



Università
Ca' Foscari
Venezia

**Department
of Applied Mathematics**

Artificial Economics 2010

is organized by the
Department of Applied Mathematics
(Ca' Foscari University of Venice)

Artificial Economics 2010

acknowledges the support of



Banca della Marca



Fondazione Cassamarca

**CEG (Center for Economics of Globalization,
Ca' Foscari University of Venice)**



**Associazione per la Matematica Applicata
alle Scienze Economiche e Sociali (AMASES)**



University of Palermo

Prin 2007, grant 2007TKLTSR

<http://www.dma.unive.it/ae2010/>

Artificial Economics aims to provide a generative approach to understanding problems in economics and social sciences. It is based on the consistent use of agent-based models and computational techniques. It encompasses a rich variety of techniques that generalize numerical analysis, mathematical programming, and micro-simulations. The peer-reviewed contributions presented in this conference address applications of Artificial Economics to markets and trading, auctions, networks, management, industry sectors, macroeconomics and demographics and culture.



A Symposium in Agent-Based Computational Methods in Finance and Economics

**6th edition
September 9-10 2010**

**Riviera Garibaldi 13/E
Treviso (Italy)**

THURSDAY 9 SEPTEMBER

8.00 Participants Registration

8.45 Conference Introduction / Welcome session chaired by Paolo Pellizzari

9.00 Invited Talk
Frank Westerhoff
Agent-based Financial Market Models and the Effectiveness of Regulatory Policies

10.00 Coffee Break

10.30 **MARKETS AND TRADING**

Chair: Philippe Mathieu

Agent's Minimal Intelligence Calibration for Realistic Market Dynamics

Veryzhenko I., Brandouy O. and Mathieu P.

Trading on Marginal Information

Hauser F. and Kaempff B.

Stylized Facts Study Through a Multi-Agent Based Simulation of an Artificial Stock Market

Kodia Z., Ben Said L. and Ghedira K.

12.00 **AUCTIONS**

Chair: Marta Posada

A Variable bid Increment Algorithm for Reverse English Auction

Brigui-Chtioui I. and Pinson S.

Co-evolutionary Agents in Combinatorial Sealed-bid Auctions for Spectrum Licenses Markets

Mochon A., Saez Y., Gomez-Barroso J.L. and Isasi P.

The Effect of Transaction Costs on Artificial Continuous Double Auction Markets

Posada M. and Hernández C.

13.30 Lunch Break

15.00 **MACROECONOMICS**

Chair: Andrea Teglio

Wealth Distribution Evolution in an Agent-Based Computational Economy

Romanov V., Yakovlev D. and Lelchuk A.

Endogenous Credit Dynamics as Source of Business Cycles in the EURACE Model

Teglio A., Raberto M. and Cincotti S.

Reinforcement Learning of Heterogeneous Private Agents in a Macroeconomic Policy Game

Hemmati M., Nili M. and Sadati N.

16.30 Coffee Break

17.00 **DEMOGRAPHICS AND CULTURE**

Chair: Tim Verwaart

Towards and Agent-Based Model of the Economic Development Process: The Dynamics of the Fertility Rate

Giulioni G. and Bucciarelli E.

An Agent-Supported Simulation of Labour and Financial Markets for Migration Processes

Ruiz N., Botti V., Giret A., Julian V., Alvarado O., Perez V. and Rodriguez R.

Sensitivity Analysis of an Agent-Based Model of Culture's Consequences for Trade

Burgers S.L.G.E., Hofstede G.J., Jonker C.M. and Verwaart T.

20.30 Social dinner

FRIDAY 10 SEPTEMBER

9.00 **NETWORKS**

Chair: Matteo Marsili

The Rise and Fall of Trust Networks

Anand K., Gai P. and Marsili M.

Simulations on Correlated Behavior and Social Learning

Blasco A. and Pin P.

Technology Shocks and Trade in a Network

Taghawi-Nejad D.

Wage Discount vs. Premium for the Network Search in the Labour Market

Horvat G.

11.00 Coffee Break

11.30 **MANAGEMENT**

Chair: Andrea Consiglio

The (Beneficial) Role of Informational Imperfections in Enhancing Organisational Performance

Wall F.

Social Interactions and Innovation: Simulation Based on an Agent-Based Modular Economy

Chie B.T. and Chen S.H.

Threshold Rule and Scaling Behavior in a Multi-Agent Supply Chain

Lacagnina V. and Provenzano D.

13.00 Lunch Break

14.30 **INDUSTRY SECTORS**

Chair: Florian Hauser

Information and Search on the Housing Market: An Agent-Based Model

Mc Breen J., Goffette-Nagot F. and Jensen P.

Adaptation of Investments in a Pharmaceutical Industry

Schüette T.

An Agent-Based Information Management Model of the chinese Pig Sector

Osinga S.A., Kramer M.R., Hofstede G.J., Roozmand O. and Beulens A.J.M.

16.00 Coffee Break

16.30 Invited Talk

Thomas Bäeck

Evolutionary Algorithms and Applications in Engineering and Finance

17.30 Conference Conclusions