

FABIO PRIVILEGGI

ACADEMIC POSITION

POSITION	Associate Professor in Quantitative Methods for Economics
AFFILIATION	Department of Economics and Statistics “Cognetti de Martiis”, Università degli Studi di Torino
ADDRESS	Lungo Dora Siena 100 A, 10153 - Torino (Italy)
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PAST POSITIONS

- Associate Professor in Quantitative Methods for Economics at Università del Piemonte Orientale A. *Avogadro*, Department DiGSPES - POLIS (former Faculty of Political Sciences) (Alessandria, Italy), from Dec. 2004 to June 2013.
- Assistant Professor in Quantitative Methods for Economics at Università del Piemonte Orientale A. *Avogadro*, Faculty of Political Sciences Department of Public Policy and Public Choice *POLIS* (Alessandria, Italy), from Jan. 1999 to Dec. 2004.
- Assistant Professor in Quantitative Methods for Economics at Università di Torino, Faculty of Political Science in Alessandria, Dept. of Statistics and Mathematics for Social Sciences *D. De Castro* (Torino, Italy), from Jan. 1997 to Dec. 1998.

EDUCATION

- Post-doc scholarship at Università di Trieste, Dept. of Applied Mathematics *B. de Finetti*, Faculty of Economics (Trieste, Italy), from Jan. 1996 to Dec. 1996.
- Ph.D. in *Mathematics applied to Economic Problems* at Università di Trieste (Italy). Thesis topic: Recursive Methods for Stochastic Dynamic Optimization (in Italian). Fields include: Mathematical Analysis, Probability and Stochastic Processes, Bellman Principle of Maximum, Euler Equations in discrete-time Stochastic Models, Stochastic Optimal Growth in discrete-time. Supervisor: Prof. Luigi Montrucchio, Università di Torino (Italy), Oct. 1995.
- Laurea, equiv. BSc, in Political Sciences - Economics field (110/110 cum laude), at Università di Trieste (Italy). Dissertation on Alternative Approaches to the Structure and the Role of the Non-Profit Sector in a Market Economy (in Italian). Supervisor: Prof. C. Busana, Università di Trieste (Italy), July 1988.

RESEARCH INTERESTS

Mathematical Economics, Optimization, Discrete-time Dynamical Systems (Non-Linear Dynamics and Chaos), Discrete-time Stochastic Dynamic Optimization (with Applications to Optimal Growth, Equilibrium and Inequality), Fractals in Economics, Continuous-time Endogenous Growth Models (with Innovation and Intellectual Property Rights), Knowledge Growth, Fiscal Policy (Tax Evasion and Tax Amnesties).

TEACHING

Graduate Level

- Applied mathematics (taught in English), IEL Ph.D., Collegio Carlo Alberto, Moncalieri (Torino, Italy), since 2008.

- Introductory Mathematics (taught in English), DSE Ph.D., Collegio Carlo Alberto, Moncalieri (Torino, Italy), from 2010 to 2011.

Master Level

- Mathematics, Master Degree in Statistics, Economics and Management, University of Torino, Torino (Italy), since 2013.
- Economic Growth (taught in English), EPPAC International Master Degree, Università del Piemonte Orientale A. *Avogadro*, Alessandria (Italy), from 2012 to 2013.
- Dynamical Models for Macroeconomics, EPPAC International Master Degree, Università del Piemonte Orientale A. *Avogadro*, Alessandria (Italy), from 2009 to 2010.
- Quantitative Methods for Economics (taught in English), CORIPE Master of Economics, Collegio Carlo Alberto, Moncalieri (Torino, Italy), from 2007 to 2008.
- Quantitative Methods for Economics II, EPPAC International Master Degree (former EPP), Università del Piemonte Orientale A. *Avogadro*, Alessandria (Italy), from 2003 to 2013.

Undergraduate Level

- Mathematics for Social Sciences, University of Torino, Torino (Italy), since 2013.
- Quantitative Methods for Economics I, Università del Piemonte Orientale A. *Avogadro*, Alessandria (Italy), from 2003 to 2010.
- Financial Calculus, Università del Piemonte Orientale A. *Avogadro*, Alessandria (Italy), from 2001 to 2003.
- Mathematics for Economics, Università del Piemonte Orientale A. *Avogadro*, Alessandria (Italy), from 2000 to 2001.
- Mathematics for Social Sciences, Università del Piemonte Orientale A. *Avogadro*, Alessandria (Italy), from 1999 to 2000.

INSTITUTIONAL RESPONSIBILITIES

- Member of the “Cognetti de Martiis” Library Committee, Università di Torino (Torino, Italy), since May 2014.
- Member of the Faculty Board of the International Ph.D. programme in Comparative Analysis of Institutions, Economics and Law (IEL), Università di Torino and Collegio Carlo Alberto (Torino, Italy), since April 2014.
- Member of the Committee “Commissione Didattica Paritetica” of the Degree Programme in Economics and Statistics for the Organizations, Department of Economics and Statistics “Cognetti de Martiis”, Università di Torino (Torino, Italy), since January 2014.
- Member of the Teaching Committee of the Department of Economics and Statistics “Cognetti de Martiis”, Università di Torino (Torino, Italy), since January 2014 (with the task of planning the Department teaching Offer, since January 2015).
- Chair of the *International Master Degree Programme in Economic and, Public Policy, Environment and Culture* (EPPAC, www.eppac.eu), Department DiGSPES - POLIS (former Faculty of Political Sciences), Università degli Studi del Piemonte Orientale A. *Avogadro*, (Alessandria, Italy), from Feb. 2009 to June 2013.

- Member of the Faculty Board of the Ph.D. programme in Economic Sciences (DSE), Università di Torino and Collegio Carlo Alberto (Torino, Italy), from May 2009 to Dec. 2010.

VISITING PERIODS AND FELLOWSHIPS

- Visiting scholar at Dept. Of Economics, Cornell University (Ithaca NY, USA): collaboration with Prof. Tapan Mitra on the project *Cantor Type Distributions in One-Sector Optimal Growth Models under Uncertainty*, from Feb. 2004 to June 2004.
- Visiting scholar at Dept. Of Economics, Cornell University (Ithaca NY, USA): collaboration with Prof. Tapan Mitra on the project *Cantor Type Invariant Distributions in the Theory of Optimal Growth under Uncertainty*, from Mar. 2002 to June 2002.
- Visiting scholar at Dept. Of Economics, Cornell University (Ithaca NY, USA), with the support of a Short-Term Mobility scholarship issued by CNR: collaboration with Prof. Tapan Mitra on the project *The Nature of the Steady State in Models of Optimal Growth Under Uncertainty*, from Mar. 2000 to June 2000.
- Visiting scholar at Dept. Of Economics, Cornell University (Ithaca NY, USA), with the support of a NATO-CNR Senior scholarship: participation in the *Macro Workshop* (coordinator Prof. Karl Shell), from Jan. 1999 to June 1999.

OTHER PROFESSIONAL ACTIVITIES

- Collaboration in a research program on the Impact of the Friuli Venezia Giulia Regional Public Spending at Center of Economic and Social Research S.r.l. (Udine, Italy), from Nov. 1989 to Jul. 1990.
- MA in Finance and Capital Markets at A.G.F. - Cooperatives' League (Bologna, Italy), with final stage at the Bank of Cooperative Economy, from Dec. 1988 to Jul. 1989.

PUBLICATIONS

Articles

1. La Torre, D., Marsiglio, S., Mendivil, F. and F. Privileggi (2015), Self-Similar Measures in Multi-Sector Endogenous Growth Models, *Chaos, Solitons and Fractals* **79**: 40–56.
2. Privileggi, F. (2015), Takeoff vs. Stagnation in Endogenous Recombinant Growth Models, *Mathematics and Computers in Simulation* **108**: 184–214.
3. Privileggi, F. and S. Marsiglio (2013), Environmental Shocks and Sustainability in a Basic Economy-Environment Model, *International Journal of Applied Nonlinear Science* **1**: 67–75.
4. Biswas, R., C. Marchese and F. Privileggi (2013), Firm's Tax Evasion in a Principal-Agent Model with Self-Protection, *Journal of Economics* **110**: 125–140.
5. La Torre, D., S. Marsiglio and F. Privileggi (2011), Fractals and Self-Similarity in Economics: the Case of a Stochastic Two-Sector Growth Model, *Image Analysis & Stereology* **30**: 143–151.
6. Privileggi, F. (2011), Transition Dynamics in Endogenous Recombinant Growth Models by means of Projection Methods, *Computational Economics* **38**: 367–387.
7. Marchese, C. and F. Privileggi (2009), A model of the Italian cut-off system for taxing small businesses, *Research in Economics* **63**: 127–134.
8. Mitra, T. e F. Privileggi (2009), On Lipschitz Continuity of the Iterated Function System in a Stochastic Optimal Growth Model, *Journal of Mathematical Economics* **45**: 185–198.

9. Mitra, T. and F. Privileggi (2006), Cantor Type Attractors in Stochastic Growth Models, *Chaos, Solitons & Fractals* **29**: 626–637.
10. Marchese, C. and F. Privileggi (2004), Tax Amnesties and the Self-Selection of Risk-Averse Tax Payers, *European Journal of Law and Economics* **18**: 319–341.
11. Mitra, T. and F. Privileggi (2004), Cantor Type Invariant Distributions in the Theory of Optimal Growth under Uncertainty, *Journal of Difference Equations and Applications* **10**: 489–500.
12. Mitra, T., L. Montrucchio and F. Privileggi (2003), The Nature of the Steady State in Models of Optimal Growth Under Uncertainty, *Economic Theory* **23**: 39–72.
13. Montrucchio, L. and F. Privileggi (2001), On Fragility of Bubbles in Equilibrium Asset Pricing Models of Lucas-Type, *Journal of Economic Theory* **101**: 158–188.
14. Privileggi, F., C. Marchese and A. Cassone (2001), Agent’s Liability Versus Principal’s Liability when Attitudes toward Risk Differ, *International Review of Law and Economics* **21**: 181–195.
15. Montrucchio, L. and F. Privileggi (1999), Fractal Steady States in Stochastic Optimal Control Models, *Annals of Operations Research* **88**: 183–197.
16. Montrucchio, L. and F. Privileggi (1998), Fast Growing Stochastic Dynamic Models, *Atti del XXII Convegno AMASES*, Genova (Italy), 371–382.
17. Marchese, C. and F. Privileggi (1997), Taxpayers Attitudes Toward Risk and Amnesty Participation: Economic Analysis and Evidence for the Italian Case, *Public Finance – Finance Publique* **52**: 394–410.
18. Privileggi, F. (1995), A Characterization for Solutions of Stochastic Discrete Time Optimization Models, *Rivista di Matematica per le Scienze Economiche e Sociali* **18**: 165–180.

Books

19. Mattalia, C. and F. Privileggi (2015), *Matematica per le Scienze Economiche e Sociali, Volume 1: Funzioni di Una Variabile* (in Italian), Milano: Maggioli Editore.
20. Privileggi, F. (2012), *Compendio di Matematica per l’Economia: un percorso esaustivo ma user-friendly* (Second edition, in Italian), Vol. **44/6**, Napoli: EsseLibri Simone.
21. Privileggi, F. (2010), On the Transition Dynamics in Endogenous Recombinant Growth Models, in Bischi, G.I., Chiarella, C. and L. Gardini (Eds.), *Nonlinear dynamics in economics, finance and social sciences*, Berlin: Springer Verlag: 251–278.
22. Privileggi, F. (2007), *Compendio di Matematica per l’Economia: un percorso esaustivo ma user-friendly* (in Italian), Vol. **44/6**, Napoli: EsseLibri Simone.
23. Privileggi, F. (1995), *Metodi Ricorsivi per L’Ottimizzazione Dinamica Stocastica* (in Italian), *Ph.D. Thesis*, Università di Trieste (Italy).
24. Privileggi, F. (1989), Il Settore Non Profit Nell’Economia di Mercato: Interpretazioni Alternative (in Italian), in Alberto Mortara (ed.), *Collana di studi e monografie n. 80*, Milano: CIRIEC.

Working Papers

25. Absolutely Continuous Invariant Measures in Multi-Sector Stochastic Endogenous Growth Models, with D. La Torre, S. Marsiglio and F. Mendivil, in progress.
26. Cantor Type Distributions in One-Sector Optimal Growth Models under Uncertainty, with T. Mitra, in progress.

27. Trend and Cycle in Real Business Cycle Models, with G. Carmeci, in progress.
28. The Cutoff Policy of Taxation, with C. Marchese, in progress.
29. Agent's Versus Principal's Liability for Tax Avoidance, with C. Marchese and R. Biswas, in progress.
30. Marchese, C. and F. Privileggi (2015), Endogenous Economic Growth with Disembodied Knowledge, *Dept. "Cognetti de Martiis" Working Paper 25/2015*, Torino (Italy).
31. La Torre, D., Marsiglio, S., Mendivil, F. and F. Privileggi (2015), Self-Similar Measures in Multi-Sector Endogenous Growth Models, *Dept. "Cognetti de Martiis" Working Paper 09/2015*, Torino (Italy).
32. Marchese, C. and F. Privileggi (2014), A Competitive Idea-Based Growth Model with Shrinking Workers' Income, *Dept. "Cognetti de Martiis" Working Paper 15/2014*, Torino (Italy).
33. Privileggi, F. and S. Marsiglio (2014), Dynamics and Welfare in Recombinant Growth Models with Intellectual Property Rights: a Computational Method, *Dept. "Cognetti de Martiis" Working Paper 14/2014*, Torino (Italy).
34. Marchese, C., S. Marsiglio, F. Privileggi and G. B. Ramello (2014), Endogenous Recombinant Growth through Market Production of Knowledge and Intellectual Property Rights, *Dept. "Cognetti de Martiis" Working Paper 13/2014*, Torino (Italy).
35. Privileggi, F. (2013), Takeoff vs. Stagnation in Endogenous Recombinant Growth Models, *Dept. "Cognetti de Martiis" Working Paper 38/2013*, Torino (Italy).
36. Cozzi, G. and F. Privileggi (2009), The Fractal Nature of Inequality in a Fast Growing World: New Revision, *University of Glasgow, Dept. of Economics Discussion Papers Series 2009-30*.
37. Biswas, R., C. Marchese and F. Privileggi (2009), Tax Evasion in a Principal-Agent Model with Self-Protection, *POLIS Working Paper 158*, Alessandria (Italy).
38. Privileggi, F. (2007), The Cutoff Policy of Taxation when CRRA Taxpayers Differ in Risk Aversion Coefficients and Income: a Proof, *POLIS Working Paper 107*, Alessandria (Italy).
39. Cozzi, G. and F. Privileggi (2007), The Fractal Nature of Inequality in a Fast Growing World, *University of Glasgow, Dept. of Economics Discussion Papers Series 2007-45*.
40. Marchese, C. and F. Privileggi (2007), Increasing the Efficiency of the 'Studi di Settore' Might Backfire, *POLIS Working Paper 92*, Alessandria.
41. Marchese, C. and F. Privileggi (2002), The Cutoff Policy of Taxation When Taxpayers are Risk Averse, *DISEFIN Working Paper 7*, Genova (Italy).
42. Cozzi, G. and F. Privileggi (2002), Wealth Polarization and Pulverization in Fractal Societies, *ICER Working Paper 39*, Torino (Italy).
43. Privileggi, F., C. Marchese and A. Cassone (1998), Risk Attitudes and the Shift of Liability from the Principal to the Agent, *POLIS Working Paper 1*, Alessandria (Italy).

PH.D. EXTERNAL EXAMINER

- Roberto Ippoliti, IEL Ph.D., Università di Torino and Collegio Carlo Alberto, Moncalieri (Torino, Italy), Thesis on *The Market of Human Experimentation, a Law and Economics Analysis of the Pharmaceutical Clinical Research*, Mar. 2012.

 POST-DOC AND PH.D. STUDENTS

- Simone Marsiglio (Post-Doc), Department of Public Policy and Public Choice POLIS, Università degli Studi del Piemonte Orientale A. Avogadro, Alessandria (Italy), *Endogenous Recombinant Growth Models and Fractal attractors in multi-sector optimal growth models under uncertainty*, from Dec. 2010 to Nov. 2011.

 CONFERENCE PRESENTATIONS

- *Endogenous Economic Growth with Disembodied Knowledge: 39th Meeting AMASES*, Padova (Italy), 10-12 settembre, 2015.
- *A Competitive Idea-Based Growth Model with Shrinking Workers Income Share: 13th Viennese Workshop on Optimal Control and Dynamic Games*, Vienna (Austria), May 13-16, 2015.
- *Self-Similar Measures in Multi-Sector Endogenous Growth Models: MDEF2014, Modelli Dinamici in Economia e Finanza Workshop*, Urbino (Italy), Sept. 18-20, 2014.
- *Takeoff vs. Stagnation in Endogenous Recombinant Growth Models: XXXVII AMASES Meeting*, Stresa (Italy), Sept. 5-7, 2013.
- *Endogenous Recombinant Growth through Market Production of Knowledge and Intellectual Property Rights*, with C. Marchese, S. Marsiglio and G. Ramello: 12th Journées Louis-André Gérard-Varet Conference in Public Economics, Aix-En-Provence (France), June 26-28, 2013.
- *Intellectual Property Rights and Market Production of Knowledge in a Decentralized Endogenous Recombinant Growth Model*, with C. Marchese, S. Marsiglio and G. Ramello:
 - MDEF2012, Modelli Dinamici in Economia e Finanza, Urbino (Italy), Sept. 20-22, 2012.
 - XXXVI Convegno AMASES, Vieste (Italy), Sept. 13-15, 2012.
 - Invited talk for the Seminars in Economics at Dept. of Economics, Business and Statistics, Università di Milano, Milano (Italy), Nov. 16, 2011.
- *The Cutoff Policy of Taxation When CRRA Taxpayers Differ in Risk Aversion Coefficients and Income*, with C. Marchese: 10th Journées Louis-André Gérard-Varet Conference in Public Economics, Marseille (France), June 20-22, 2011.
- *What Iterated Function systems and Fractals have to do with Economic Growth*: invited talk for the Shape and Size in Medicine, Biotechnology Materials Science and Social Sciences Workshop, Dept. of Mathematics, Università di Milano, Milano (Italy), Feb. 16-17, 2011.
- *Transition Dynamics in Endogenous Recombinant Growth Models by means of Projection Methods: MDEF2010, Modelli Dinamici in Economia e Finanza Workshop*, Urbino (Italy), Sept. 23-25, 2010.
- *Tax Evasion in a Principal-Agent Model with Self-Protection* with C. Marchese e R. Biswas: XXXIV Convegno AMASES, Macerata (Italy), Sept. 1-4, 2010.
- *Intellectual Property Rights, Knowledge Production, and Endogenous Growth*, with G. Ramello:
 - Open Societies vs Intellectual Enclosures: Innovation, Imitation and Economic Growth Workshop, Università degli Studi del Piemonte Orientale A. Avogadro, Alessandria (Italy), Oct. 3-4, 2008.
 - MDEF2008, Modelli Dinamici in Economia e Finanza, Urbino (Italy), Sept. 25-27, 2008.
 - 1st Workshop on Dynamics, Optimal Growth and Population Change: Theory and Applications, Università di Milano (Italy), Sept. 18-19, 2008.
 - Economic Theory Conference in honor of Professor Tapan Mitra on his 60th birthday, Cornell University, Ithaca NY (USA), July 19-20, 2008.

- *The Fractal Nature of Inequalities in Societies with Equal Opportunities*, with G. Cozzi: invited talk for the Economic Theory Seminar, CORE-ECORE, Louvain La Neuve (Belgium), Dec. 17, 2007.
- *The Cutoff Policy of Taxation When Taxpayers are Heterogeneous and Risk Averse*, with C. Marchese: XXX Convegno AMASES, Trieste (Italy), Sept. 4-7, 2006.
- *Cantor Type Distributions in One-Sector Optimal Growth Models under Uncertainty*, with T. Mitra: MDEF2004, Modelli Dinamici in Economia e Finanza, Urbino (Italy), Sept. 16-18, 2004.
- *Cantor Type Invariant Distributions in the Theory of Optimal Growth under Uncertainty*, with T. Mitra: XXVII Convegno AMASES, Cagliari (Italy), Sept. 3-6, 2003.
- *The Fractal Nature of Inequality in Societies with Equal Opportunities*, with G. Cozzi: XXVI Convegno AMASES, Verona (Italy), Sept. 11-14, 2002.
- *Wealth Polarization and Pulverization in Fractal Societies*, with G. Cozzi:
 - Summer School in Economic Theory, 2nd edition, Intertemporal Macroeconomics: Growth, Fluctuations, and the Open Economy, SET Center for Advanced Studies in Economic Theory, Isola di San Servolo, Venezia (Italy), June 30 - July 7, 2002.
 - The Cornell-PSU Macro Workshop, Pennsylvania State University, State College PA (USA), March 29-30, 2002.
 - XXV Convegno AMASES, Firenze (Italy), Sept. 5-8, 2001.
- *The Nature of the Steady State in Models of Optimal Growth Under Uncertainty*, with T. Mitra and L. Montrucchio:
 - V Conference of the Society for the Advancement in Economic Theory, Ischia (Italy), July 2-8, 2001.
 - MDEF2000, Modelli Dinamici in Economia e Finanza, Urbino (Italy), Sept. 28-30, 2000.
 - XXIV Convegno AMASES, Padenghe (Italy), Sept. 6-9, 2000.
- *On Fragility of Bubbles in Equilibrium Asset Pricing Models of Lucas-Type*, with L. Montrucchio:
 - II Workshop in Mathematical Finance, Pisa (Italy), Feb. 1-2, 2001.
 - Invited talk for the Macroeconomics Workshop, Cornell University, Ithaca NY (USA), May 27, 1999.
- *Fractal Steady States in Stochastic Optimal Control Models*, with L. Montrucchio:
 - Invited talk for the Macroeconomics Workshop, Cornell University, Ithaca NY (USA), Spring 1999.
 - 6th Viennese Workshop on Optimal Control, Dynamic Games, Nonlinear Dynamics and Adaptive Systems, Wien (Austria), May 21-23, 1997.
- *Fast Growing Stochastic Dynamic Models*, with L. Montrucchio: XXII Convegno AMASES, Genova (Italy), Sept. 9-12, 1998.
- *Agent's Liability Versus Principal's Liability when Attitudes Toward Risk Differ*, with A. Cassone and C. Marchese: Annual Conference of the Canadian Law and Economics Association (CLEA), Toronto (Canada), Sept. 1997.
- *A Characterization for Solutions of Stochastic Discrete Time Optimization Models*: XIX Convegno AMASES, Pugnuchiuso (Italy), Sept. 25-28, 1995.

EDITORIAL ACTIVITY

- Associate editor of the *International Journal of Applied Nonlinear Science* (Inderscience), since Apr. 2012.

AD HOC REFEREEING

Chaos, Solitons & Fractals (Elsevier), *Decisions in Economics and Finance* (Springer-Verlag), *Economic Theory* (Springer-Verlag), *European Journal of Comparative Economics* (Università Carlo Cattaneo - LIUC), *International Economic Review* (University of Pennsylvania), *Journal of Economic Behavior and Organization* (Elsevier), *Journal of Economic Dynamics and Control* (Elsevier), *Journal of Optimization Theory and Applications* (Springer-Verlag), *Mathematical Review* (American Mathematical Society), *Research in Economics – Ricerche Economiche* (Università Ca' Foscari di Venezia), *Technological Forecasting and Social Change* (Elsevier).

MEMBERSHIP

- The American Mathematical Society (AMS).
- Associazione per la Matematica Applicata alle Scienze Economiche e Sociali (AMASES).

LANGUAGES

Italian, English.

COMPUTING SKILLS

Windows: Maple, LaTeX and Scientific Workplace.

SPORTS

Mountain Hiking, climbing and canoeing.

OTHER INTERESTS

Amateurial guitar playing.

REFERENCES

- Luigi Montrucchio, Honorary Fellow at Collegio Carlo Alberto, Via Real Collegio 30, 10024 - Moncalieri (Torino, Italy), and Professor of Economics at Università di Torino; email: luigi.montrucchio@unito.it.
- Tapan Mitra, Goldwin Smith Professor of Economics, Department of Economics, 448 Uris Hall, Cornell University, Ithaca, NY 14853 (USA); email: tm19@cornell.edu.

Updated May 6, 2016