

Call for Papers:

WEHIA 2013

18th Annual Workshop on Economic Science with Heterogeneous Interacting Agents

June 20-22, 2013

Reykjavik University, Iceland



<http://wehia2013.ru.is>

<http://www.facebook.com/events/461646810552370/>

***This is the annual workshop of the ESHIA society.
The workshop will be preceded by three-days school (June 17-19)***

Background: towards a new modeling paradigm in economics

The financial and banking crisis of 2007-09 and the consequent severe economic recession have caused a crisis of confidence in the science of economics and, in particular, in standard macro-economic modeling. Mainstream dynamic stochastic general equilibrium (DSGE) models characterized by the representative agent paradigm have been unable to forecast timely the advent of the crisis and measure the risks involved. The crisis has indeed highlighted the importance of the interplay among the financial, the credit and the real sectors of the economy, considering both the way productive and real-estate investments are financed and the consequences on the economy of boom and bust cycles in the asset markets. In order to address these issues, we do need models able to take into account the internal financial structure of economic agents, such as balance sheet composition, debt and leverage, as well as the network topology of their credit and ownership relationships, and able to identify counterparty risk exposures and shock transmission processes at the systemic level. We need to investigate and establish a new modeling paradigm in economics based on the behavior and interaction of heterogeneous agents.

The agent-based modeling and simulation approach promises to deal with the modeling of the economy as a complex adaptive system and explain the emergence of aggregate economic regularities as a self-organized process from the interactions of heterogeneous individuals. The agent-based approach encompasses the concepts of bounded rationality, heterogeneity, and asymmetric information among economic agents. Furthermore, the agent-based approach naturally allows to investigate the links among credit, financing of investments and real economic activity and their role not just as propagators of exogenous shocks, as in the traditional model settings, but as the main source of endogenous asset bubbles, financial instability and endogenous business cycles, allowing to develop large-scale economic models which result to be far more policy-relevant than standard analytical models based on the representative agent and full rationality hypotheses.

Aims and scope

The 18th Workshop on Economic Science with Heterogeneous Interacting Agents (WEHIA 2013) offers an opportunity to present the latest research on various aspects of the economy as a complex system made up of multiple heterogeneous interacting agents. Research from different domains, at the crossing of various disciplines – economics, psychology, sociology, computer sciences, engineering, physics - are useful for developing more satisfactory approaches to (macro) econometrics and (macro) economic theory.

These approaches have already brought some improvement in the understanding of problems facing the world economy, such as the financial crisis, segregation, unemployment and poverty, and the need for sustainable development. The workshop aims to make progress in understanding and solving them.

Topics:

Workshop topics will cover research in all areas relating to models of interacting agents. Contributions with empirical applications will be also appreciated. The topics include, but are not limited to:

- Agent-based Models and Simulators of the Economy
- Aggregation and Emergent Macroeconomics
- Econophysics and Statistical Equilibrium Models
- Experimental Economics
- Financial Fragility Models
- General Equilibrium Model with Heterogeneous Agents
- Economic Development, Technological Change and Growth
- Socio-economic and Financial Networks
- Policy Design with Agent-based Models
- Bounded Rationality and Learning in Economics
- Collective decision and behaviors and Social Intelligence
- Evolutionary Political Economy
- Evolutionary Game Theory
- Market Structure and its Emergence
- Sustainable development and climate change
- Spatial agent models and urban complex adaptive systems
- Calibration and Validation of Agent-based Models
- Formal Theories on Agent-based Approaches
- Philosophical issues of agent-based modeling

Keynote Speakers

Sigríður Benediktsdóttir, Central Bank of Iceland

Jon Danielsson, London School of Economics, United Kingdom

Giovanni Dosi, Sant'Anna School of Advanced Studies, Pisa, Italy

John Sterman, MIT, United States

Submissions

Contributions should be in the form of **extended abstracts** (minimum two pages) or **short papers** (maximum 6 pages) and should be submitted as **PDF files** through the **EasyChair Conference System**:

<https://www.easychair.org/account/signin.cgi?conf=wehia2013>

February 28, 2013 is the **deadline for submissions**.

The Scientific Committee will evaluate all submissions abstract and decide on acceptance by March 29, 2013.

After the event, the extended and revised versions of paper presented at WEHIA 2013 will have the opportunity to be selected for publication in a special issue of the **Journal of Economic Interaction and Coordination**.

Important dates

Deadline for submission of extended abstracts or short papers	February 28, 2013
Notification of acceptance	March 29, 2013
Deadline for early registration	April 30, 2013
Deadline for full paper delivery	May 31, 2013

Venue

WEHIA 2013 will be held at the new **Reykjavik University premises**, close to **Nauthólsvík**, the beach of Reykjavik.

Address:

Reykjavik University

Menntavegur 1

IS 101 Reykjavik

Iceland

Registration

Registration fees:

Regular Rates:	
Early registration (payment by April 30th):	290 Euro
Late registration (payment after April 30th):	370 Euro
PhD students rates:	
Early registration (payment by April 30th):	190 Euro
Late registration (payment after April 30th):	270 Euro

Fees cover access to all sessions, conference material, lunches, coffee breaks, and one-year membership fee of **ESHIA**, including a one year subscription to the **Journal of Economic Interaction and Coordination**.

WEHIA PhD School:

A PhD School will be held prior to the WEHIA 2013 workshop, from June 17th to June 19th. It will be organized as a three-day Summer School on WEHIA-related topics. The PhD School will be free of charge for registered participants of the WEHIA 2013 workshop. The number of seats available is however limited and participants will be admitted on the basis of CV and recommendation letters. Further details about the Faculty of the School, the themes, and the application procedure will be provided soon.

Local Organizing Committee:

Brynhildur Davíðsdóttir , University of Iceland, Iceland

Einar Jon Erlingsson, Reykjavik University, Iceland

Hlynur Stefansson (co-Chair), Reykjavik University, Iceland

Jon Thor Sturluson, Reykjavik University, Iceland

International Organizing Committee:

Silvano Cincotti, University of Genoa, Italy

Marco Raberto (co-Chair), University of Genoa, Italy

Andrea Teglio, University Jaume I, Spain

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Scientific Committee:

Shu-Heng Chen (co-Chair), Chengchi University, Taipei, Taiwan
Mauro Gallegati (co-Chair), Università Politecnica delle Marche, Italy
Thomas Lux (co-Chair), University of Kiel, and Kiel Institute for the World Economy, Germany
Akira Namatame (co-Chair), National Defense Academy, Yokosuka, Japan
Simone Alfarano, University Jaume 1, Castellon, Spain
Hideaki Aoyama*, Kyoto University, Japan
Siew Ann Cheong, Nanyang Technological University, Singapore
Silvano Cincotti, Università di Genova, Italy
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Domenico Delli Gatti*, Catholic University of Milan, Italy
Giorgio Fagiolo*, Scuola Superiore Sant' Anna, Pisa, Italy
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Cars Hommes*, University of Amsterdam, The Netherlands
Taisei Kaizoji, International Christian University (ICU), Tokyo, Japan
Rosario Nunzio Mantegna*, University of Palermo, Italy
Marco Raberto, University of Genova, Italy
Massimo Ricottilli*, University of Bologna, Italy
Enrico Scalas, University del Piemonte Orientale, Alessandria, Italy
Frank Schweitzer, Swiss Federal Institute of Technology, Zurich, Switzerland
Hlynur Stefánsson, Reykjavik University, Iceland
Annick Vignes*, Université Paris II Pantéon-Assas, France
Nick Vriend, Queen Mary University of London, UK
Wei Zhang, Tianjin University, P.R.C.
* (to be confirmed)

About ESHIA The **Society for Economic Science with Heterogeneous Interacting Agents (ESHIA)** aims to provide a unique medium of communication for multidisciplinary approaches, either empirical or theoretical, to the study of complex socio-economic problems. It intends to promote the cross-fertilization of ideas and exchange of concepts and techniques developed within diverse scientific disciplines including economics, social sciences physics, and computer science. The focus of ESHIA is especially on simulating and synthesizing emergent phenomena and collective behaviors to understand real economic and social systems. ESHIA is particularly keen to showcase applications of agent-based modeling such as market microstructure design, policy analysis, systemic risk, and financial engineering. Agents, heterogeneity and interactions are key concepts in multidisciplinary approaches and provide a major driving force to study, either empirical or theoretical, of the socio-economic systems research.

<http://eshia.bwl.uni-kiel.de/index.php>