Prof. Marina Pireddu

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SHORT BIO

Marina Pireddu is Associate Professor of Mathematical Methods for Economy, Finance and Actuarial Sciences at the University of Milano-Bicocca. In the past, she was first Post-doc Research Fellow at the University of Firenze and then Assistant Professor at the University of Milano-Bicocca. Her research interests concern mainly the study of complex dynamics, with special emphasis on chaotic phenomena, in discrete- and continuous-time frameworks, both from a theoretical and an applicative viewpoint, but she also worked on General Equilibrium models with restricted participation to the asset market. She has published numerous articles in prestigious applied mathematics and economic journals (among others, Nonlinear Analysis: Real World Applications, the Journal of Mathematical Analysis and Applications, and the Journal of Economic Behavior & Organization).

CURRENT RESEARCH INTERESTS

Nonlinear dynamics, Complex phenomena, Evolutionary game theory, Uncertainty, Environmental economics, Epidemiological models.

SELECTED PUBLICATIONS & WPs

Bosisio, A., Naimzada, A., Pireddu, M., 2024. Proving chaos for a system of coupled logistic maps: A topological approach. Chaos: An Interdisciplinary Journal of Nonlinear Science 34, 033112.

Naimzada, A., Pireddu, M., 2024. Comparative dynamics analysis of the environmental policy efficacy in a nonlinear Cournot duopoly with differentiated goods and emission charges. Communications in Nonlinear Science and Numerical Simulation 131, 107867.

Pireddu, M., 2021. Chaotic dynamics in the presence of medical malpractice litigation: A topological proof via linked twist maps for two evolutionary game theoretic contexts. Journal of Mathematical Analysis and Applications 501, 125224.

WORKING PAPERS

- "Evolutionary Entry Games in Oligopolies with Differentiated Goods" (with F. Cavalli, A. Naimzada & P. Medeiros), presented at MDEF in September 2024
- "Evolutionary Entry Games in Oligopolies, with Environmental Control under Uncertainty" (with F. Cavalli & A. Naimzada), presented at the workshop "Evolutionary dynamics, game theory and uncertainty in economic modelling: theory and applications" in June 2025
- "An Epidemiological Model with Evolutionary Game Theoretic Aspects and Uncertainty" (with F. Cavalli, A. Naimzada & D. Visetti), accepted for presentation at AMASES 2025