CHRONOGRAM TOPICS ON APPLIED MACRO & LABOUR

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Session 1 (Lecture)

General Framework (VAR, ECM, SVAR Representations of Multivariate Time Series Processes)

Estimation of VAR, ECM, SVAR & Proxy SVAR Models

Session 2 (Lecture)

Identifying Restrictions: Short & Long-Run, Sign, Heteroskedasticity, IV

Specifying the Co-integrating Rank

Bayesian VARs

(Assignment 1)

Session 3 (Lecture)

Inflation Shocks and Money Neutrality

Labour Market Shocks

Fiscal Shocks

Session 4 (Lecture)

Identifying Monetary Policy Switching Regimes

What Do VARs mean when Shocks are Persistent?

(Correction Assignment 1)

Session 5 (Lecture)

Stock Prices, News Shocks & the Business Cycle

An Attack on RBC Models: Technology vs. Demand Shocks

Using DSGE Models to Check Identification in SVARs

(Assignment 2)

Session 6 (Lecture)

Testing for Structural Breaks

Modelling Time Series Processes with Changes in Regime through Markov Chains

Marked-Point Processes in High-frequency Data

Session 7 (Lecture)

Estimation of Taylor Rules & NK Phillips Curves

Quantile Regression Models

(Correction Assignment 2)

<u>Session 8 (Lecture)</u>

Large Dimensional Factor Models (Estimation, Forecasting, Breaks, Quantiles)

Testing for Rational Bubbles.

Calibration /Estimation of Search & Matching Models

<u>Session 9 (Students´ class presentations)</u>

<u>Session 10 (Student´ class presentations)</u>

<u>Session 11 (Student´s class presentations)</u>

<u>Session 12 (Lecture)</u>

Introduction to Machine Learning Techniques

Estimating Prediction Error

Shrinkage and LASSO methods

<u>Session 13 (Lecture)</u>

Nonlinear ML methods (Neural Networks, Kernel & Piecewise Estimation)

Regression Trees, Random Trees, Random Forests

<u>Session 14 (Lecture)</u>

Causal Inference with Machine Learning

Presentation Take-home Project