**CEF 2017 Pre-Conference Workshop**

## Agent-based Macroeconomics: Model Design, Empirical Grounding and Policy Analysis

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June 27, 2017, 13:30 – 17:30

The overall goal of the workshop is to improve the participants' ability to develop agent-based simulation models with convincing conceptual and empirical foundations and to carry out systematic (policy) analyses using these models.

Structure of the workshop:

1. Short Motivation and Prelude: Complexity and Economic Modeling
2. Model Design
   i. Approaches for Designing Behavioral Rules
   ii. [Interaction Protocols]

Break (15 mins)

3. Empirical Validation and Calibration
4. Analysis of Simulation Output

Break (15 mins)

5. Policy Analysis: an illustrative example using the Eurace@Unibi model
6. Fostering Transparency, Reproducibility and Replication: the ETACE Virtual Appliance (VA)
   i. Short Demo
   ii. Exercise Session (for those who want to play with the VA)

Parts 5. and 6. will focus on the Eurace@Unibi model as an agent-based macroeconomic model for policy analysis. These parts will build strongly on the following two papers:

Dawid H, Harting P, van der Hoog S, Neugart M (2016), 'A Heterogeneous Agent Macroeconomic Model for Policy Evaluation: Improving Transparency and Reproducibility', Bielefeld Working Papers in Economics and Management, No. 06-2016. **http://ssrn.com/abstract=2773539**

Dawid, H., Harting, P. and M. Neugart (2013), 'Cohesion Policy and Inequality Dynamics: Insights from a Heterogeneous Agents Macroeconomic Model', Bielefeld Working Papers in Economics and Management No. 26-2013. **http://ssrn.com/abstract=2369187**

In part 6 we will give a short demo of the ETACE Virtual appliance, as a tool to run agent-based (macro) models, like the Eurace@Unibi model, and to carry out robustness and policy experiments. After the demo, at the end of the workshop, there will be a short (about 30mins) exercise session to work with the Virtual appliance.

Workshop attendants, who want to actively participate in the exercise session should bring their own laptop and download and install the Virtual Appliance from the following link:

[http://www.wiwi.uni-bielefeld.de/lehrbereiche/vwl/etace/Eurace_Unibi/Virtual_Appliance](http://www.wiwi.uni-bielefeld.de/lehrbereiche/vwl/etace/Eurace_Unibi/Virtual_Appliance)

The webpage also provides information on how to install the Virtual Appliance under different operating systems.