Big Data in Dynamic Predictive Econometric Modeling
University of Pennsylvania - ARCH Building, Room 208
May 18-19, 2017

Organized by: F.X. Diebold (Penn), E. Ghysels (UNC), P. Mykland (Chicago), and L. Zhang (UIC)
Administrative Assistant: Violette Swinton

Generously sponsored by:
Warren Center for Network and Data Sciences, University of Pennsylvania
Stevanovich Center for Financial Mathematics, University of Chicago
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CONFERENCE PROGRAM

(25 minutes/paper throughout)

THURSDAY, May 18

8:00-8:45 a.m. Registration and Continental Breakfast

8:45-9:00 a.m. Welcoming Remarks

- Frank Diebold, Co-Organizer
- George Mailath, Chair, Department of Economics, Penn
- Mike Kearns, Co-Director, Warren Center, Penn
- Ricky Vohra, Co-Director, Warren Center, Penn

9:00-10:15 a.m. SESSION I: Shrinkage, Selection, Combination and Sparsity, I
Chair: Andrea Carriero (Queen Mary, University of London)

- **Oliver Linton (Cambridge)**, Jia Chen, Degui Li, and Zudi Lu, "Semiparametric Ultra-High Dimensional Model Averaging of Nonlinear Dynamic Time Series"
- **Todd Clark (FRB Cleveland)**, Andrea Carriero, and Massimiliano Marcellino, "Large Vector Autoregressions with Stochastic Volatility and Flexible Priors"
- **Davide Pettenuzzo (Brandeis)** and Dimitris Korobilis, "Adaptive Minnesota Prior for High-Dimensional Vector Autoregressions"

10:15-10:45 a.m. Refreshment Break

10:45-12:25 p.m. SESSION II: High-Dimensional Covariance Matrices
Chair: Tim Bollerslev (Duke)

- **Robert Engle (NYU)**, Olivier Ledoit, and Michael Wolf, "Large Dynamic Covariance Matrices"
- **Serge Nyawa (Toulouse School of Economics)**, Tim Bollerslev, and Nour Meddahi, "High-Dimensional Multivariate Realized Volatility Estimation"

- **Nikolaus Hautsch (University of Vienna)** and Stefan Voigt, "Large-Scale Portfolio Allocation Under Transaction Costs and Model Uncertainty: Adaptive Mixing of High- and Low-Frequency Information"
- **Rogier Quaedvlieg (Erasmus)**, Tim Bollerslev, and Andrew Patton, "Realized Semi-Covariances: Looking for Signs of Direction inside Realized Covariances"

12:25-1:30 p.m. Lunch

1:30-2:45 p.m. **SESSION III: Shrinkage, Selection, Combination and Sparsity, II**
Chair: Nour Meddahi (Toulouse)

- **Domenico Giannone (FRB New York)**, Michele Lenza, and Giorgio Primiceri, "Macroeconomic Prediction with Big Data: the Illusion of Sparsity"
- **Dalibor Stevanovic (Université du Québec à Montréal)**, Rachidi Kotchoni, and Maxime Leroux, "Macroeconomic Forecast Accuracy in a Data-Rich Environment"
- **Monica Billio (Università Ca' Foscari di Venezia)**, Roberto Casarin, and Luca Rossini, "Bayesian Nonparametric Sparse Seemingly Unrelated Regression Model (SUR)"

2:45-3:15 p.m. Refreshment Break

3:15-4:55 p.m. **SESSION IV: Network Econometrics**
Chair: George Tauchen, Duke

- **Kamil Yilmaz (Koc)** and Dimitris Korobilis, "Measuring Dynamic Connectedness with Large Bayesian VAR Models"
- **Daniela Scidá (FRB Richmond)**, "Structural VAR and Financial Networks: A Minimum Distance Approach to Spatial Modeling"
- **Weining Wang (King's College London)**, Wolfgang Härdle, Hangsheng Wang, and Xuening Zhu, "Network Quantile Autoregression"
- **Xiu Xu (Humboldt)**, Cathy Yi-Hsuan Chen, and Wolfgang Härdle, "Dynamic Credit Default Swaps Curve in a Network Topology"

4:55 **Group photo for speakers, chairs, and organizers**
(on ARCH Building staircase)

5:00-6:30 p.m. Reception, ARCH Building first floor

7:00 p.m. **Speakers' Dinner (by Invitation Only)**
Speaker: Greg Duncan
(Chief Economist and Chief Statistician, Amazon;
Professor of Economics, University of Washington)

FRIDAY, May 19

8:30-9:00 a.m. Continental breakfast

9:00-10:15 a.m. SESSION V: High-Dimensional Dynamic Factor Modeling, I
Chair: Andrew Patton (Duke)

- **Serena Ng (Columbia)** and Jushan Bai, "Estimation of Common Factors by Regularized Principal Components"
- **Viktor Todorov (Northwestern)**, Torben Andersen, Nicola Fusari, and Rasmus Varneskov, "Unified Inference for Nonlinear Factor Models from Panels with Fixed and Large Time Span"
- **Christian Brownlees (Pompeu Fabra)** and Geert Mesters, "Detecting Granular Time Series in Large Panels"

10:15-10:45 a.m. Refreshment Break

10:45-12:00 p.m. SESSION VI: High-Dimensional Dynamic Factor Modeling, II
Chair: Giorgio Primiceri (Northwestern)

- **Glenn Rudebusch (FRB San Francisco)**, Jens Christensen, and Martin Andreasen, "Term Structure Modeling with Big Data"
- **Matteo Barigozzi (London School of Economics)** and Matteo Luciani, "Common Factors, Trends, and Cycles in Large Datasets"
- **Eric Ghysels (UNC)** and Xi Chen, "Commercial and Residential Mortgage Defaults: Spatial Dependence with Frailty"

12:00-1:00 p.m. Lunch

1:00-2:40 p.m. SESSION VII: Time-Varying Parameters and Mixed-Frequency Data in High-Dimensional Filtering
Chair: Silvia Goncalves (McGill University)

- **Allan Timmermann (UCSD)** and Simon C. Smith, ""Forecasting Panel Data in the Presence of Breaks"
- **Katerina Petrova (St. Andrews),** "A Quasi-Bayesian Local Likelihood Approach to Time Varying Parameter VAR Models"
- **Galina Hale (FRB San Francisco)**, Jose Lopez, and Glenn Rudebusch, "Monitoring Banking System Fragility with Big Data"
- **Manfred Deistler (Technical University of Vienna)**, B.D.O. Anderson, A. Braumann, E. Felsenstein, B. Funovits, L. Koebl, and M. Zamani, "High-Frequency Linear Time Series Models and Mixed Frequency Data"

2:40 p.m. Adjournment