Ca' Foscari
University
of Venice
Department of Economics

MADME
2025

Multi-Agent Data-driven Modelling in Economics

May 29-30, 2025

Meeting Room 1, San Giobbe Economics Campus

Cannaregio 873, Venice

Programme

Updated: May 14th, 2025

Thursday, May 29th, 2025

8.30-9.15	Registration
9.15-9.30	Welcome
9.30-10.30	**Keynote Lecture: Sebastian Poledna** *Economic Forecasting with Agent-based Modeling*
10.30-11.00	Coffee Break
11.00-13.05	Session I: Multi-Agent Modelling
13.05-14.00	Lunch
14.00-15.15	Session II: Macroeconomics
15.15-15.30	Break
15.30-16.45	Session III: Estimation and Scenario Analysis
16.45-17.15	Coffee Break
17.15-19.00	PRIN parallel sessions (Meeting Room 1 and Meeting Room 7)
20.00	Social Dinner (Trattoria da'a Marisa, Fondamenta San Giobbe 652)

Friday, May 30th, 2025

9.00-11.05	Session IV: Green Policies
11.05-11.30	Coffee Break
11.30-12.30	**Keynote Lecture: Irene Monasterolo** *Stock flow consistent macrofinancial models at central banks: the NGFS short-term scenarios*
12.30-13.45	Session V: Climate Shocks
13.45	Closing remarks

Sessions Programme

Thursday, May 29th, 2025 – Session I   11.00-13.05
Multi-Agent Modelling

Chair: **Giulio Bottazzi**

From Interaction to Business Fluctuations: How Credit Network Explains Cycles
Emanuele Ciola (University of Brescia), Gabriele Tedeschi (Universitat Jaume I)

Modeling Syndication Strategies in Venture Capital in an Agent-Based Models
Francesco Pasimeni (Eindhoven University of Technology), Andrea Bellucci (University of Insubria & Mo.Fi.R), Gianluca Gucciardi (University of Milano-Bicocca & Mo.Fi.R)

Demographic Dynamics, Intergenerational wealth mobility, and Inequality
Ismaila Y Jammeh, Alberto Russo and Federico Giri (Polytechnic University of Marche)

DEEPLAB - Implications of deep decarbonization of high emission industries on employees and the labour market
Monica Martišková and Jakub Barszcz (Central European Labour Studies Institute)

Quantifying the complexity of inter-firm credit networks
Anahi Rodriguez-Martinez and Silvia Bartolucci (University College London), Francesco Caravelli (Los Alamos National Laboratory), Victoria Landaberry (Bank of Uruguay), Pierpaolo Vivo (King's College London), Fabio Caccioli (University College London)

Thursday, May 29th, 2025 – Session II   14.00-15.15
Macroeconomics

Chair: **Daniele Giachini**

An Empirically Calibrated Input-Output Stock-Flow Consistent Model for the Italian Economy
Marco Veronese Passarella (University of L'Aquila)

A Minimal Macroeconomic Model of Business Fluctuations

Simone Alfarano (Universitat Jaume I)

Accounting for the Multiple Sources of Inflation: an Agent-Based Model Investigation

Mauro Napoletano (Université Côte d'Azur - GREDEG)

Thursday, May 29th, 2025 – Session III   15.30-16.45
Estimation and Scenario Analysis

Chair: **Simone Alfarano**

Wealth, cost, and misperception: Empirical estimation of three interaction channels in a financial-macroeconomic agent-based model

Jiri Kukacka and Eric Zila (Charles University and Czech Academy of Sciences)

Learning latent variables for data-driven agent-based models

Marco Pangallo (CENTAI Institute)

Beyond technological perspective: the role of hybrid products in the co-evolution of technology development and consumer preference shifts

Tianyuan Wang (Eindhoven University of Technology)

Thursday, May 29th, 2025 – Parallel PRIN Session 1   17.15-19.00
(Meeting Room 7)

Chair: **Mariana Reis Maria**

Time, links, and bottlenecks: an agent-based model of production networks

Eleonora Priori (University of Pavia), Jack Birner (University College of Maastricht), Marco Mazzoli (University of Genova), Pietro Terna (University of Turin)

Myopic Agents on a stable path: a neoclassical growth model with rule-based expectations and interacting agents

Michele Catalano (Polytechnic University of Marche), Andrea Teglio (Ca' Foscari University of Venice)

On the Dynamics of Wealth of a Large Population of Heterogeneous Gamblers

Giulio Bottazzi (Sant'Anna School of Advanced Studies)

An intertemporal production network model with heterogeneous agents

Daniele Giachini and Giulio Bottazzi (Sant'Anna School of Advanced Studies), Eleonora Priori (University of Pavia)

Thursday, May 29th, 2025 – Parallel PRIN Session 2   17.15-19.00
(Meeting Room 1)

Chair: **Marco Passarella**

Enhancing Agent-Based Models with Reinforcement Learning: Insights into Macroeconomic Dynamics

Jacopo Di Domenico, Pietro Ragazzini, Luca Riccetti and Luca Romeo (University of Macerata), Aldo Glielmo (Bank of Italy), Michele Catalano (Polytechnic University of Marche)

The importance of being many: dynamics and aggregation in a multi-sector economy

Marcello Nieddu and Marco Raberto (University of Genova), Andrea Teglio (Ca' Foscari University of Venice)

A benchmark multi-agent multi-sector model of an open economy: theoretical and numerical analysis

Marco Raberto and Marcello Nieddu (University of Genova), Andrea Teglio (Ca' Foscari University of Venice)

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Testing climate NGFS scenarios through the lens of a Large-Scale ABM model for the Italian Economy

Luca Riccetti (University of Macerata), Michele Catalano (Polytechnic University of Marche), Jacopo Di Domenico (University of Macerata)

Friday, May 30th, 2025 – Session IV   9.00-11.05
Green Policies

Chair: **Mauro Napoletano**

Taking the green pill: Macro-financial transition risks and policy challenges in the MATRIX model
Enrico Maria Turco (Università Cattolica del Sacro Cuore and Fondazione Eni Enrico Mattei), Emanuele Ciola, Massimiliano Rizzati, Davide Bazzana and Sergio Vergalli (University of Brescia and Fondazione Eni Enrico Mattei)

Macroeconomic Impacts of Climate Change on the Brazilian Economy through the Electricity Sector
Nikolas Schiozer (University of Campinas)

Efficiency and Equity in Green Transitions
Andrea Camilli (Prometeia)

Agent-based simulations for sustainable policies design in the Italian wheat production system
Gianfranco Giulioni (D'Annunzio University of Chieti–Pescara)

"Too little too late?": green fiscal policies to the energy transition through an Integrated Agent-Based Assessment Model
Mariana Reis Maria and Rosangela Ballini (Universidade Estadual de Campinas)

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<u>Friday, May 30th, 2025 – Session V</u>   12.30-13.45
Climate Shocks

Chair: **Gianfranco Giulioni**

Breaking the economy: how climate tail risk and financial conditions can shape loss persistence and economic recovery
Andrea Mazzocchetti (Ca' Foscari University of Venice), Irene Monasterolo (Utrecht University School of Economics and Vienna University of Economics and Business), Karl Naumann-Woleske (Vienna University of Economics and Business)

Macroeconomic dynamics in firms' and households' flood recovery: Showcasing the need for regional hybrid models in South Holland
Theodoros Chatzivasileiadis (Delft University of Technology), Alessandro Taberna (EIEE, RFF-CMCC), Ignasi Cortes Arbues and Liz Verbeek (Delft University of Technology), Olga Ivanova (PBL), Tatiana Filatova (Delft University of Technology)

Firm Heterogeneity and Regional Economic Recovery from Flood Shocks – An Agent-based Approach
Joos Akkerman, Tatiana Filatova and Servaas Storm (Delft University of Technology)