **Financial Applications**
Chair: **Sébastien Laurent**
Mariia Artemova - *Realized autoregressive conditional betas*
Christian Hafner - *An ARCH-in-Mean Model without Intercept*
Jean-Michel Zakoian - *Noncausal AR processes driven by causal GARCH volatility*

10.30 Coffee break

11.00 **Multivariate Time Series Models I**
Chair: **Peter Hansen**
Matteo Barigozzi - *Score-Driven High-Dimensional Approximate Dynamic Factor Models: Estimation and Inference*
Esther Ruiz - *Inference on factor loadings: The role of the cross-sectional dimension*
Dario Palumbo - *Dynamic Toroidal Time Series*

12.15 Lunch

13.30 **Extremes and Tail Risk Modelling**
Chair: **Richard Davies**
Andrew Harvey - *Time series models for extreme values in climate data and asset returns*
Carlotta Pacifici - *A dynamic model for extreme hourly precipitation*
Shiqi Ye - *Double-Pooling for Dynamic Tail Estimation*

14.45 Coffee break

15.15 **Multivariate Time Series Models II**
Chair: **Esther Ruiz**
Dennis Umlandt - *An Observation-Driven Framework for Dynamic Reduced-Rank Regression*
Janneke van Brummelen - *Robust Multivariate Observation-Driven Filtering for a Common Stochastic Trend: Theory and Application*
Anne Opshoor - *Composite Univariate Modeling of Realized Covariance Matrix Dynamics and Volatility-at-Risk*

16.30 Break

16.40 **Foundations and Evaluation of Time Series Models**
Chair: **Siem-Jan Koopman**
Roberto Casarin - *Generalized Autoregressive Gamma Processes*
Emilija Dzuverovic - *Score Autoregressive Models*
Timo Dimitriadis - *Expected Kullback–Leibler-based Characterizations of Score-Driven Updates*

20.00 Conference Dinner

WEDNESDAY, MAY 20TH

9.00 **Advances in Filtering Methods**
Chair: **Leopoldo Catania**
Simon Donker van Heel - *Exponentially weighted estimands and the exponential family: filtering, prediction and smoothing*
Ramon F. A. de Punder - *Barron-Loss Adaptive Estimation*
Fulvio Corsi - *PILLS for Stability: Invertibility-Free Score-Driven Models via Predictive Implicit Local Likelihood Scores*
Rutger-Jan Lange - *Fast and slow components in implicit score-driven filtering: Theory and applications*

10.40 Coffee Break

11.00 **Likelihood-Based Inference and Non-Gaussian Time Series Models**
Chair: **Rutger-Jan Lange**
Peter Hansen - *Exact Likelihood Inference and Robust Filtering for Gauss-Cauchy Convolution Models'*
Roberto Casarin - *Generalized Autoregressive Gamma Processes*

11.50 Break

12.00 **Nonlinear and Regime-Switching Models**
Chair: **Alessandra Luati**
Leopoldo Catania - *Extended score driven models or Continuous state DAMMs*
Karim Moussa - *Simulation-Based Estimation of State Space Models With Application to Stochastic Volatility Processes*
Ovielt Antonio Baltodano Lopez - *Filtering-based estimation of Markov switching autoregressive stochastic volatility models*

13.15 Lunch

POSTER SESSION

Miguel Ventura - ***Do circuit breakers stabilize financial markets?***
Mingxuan Song - ***Observation-driven filters using a continuum of characteristic function based moment conditions***
Andre Lucas - ***Functional Location-Scale Models with Robust Observation-Driven Dynamics***
Francesco Ravazzolo - ***Score-Driven Calibration of Predictive Densities***
Marco Bidoia - ***A Score-Driven Spatial Model for Extreme Floods***