

## Andrea Roventini

Associate Professor of Economics

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## Curriculum Vitae

### **Personal information**

Family name, First name: Roventini, Andrea

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### **Education**

30/11/2005 Ph.D in Economics and Management.

Sant'Anna School of Advanced Studies, Pisa, Italy

19/04/2001 Degree Certificate in Economics with highest final grade (110/110 cum laude) at

Faculty of Economics, University of Modena and Reggio Emilia.

### **Current positions**

Since 11/2014 Associate Professor, Scuola Superiore Sant'Anna, Pisa, Italy

Since 2017 Advisory editor for the Journal of Evolutionary Economics

Since 2011 Research fellow, OFCE Sciences Po, (France)

### **Previous positions**

2008-2014 Assistant Professor in Economics at Department of Economics

Faculty of Economics - University of Verona, Italy

2011-2012 Maître de Conférences, EconomiX, University of Paris Ouest Nanterre - La Defense, France.

### **Major research areas**

Agent-based computational economics; business cycles and crises; endogenous growth; innovation and structural change; the economic impact of climate change; innovation, fiscal, monetary and climate-change policies.

## **Research grants**

- GROWINPRO: Growth, Welfare, Innovation, Productivity (GA 822781) - 2019-2022 - Sponsor: European Commission H2020 SC6-TRANSFORMATIONS-14-2018 - RIA. PI and consortium coordinator - website <http://www.growinpro.eu>
- ISIGrowth: Innovation-fuelled, Sustainable, Inclusive Growth (GA 649186) - 2015-2018 - Sponsor: European Commission H2020 EURO-SOCIETY-2014 EURO-2 The Growth Agenda – IA. Researcher - website <http://www.isigrowth.eu/>
- DOLFINS: Distributed Global Financial Systems for Society (GA 640772) - 2015-2018 - Sponsor: European Commission – H2020-FETPROACT-2014 FETPROACT-1-2014 – RIA. Researcher - website <http://www.dolfinsproject.eu/index.php>
- IMPRESSIONS Impacts and Risks from Higher-End Scenarios: Strategies for Innovative Solutions (GA 603416) - 2013-2018 - Sponsor: European Commission - Collaborative Project - FP 7-ENV-2013. Researcher – website <http://impressions-project.eu>
- The Evolutionary Paths Toward the Financial Abyss and the Endogenous Spread of Financial Shocks into the Real Economy (IN01100022) - 2011-2012 – Sponsor: INET - Institute for New Economic Thinking. Researcher.
- A Multi-Level, Agent-Based Model for Identifying the Factors that Enable or Constrain International Climate Change Negotiations, 2010-2011 – Sponsor: U.S. National Science Foundation. Researcher

## **Teaching**

- Consumption (PhD), University of Verona
- Macroeconomics (PhD, MA), Scuola Superiore Sant’Anna
- Agent-based macroeconomics (PhD), Scuola Superiore Sant’Anna
- Computational economics (MA), Scuola Superiore Sant’Anna
- Monetary economics (MA), University of Verona
- Innovation economics (MA), University of Verona
- International economics (MA), University of Paris Ouest Nanterre - La Defense

## **Visiting**

- 03-07/2010 Visiting researcher, OFCE, Sciences Po, Paris, France
- 10/2018 Visiting professor, University of Paris I - Panthéon-Sorbonne, France

## **Invited plenary, keynote talks and selected seminars**

- 02/2019 Plenary lecture at I Rio PhD Forum on Complexity Economics and Economics of Innovation, Federal University of Rio de Janeiro, Brazil
- 01/2019 Seminar, International Monetary Fund, Washington, USA
- 12/2018 Keynote at workshop on Economic Complexity and Development, Federal University of Rio de Janeiro, Brazil
- 06/2018 Keynote address at 2nd International Conference on Cliometrics and Complexity, École Normale Supérieure de Lyon, France
- 02/2018 Seminar, Banco Central Do Brasil, Sao Paolo, Brazil

- 11/2017 Keynote presentation at workshop on Macroeconomic Models for Central Banks: Challenges and Perspectives, Bank of Russia, Moscow, Russia
- 05/2017 Keynote at the 10th European Meeting on Applied Evolutionary Economics (EMAEE), University of Strasbourg, France
- 05/2017 Seminar, Oxford University, UK
- 07/2016 Seminar, Bank of Canada, Ottawa, Canada
- 05/2015 Plenary lecture at International Workshop on Computational Economics and Econometrics (IWcee15), National Research Council of Italy, Rome, Italy
- 06/2010 Plenary lecture at the 13th International Schumpeter Society Conference, Aalborg University, Denmark

### Invited teaching

- 02/2019 Lecturer of Agent-Based Macroeconomics, Federal University of Rio de Janeiro, Brazil
- 02/2018 Lecturer of Agent-Based Macroeconomics, University of Campinas, Brazil
- 11/2017 Lecturer at the 4th meeting on Advances in Economic Dynamics and Development: Economics and Complexity, University Federal de Paraná, Curitiba, Brazil
- 08/2016 Lecturer at the Summer School on the Latin American Economies, ECLAC United Nations, Santiago, Chile
- 07/2016 Lecturer of Agent-Based Macroeconomics, University of Campinas, Brazil

### Selected publications

- Dosi G. and Roventini A. (2019), “More is Different... and Complex! The Case for Agent-Based Macroeconomics”, *Journal of Evolutionary Economics*, 29, pp. 1-37.
- Fagiolo G., Guerini M., Lamperti F., Moneta A., and Roventini, A. (2019), “Validation of Agent-Based Models in Economics and Finance”, in Beisbart C. and Saam N. (eds.), *Computer Simulation Validation*, Springer International.
- Dosi G., Roventini A., and Russo, E. (2019), “Endogenous Growth and Global Divergence in a Multi-Country Agent-Based Model”, *Journal of Economic Dynamics & Control*, 100, pp. 101-129.
- Lamperti F., Napoletano M., Roventini A. (2019), “Green Transitions and the Prevention of Environmental Disasters: Market-Based vs. Command-and-Control Policies”, *Macroeconomic Dynamics*, <https://doi.org/10.1017/S1365100518001001>.
- Dosi G., Pereira, M., Roventini A., and Virgillito M. E. (2018), “What if Supply-Side Policies Are not Enough? The Perverse Interaction of Flexibility and Austerity”, *Journal of Economic Behavior and Organization*, <https://doi.org/10.1016/j.jebo.2018.11.026>.
- Dosi, G., M. Napoletano, A. Roventini and T. Treibich (2018), “Debunking the granular origins of aggregate fluctuations: from real business cycles back to Keynes”, *Journal of Evolutionary Economics*, 29, pp. 67-90.
- Lamperti F., Dosi G., Napoletano M., Roventini A., Sapio A. (2018), “Faraway, so Close: Coupled Climate and Economic Dynamics in an Agent-Based Integrated Assessment Model”, *Ecological Economics*, 150, pp. 315-339.

- Dosi G., Pereira, M., Roventini A., and Virgillito M. E. (2018), “Causes and consequences of hysteresis: aggregate demand, productivity, and employment”, *Industrial and Corporate Change*, 27, pp. 1015-1044
- Lamperti F, Roventini A., Sani A. (2018), “Agent-based model calibration using machine learning surrogates”, *Journal of Economic Dynamics & Control*, 90, pp. 366-389.
- Guerini M., Moneta, A., Napoletano M., and Roventini A. (2018), “The Janus-Faced Nature of Debt: Results from a Data-Driven Cointegrated SVAR Approach”, *Macroeconomic Dynamics*, <https://doi.org/10.1017/S1365100518000445>.
- Dosi G., Pereira, M., Roventini A., and Virgillito M. E. (2017), “The effects of labour market reforms upon unemployment and income inequalities: an agent-based model”, *Socio-Economic Review*, 16, pp. 687-720.
- Dosi G., and A. Roventini (2017), “Agent-Based Macroeconomics and Classical Political Economy: Some Italian Roots”, *Italian Economic Journal* 3, pp. 261-283.
- Pelagi E., M. Napoletano, A. Roventini, and J.-L. Gaffard (2017), “Inequality, Redistributive Policies and Multiplier Dynamics in an Agent-based Model with Credit Rationing”, *Italian Economic Journal* 3, pp. 367-387.
- Guerini, M., Napoletano M., Roventini A. (2017), “No Man Is an Island: The Impact of Heterogeneity and Local Interactions on Macroeconomic Dynamics”, *Economic Modelling*, 68 pp. 82-95.
- Dosi G., Pereira, M., Roventini A., and Virgillito M. E. (2017), “When more Flexibility Yields more Fragility: the Microfoundations of Keynesian Aggregate Unemployment”, *Journal of Economic Dynamics & Control*, 81, pp. 162-186.
- Balint T., Lamperti F., Mandel A., Napoletano M., Roventini A., Sapio A. (2017), “Complexity and the Economics of Climate Change: A Survey and a Look Forward”, *Ecological Economics* vol. 138, pp. 252-265.
- Popoyan L., Napoletano, M., and Roventini, A. (2017), “Taming Macroeconomic Instability: Monetary and Macro-Prudential Policy Interactions in an Agent-based model”, *Journal of Economic Behavior & Organization*, vol. 134, pp. 117-140.
- Fagiolo G., and A. Roventini (2017), “Macroeconomic Policy in DSGE and Agent-Based Models Redux: New Developments and Challenges Ahead”, *Journal of Artificial Societies and Social Simulation* vol 20 (1) 1.
- Dosi G., and A. Roventini (2016), “The Irresistible Fetish of Utility Theory: From “Pleasure and Pain” to Rationalising Torture”, *Intereconomics* 51, pp. 286-287.
- Dosi, G., M. Napoletano, A. Roventini and T. Treibich (2016), “Micro and Macro Policies in Keynes+Schumpeter Evolutionary Models”, *Journal of Evolutionary Economics*, vol. 27, pp. 63-90.
- Dosi, G., M. Napoletano, A. Roventini and T. Treibich (2016), “The Short- and Long-Run Damages of Fiscal Austerity: Keynes beyond Schumpeter” in Stiglitz J. E. and M. Guzman (eds.), *Contemporary Issues in Macroeconomics. Lessons from the Crisis and Beyond*, Palgrave Macmillan.
- Jacob Leal S., M. Napoletano, A. Roventini, G. Fagiolo (2015), “Rock around the clock: An Agent-Based Model of Low- and High-Frequency Trading”, *Journal of Evolutionary Economics*, vol. 26, pp. 49-76.

- Dosi G., G. Fagiolo, M. Napoletano and T. Treibich (2015), “Fiscal and Monetary Policies in Complex Evolving Economies”, *Journal of Economic Dynamics and Control*, vol. 52, pp. 166-189.
- Ascari G., G. Fagiolo, and A. Roventini (2015), “Fat-Tail Distributions and Business-Cycle Models”, *Macroeconomic Dynamics*, vol. 19, p. 465-476.
- Ferraresi T., A. Roventini, and G. Fagiolo (2015), “Fiscal Policies and Credit Regimes: A TVAR Approach”, *Journal of Applied Econometrics*, vol. 30, pp. 1047-1072.
- Dosi G., G. Fagiolo, M. Napoletano, and A. Roventini (2013), “Income Distribution, Credit and Fiscal Policies in an Agent-Based Keynesian Model”, *Journal of Economic Dynamics and Control*, vol. 37, pp. 1598-1625.
- Fagiolo G., and A. Roventini (2012), “Macroeconomic Policy in DSGE and Agent-Based Models”, *Revue de l’OFCE*, vol. 124, p. 67-116.
- Dosi G., G. Fagiolo, M. Napoletano, and A. Roventini (2012), “Wage formation, Investment Behavior and Growth Regimes: An Agent-Based Analysis”, *Revue de l’OFCE*, vol. 124, p. 235-261.
- Gerst M.D., P. Wang, A. Roventini, G. Fagiolo, G. Dosi, R. B. Howarth, and M. E. Borsuk (2012), “Agent-Based Modeling of Climate Policy: An Introduction to the ENGAGE Multi-level Model Framework”, *Environmental Modelling & Software*, vol. 44, pp. 62-75
- Dosi G., G. Fagiolo, M. Napoletano, and A. Roventini (2012), “Economic Policies with Endogenous Innovation and Keynesian Demand Management”, in R. M. Solow and J-P Touffut (eds) (2012), *What's Right with Macroeconomics?*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.
- Fagiolo G., and A. Roventini (2012), “On the Scientific Status of Economic Policy: A Tale of Alternative Paradigms”, *The Knowledge Engineering Review*, vol. 27, pp. 163-185.  
Published in Russian as “O Auchnom Statuse Economicheskoy Politiki: Povest' ob Al'ternativnykh Paradigmakh”, *Voprosy Ekonomiki*, 6:24.
- Dosi G., G. Fagiolo, and A. Roventini (2010), “Schumpeter Meeting Keynes: A Policy-Friendly Model of Endogenous Growth and Business Cycles”, *Journal of Economic Dynamics and Control*, vol. 34, pp. 1748-1767.
- Fagiolo G., M. Napoletano, M. Piazza, and A. Roventini, (2009), “Detrending and the Distributional Properties of U.S. Output Time Series”, *Economics Bulletin*, 29: 3155-3161.
- Fagiolo G., M. Napoletano, and A. Roventini (2008), “Are Output Growth-Rate Distributions Fat-Tailed? Some Evidence from OECD Countries”, *Journal of Applied Econometrics*, vol. 23, pp. 639-669.
- Dosi G., G. Fagiolo, and A. Roventini (2008), “The Microfoundations of Business Cycles: An Evolutionary, Multi-Agent Model”, *Journal of Evolutionary Economics*, vol. 8, pp. 413-432.
- Fagiolo G., M. Napoletano, and A. Roventini (2007), “How Do Output Growth Rate Distributions Look Like? Some Time-Series Evidence on OECD Countries”, *European Physical Journal B*, 57: 205-211.
- Dosi G., G. Fagiolo, and A. Roventini (2007), “Lumpy Investment and Endogenous Business Cycles in an Evolutionary Multi-Agent Model”, *Cybernetics and Systems*, 38: 631-666.
- Dosi G., G. Fagiolo, and A. Roventini (2006), “An Evolutionary Model of Endogenous Business Cycles”, *Computational Economics*, vol. 27, pp. 3-34.

- Napoletano M., A. Roventini, and S. Sapio (2006), “Are Business Cycles All Alike? A Bandpass Filter Analysis of Italian and US Cycles”, *Rivista Italiana degli Economisti* 11: 87-118.
- Napoletano M., A. Roventini, and S. Sapio (2006), “Modelling Smooth and Uneven Cross-Sectoral Growth Patterns: an Identification Problem”, *Economics Bulletin* 15: 1-8.

### **Working papers**

- Dosi, G., Napoletano M., Roventini A., Stiglitz J., and T. Treibich (2017), “Rational Heuristics? Expectations and Behaviors in Evolving Economies with Heterogeneous Interacting Agents”, Scuola Superiore Sant’Anna, Institute of Economics, LEM Working Papers 2017/31.
- Fagiolo G., Giachini, D., and Roventini A., (2017), “Innovation, Finance, and Economic Growth: An Agent-Based Approach”, Scuola Superiore Sant’Anna, Institute of Economics, LEM Working Papers 2017/30.

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