

Econometrics 2

By Stéphane Gregoir and Jihyun Kim

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Outline 2020-2021

Classes: TBA

Tutorials: TBA

Office Hours: By appointment

Contents:

- 1) Stationary and non-stationary processes; filters; smoothers; Wold decomposition, basic definitions
- 2) ARMA processes: Properties; estimation and inference; QMLE, diagnostics; forecasting
- 3) OLS and GMM with time series
- 4) State-Space Models: Properties; Kalman Filter
- 5) Volatility: GARCH, SV and Markov switching; basic properties; QMLE for GARCH
- 6) Non-stationary and Unit-root: definitions; testing; estimation
- 7) VARMA, co-integration and SVAR
- 8) Panel Data

References:

Time Series:

Brockwell, P. and R. Davis: Time Series: Theory and Methods, Springer.
Diebold, F.: Elements of Forecasting, Thomson, South-Western.
Hamilton, J. D.: Time Series Analysis, Princeton University Press.
Kilian, L. and H. Lutkepohl: Structural Vector Autoregressive Analysis, Cambridge University Press.
Pesaran, H.: Time Series and Panel Data Econometrics, Oxford University Press.
Stock, J. and M. Watson: Introduction to Econometrics, Addison Wesley.

Panel Data:

Arellano, M.: Panel Data Econometrics, Oxford University Press.
Wooldridge, J.: Econometric Analysis of Cross Section and Panel Data, MIT Press.

Assessment: 3 homeworks (10% each), Mid-term exam (30%) and final exam (40%).