

INTERNATIONAL WORKSHOP ON COMPLEXITY

Application of Agent-based models and Networks in Economics, Sustainability, Organization and Innovation

Wednesday 30th March 2022 9.00 am In-person and Online event

Workshop theme /Aims and Scope

Complex systems of interdependent agents can be found everywhere at multiple scales, from the macro level, including industries, markets, and countries, to the micro level, involving firms and individuals. Therefore, modern organizations have to deal with a broad range of problems that present different configurations of complexity, such as: 1) diversity and heterogeneity of agents and their links, 2) interdependent structures among agents, 3) ambiguity of available information and 4) environmental dynamics. One of the most important element of complexity is network theory, which investigates structures and dynamics of interaction between social actors. It aims at revealing the principles that make networks more robust and efficient, considering a risk of failure, possibly induced by increasing interconnectedness.

Investigating economic complexity calls for dynamic approaches. They permit to model complex system behaviors, reproducing the internal dynamics of the entire system from the bottom, focusing on its micro attributes such as the agents, their attributes, actions, goals, and the network structure connecting them.

Preliminary Program

The workshop is organized in very interactive sessions where the topics will be discussed by the invited spaekers and all the participants.

Program

9.00 Registration

9.15 Welcome Federico Visconti, Dean LIUC - Università Cattaneo Salvatore Sciascia, LIUC - Università Cattaneo

Complexity in organization Ilaria Giannoccaro, Politecnico di Bari Cristina Ponsiglione, Università degli studi di Napoli Federico II

Complexity and networks Giovanna Ferraro, Università degli studi di Parma Antonio Iovanella, Università degli Studi Internazionali di Roma - UNINT

11.00 - 11.30 | Coffee break

Complexity in sustainability Linda Ponta, *LIUC - Università Cattaneo* Marco Raberto, *Università degli studi di Genova*

Complexity in innovation Cristina Ponsiglione, Università degli Studi di Napoli "Federico II" Linda Ponta, LIUC - Università Cattaneo

13.00 - 14.00 | Lunch

Round table Silvano Cincotti, Università degli studi di Genova Alberto F. De Toni, Università degli studi di Udine Andreas Pyka, Hohenheim University Giuseppe Zollo, Università degli Studi di Napoli "Federico II"

Moderator: Raffaella Manzini, LIUC - Università Cattaneo

15.30 - 16.00 | Coffee break

16.00 | Follow-up and outlook Special issue presentation

16.45 Conclusions

Registration

The partecipation to the workshop is free of charge subject to the registration.

Credits

All the participants will receive the attendance certificate. PhD students who will deliver a detailed study on a specific part of the workshop in power point format within **April 16th** will receive 2CFU.

