Bayesian Econometrics
Replication Paper

Purpose: The primary purpose of the replication paper is to showcase the technical skills you learn in this course by replicating the main results in a Bayesian paper published in a reputable journal. Each group of no more than two students should submit one paper.

The grading consists of an 'execution' component and a 'difficulty' component. The basic requirement is that you should be able to derive the posterior sampler and implement that in a computer language. But other things equal, replicating a more difficult paper would earn you a higher grade. For extra credit, you can extend the analysis in some way — e.g., using a more flexible modeling approach or incorporate more sophisticated priors. You might want to think ahead with the possibility of turning this replication paper into a thesis chapter.

Due Date: 14 May 2021

Paper Contents: The replication paper should contain no more than ten pages and include the following information:

- motivation
- the model and the priors
- technical details of the posterior sampler
- a small Monte Carlo study to show that the code works well
- empirical results

You are strongly encouraged to find a paper that interests you. But to give you some ideas, below are some paper examples:

- Stock, J.H. and Watson, M.W., 2007. Why has US inflation become harder to forecast?. Journal of Money, Credit and Banking, 39, pp.3-33.
- Cogley, T., Primiceri, G.E. and Sargent, T.J., 2010. Inflation-gap persistence in the US. American Economic Journal: Macroeconomics, 2(1), pp.43-69.
- Fernandez-Villaverde, J., Guerrón-Quintana, P., Rubio-Ramirez, J.F. and Uribe, M., 2011. Risk matters: The real effects of volatility shocks. American Economic Review, 101(6), pp.2530-61.
- Banbura, M., Giannone, D. and Reichlin, L., 2010. Large Bayesian vector auto regressions. Journal of Applied Econometrics, 25(1), pp.71-92.

- Koop, G. and Tobias, J.L., 2004. Learning about heterogeneity in returns to schooling. Journal of Applied Econometrics, 19(7), pp.827-849.
- Koop, G. and Korobilis, D., 2014. A new index of financial conditions. European Economic Review, 71, pp.101-116.
- Koop, G. and Poirier, D.J., 2004. Bayesian variants of some classical semiparametric regression techniques. Journal of Econometrics, 123(2), pp.259-282.