

Detailed program

Univariate time series analysis: Basic concepts [UTS]

Stationary stochastic processes [UTS]

Genesis and Properties of Autoregressive - Moving Average (ARMA) processes [UTS]

Outliers in ARMA models [UTS]

Forecasting the random walk [UTS]

Nonstationary processes (with the exclusion of Seasonality) [UTS]

Unit-root tests [UTS]

Impulse response function and persistence measures [UTS]

Multivariate Time Series [VAR]

Stationary and Ergodic Multivariate Time Series [VAR]

Cross Covariance and Correlation Matrices [VAR]

Multivariate Wold Representation [VAR]

Long Run Variance [VAR]

Non-parametric Estimate of the Long-Run Variance [VAR]

Vector Autoregression Models [VAR]

The Stationary Vector Autoregression Model [VAR]

Stationarity conditions [MTS]

Wold Representation [VAR]

The VAR model in matrix format [MTS]

Estimation [VAR]

Lag Length Selection [VAR]

Granger Causality [VAR]

Forecasting Algorithms [VAR]

Chain-rule of Forecasting [VAR]

Structural VARs [SVAR]

Identification Issues – Pt. 1[SVAR]

Identifying restrictions in SVAR models [MTS]

VMA Representations [SVAR]

Impulse Response Functions [SVAR]

Identification Issues -Pt. 2 [SVAR]
Estimation Issues [SVAR]
Forecast Error Variance Decompositions [SVAR]
Identification through a triangular system [MTS]
Estimation Procedure [SVAR]
Identification by the Cholesky factorization [MTS]
Identification through long-run restrictions [MTS]
Ordering of Variables [SVAR]
Sensitivity Analysis [SVAR]
VAR Models and Cointegration [COIN]
Non-uniqueness [COIN]
Normalized cointegration vectors [MTS]
Johansen's Methodology for Modeling Cointegration [COIN]
Likelihood Ratio Tests for the Number of Cointegrating Vectors [COIN]
Reduced-rank regression and cointegration [MTS]
Johansen's Trace Statistic [COIN]
Sequential Procedure for Determining the Number of Cointegrating Vectors [COIN]
Johansen's Maximum Eigenvalue Statistic [COIN]
Determining the cointegration rank by information criteria [MTS]
Specification of Deterministic Terms [COIN]
Maximum Likelihood Estimation of the Cointegrated VECM [COIN]
Johansen's normalized MLE [COIN]
Testing Linear Restrictions on β [COIN]
Cointegration and the BN Decomposition (till the multivariate BN decomposition at p. 26) [COIN]
Granger representation theorem [MTS]
The Granger representation theorem in a Cointegrated Bivariate VAR(1) Model [COIN]

Acronym meaning

UTS: Slides on Univariate Time Series

MTS: Notes on Multivariate Time Series

COIN: Slides on Cointegration (by E. Zivot)

SVAR: Slides on SVARs (by E. Zivot)

VAR: Slides on VARs (by E. Zivot)