



## Second International Workshop on Complexity

*“The challenge of complexity: How organizations surf at the edge of chaos”*

Politecnico di Bari

Bari, 12 maggio 2023

### Workshop theme

Modern organizations, at any scale, from the macro level, including industries, markets, and countries, to the micro level, involving firms and individuals, are complex systems characterized by heterogeneous and interdependent agents, who self-organize and co-evolve with the environment. Recent critical events and resulting crises have clearly emphasized that their structures and processes are fluid and continuously transforming, thereby calling for dynamic and adaptive approaches able to handle their complexity.

This workshop will focus on recent advances in theory and models regarding how organizations (firms, networks, industries) deal with the current competitive challenges by using a complexity theory approach. Ranging from single firms to networks of industries, the workshop will explore their innovation dynamics and sustainable structures and processes by using the agent-based simulation and will provide managerial insights useful to surf their increasing complexity.

### Invited Speakers

Vito Albino, Polytechnic University of Bari, Bari, Italy

Silvano Cincotti, University of Genoa, Genoa, Italy

Thomas, Choi, Arizona State University, Tempe, USA

Alberto Felice De Toni, University of Udine, Udine, Italy

Giuseppe Zollo, University of Naples “Federico II”, Naples, Italy

## Preliminary Program

09:00 -09:15	Registration	
09:15 – 09:30	Welcome	<b>Francesco Cupertino</b> , Rector of Polytechnic University of Bari <b>Giuseppe Carbone</b> , Head of Dept. Mechanics, Mathematics, and Management
09:30 -10:15	Focus on Complexity in organizations	<i>Focus Organizers:</i> <b>Ilaria Giannoccaro</b> , Polytechnic University of Bari; <b>Cristina Ponsiglione</b> , University of Naples “Federico II”  <i>Talks:</i> <b>Giovanni Massari</b> , Modeling the complexity of the circular supply chains. <b>Valeria Zaza</b> , Integrated Healthcare Systems: A CAS-Based Approach.
10:15 – 11:00	Focus on Complexity in networks	<i>Focus Organizers:</i> <b>Giovanna Ferraro</b> , University of Parma, <b>Antonio Iovanella</b> , Università degli Studi Internazionali di Roma INT  <i>Talks:</i> <b>Antonio Iovanella</b> , Are online ecosystems resilient in the face of crisis? An analysis of a startup network pre- and post-pandemic. <b>Saverio Storani</b> , Similarity-based heterogeneity and cohesiveness of networked companies issuing minibonds
11:00- 11:30	Coffee break	
11:30 – 12:15	Focus on Complexity in sustainability	<i>Focus Organizers:</i> <b>Linda Ponta</b> , Cattaneo University – LIUC; <b>Marco Raberto</b> , University of Genoa  <i>Talks:</i> <b>Luca Fraccascia</b> , An economic complexity tool for measuring circular economy capabilities in industrial sectors: The case of Italy. <b>Marco Raberto</b> , Complementing agent-based modelling with input-output methodology for a new data-driven approach to assess the green energy transition.
12:15 – 13:00	Focus Complexity in innovation	<i>Focus Organizers:</i> <b>Cristina Ponsiglione</b> , University of Naples “Federico II”; <b>Linda Ponta</b> , University of Genoa  <i>Talks:</i> <b>Cristina Ponsiglione</b> , Modelling innovation in complex value chains for Responsible Research and Innovation <b>Linda Ponta</b> , Reacting and recovering after an innovation failure. An agent-based approach.
13:00 – 14:00	Lunch	

14:00 – 14:30	Invited talk	<b>Thomas Choi</b> , Supply Networks and Complexity: Past, Present, and Future
14:30-16:00	Round table	<i>Speakers:</i> <b>Vito Albino, Silvano Cincotti, Alberto Felice De Toni, Raffaella Manzini, Giuseppe Zollo</b> <i>Moderator:</i> <b>Ilaria Giannoccaro</b> , Polytechnic University of Bari
16:00-16:30	Conclusions	

## Venue

The workshop will be held in hybrid format at the Politecnico di Bari. Room: Sala Videoconferenze, Amministrazione centrale, via Amendola 126/b.

## Organizing Committee

Ilaria Giannoccaro, Polytechnic University of Bari  
Giovanni Francesco Massari, Polytechnic University of Bari  
Cristina Ponsiglione, University of Genoa  
Linda Ponta, University of Naples Federico II

## Registration

The participation to the workshop is free of charge subject to the registration.  
To register use the following form: <https://forms.office.com/e/rWpBp9p7rN>



## Credits

All the participants will receive the attendance certificate. PhD students attending the workshop will receive 1 CFU.

## Acknowledges

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