

**LILIA MALIAR**

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**Education:**

Ph.D. in Economics, University Pompeu Fabra, Spain, 1999

MA in Economics, Central European University, Czech Republic, 1994

B.A. in Economics, Dnipropetrovsk State University, Ukraine, 1991

**Current positions:**

Lecturer, Stanford University, Department of Economics and Hoover Institution, 2013-

Associate Professor, University of Alicante, Economics Department, 2004-

**Previous positions:**

Visiting Fellow, Hoover Institution, 2008-2013

Assistant Professor, University of Alicante, Economics Department, 1999-2004

Visiting Professor, MA in Economics, EERC at the National University “Kyiv-Mohyla Academy”, Ukraine, 2001-2010

Teaching Assistant, University Pompeu Fabra, Spain, 1996-1999

Teaching Assistant, Zaporizhzhya State University, Ukraine, 1991-1993

**Advisor to Canadian Central Bank:**

Model Development Division in the Canadian Economic Analysis Department, Canadian Central Bank.

**Current Teaching:**

Stanford University: Econ 288 (Computational Economics), 2<sup>nd</sup> year PhD

Econ 202N (Microeconomics), Non-economics PhD

Econ 203N (Game Theory), Non-economics PhD

University of Alicante: Macroeconomics III, 1<sup>st</sup> year PhD

**Publications:**

1. Lilia Maliar and Serguei Maliar, (2014). “Merging Simulation and Projection Approaches to Solve High-Dimensional Problems with an Application to a New Keynesian model”, *Quantitative Economics* (forthcoming).
2. Kenneth L. Judd, Lilia Maliar, Serguei Maliar and Rafael Valero, (2014). “Smolyak Method for Solving Dynamic Economic Models: Lagrange Interpolation, Anisotropic Grid and Adaptive Domain”, *Journal of Economic Dynamics and Control* 44(C), 92-123.
3. Lilia Maliar, Serguei Maliar and Sébastien Villemot, (2013). “Taking Perturbation to the Accuracy Frontier: A Hybrid of Local and Global Solutions”, *Computational Economics* 42(3), pp 307-325.

4. Lilia Maliar and Serguei Maliar, (2013). "Envelope Condition Method versus Endogenous Grid Method for Solving Dynamic Programming Problems", *Economic Letters* 120, pp. 262-266.
5. Kenneth L. Judd, Lilia Maliar and Serguei Maliar, (2011). "Numerically Stable and Accurate Stochastic Simulation Methods for Solving Dynamic Models" and "Supplement", *Quantitative Economics* 2, 173-210.
6. Serguei Maliar, Lilia Maliar and Kenneth L. Judd, (2011). "Solving the Multi-Country Real Business Cycle Model Using Ergodic Set Methods" *Journal of Economic Dynamic and Control* 35(2), pp. 207-228.
7. Lilia Maliar and Serguei Maliar, (2011). "Capital-Skill Complementarity and Steady-State Growth", *Economica* 78, pp. 240-259.
8. Lilia Maliar, Serguei Maliar and Fernando Valli, (2010). "Solving the Incomplete Markets Model with Aggregate Uncertainty Using the Krusell-Smith Algorithm", *Journal of Economic Dynamics and Control* 34, pp. 42-49.
9. Kateryna Garmel, Lilia Maliar and Serguei Maliar, (2008). "The EU Eastern Enlargement and FDI: the Implications from a Neoclassical Growth Model", *Journal of Comparative Economics* 36/2, pp. 307-325.
10. Lilia Maliar, Serguei Maliar and Fidel Perez, (2008). "Sovereign Risk, FDI Spillovers, and Economic Growth", *Review of International Economics* 16/3, pp. 463-477.
11. Dmytro Kylymnyuk, Lilia Maliar and Serguei Maliar, (2007). "Rich, Poor and Growth-Miracle Nations: Multiple Equilibria Revisited", *BE Journals in Macroeconomics, Topics in Macroeconomics*: Vol. 7: No. 1, Article 20.
12. Dmytro Kylymnyuk, Lilia Maliar and Serguei Maliar, (2007). "A Model of Unbalanced Sectorial Growth with Application to Transition Economies", *Economic Change and Restructuring* 40/4, pp. 309-325.
13. Lilia Maliar and Serguei Maliar, (2007). "Short-Run Patience and Wealth Distribution", *Studies in Nonlinear Dynamics and Econometrics*, Vol.11: No. 1, Article 4.
14. Lilia Maliar and Serguei Maliar, (2006). "The Neoclassical Growth Model with Heterogeneous Quasi-Geometric Consumers", *Journal of Money, Credit, and Banking* 38(3), pp. 635-654.
15. Lilia Maliar and Serguei Maliar, (2006). "Indeterminacy in a Log-Linearized Neoclassical Growth Model with Quasi-Geometric Discounting", *Economics Modelling* 23/3, pp. 492-505.
16. Lilia Maliar and Serguei Maliar, (2005). "Solving the Neoclassical Growth Model with Quasi-Geometric Discounting: A Grid-Based Euler-Equation Method", *Computational Economics* 26, pp. 163-172.
17. Lilia Maliar, Serguei Maliar and Juan Mora, (2005). "Income and Wealth Distributions Along the Business Cycle: Implications from the Neoclassical Growth Model", *BE Journals in Macroeconomics, Topics in Macroeconomics* Vol. 5: No. 1, Article 15.
18. Lilia Maliar and Serguei Maliar, (2005). "Solving Nonlinear Stochastic Growth Models: an Algorithm Computing Value Function by Simulations", *Economics Letters* 87, pp. 135-140.
19. Dmytro Boyarchuk, Lilia Maliar and Serguei Maliar, (2005). "The Consumption and Welfare Implications of Wage Arrears in Transition Economies", *Journal of Comparative Economics* 33(3), pp. 540-567.
20. Lilia Maliar and Serguei Maliar, (2005). "Parameterized Expectations Algorithm: How to Solve for Labor Easily", *Computational Economics* 25, pp. 269-274.

21. Lilia Maliar and Serguei Maliar, (2004). "Endogenous Growth and Endogenous Business Cycles", *Macroeconomic Dynamics* 8/5, pp. 1-23.
22. Lilia Maliar and Serguei Maliar, (2004). "Indivisible Labor, Lotteries and Idiosyncratic Productivity Shocks", *Mathematical Social Sciences* 48, pp. 23-35.
23. Lilia Maliar and Serguei Maliar, (2004). "Preference Shocks from Aggregation: Time Series Data Evidence", *Canadian Journal of Economics* 37/3, pp. 768-781.
24. Lilia Maliar and Serguei Maliar, (2004). "Quasi-Geometric Discounting: a Closed-Form Solution under the Exponential Utility Function", *Bulletin of Economic Research* 56/2, pp. 201-206.
25. Lilia Maliar and Serguei Maliar, (2003). "Quasi-Linear Preferences in the Macroeconomy: Indeterminacy, Heterogeneity and the Representative Consumer", *Spanish Economic Review* 5, pp. 251-267.
26. Lilia Maliar and Serguei Maliar, (2003). "The Representative Consumer in the Neoclassical Growth Model with Idiosyncratic Shocks", *Review of Economic Dynamics* 6, pp. 362-380.
27. Lilia Maliar and Serguei Maliar, (2003). "Parameterized Expectations Algorithm and the Moving Bounds", *Journal of Business and Economic Statistics* 21/1, pp. 88-92.
28. Lilia Maliar and Serguei Maliar, (2001). "Heterogeneity in Capital and Skills in a Neoclassical Stochastic Growth Model", *Journal of Economic Dynamics and Control* 25/9, pp. 1367-1397.
29. Lilia Maliar and Serguei Maliar, (2000). "Differential Responses of Labor Supply Across Productivity Groups", *Journal of Macroeconomics*, 22, pp. 85-108.

#### **Recent Working Papers and Work in Progress:**

1. Cristina Arellano, Lilia Maliar, Serguei Maliar and Viktor Tsyrennikov, (2014). "Envelope Condition Method with an Application to Default Risk Models", revise and resubmit to *Journal of Economic Dynamics and Control*.
2. Kenneth L. Judd, Lilia Maliar and Serguei Maliar, (2014). "Lower Bounds on Approximation Errors: Testing the Hypothesis That a Numerical Solution Is Accurate", Manuscript.
3. Lilia Maliar, (2013). "Assessing Gains from Parallel Computation on Supercomputers", Manuscript.
4. Kenneth L. Judd, Lilia Maliar and Serguei Maliar, (2011). "How to Solve Dynamic Stochastic Models Computing Expectations Just Once", *NBER 17418*, revise and resubmit to *Quantitative Economics*.

#### **Books and Chapters:**

1. Lilia Maliar and Serguei Maliar, (2014). "Numerical Methods for Large Scale Dynamic Economic Models", in: Schmedders, K. and K.L. Judd (Eds.), *Handbook of Computational Economics*, Volume 3, Chapter 7, 325-477, Amsterdam: Elsevier Science.
2. Kenneth L. Judd, Lilia Maliar and Serguei Maliar "Ergodic Set Methods for Solving Dynamic Economic Models": Aimed to be an up-to-date manuscript on numerical methods for solving dynamic economic models. Under a contract with *MIT Press* with approximate size of 300 pages.
3. Lilia Maliar and Serguei Maliar, "Dynamic Macroeconomics: A Primer". Aimed to be an introduction to dynamic macroeconomics at a beginning and intermediate graduate levels. Under a contract with *Cambridge University Press* with approximate size of 400 pages.

**Fields of Specialization:**

Numerical Methods, Macroeconomics, Monetary Policy, Economic Theory, Economies in Transition, Economic Growth and Development

**Current Graduate Students:**

Inna Tsener “Resolving the skill premium puzzle”

Rafael Valero “Sparse grid methods for high dimensional problems”

**Languages:**

Ukrainian (native), Russian (native), English (fluent), Spanish (fluent)

**Referee:**

Computational Economics; Econometrica; Economica; Journal of Business and Economic Organization; Journal of Comparative Economics; Journal of Economic Dynamics and Control; Journal of Macroeconomics; Journal of Money, Credit, and Banking; Journal of Political Economy, Journal of Public Economics, Scandinavian Journal of Economics; Spanish Economic Review

**Selected conferences with presentations:**

Society for Economic Dynamics, (Oxford, U.K., 1997); European Economic Association, (Toulouse, France, 1997); Society for Economic Dynamics, (Philadelphia, US 1998); Econometric Society European Meeting, (Berlin, Germany, 1998); European Economic Association, (Berlin, Germany, 1998); Association of Southern European Economic Theorists, (Bologna, Italy, 1998); Symposium of Economic Analysis, (Barcelona, Spain, 1999); Society for Economic Dynamics, (Alghero, Italy, 1999); Econometric Society European Meeting, (Santiago de Compostela, Spain, 1999); European Economic Association, (Santiago de Compostela, Spain, 1999); Conference on Heterogeneous Agents, CREI-UPF, (Barcelona, Spain, 1999); Econometric Society European Meeting, (Lausanne, Switzerland, 2001); Symposium of Economic Analysis, (Salamanca, Spain, 2002); Society for Economic Dynamics, (Paris, France, 2003); Econometric Society European Meeting, (Stockholm, Sweden, 2003); Contracts and Institutions in Models with Heterogeneous Agents, Center for Financial Studies, (Frankfurt, Germany, 2003); Symposium of Economic Analysis, (Sevilla, Spain, 2003); Computational Methods for Dynamic Economic Models, Stanford Institute for Theoretical Economics (SITE, 2004) summer workshop, (Stanford, U.S.); Symposium of Economic Analysis, (Oviedo, Spain, 2006); Kyiv School of Economics, (Kyiv, Ukraine, 2007); Econometric Society European Meeting, (Budapest, Hungary, 2007); European Economic Association, (Budapest, Hungary, 2007); Heterogeneity and Macrodynamics, Paris School of Economics, (Paris, France, 2007); Symposium of Economic Analysis, (Granada, Spain, 2007); Society for Computational Economics, (London, UK, 2010); Society for Computational Economics, (San Francisco, US, 2011) ASSET, (Alicante, Spain, 2010); Bag lunch seminar, (Stanford, US, 2011), UC at Berkeley, (Berkeley, US, 2011); University of Santa Clara, (Santa Clara, US, 2011); Federal Reserve Bank of San Francisco (San Francisco, US, 2011); Society for Computational Economics, (Vancouver, Canada, 2013); Stanford Summer Workshop on Computational Economics, (Stanford, US, 2013), Central Bank of Sweden (Stockholm, Sweden, 2014), Society for Computational Economics, (Oslo, Norway, 2014); Stanford Institute for Theoretical Economics, (Stanford, US, 2014).