Mikhail Anufriev

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Economics Discipline Group
UTS Business School
University of Technology, Sydney
PO Box 123 Broadway
NSW 2007 Australia

Tel: +61 2 9514 4078
+61 2 9514 7777 (secretariat)
Fax: +61 2 9514 7711
E-mail: Mikhail.Anufriev@uts.edu.au
m.anufriev@uva.nl

Main Research Interests

Learning and Bounded Rationality, Heterogeneous Agent Models, Experimental Economics, Nonlinear Dynamical Systems, Evolutionary Finance, Agent-Based Models

Current Position

from 01/2012 — **Senior Lecturer**
Economics Discipline Group, UTS Business School

Affiliations

from 02/2012 — **Research Associate**
Centre for Applied Macroeconomic Analysis (CAMA), Australian National University

from 01/2012 — **Research Fellow**
Center for Nonlinear Dynamics in Economics and Finance (CeNDEF), University of Amsterdam

from 07/2005 — **External Member**
Laboratory of Economics and Management, Sant'Anna School of Advanced Studies, Pisa, Italy

Previous Positions

05/2008 – 01/2012 — **Assistant Professor**
Faculty of Economics and Business, University of Amsterdam

08/2009 – 01/2012 — **Research Fellow**
Tinbergen Institute, the Netherlands

10/2005 – 04/2008 — **Post Doctoral Research Fellow**
Faculty of Economics and Business, University of Amsterdam

09/2001 – 07/2005 — **Graduate Researcher**
Sant'Anna School of Advanced Studies, Pisa, Italy

Education

09/2001 – 07/2005 — **Ph.D. in Economics**
Sant'Anna School of Advanced Studies, Pisa, Italy

09/2000 – 07/2001 — **MA in Economics** (with Honors)
Consortium for Research and Continuing Education in Economics (CORIPE Piemonte), Moncalieri (TO), Italy

09/1998 – 07/2000 — **MA in Economics** (with Honors)
European University at St.Petersburg, Russia

09/1993 – 07/1998 — **MSc in Mathematics** (with Honors)
St.Petersburg State University, Russia
Major: differential equations

Refereed Publications

1. “Evolutionary Selection of Individual Expectations and Aggregate Outcomes in Asset Pricing Experiments”, (with Cars Hommes), *American Economic Journal: Microeconomics*, forthcoming.
2. “Excess Covariance and Dynamic Instability in a Multi-Asset Model”, (with Giulio Bottazzi, Paolo Pin and Matteo Marsili), *Journal of Economic Dynamics & Control*, forthcoming in 2012.
3. “Interest Rate Rules and Macroeconomic Stability under Heterogeneous Expectations”, (with Tiziana Assenza, Cars Hommes and Domenico Massaro), *Macroeconomic Dynamics*, forthcoming.
4. “Evolutionary Selection of Expectations in Positive and Negative Feedback Markets”, (with Cars Hommes and Raoul Philipse), *Journal of Evolutionary Economics*, forthcoming in 2012.
5. “Asset Pricing with Heterogeneous Investment Horizons”, (with Giulio Bottazzi), *Studies in Nonlinear Dynamics & Econometrics*, forthcoming in 2012.
6. “Efficiency of Continuous Double Auctions under Individual Evolutionary Learning with Full or Limited Information”, (with Jasmina Arifovich, John Ledyard and Valentyn Panchenko), *Journal of Evolutionary Economics*, forthcoming in 2012.
7. “Evolution of Market Heuristic”, (with Cars Hommes), *Knowledge Engineering Review*, forthcoming in 2012.
8. “Market Equilibria under Procedural Rationality”, (with Giulio Bottazzi), *Journal of Mathematical Economics*, Vol. 46, pp. 1140-1172, 2010.
9. “Wealth-driven Selection in a Financial Market with Heterogeneous Agents”, (with Pietro Dindo), *Journal of Economic Behavior & Organization*, Vol. 73(3), pp. 327-358, 2010.
10. “Asset Prices, Traders’ Behavior and Market Design”, (with Valentyn Panchenko), *Journal of Economic Dynamics & Control*, Vol. 33, pp. 1073–1090, 2009.
11. “Wealth-Driven Competition in a Speculative Financial Market: Examples with Maximizing Agents”, *Quantitative Finance*, Vol. 8, pp. 363–380, 2008.
12. “Evolutionary Switching between Forecasting Heuristics: An Explanation of an Asset-Pricing Experiment” (with Cars Hommes), pp. 41-53 in K.Schredelseker and F.Hauser (ed.) *Complexity and Artificial Markets*, Springer-Verlag, Berlin, 2008.
13. “Equilibria, Stability and Asymptotic Dominance in a Speculative Market with Heterogeneous Agents” (with Giulio Bottazzi and Francesca Pancotto), *Journal of Economic Dynamics & Control*, Vol. 30, pp. 1787–1835, 2006.
14. “Heterogeneous Beliefs under Different Market Architectures” (with Valentyn Panchenko), pp. 269–282 in C.Bruun (ed.) *Advances in Artificial Economics*, Springer-Verlag, Berlin, 2006.
15. “Equilibrium Return and Agents Survival in a Multiperiod Asset Market: Analytic Support of a Simulation Model” (with Pietro Dindo), pp. 3–15 in C.Bruun (ed.) *Advances in Artificial Economics*, Springer-Verlag, Berlin, 2006.
16. “Noisy Trading in the Large Market Limit” (with Giulio Bottazzi), pp. 137–146 in P.Mathieu, B.Beaufils and O.Brandouy (ed.) *Artificial Economics*, Springer-Verlag, Berlin, 2006.

Other Publications

1. “Introduction to Special Issue on Complexity in Economics and Finance”, (with William Branch), *Journal of Economic Dynamics and Control*, Vol. 33, pp. 1019–1022, 2009.

2. “Speculative equilibria and asymptotic dominance in a market with adaptive CRRA traders” (with Giulio Bottazzi and Francesca Pancotto), in Proceedings of SPIE Conference “Noise and fluctuations in econophysics and finance”, vol. 5848, 2005.

Working Papers and Work in Progress

2012 “An experiment on fee structure and mutual fund choice” (with Te Bao, Angela Sutan and Jan Tuinstra), in preparation.

2011 “Individual evolutionary learning in the double auction market with full or limited information: Laboratory experiment” (with Jasmina Arifovic, John Ledyard and Valentyn Panchenko), in preparation.

2011 “Switching in heterogeneous agent models: Laboratory experiment” (with Te Bao and Jan Tuinstra), in preparation.

2010 “The Impact of Short-Selling Constraints on Financial Market Stability in a Model with Heterogeneous Agents” (with Jan Tuinstra), CeNDEF Working paper 10-03, University of Amsterdam.

Editorial Activity

co-editor of the special issue of the *Journal of Economic Dynamics and Control* on “Complexity in Economics and Finance”

Referee for:

Journal of Economic Dynamics & Control, *Journal of Economic Behavior & Organization*, *Macroeconomic Dynamics*, *Quantitative Finance*, *Journal of Evolutionary Economics*, *Journal of Macroeconomics*, *Studies in Nonlinear Dynamics & Econometrics*, *Industrial and Corporate Change*, *Computational Economics*, *Journal of International Financial Markets, Institutions and Money*, *Journal of Economic Interaction and Coordination*, *Eastern Economic Journal*, *The European Physical Journal B*, *Knowledge Engineering Review*, *Discrete Dynamics in Nature and Society.*

Public Service

2012- elected member of the Advisory Council of the Society for Computational Economics

2011 co-organizer of the 2011 Amsterdam Symposium on Behavioral and Experimental Economics with emphasis on Behavioral Finance and Learning in Macroeconomics.

2011-12 member of the program committee of the International Conference on Computing in Economics and Finance (organised by the Society of Computational Economics).

2010 member of the program committee of the ESHIA 2010 workshop (organised by Society for Economic Science with Heterogeneous Interacting Agents).

2005 - 2009 co-organizer of the weekly seminar series “Economics Colloquia” at the University of Amsterdam.

10/2007 co-organizer of the one-week workshop “Complexity in Economics and Finance” in Lorentz Center, Leiden.

2006 co-organizer of the biweekly seminar series “Institutions and Decision Analysis” at the Tinbergen Institute, Amsterdam.

Grants and Awards

01/2012 UTS Business School External Grant Submission Assistance Scheme, AUD $5,000$.

2011 Institute for New Economic Thinking grant "An International Network on Expectational Coordination" (coordinator R.Guesnerie, Paris School of Economics, EUR $62,500$, for 13 universities.

06/2011 Visiting Professor fellowship, LUISS University, Rome, Italy, EUR $4,000$.

04/2008 – 04/2011 FP7-SSH-2007-1.3.1 grant for European Union collaborative project "Polhia" (coordinator D. Delli-Gatti, UCSC, Milano), EUR $1,331,530$ for 6 Universities.

2009 Outstanding Referee award from the *Journal of Economic Dynamics & Control*, EUR 250.

11/2009 research grant of the Paul Woolley Centre for Capital Market Dysfunctionality at the University of Technology, Sydney, AUD $5,000$.

10/2007 grant to organize international research workshop at the Lorentz Center, Leiden, EUR $10,000$

11/2005 1st Student Price for the paper presented in 12th International Meeting ASCEG 2005, Aix-en-Provance, France, EUR $1,000$

09/2001 3-years full-time scholarship for the Ph.D. in Economics and Management, Sant' Anna School of Advanced Studies.

Teaching Experience

2012- University of Technology, Sydney:

- Bachelor of Business: *Fundamentals of Mathematical Economics* (1), *Economics for Business 2* (1).

2006 - 2011 University of Amsterdam:

- M.Phil. in Econometrics program: *General Equilibrium Theory* (1), *Bounded Rationality* (5), *Nonlinear Economic Dynamics* (2).
- BSc in Econometrics program: *Micro-Economics* (3), *Introductory Calculus* (3), *Introductory Linear Algebra* (1), *Intermediate Mathematics for Economists* (1), *Advanced Mathematics for Economists* (3).

2003 Sant'Anna School of Advanced Studies

- Ph.D. program: *Mathematics for Economists* (1),

Student Supervision

2006 - 2011 University of Amsterdam

- PhD students: 3 students (joint supervision, in progress)
- Master Theses: 2 students (main supervisor), 3 students (co-supervisor)
- Bachelor Theses: 10 students (sole and joint supervision)

Invited Seminars and Conference Presentations

2003 IWAMEM (International Workshop on Data Mining and Adaptive Modeling Methods for Economics and Management) in Porto, Portugal; Seminar at Scuola Superiore Sant'Anna, Pisa.

2004	WEHIA-2004 (Annual Workshop on Economics with Heterogeneous Interacting Agents), Kyoto, Japan; 10th International Conference on Computing in Economics and Finance, Amsterdam; Seminar at the University of Amsterdam.
2005	11th International Conference on Computing in Economics and Finance, Washington, USA; Workshop “Microscopic Stochastic Dynamics in Economics”, ZiF (Center for Interdisciplinary Research), Bielefeld, Germany; 20th Annual Congress of the European Economic Association (EEA), Amsterdam; Workshop on “Bubbles, Herding and Market Crushes”, Kiel, Germany; 12th International Meeting on Connectionist Approaches in Economics and Management, ASCEG 2005, Aix-en-Provance, France.
2006	12th International Conference on Computing in Economics and Finance, Limassol, Cyprus; Symposium on Agent-Based Computational Methods in Economics and Finance, Aalborg, Denmark; workshop on “Complex Markets” , Marseille, France; seminars at the University of Amsterdam, Scuola Superiore Sant’Anna, Pisa, and the Universitá Ca’ Foscari, Venice, Italy.
2007	15th Annual Symposium of The Society for Nonlinear Dynamics and Econometrics, Paris, France; 13th International Conference on Computing in Economics and Finance, Montreal, Canada; Workshop on “Statistical Physics and Financial Markets”, Trieste, Italy; Workshop on “Perspectives in Nonlinear Dynamics”, Trieste, Italy; Workshop on “Complexity in Economics and Finance”, Lorentz Center, Leiden; Workshop on “Agent-Based Modelling”, UNSW, Sydney; “Quantitative Methods in Finance” conference, UTS, Sydney; two seminars at the University of New South Wales, Sydney.
2008	Workshop on “Complex Markets” at the University of Warwick, UK; 14th International Conference on Computing in Economics and Finance, Paris, France; Symposium on Agent-Based Computational Methods in Economics and Finance, Innsbruck, Austria; Seminars at Scuola Superiore Sant’Anna, Pisa, the University of Amsterdam, and the Università Cattolica del Sacro Cuore, Milan, Italy.
2009	Worskshop in honour of Roger Guesneree at the Paris School of Economics; 15th International Conference on Computing in Economics and Finance, Sydney, Australia; Summer workshop at Stanford Institute for Theoretical Economics, USA; Workshop on Evolutionary Finance at Centro di Ricerca Matematica Ennio De Giorgi, Pisa; Annual conference for Capital Market Dysfunctionality at The Paul Woolley Centre, UTS, Sydney; Seminars at the University of Amsterdam and at the University of Technology, Sydney, Australia.
2010	11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, University of Amsterdam; Workshop on Interacting Agents and Nonlinear Dynamics in Macroeconomics, University of Udine, Italy; 16th International Conference on Computing in Economics and Finance, City University London, UK; Workshop on Expectations, Asset Bubbles and Financial Crises, Erasmus University Rotterdam; Seminars at the University of Amsterdam, at the Bank of Canada, at the Simon Fraser University, Vancouver, Canada, at the University of Florence, Italy and at the Ruhr-University of Bochum, Germany.
2011	International Conference on Nonlinear Economic Dynamics and Financial Market Modelling, Guangzhou, China; 17th International Conference on Computing in Economics and Finance, San Francisco, USA; GSDP Agent-based modeling workshop, Paris, France; POLHIA conference, Universitá Cattolica del Sacro Cuore, Milan, Italy; seminars at the University of Technology, Sydney and the New South Wales University.