

High-Dimensional  
Non-Stationary Time Series Analysis



# IRTG 1792 Short Course

Arnaud Dufays

## Bayesian Inference for Structural Break Models

It is well known that time-series observed over a long period are subject to structural breaks. The estimation of econometric models ignoring the presence of possible structural breaks, or more generally time-varying parameters, can result in multiple drawbacks. Importantly, it can produce poor forecasts as a result of the bias in the estimates and often give the spurious impression of a nearly integrated behavior of the data. Since break dates are unknown, models allowing for the possibility of changing structures or parameters have been developed over the last two decades. This short course will cover abrupt switching processes, namely Markov-Switching (MS) models and Change-Point (CP) models, which allow for sharp changes in the model parameters. Different CP and MS setups that have been used in macro-economic and financial frameworks will be presented and their estimations and applications will be discussed.



*Arnaud Dufays obtained his Ph.D. from Université Catholique de Louvain in 2013 and had currently a Postdoc. position at the Centre de Recherche en Economie et Statistique (CREST) in Paris, France.*

19.05.2014 | 14:00-18:00

20.05.2014 | 09:00-12:00

Room 401, SPA1

<http://irtg1792.hu-berlin.de>

