Syllabus

[cmcd.economia@fgv.br]

Course Name: Bayesian Econometrics
Faculty:
Teaching Assistants:

2025 1ST SEMESTER

COURSE OUTLINE

Bayesian Econometrics plays an important role in quantitative economics, marketing research and finance. This course discusses the basic tools, which are needed to perform Bayesian analyses: prior and likelihood specification, posterior inference, model selection, and computational tools. In terms of proposed applications: microeconomics, macroeconomics, and finance modelling.

COURSE PROGRAM

Utility and probability, prior specification, posterior inference, model selection, Bayesian testing and model averaging. Linear regression and extensions, discrete choice, dynamic models (SSM). Markov chain Monte Carlo (Metropolis-Hasting and Gibbs sampler), Importance Sampling, Kalman Filter and Particle Filter.

BIBLIOGRAPHY

Koop, G. (2003). Bayesian Econometrics, published by Wiley.

van Dijk, H. (2011). The Oxford handbook of Bayesian econometrics. Oxford University Press.

Koop, G. and Korobilis, D. (2009). Bayesian Multivariate Time Series Methods for Empirical Macroeconomics, monograph in the Foundations and Trends in Econometrics series.

GRADING

Students will be evaluated by two problem sets (PS1 and PS2) and a short paper (P). The short paper can be a replication of a applied or methodological paper in bayesian econometrics.

The final grade is G = 0.3 * PS1 + 0.3 * PS2 + 0.4 * P

CONTACT