



## The Research Centre of the Faculty of Economics

cordially invites you to a research seminar on Wednesday, 20<sup>th</sup> May 2015 at 12 a.m. in room P-109 at the Faculty of Economics, University of Ljubljana

Author: Ass. Prof. Dr. Vera Hofer, University of Graz, Austria

will present the article:

## "Challenges of distributional changes and an applications in credit scoring"

"In many real-world applications the population evolves over time. Such a dynamic environment provides many challenges for statistical modelling. Traditionally it is assumed that the test data that ought to be predicted follows the same distribution as the training data that was used to estimate the classification or regression model. However, when the population evolves over time this assumption does not hold. Depending on the speed of distributional change the performance of the prediction model will deteriorate over the course of time. Even though this requires a reestimation of the prediction model, due to the lack of a complete recent training dataset — a situation denoted as label delay in the literature — the model reestimation is often not possible. This problem is addressed by drift-adaptation techniques. Such methods try to improve the performance of an existing prediction model by adapting it to changed parameters using only unlabelled new data.

This presentation will give an overview on the statistical problems in evolving environments, and introduce an adaptive model to address changes of class prior distributions. Practical examples from credit scoring will illustrate the statistical problems and the use of appropriate models."

You can register for the free seminar by phone (01) 58-92-490, or via e-mail: <a href="mailto:research.seminars@ef.uni-lj.si">research.seminars@ef.uni-lj.si</a> by Tuesday, 19th May 2015.

We look forward to seeing you!