



Euro Area Business Cycle Network Training School

# **Solution Methods for Discrete Time Heterogeneous Agent Models and Markov Switching Linear Models**

By

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**Hosted by: Bank of England**

16-18 September 2019

**Deadline: 6pm (UK time), 17 May 2019**

## **General Description**

We are pleased to announce details of the latest three-day EABCN Training School. Professor Wouter den Haan and Dr Pontus Rendahl will teach the course. It is primarily aimed at participants in the Euro Area Business Cycle Network but applications will also be considered from doctoral students, post-doctoral researchers and economists working in central banks and government institutions outside of the network, as well as commercial organisations (fees applicable for non-network organisations).

## **Course Contents:**

This course is divided in to two parts, both directed to numerical solution methods of macroeconomic models.

### **Day 1:**

In the first part, focus will be on regime switching linear(ized) models. These entails models that display significant nonlinearities across different regimes, but are otherwise well approximated linearly within a regime. Examples of such frameworks are models that can be in and out of a liquidity trap/the zero lower bound (ZLB), or models that otherwise face occasionally binding constraints. The day will focus on appropriate solution methods that are both fast and versatile.

### **Day 2 and 3:**

In the second part (day two and three), focus will be on heterogeneous agent models (also known as incomplete markets models). The equilibrium of such models contain a full, endogenous, distribution of agents across income and wealth status, which (can) make them cumbersome to solve and analyse. The first day will focus on such models absent of any aggregate disturbances, while the second will include the challenges involved when aggregate shocks perturb the economy.

## **How to apply:**

The course will take place at the Bank of England in London, UK. Participants will be invited to make their own arrangements regarding their travel, accommodation and meals. Further information will be available to successful applicants **Candidates who have a CEPR profile**

**should apply by submitting their CV online** at <https://portal.cepr.org/euro-area-business-cycle-network-training-school-solution-methods-discrete-time-heterogeneous-agent>. If you do not currently have a CEPR profile, please create a new one [here](#) and then click on the registration link.

**PhD students should also send a statement that specifies the ways participating in the school will be useful for their current research (max 300 words).**

Participants from non-academic institutions where the employer is not a member of the EABCN network are charged a course fee of € 2000.

#### **About the Instructors:**

**Wouter den Haan** is a Professor at London School of Economics. He holds a PhD from Carnegie-Mellon University, and has previously worked for universities such as UC San Diego and London Business School. He is a programme director of CEPR, and Co-director of the Centre for Macroeconomics. His research interests are business cycles, frictions in financial and labour markets, and numerical methods to solve models with a large number of heterogeneous agents.

**Pontus Rendahl** is a Reader ("Associate Professor") at the University of Cambridge. He holds a PhD from the European University institute, and has previously worked for universities such as UC Davis, and Paris School of Economics. He is a research affiliate at CEPR and the Centre for Macroeconomics. His research interest lies primarily in understanding the relationship between the labour market and the aggregate economy, and how these components interact; as well as numerical methods used to solve nonlinear economic models.

Both Prof. den Haan and Dr. Rendahl have for many years taught the very popular summer school at the LSE on computational methods in Economics and have a long experience when it comes to computation.