

## WEHIA 2021

### 24.5<sup>th</sup> Workshop on Economics with Heterogeneous Interacting Agents

28 - 29 JUNE 2021

10 SEPTEMBER 2021

15 OCTOBER 2021

19 NOVEMBER 2021

After the hiatus in 2020 due to the worldwide pandemic, the WEHIA workshop series will restart. Since the public health situation is still difficult, this year the conference will be held **online**.

**WEHIA 2021 will be spread out across 2021. It will consist of 4 events: a two-day conference on June 28-29 and three one-day workshops in the fall (10 September, 15 October, 19 November).**

**The present call for papers aims at collecting submissions for all the events. Accepted papers will be allocated to any of the scheduled dates.**

We still hope that the 25th Workshop will take place in a traditional conference setting, hopefully in 2022, so the 2021 edition will be counted as number 24.5!

#### **Aims and scope**

The Workshop on Economic Science with Heterogeneous Interacting Agents (WEHIA) is the annual conference of the Society for Economic Studies with Heterogeneous Interacting Agents (ESHIA). The society aims to provide a unique medium of communication for multidisciplinary approaches, either empirical or theoretical, for 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, other social sciences, physics, and computer science.

WEHIA 2021 represents a unique opportunity to present and discuss the latest research on various aspects of the economy as a complex system made up of heterogeneous interacting agents. The Workshop is naturally intended to foster diversity in the approach and in the methodology used to analyze economic issues.

For all further details, please visit the website of the Complexity Lab in Economics, at <https://centridiricerca.unicatt.it/complexity-home>

#### **Call for papers**

Many aggregate patterns can be explained as emerging from complex systems of heterogeneous agents, in which the agents' interactions at the micro level determine the emergence of macro regularities such as economic growth, unemployment, and income distribution. This important link between the micro and macro levels of analysis has not received sufficient attention in the profession, which has generally accepted an intellectual divide between the domains of microeconomics and macroeconomics. The "microfoundation" of macroeconomic models, in fact, is generally based on the assumption of one single representative agent (or an army of "identical clones"). This approach preserves analytical tractability at the cost of a remarkable loss of realism.

Agent-based economics opened up new perspectives on the exploration of socially relevant questions and can provide solutions to complex problems that are difficult to study with the methodological standard toolkit of economists. Such a methodology allows for the presence of feedbacks among agents and the economic environment in which they interact, such as the emergence of socio-

economic networks with possible contagion effects, the characterization of non-Gaussian distributions, as well as the endogenous appearance of boom and bust cycles.

### **Main Topics of the Conference:**

Agent Based Models (ABMs): theory and computation, calibration and estimation

Macroeconomic ABMs: emergence of dynamic aggregate behavior

Microeconomic ABMs: markets and individual behavior

Macro-epidemiological ABMs: contagion, public health conditions and macroeconomic performance

Economic growth and technical change

Sustainable development and climate change

Complex Dynamics

Economic, Financial and Social Networks

Econophysics: application of statistical physics methods to economic issues

Experimental Economics

Bounded rationality and learning

Evolutionary Game Theory

Economy as a Complex System

Analysis of Wealth and Income Inequality

Emergence of Cooperation

Big Data and Artificial Intelligence in Economics

Spatial agent models and urban complex adaptive systems

Cryptocurrency Research

DSGE models with heterogeneous agents

### **Keynote Speakers:**

Robert H. Frank

Johnson Graduate School of Management, Cornell University

Herbert Dawid

Department of Business Administration and Economics and Center for Mathematical Economics, Bielefeld University

Eva Camacho Cuenca

Department of Economics, University Jaume I, Castellón

Rosario Mantegna

Department of Physics and Chemistry, Università degli Studi di Palermo

### **Organizing committee:**

Tiziana Assenza

Alberto Cardaci

Domenico Delli Gatti

Alessandro Gobbi

Jakob Grazzini

Domenico Massaro

Giorgio Ricchiuti

**Scientific committee:** The members of the Editorial Board of the Journal of Economic Interaction and Coordination

**Submissions:**

Submission can be done by email. Contributions should be submitted in the form of extended abstracts (max 2 pages) or full paper as PDF files to: **wehia2021@gmail.com**

The first page of the submitted material must contain authors' affiliations and, at least, three keywords. In case of co-authored research, the submitter will be assumed to be the presenter, unless differently specified. Only one paper per presenter is allowed.

**Important dates:**

Deadline for submissions: **23 May 2021.**

Notification of acceptance: 6 June 2021.

**Publication opportunities:**

A selection of papers presented at the conference will be considered for publication in a special issue of the Journal of Economic Interaction and Coordination and International Journal of Microsimulation

**Registration:**

Participants should register to receive the access details for the online conference talks

Registration opens: 7 June 2021

**Fees:**

No fees apply for this conference

**Venue of the Conference:**

Online – organized by Università Cattolica del Sacro Cuore di Milano, in collaboration with Kiel University, Università di Catania, Università Politecnica delle Marche.