Andrea Roventini

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Institute of Economics - Scuola Superiore Sant'Anna, Pisa, Italy.

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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 2020	Editor for Industrial and Corporate Change – Macro Economics and Development
Since 2019	Full 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

2014-2019	Associate Professor, Scuola Superiore Sant'Anna, Pisa, Italy
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, industrial, fiscal, monetary macro-prudential and climate-change policies.

Research grants
- EEIST: Economics of Energy Innovation and System Transition - 2020-2023 - Sponsors: UK's Department for Business, Energy and Industrial Strategy (BEIS) and the Children's Investment Fund Foundation (CIFF). Unit leader and coordinator – website https://eeist.co.uk
- 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, MSc), Scuola Superiore Sant'Anna
- Agent-based macroeconomics (PhD), Scuola Superiore Sant'Anna
- Computational economics (MSc), Scuola Superiore Sant'Anna
- Monetary economics (MSc), University of Verona
- Innovation economics (MSc), University of Verona
- International economics (MSc), University of Paris Ouest Nanterre - La Defense

Visiting
05/2022	Invited visiting professor, University of Paris I - Panthéon-Sorbonne, France
05/2020	Invited visiting professor, University of Paris I - Panthéon-Sorbonne, France
11/2019	Invited visiting professor, Federal University of Rio de Janeiro, Brazil
10/2018	Invited visiting professor, University of Paris I - Panthéon-Sorbonne, France
03-07/2010	Visiting researcher, OFCE, Sciences Po, Paris, France

Invited plenary, keynote talks and selected seminars
11/2022	Keynote speech at workshop on Scarring, Hysteresis, and Investment in Europe, College of Europe, Bruges, Belgium.
10/2021	Plenary lecture at 25th Conference of the Forum for Macroeconomics and Macroeconomic Policies, Berlin, Germany.

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
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

07/2022	Lecturer of Agent-Based Macroeconomics, University of Buenos Aires, Argentina
02/2020	Lecturer of Agent-Based Macroeconomics, University of Campinas, Brazil
06/2019	Lecturer at Axel Leijonhufvud Trento Summer School, University of Trento, Italy
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 Paranà, 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

1. Pallante G., Russo E., and Roventini A. (2023), "Does Public R&D Funding Crowd-In Private R&D Investment? Evidence from Military R&D Expenditures for US states", *Research Policy*, 52, https://doi.org/10.1016/j.respol.2023.104807.
2. Dosi G., Palagi E., Roventini A., and Russo E. (2023), "Do Patents Really Foster Innovation in the Pharmaceutical Sector? Results from an Evolutionary, Agent-Based Model", *Journal of Economic Behavior & Organization,* 212, pp. 564-589, https://doi.org/10.1016/j.jebo.2023.05.039.
3. Ferraresi T., Ghezzi L., Vanni F., Caiani A., Guerini M., Lamperti F., Reissl S., Fagiolo G., Napoletano M., and Roventini R. (2023), "On the Employment and Health Impact of the COVID-19 Shock on Italian Regions: A Value Chain Approach", *Regional Studies*, https://doi.org/10.1080/00343404.2023.2189508.

4. Dosi G., Lamperti F., Mazzucato M., Napoletano M., and Roventini A. (2023), "Mission-Oriented Policies and the "Entrepreneurial State" at Work: An Agent-Based Exploration", *Journal of Economic Dynamics & Control, https://doi.org/10.1016/j.jedc.2023.104650.*

5. Coronese M., Occelli M., Lamperti F., and Roventini A. (2023), "AgriLOVE: Agriculture, Land-Use and Technical Change in an Evolutionary, Agent-Based Model", *Ecological Economics*, 208, https://doi.org/10.1016/j.ecolecon.2023.107756.

6. Palagi E., Coronese M., Lamperti F., Roventini A. (2022), "Climate Change and the Nonlinear Impact of Precipitation Anomalies on Income Inequality", *Proceedings of the National Academy of Sciences of the United States of America* (*PNAS*), 119, https://doi.org/10.1073/pnas.2203595119.

7. Taberna A., Filatova T., Roventini A., Lamperti F. (2022), "Coping with Increasing Tides: Evolving Agglomeration Dynamics and Technological Change under Exacerbating Hazards, Ecological Economics, 202, https://doi.org/10.1016/j.ecolecon.2022.107588.

8. Dosi G., Pereira M. C., Roventini A., Virgillito M. E. (2022), "Technological Paradigms, Labor Creation and Destruction in a Multi-Sector Agent-Based Model", *Research Policy, 51 https://doi.org/10.1016/j.respol.2022.104565.*

9. Reissl S., Caiani A., Lamperti F., Guerini M., Vanni F., Fagiolo G., Ferraresi T., Ghezzi L., Napoletano M., and Roventini A. (2022), "Assessing the Economic Impact of Lockdowns in Italy: A Computational Input–Output Approach", *Industrial and Corporate Change*, 31, pp. 358-409, https://doi.org/10.1093/icc/dtac003.

10. Lamperti F., Bosetti V., Roventini A., Tavoni M., and Treibich, T. (2021), "Three Green Financial Policies to Address Climate Risks", *Journal of Financial Stability*, 54, https://doi.org/10.1016/j.jfs.2021.100875.

11. Dosi G., Freeman R. B., Pereira M. C., Roventini A., and Virgillito M. E. (2020), "The Impact of Deunionization on the Growth and Dispersion of Productivity and Pay", *Industrial and Corporate Change*, 30, pp. 377-408, https://doi.org/10.1093/icc/dtaa025.

12. Dosi G., Roventini A., and Russo E. (2020), "Public Policies and the Art of Catching Up: Matching the Historical Evidence with a Multicountry Agent-Based Model", *Industrial and Corporate Change*, 30, pp. 1011-1036, https://doi.org/10.1093/icc/dtaa057.

13. Popoyan L., Napoletano M., and Roventini A. (2020), "Winter is Possibly not Coming: Mitigating Financial Instability in an Agent-Based Model with Interbank Market", *Journal of Economic Dynamics & Control*, 117, https://doi.org/10.1016/j.jedc.2020.103937.

14. Dosi G., Napoletano M., Roventini A., Stiglitz J., and Treibich T. (2020), "Rational Heuristics? Expectations and Behaviors in Evolving Economies with Heterogeneous Interacting Agents", *Economic Inquiry*, 58, pp. 1487-1516.

15. Lamperti F., Dosi G., Napoletano M., Roventini A., and Sapio A. (2020), "Climate Change and Green Transitions in an Agent-Based Integrated Assessment Model", *Technological Forecasting and Social Change Economics*, 153, pp. 1-22.

16. Fagiolo G., Giachini D., and Roventini A. (2020), "Innovation, Finance, and Economic Growth: An Agent-Based Approach", *Journal of Economic Interaction and Coordination*, 15, pp. 703-736

17. Lamperti F., Bosetti V., Roventini A., and Tavoni M. (2019), "The public costs of climate-induced financial instability", *Nature Climate Change* 9, pp. 829–833.

18. Coronese M., Lamperti F., Keller K., Chiaromonte F., and Roventini A. (2019), "Evidence for Sharp Increase in the Economic Damages of Extreme Natural Disasters", *Proceedings of the National Academy of Sciences of the United States of America* (*PNAS*), 116, pp. 21450-21455.

19. 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.

20. 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.

21. 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.

22. Lamperti F., Napoletano M., and Roventini A. (2019), "Green Transitions and the Prevention of Environmental Disasters: Market-Based vs. Command-and-Control Policies", *Macroeconomic Dynamics*, 24, pp. 1861-1880, https://doi.org/10.1017/S1365100518001001.

23. Dosi G., Pereira, M., Roventini A., and Virgillito M. E. (2019), "What if Supply-Side Policies Are not Enough? The Perverse Interaction of Flexibility and Austerity", *Journal of Economic Behavior and Organization*, 162, pp. 360-388.

24. Dosi, G., M. Napoletano, A. Roventini and Treibich T. (2018), "Debunking the Granular Origins of Aggregate Fluctuations: From Real Business Cycles back to Keynes", *Journal of Evolutionary Economics*, 29, pp. 67-90.

25. Lamperti F., Dosi G., Napoletano M., Roventini A., and Sapio A. (2018), "Faraway, so Close: Coupled Climate and Economic Dynamics in an Agent-Based Integrated Assessment Model", *Ecological Economics*, 150, pp. 315-339.

26. 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

27. Lamperti F, Roventini A., and Sani A. (2018), "Agent-Based Model Calibration using Machine Learning Surrogates", *Journal of Economic Dynamics & Control,* 90, pp. 366-389.

28. 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*, 24, pp. 24-54, https://doi.org/10.1017/S1365100518000445.

29. Dosi G., Pereira, M., Roventini A., and Virgillito M. E. (2018), "The Effects of Labour Market Reforms upon Unemployment and Income Inequalities: An Agent-Based Model", *Socio-Economic Review,* 16, pp. 687-720.

30. Dosi G., and Roventini A. (2017), "Agent-based Macroeconomics and Classical Political Economy: Some Italian Roots", *Italian Economic Journal* 3, pp. 261-283.

31. Pelagi E., Napoletano M., Roventini A., and Gaffard J.-L. (2017), "Inequality, Redistributive Policies and Multiplier Dynamics in an Agent-Based Model with Credit Rationing", *Italian Economic Journal,* 3, pp. 367-387.

32. Guerini, M., Napoletano M., and Roventini A. (2018), "No Man Is an Island: The Impact of Heterogeneity and Local Interactions on Macroeconomic Dynamics", *Economic Modelling,* 68 pp. 82-95.

33. 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.

34. Balint T., Lamperti F., Mandel A., Napoletano M., Roventini A., and Sapio A. (2017), "Complexity and the Economics of Climate Change: A Survey and a Look Forward", *Ecological Economics* vol. 138, pp. 252-265.

35. 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.

36. Fagiolo G., and Roventini A. (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.

37. Dosi G., and Roventini A. (2016), "The Irresistible Fetish of Utility Theory: From "Pleasure and Pain" to Rationalising Torture", *Intereconomics* 51, pp. 286-287.

38. Dosi, G., Napoletano M., Roventini A., and Treibich T. (2016), "Micro and Macro Policies in Keynes+Schumpeter Evolutionary Models", *Journal of Evolutionary Economics*, vol. 27, pp. 63-90.

39. Dosi, G., Napoletano M., Roventini A., and Treibich T. (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.

40. Jacob Leal S., Napoletano M., Roventini A., and Fagiolo G. (2015), "Rock around the Clock: An Agent-Based Model of Low- and High-Frequency Trading", *Journal of Evolutionary Economics*, 26, pp. 49-76.

41. Dosi G., Fagiolo G., Napoletano M. and Treibich T. (2015), "Fiscal and Monetary Policies in Complex Evolving Economies", *Journal of Economic Dynamics and Control*, 52, pp. 166-189.

42. Ascari G., Fagiolo G., and Roventini A. (2015), "Fat-Tail Distributions and Business-Cycle Models", *Macroeconomic Dynamics*, 19, p. 465-476.

43. Ferraresi T., Roventini A., and Fagiolo G. (2015), "Fiscal Policies and Credit Regimes: A TVAR Approach", *Journal of Applied Econometrics*, 30, pp. 1047-1072.

44. Dosi G., Fagiolo G., Napoletano M., and Roventini A. (2013), "Income Distribution, Credit and Fiscal Policies in an Agent-Based Keynesian Model", *Journal of Economic Dynamics and Control,* 37, pp. 1598-1625.

45. Fagiolo G., and Roventini A. (2012), "Macroeconomic Policy in DSGE and Agent-Based Models", *Revue de l'OFCE*, 124, pp. 67-116.

46. Dosi G., Fagiolo G., Napoletano M., and Roventini A. (2012), "Wage Formation, Investment Behavior and Growth Regimes: An Agent-Based Analysis", *Revue de l'OFCE*, 124, p. 235-261.

47. Gerst M.D., Wang P., Roventini A., Fagiolo G., Dosi G., Howarth R. B., and Borsuk M. E. (2013), "Agent-Based Modeling of Climate Policy: An Introduction to the ENGAGE Multi-level Model Framework", *Environmental Modelling & Software*, 44, pp. 62-75

48. Dosi G., Fagiolo G., Napoletano M., and Roventini A. (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.

49. Fagiolo G., and Roventini A. (2012), "On the Scientific Status of Economic Policy: A Tale of Alternative Paradigms", *The Knowledge Engineering Review*, v27, pp. 163-185.

   Published in Russian as "O Auchnom Statuse Economicheskoy Politiki: Povest' ob Al'ternativnykh Paradigmakh", *Voprosy Economiki*, 6:24.

50. Dosi G., Fagiolo G., and Roventini A (2010), "Schumpeter Meeting Keynes: A Policy-Friendly Model of Endogenous Growth and Business Cycles", *Journal of Economic Dynamics and Control*, 34, pp. 1748-1767.

51. Fagiolo G., Napoletano M., Piazza M., and Roventini A. (2009), "Detrending and the Distributional Properties of U.S. Output Time Series", *Economics Bulletin*, 29, pp. 3155-3161.

52. Fagiolo G., Napoletano M., and Roventini A. (2008), "Are Output Growth-Rate Distributions Fat-Tailed? Some Evidence from OECD Countries", *Journal of Applied Econometrics*, 23, pp. 639-669.

53. Dosi G., Fagiolo G., and Roventini A (2008), "The Microfoundations of Business Cycles: An Evolutionary, Multi-Agent Model", *Journal of Evolutionary Economics*, 8, pp. 413-432.

54. Fagiolo G., Napoletano M., and Roventini A. (2007), "How Do Output Growth Rate Distributions Look Like? Some Time-Series Evidence on OECD Countries", *European Physical Journal B*, 57, pp. 205-211.

55. Dosi G., Fagiolo G., and Roventini A (2007), "Lumpy Investment and Endogenous Business Cycles in an Evolutionary Multi-Agent Model", *Cybernetics and Systems*, 38, pp. 631-666.

56. Dosi G., Fagiolo G., and Roventini A. (2006), "An Evolutionary Model of Endogenous Business Cycles", *Computational Economics,* 27, pp. 3-34.

57. Napoletano M., Roventini A., and Sapio S. (2006), "Are Business Cycles All Alike? A Bandpass Filter Analysis of Italian and US Cycles", *Rivista Italiana degli Economisti* 11, pp. 87-118.

58. Napoletano M., Roventini A., and Sapio A. (2006), "Modelling Smooth and Uneven Cross-Sectoral Growth Patterns: an Identification Problem", *Economics Bulletin* 15, pp. 1-8.

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