

# NED 2021 – SCIENTIFIC PROGRAM<sup>1</sup>

## Monday, Sept. 13

8:15 – 8:45 Welcome desk (for participants in presence)

8:45 – 9:00 Opening

9:00 – 11:05 First morning session. Chair: *Iryna Sushko*

- **Francesca Grasseti\*** (with C. Mammana and E. Michetti): Asset price-GDP cross feedback. The role of dividend policies in a dynamic setting;
- **Giulia Livieri\*** (with F. Lillo, S. Marmi, A. Solomko and S. Valenti): Analysis of bank leverage via dynamical systems and deep neural networks;
- **Anastasiia Panchuk\*** (with E. Michetta and I. Sushko): Interplay between honest and dishonest agents given an endogenous monitoring: bifurcation structure overview;
- **Frank Westerhoff** (with L. Gardini, D. Radi, N. Schmitt and I. Sushko): On the fragility of a stock market's stability;
- **Iryna Sushko** (with L. Gardini, D. Radi, N. Schmitt and F. Westerhoff): Perception of fundamental values and financial market dynamics: Mathematical insights from a two-dimensional piecewise linear map.

11.05 – 11:30 Coffee-Break

11:30 – 13:10 Second morning session. Chair: *Mauro Sodini*

- **Andrea Caravaggio** (with M. Sodini): Local environmental quality and heterogeneity in an OLG agent-based model with network externalities;
- **Thomas O. Zörner** (with I. Kubin): The green and the brown: Environmental effects in a credit cycle model;
- **Giovanni Villani\*** (with M. Biancardi and L. Maddalena): Social norms for the stability of international environmental agreements;
- **Mauro Sodini** (with A. Antoci, S. Borghesi and G. Iannucci): Should I stay or should I go? Carbon leakage and ETS in an evolutionary model.

13:10 – 14:30 Lunch

14:30 – 16:35 First afternoon session. Chair: *Germana Giombini*

- **Pasquale Commendatore** (with I. Kubin and I. Sushko): Spatial and dynamic effects of firms changing perception of their market influence;

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<sup>1</sup> Names with an asterisk denote online talks.

- **Laura Policardo** (with G. Calcagnini, S. Pavlinović Mršć and E.J. Sanchez Carrera): The lockdown game;
- **Domenico De Giovanni** (with F. Lamantia and M. Pezzino): Evolutionary dynamics of compliance in a two-population game of auditors and auditees;
- **Luca Gori\*** (with P. Manfredi, S. Marsiglio and M. Sodini): COVID-19 epidemic and mitigation policies: Positive and normative analyses in a neoclassical growth model;
- **Germana Giombini** (with F. Grassetti and E.J. Sanchez Carrera): Growth, traps, and cycles driven by productive capacities and inefficiencies.

16:35 – 17:00 Coffee-Break

17:00 – 18:40 Second afternoon session: Chair: *Fabio Tramontana*

- **Andrea Bacchiocchi** (with G.I. Bischi and G. Giombini): Non-performing loans, expectations and banking stability: A dynamic model;
- **Lucía Rosich\*** (with J.G. Brida and B. Lanzilotta): Expectations network, centrality and dynamics: Experimental evidence from Uruguay;
- **Emiliano Alvarez\***: Self-organization and multifractality in inflation and price systems;
- **Kiminori Matsuyama\*** (with P. Ushchev): Destabilizing effects of market size in the dynamics of innovation.

## Tuesday, Sept. 14

9:00 – 11:05 First morning session. Chair: *Fabio Privileggi*

- **Hiroki Murakami\***: The unique limit cycle in post Keynesian systems;
- **Edgar J. Sanchez Carrera** (with G.I. Bischi and F. Grassetti): Pandemics, labor force and economic growth: Multiple equilibria and traps;
- **Luca Vincenzo Ballestra\***: Economic growth with economic driven migration of labor and capital;
- **Akio Matsumoto** (with F. Szidarovszky): The chaotic monopolist revisited with bounded rationality and delay dynamics;
- **Fabio Privileggi** (with D. La Torre, S. Marsiglio and F. Mendivil): Stochastic optimal growth through state-dependent probabilities.

11:05 – 11:30 Coffee-Break

11:30 – 13:10 Second morning session. Chair: *Roberto Dieci*

- **Jan Wenzelburger**: Perfect foresight and learning in two-sector OLG models;

- **Stefano Marmi** (with R. Ceccon and G. Livieri): The Yoccoz-Birkeland livestock population model coupled with random price dynamics;
- **Giovanni Campisi** (with S. Brianzoni and A. Colasante): Nonlinear banking duopoly model with capital regulation: The case of Italy;
- **Roberto Dieci** (with X.-Z. He): Cross-section instability in financial markets: Impatience, extrapolation, and switching.

13:10 – 14:30 Lunch

14:30 – 16:35 Afternoon session. Chair: *Gian Italo Bischi*

- **Ugo Merlone\*** (with I. Alfarone): A dynamical model of musicians' career choices;
- **Alessia Cafferata** (with A.K. Naimzada and F. Tramontana): Learning equilibria with memory;
- **John Barkley Rosser Jr.:** The future of complexity economics;
- **Jochen Jungeilges\*** (with T. Perevalova): Analysis of noise-induced behavioral phenomena;
- **Gian Italo Bischi** (with F. Tramontana): A dynamic adaptive model of consumers with endogenous preferences and non monotonic dependence on past consumption.

Social Event (optional)

Social Dinner (optional)

## Wednesday, Sept. 15

9:00 – 11:05 First morning session (AMASES Session). Chair: *Fausto Cavalli*

- **Serena Sordi** (with M.J. Dávila-Fernández): The difficult task of changing while growing;
- **Simone Casellina\*** (with S. Landini and M. Uberti): Credit risk measures and the estimation error in the ASRF model under the Basel II IRB approach;
- **Simone Landini** (with A. Cafferata, S. Casellina and M. Uberti): Ponzi and zombies: The risk of over-indebtedness of the private sector;
- **Marcello Galeotti** (with A. Antoci, G. Rabitti and P. Russu): A coevolution model of defensive medicine, litigation and medical malpractice insurance;
- **Fausto Cavalli** (with M. Gilli and A.K. Naimzada): Interdependent preferences and bounded rationality in a dynamical contest model.

11:05 – 11:30 Coffee-Break

11:30 – 13:35 Second morning session (AMASES Session). Chair: *Marina Pireddu*

- **Fabio Lamantia\*** (with D. Radi and T. Tichý): Hybrid dynamics of multi-species resource exploitation;
- **Davide Radi** (with L. Gardini): A duopoly game with robust players and adaptive expectations;
- **Lorenzo Cerboni Baiardi** (with F. Lamantia): Oligopoly dynamics with isoelastic demand: The joint effects of market saturation and delegation;
- **Marina Pireddu** (with F. Cavalli, A.K. Naimzada and N. Pecora): An evolutive model with market sentiment;
- **Nicolò Pecora** (with F. Cavalli and A.K. Naimzada): A stylized macro-model with interacting real, monetary and stock markets.

13:35 – 14:30 Closing and Lunch