

Curriculum Vitae

Academic positions

- ✓ 2015 (June)-present: Associate Professor of Mathematics for Economics (SECS-S/06), Department of Economics and Management, University of Pisa, Italy.
- ✓ 2008 – 2015 (May): Assistant Professor of Mathematics for Economics (SECS-S/06), Department of Economics and Management, University of Pisa, Italy.
- ✓ 2006-2008: Instructor of Mathematics (Cultore della Materia), Faculty of economics, University of Pisa, Italy.

Other academic activities

- ✓ 2014 Committee member for "Esami di stato per docenti commercialisti".
- ✓ 2011 – 2013: Research Group Member (PRIN 2009) "Local interactions and global dynamics in economics and finance: models and tools". Director: Prof. Laura Gardini (University of Urbino).

Other schools and courses

- ✓ July 11-14, 2016, Cagliari. Introduction to simulation and estimation of Dynamic Stochastic General Equilibrium (DSGE) models.
- ✓ September 2013: Tutorial Workshop DDSA - BIFURCATIONS in PWS SYSTEMS: PERSPECTIVES, METHODOLOGIES and OPEN PROBLEMS, URBINO, 11th- 13th Sept. 2013, Italy. Directors: Prof. Laura Gardini and Prof. Gian-Italo Bischi.
- ✓ June 30th – July 3rd 2010: Tutorial Workshop DDSA - Discrete Dynamical Systems and Applications, University of Urbino, Italy. Directors: Prof. Laura Gardini and Prof. Gian-Italo Bischi.
- ✓ June 2009: Summer School in Econometrics CidR – Bertinoro, Forlì-Cesena. Director: Prof. Carlo Bianchi (University of Pisa).

Research interests

Economic Growth, Oligopoly Dynamics, Nonlinear Economic Dynamics, Delay differential equations, Chaos, Health Economics, Environmental Economics, Social Capital, Evolutionary game theory.

Publications in refereed journals

- [1] Ferrara M., Gori L., Guerrini L., Sodini M. A. 2018, Continuous time economic growth model with time delays in environmental degradation. 2018. *Journal of Information & Optimization Sciences*.
- [2] Caravaggio, A., Sodini, M., 2018. Nonlinear dynamics in coevolution of economic and environmental systems, *Frontiers in Applied Mathematics and Statistics*, forthcoming.
- [3] Gori, L., Guerrini, L., Sodini, M., 2018. Time delays, population and economic development, *Chaos*, 28.
- [4] Antoci, A., Bellanca, N., Caldi, G., Sodini, M. 2018. Narrative dynamics in social groups: a discrete choice model, *Chaos*, 28.
- [5] Fanti, L., Gori, L., Sodini, M., 2018. Codetermination and product differentiation, *International Review of Economics & Finance*, forthcoming (<https://doi.org/10.1016/j.iref.2018.05.001>).
- [6] Caravaggio, A., Sodini, M., 2018. Multiple attractors and dynamics in an OLG model with productive environment, *Communications in Nonlinear Science and Numerical Simulation*, May, 58, 167-184.
- [7] Gori, L., Sodini, M., 2017. Price competition in a nonlinear differentiated duopoly, *Chaos, Solitons & Fractals*, November 104, 557-567.
- [8] Gori, L., Guerrini, L., Sodini, M., 2017. A characterization of duopoly dynamics with frictions in production adjustments, *Journal of Evolutionary Economics*, November 27 (5), 963-988
- [9] Pecora, N., Sodini, M., 2018. A heterogeneous Cournot duopoly with delay dynamics: Hopf bifurcations and stability switching curves, *Communications in Nonlinear Science and Numerical Simulation*, May (58), 36-46.
- [10] Gori, L., Guerrini, L., Sodini, M., 2018. Disequilibrium dynamics in a Keynesian model with time delays, *Communications in Nonlinear Science and Numerical Simulation*, May (58), 62-67.
- [11] Guerrazzi, M., Sodini, M., 2018 Efficiency-wage competition and nonlinear dynamics, *Communications in Nonlinear Science and Numerical Simulation*, May (58), 62-77.
- [12] Gori, L., Sodini, M., Pecora, N., 2017. Market share delegation in a nonlinear duopoly with

- quantity competition: the role of dynamic entry barriers, *Journal of Evolutionary Economics*, November 27 (5) 905-931.
- [13] Antoci, A., Borghesi, S., Sodini, M., 2016. Water Resource Use and Competition in an Evolutionary Model, *Water Resources Management*, June, 1-21.
- [14] Gori, L., Guerrini, L., Sodini, M., 2016. A model of economic growth with physical and human capital: the role of time delays. *Chaos*, September, 26 (9), 093118.
- [15] Fanti, L., Gori, L., Sodini, M., 2016. Managerial Delegation Theory Revisited, *Managerial and Decision Economics*, May, doi: 10.1002/mde.2799.
- [16] Fanti, L., Gori, L., Sodini, M., 2016. The bargaining-sales delegation game. *Managerial and Decision Economics*, September, doi:10.1002/mde.2822.
- [17] Antoci, A., Gori, L., Sodini, M., 2016. Nonlinear dynamics and global indeterminacy in an overlapping generations model with environmental resources, *Communications in Nonlinear Science and Numerical Simulation* 38, September, 59-71.
- [18] Gori, L., Guerrini, L., Sodini, M., 2015. Hopf bifurcation and stability crossing curves in a cobweb model with heterogeneous producers and time delays. *Nonlinear Analysis (Hybrid System)*, November, 18, 117-133.
- [19] Gori, L., Sodini, M., Fanti, L., 2015. A nonlinear Cournot duopoly with advertising. *Chaos, Solitons & Fractals*, October, 45(12), 178-190.
- [20] Gori, L., Guerrini, L., Sodini, M., 2015. A continuous time Cournot duopoly with delays. *Chaos, Solitons & Fractals*, October, 79, 166-177.
- [21] Gori, L., Guerrini, L., Sodini, M., 2015. Equilibrium and Disequilibrium Dynamics in Cobweb Models with Time Delays. *International Journal of Bifurcation and chaos*, June, 25 (6).
- [22] Antoci, F., Sabatini, F., Sodini, M., 2015. Online and Offline Social Participation and Social Poverty Traps: Can Social Networks Save Human Relations? *Journal of Mathematical Sociology*, July, 39 (4), 229-256.
- [23] Dosi, G., Sodini, M., Virgillito, M., 2015. Profit-driven and demand-driven investment growth and fluctuations in different accumulation regimes, *Journal of Evolutionary Economics*, September 25 (4), 707-728
- [24] Antoci, A., Fiori Maccioni, A., Sacco, P., Sodini, M., 2017. Self-Protection, Psychological Externalities and the Social Dynamics of Fear, *Journal of Conflict Resolution*, August, 61 (2), 349-371.
- [25] Gori, L., Guerrini, L., Sodini, L., 2014. Heterogeneous fundamentalists in a continuous time model with delays. *Discrete Dynamics in Nature and Society*, August, Article ID 959514, 6 pages.

Invited seminars

1. "Student Evaluation of Teaching (SET), social influence dynamics, and teachers' choices: An evolutionary model", *50th anniversary of the international journal "Quality & Quantity"*, Bologna 2018.
2. "Nonlinear Dynamics and Indeterminacy in Overlapping Generations Models with Environmental Externalities", *Seminar Series*, 26th February 2014, Department of Economic sciences, University of Florence, Italy.
3. "Nonlinear Dynamics and Global Indeterminacy in an Overlapping Generations Model with Environmental Externalities", *Seminar Series*, October 9th, 2013, Department of Economics, University of Pisa, Italy.
4. "Social Capital Fragility", *Conference: "Social Economy"*, 2010, Faculty of Economics, University of Bologna, Italy.
5. "Games with local interactions", *2010 Seminar Series*, University of Milano, Bicocca, Italy .

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