



National Bank of Serbia



UNIVERSITY OF BELGRADE
Faculty of Economics

**NATIONAL BANK OF SERBIA AND
FACULTY OF ECONOMICS IN BELGRADE**

are pleased to invite you to

THE BELGRADE RESEARCH SEMINAR ON ECONOMICS AND FINANCE

Speaker:

Phd Dalibor Stevanović

on the following topic

**“HOW IS MACHINE LEARNING USEFUL FOR
MACROECONOMIC FORECASTING?”**

Date and time: Friday, June 21, 2019 at 1pm.

Venue: Professors' hall, Faculty of economics, Kamenička 6, 1st floor.

Abstract : We move beyond *Is Machine Learning Useful for Macroeconomic Forecasting?* by adding the how. The current forecasting literature has focused on matching specific variables and horizons with a particularly successful algorithm. To the contrary, we study a wide range of horizons and variables and learn about the usefulness of the underlying features driving ML gains over standard macroeconometric methods. We distinguish 4 so-called features (nonlinearities, regularization, cross-validation and alternative loss function) and study their behavior in both the data-rich and data-poor environments. To do so, we carefully design a series of experiments that easily allow to identify the “treatment” effects of interest. The fixed-effects regression setup prompts us to use a novel visualization technique for forecasting results that conveys all the relevant information in a digestible format. We conclude that **(i)** more data and non-linearities are true game-changers for macroeconomic prediction, **(ii)** the standard factor model remains the best regularization, **(iii)** cross-validations are not all made equal (but K-fold is as good as BIC) and **(iv)** one should stick with the standard L_2 loss.

Short biography: Dalibor Stevanović is an associate professor in Economics at the Université du Québec à Montréal. He completed his Ph.D. under the supervision of Jean-Marie Dufour and Jean Boivin. He was a Max Weber postdoctoral fellow at the European University Institute and invited researcher at the University of Pennsylvania and Banque de France. Stevanović has published in top A* ranked journals such as *Journal of Business and Economic Statistics*, *Oxford Bulletin of Economics and Statistics*, *Macroeconomic Dynamics*, *Canadian Journal of Economics* and *Studies in Nonlinear Dynamics and Econometrics*. He has further forthcoming papers in *Journal of Business and Economic Statistics* and *Journal of Applied Econometrics*.