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Present Position

Full Professor, Department of Economics and Business, Universitat Pompeu Fabra

Previous Positions

- 1999 – 2007: Professor, Department of Economics, European University Institute (EUI)
- 1998 – 1999: Lecturer (Privat Dozent), Economics Department, University of Bonn
- 1997 – 1998: Researcher (Wissenschaftlicher Assistent), Department of Economic Theory III, University of Bonn
- 1992 – 1997: Researcher (Wissenschaftlicher Mitarbeiter), Economics Department (funded by SFB 303), University of Bonn
- 1991: Lecturer, J. L. Kellogg Grad. School of Management, Northwestern University

Fields of Research

Choice without Priors. Applied to Learning, Pricing, Imitation and Nonparametric Statistics. In the fields of Game Theory, Industrial Organization, Microeconomics, Economic Theory and Statistics.

Education

- 1998: Habilitation in Economics, in particular Economic Theory (Volkswirtschaftslehre, insbesondere Wirtschaftstheorie)
Title of Thesis: *Justifying Imitation*, Readers: Georg Nöldeke, Avner Shaked, Title of Presentation: The Impact of Selling Information on Competition
- 1988 – 1992: Ph.D. in Managerial Economics and Decision Sciences,
Department of Managerial Economics and Decision Sciences, J. L. Kellogg Graduate School of Management, Northwestern University
Title of Thesis: *Learning and Evolution in Economic Theory*
Committee: Itzhak Gilboa (supervisor), Ehud Kalai, Roger Myerson, Asher Wolinsky
- 1982 – 1988: Studies in Mathematics with minor in Economics, Technical University of Munich, Degree: Diplom–Mathematiker

Teaching

Economic Theory (UPF, 2007, 2008)
Nonparametric Hypothesis Tests for Analyzing Experimental Data (LMU, Munich, 2008)
Economics of Information (UPF, 2008)
Industrial Organization (UPF, 2008, 2009)
Evolution, Imitation and Bounded Rational Learning (EUI, 2007)
Topics in Game Theory (EUI, 2006)
Models of Bounded Rationality and Learning (EUI, 2005)
Microeconomics (EUI, 2000 – 2006)
Advanced Microeconomics: Game Theory and Information Economics (EUI, 2002, 2004)
Evolutionary Game Theory (Bonn Graduate School of Economics, Univ. of Bonn, 2003)
Advanced Microeconomics: Game Theory and Strategic Decision-Making from the
 Perspective of Learning and Evolution (EUI, 2003)
Evolution and Imitation (Bilbao, 2001).
Evolutionary Microeconomics (EUI, 2000, 2001)
Mathematics for Economists (EUI, 1999)
Industrial Organization (University of Bonn, 1997, 1999)
Game Theory Tutorial (University Bonn, 1992 – 1997)
Seminar on Fairness (University Bonn, 1998, 1999)
Seminar on Evolutionary Game Theory (University of Bonn, 1992 – 1998)
Mathematical Methods for Management Decisions (J. L. Kellogg Graduate School of
 Management, Northwestern University, 1991)
Dynamic Optimization (Department of Managerial Economics and Decision Sciences,
 Northwestern University, 1990)

Supervised Theses (with Completion Date)

Essays on Communication and Learning, Mark Le Quement, EUI, 2009.

Cooperation in Repeated Games, Bounded Rational Learning and the Adoption of Evolving Technologies, Javier Rivas, 2008.

Behind the Scenes of Globalization: Strategic Trade Policy, Firm Decisions and Worker Expectations, Itai Agur, 2008 (article based on chapter won the 2008 Arrow Prize for Junior Economists).

Three Implications of Learning Behaviour for Price Processes, Matthias Rau, EUI, 2007.

Coordination, Expectations and Crises, Sanne Zwart, EUI, 2007.

Essays on Dynamic Social Economics, Leonardo Boncinelli, Sienna, 2007.

Bargaining and Human Sociality: An Experimental Economic Approach, Stefan Kohler, EUI, 2007.

Three Essays on Game Theory and Social Choice, Andrea Gallice, EUI, 2007.

Sovereign Debt Crises: on Causes and Remedies, Aitor Erce Dominguez, EUI, 2007.

Three Essays on Game Theory and Social Choice, Marco Galbiati, EUI, 2007.

On Asymmetric Information and Health, Martin Karlsson, EUI, 2007.

Linking, Bidding and Merging: Strategic Choices in Microeconomics, Filippo Vergara Caffarelli, EUI, 2006.

On Electricity Markets, Mergers and Financial Assets, Fernando Dominguez-Iniguez, EUI, 2006.

Multinational Entry and Host-Country Effects, Stefanie Haller, EUI, 2005.

Strategic Information Transmission, Jochen Schanz, EUI, 2005.

Essays on Trust and Program Evaluation, Fabian Bornhorst, EUI, 2004.

On Political Coalitions and on Equitable Allocations of Indivisible Goods, Stefan Imhof, EUI, 2004.

The Effect of Unemployment Insurance and Ageing on Residential Mobility and Labour Market Dynamics, Konstantinos Tatsiramos, EUI, 2004.

Vertical Integration, Information Flow, and Firewalls, Valanta Milliou, EUI, 2003.

Markets with Imperfection: Essays on Bargaining and Search, Juana Santamaria-Garcia, EUI, 2003, won 2004 Louis-Andret Gerard-Varet Prize for the Best Doctoral Research in the ASSET Network.

Three Essays on Collusion and Mergers, Helder Vasconcelos, EUI, 2002.

Essays on Decentralized Economies with Interacting Agents: Individual Behaviors and Aggregate Dynamics, Giorgio Faggiolo, EUI, 2002.

Essays on Customer Loyalty and on the Competitive Effects of Frequent-Flyer Programmes, Pedro Fernandes, EUI, 2001.

Learning and Price Behavior: Microeconomic and Macroeconomic Implications, Klaus Adam, EUI, 2001.

Mergers and Information, Ines Cabral, EUI, 2001.

Essays on R&D-Races and Cournot Oligopoly, Steffen Hoernig, EUI, 2000.

Research Grants, Scholarships and Stipends

Social and Economic Networks, joint research project between Economics, History, Law, Political Science, co-initiator and coordinator, 53000 €, 2002.

Learning Rules, Evolution and Local Interaction, Sonderforschungsbereich SFB 303, Project B6, University of Bonn, board member, 2.6 Mio DM per annum, 1992–1996.

Tuition Scholarship, J. L. Kellogg Graduate School of Management, 1991/1992.

Fellowship Stipend, J. L. Kellogg Graduate School of Management, 1988–1991.

University Scholar, J. L. Kellogg Graduate School of Management, 1988–1991.

Organized Workshops

Minimax Regret and Related Concepts, EUI, 2007.

Regret, North American Summer Meeting of the Econometric Society, Organizer of Invited Session, Minneapolis, 2006.

Learning and Bounded Rationality in Markets, EUI, 2001.

Evolutionary Microeconomics, EUI, 2000.

Invited Conference and Workshop Presentations

“Regret”, Organizer of Invited Session, Econometric Society European Meeting, Barcelona, 2009.

“Solving a Nonparametric Behrens-Fisher Problem”, Workshop of Working Group on Nonparametric Methods of the German Region of the International Biometrical Society, Dortmund, 2008.

“Minimax Regret and Strategic Uncertainty”, 5th National Meeting of the Italian Association for the History of Economics, STOREP, LUISS, Rome, 2008.

“Pricing without Priors”, 22nd Annual Congress of the European Economic Association, Budapest, August 2007.

“Eleven - Designing Randomized Experiments for Choosing Treatments”, North American Summer Meetings of the Econometric Society, as organizer of session, Minneapolis, 2006.

“Robust Monopoly Pricing – The Case of Regret”, Society for the Advancement of Economic Theory, Baiona, 2005.

“Competing for Boundedly Rational Consumers”, Workshop on Behavioral Models of Economics and Finance, Zürich, 2004.

“Trust and Trustworthiness among Europeans: South-North Comparison”, Workshop on Social Economics, Edinburgh, 2004.

“Competing for Bounded Rational Consumers”, Session on Learning and Economic Behavior, Wintermeeting of the American Economic Association, San Diego, 2004.

“How to Minimize Maximum Regret in Repeated Decision-Making”, Semi Plenary Speaker, International Conference on Operations Research, Tilburg, 2004.

“Imitation and Regret”, Workshop on Imitation, London, 2003.

“How to Decide as a Boundedly Rational Agent”, Workshop on Learning, University of Copenhagen, 2001.

“How to Choose: A Boundedly Rational Approach to Repeated Decision Making”, Workshop on Game Theory and Applications, UECE/ISEG, Lisbon, 2001.

“Sophisticated Imitation in Cyclic Games”, Conference on Economic Models of Evolutionary Dynamics and Interacting Agents, The Abdus Salam International Centre for Theoretical Physics, Trieste, 1998.

“Updating Strategies Through Observed Play – Optimization Under Bounded Rationality”, European Economic Association, Twelfth Annual Congress, Toulouse, 1997.

“Loss of Commitment? An Evolutionary Analysis of Bagwell's Example”, Warwick Summer Research Workshop on Dynamic Games and their Economic Applications, Warwick, 1996.

“On the Evolution of Imitative Behavior”, Summer Workshop on Microeconomic Theory, Northwestern University, Evanston, 1996.

“On the Evolution of Imitative Behavior”, Social Learning Workshop, The Seventh Stony Brook Summer Festival on Game Theory, Stony Brook, 1996.

“Game Theory – Foundations of Society's Interest Puzzle”, System Conditions for Survival of Humanity, Second Future Workshop, German Society of the Club of Rome, Berlin, 1996.

“Why Imitate, and if so, How? Exploring a Model of Social Evolution”, European Economic Association, Ninth Annual Congress, Maastricht, 1994.

Other Presentations at Conferences

Annual Meeting of the German Economic Association (Gesellschaft für Wirtschafts- und Sozialwissenschaften – Verein für Socialpolitik, Kassel, 1996, Rostock, 1998, Berlin, 2000, Innsbruck, 2002, Zürich, 2003, Dresden, 2004, Bonn, 2005). Dynamic Evolutionary Game Theory in Biology and Economics (Waterloo, 1995). Game Theory, Experience, Rationality, Foundations of the Social Sciences, Economics and Ethics, An International Symposium in Honor of John C. Harsanyi (Institut Wiener Kreis, Vienna, 1996). Econometric Society European Meeting (Maastricht, 1994, Istanbul, 1996, Berlin, 1998, Santiago de Compostella, 1999, Lausanne, 2001, Stockholm, 2003, Madrid, 2004, Vienna, 2006, Budapest, 2007). European Economic Association (Berlin, 1998, Santiago de Compostella, 1999, Lausanne, 2001, Madrid, 2004, Amsterdam, 2005, Vienna, 2006, Milan, 2008). Summer in Tel-Aviv 1993. International Conference on Game Theory (Stony Brook, 1994, 1999, 2001, 2003, 2005, 2006). 16th Symposium on Operations Research (Trier, 1991), World Congress of the Econometric Society (Seattle, 2000,

London, 2005), World Congress of the Game Theory Society (Bilbao, 2000, Marseille, 2004, Evanston, 2008).

Invited Talks at Research Seminars

Basel. Bern. Bielefeld. Bonn. CentER for Economic Research. C.O.R.E. DELTA. Dortmund. Humboldt–University Berlin. Industriens Utrednings Institute, Stockholm. Karlsruhe. Mannheim. Pompeu Fabra. Queen Mary, University of London. Stockholm. Tilburg. University College London. University of Guelph. Utrecht. Vienna. Wilfrid Laurier University.

Editorial Positions

Member of editorial board, *Mathematical Social Sciences*, 2003 - 2007

Committee Memberships

Member of Program Committee, Summer Meeting of European Economic Association 2008, 2009.

External member, Habil-Kommission, Ulrich Berger, Wirtschaftsuniversität Wien, 2006.

Referee, Definitivstellungsverfahren, Ulrich Berger, Wirtschaftsuniversität Wien, 2005.

External member, Habil-Kommission, Carlos Alos-Ferrer, University of Vienna, 2004.

Member of Program Committee, Yearly Meeting of the Verein für Socialpolitik, 2004.

Other Professional Activities

Junior hiring committee Microeconomics, UPF (2007). Chairman of the Exam committee at the EUI (2004 - 2006). Coordinator of Admissions to the EUI (2002, 2003). Co-author, five year self-evaluation report of the Department of Economics, EUI, 2000. Member of the Econometric Society, of the German Economic Association (Verein für Socialpolitik) and of the European Economic Association.

Referee for *American Economic Review*, *Annals of Operations Research*, *Complexity*, *Econometrica*, *Games and Economic Behavior*, *International Journal of Game Theory*, *Israel Science Foundation*, *Journal of Economic Behavior and Organization*, *Journal of Economic Theory*, *Journal of Economics/ Zeitschrift für Nationalökonomie*, *Journal of Evolutionary Economics*, *Journal of Public Economics*, *National Science Foundation of the United States*, *Review of Economic Studies*, *Sociological Methods and Research*, *Southern Economic Journal* and *Zeitschrift für Wirtschafts- und Sozialwissenschaften*.

Publications

Pricing without Priors, (joint with Dirk Bergemann), *J. EEA* **6(2-3)** (2008), 560-569.

Imitation and Social Learning (joint with Carlos Allos Ferrer), chapter in *Handbook of Rational and Social Choice*, P. Anand, P. Pattanaik and C. Puppe (eds.), Oxford University Press (2007, forthcoming).

Choice under Complete Uncertainty when Outcome Spaces are State-Dependent (joint with Clemens Puppe), *Theory and Decision* (2007, forthcoming, available online)

On the evolutionary selection of sets of Nash equilibria (joint with Dieter Balkenborg), *Journal of Economic Theory* **133(1)** (2007), 295–315.

“An Evolutionary Theory of Inflation Inertia,” (joint with Omar Licandro, Alexis Anagnostopoulos, und Italo Bove), *J. EEA*, **5(2-3)** (2007), 433–443.

Evolutionäre Spieltheorie (Evolutionary Game Theory, text in German), *Handbook of Evolutionary Economics*, Vol. II Chapter 2, forthcoming.

Evolutionary Insights on the Willingness to Communicate (joint with Sjaak Hurkens), *International Journal of Game Theory* **31(4)** (2003), 511–526.

Extensive Form Bandits (joint with Ross Cressman), *The Dynamics of Extensive Form Evolutionary Games*, Chapter 8.4, MIT Press, 2003.

Evolutionarily Stable Sets (joint with Dieter Balkenborg), *International Journal of Game Theory* **29(4)** (2001), 571–595.

Group Report: Why and When Do Simple Heuristics Work? (joint with D. Goldstein, G. Gigerenzer, R. Hogarth, A. Kacelnik, Y. Kareev, G. Klein, L. Martignon und J. Payne), *Bounded Rationality: The Adaptive Toolbox*, Gigerenzer, G. & Selten, R. (Eds.), Cambridge, MA: MIT Press, 2001.

Sophisticated Imitation in Cyclic Games (joint with Josef Hofbauer), *Journal of Evolutionary Economics*, **10(5)** (2000), 523–543.

Does Noise Undermine the First-Mover Advantage? An Evolutionary Analysis of Bagwell's Example (joint with Jörg Oechler), *International Game Theory Review*, **2(1)** (2000), 83–96.

Social Roles as an Effective Learning Mechanism (joint with Gregory Pollock), *Rationality and Society* **11(4)** (1999), 371–397.

Which One Should I Imitate? *Journal of Mathematical Economics* **31(4)** (1999), 493–522.

On the Dynamic (In)Stability of Backwards Induction (joint with Ross Cressman), *Journal of Economic Theory* **83** (1998), 260–285.

Why Imitate, and if so, How? A Boundedly Rational Approach to Multi-Armed Bandits, *Journal of Economic Theory* **78(1)** (1998), 130–156.

You Play (An Action) Only Once (joint with Aner Sela), *Economics Letters* **59(3)** (1998), 299–303.

Book review, Samuelson, L.: *Evolutionary Games and Equilibrium Selection*, MIT Press, Cambridge, Mass., 1997, *Journal of Economics / Zeitschrift für Nationalökonomie* **68(1)** (1998), 86–88.

Book review, Weibull, J.W.: *Evolutionary Game Theory*, MIT Press, Cambridge, Mass., In: *Journal of Economics / Zeitschrift für Nationalökonomie* **64(1)** (1996), 113–115.

Working Papers

From Ordinals to Optimization: Substitution Effects without Differentiability (joint with Ludovic Renou), SSRN Working Paper.

Decision Making in Uncertain and Changing Environments (joint with Andriy Zapechelnyuk), Working Paper **1160**, Department of Economics and Business, Universitat Pompeu Fabra, 2009.

Can Sanctions Induce Pessimism? An Experiment, Working Paper **1150**, Department of Economics and Business, Universitat Pompeu Fabra, 2009.

A New Method for Constructing Exact Tests without Making any Assumptions, Working Paper **1109**, Department of Economics and Business, Universitat Pompeu Fabra, 2008.

Bringing Game Theory to Hypothesis Testing: Establishing Finite Sample Bounds on Inference, Working Paper **1099**, Department of Economics and Business, Universitat Pompeu Fabra, 2008.

Exact Tests for Correlation and for the Slope in Simple Linear Regressions without Making Assumptions, Working Paper **1097**, Department of Economics and Business, Universitat Pompeu Fabra, 2008.

Minimax Regret and Strategic Uncertainty, Working Paper **1087**, Department of Economics and Business, Universitat Pompeu Fabra, 2008.

Decision Makers Facing Uncertainty: Theory versus Evidence (joint with Paolo E. Giordani and Sanne Zwart), Working Paper **ECO 2007/27**, European University Institute, 2007.

How to Attain Minimax Risk with Applications to Distribution-Free Nonparametric Estimation and Testing, Working Paper **ECO 2007/4**, European University Institute, 2007.

Distribution-Free Learning, Working Paper **ECO 2007/1**, European University Institute, 2006.

Minimax Regret in Practice - Four Examples on Treatment Choice (joint with Patrick Eozenou und Javier Rivas), Mimeo, 2006.

Designing Non-Parametric Estimates and Tests for Means, Working Paper **ECO 2006/26**, European University Institute, 2006 (newer version with most results in 2007/4)

Eleven – Tests needed for a Recommendation, Working Paper **ECO 2006/2**, European University Institute, 2006.

Robust Monopoly Pricing: The Case of Regret, Working Paper **ECO 2005/10**, European University Institute, 2005.

Trust and Trustworthiness among Europeans: South-North Comparison, joint with Fabian Bornhorst, Andrea Ichino and Eyal Winter, Mimeo, 2005.

Competing for Boundedly Rational Consumers, Mimeo, 2004.

Imitation and Minimax Regret, Mimeo, 2004.

How to Minimize Maximum Regret in Repeated Decision-Making , Mimeo, 2003.

The Impact of Selling Information on Competition, Working Paper **ECO 2000/6**, European University Institute, 2000.

Updating Strategies Through Observed Play – Optimization Under Bounded Rationality, joint with Ross Cressman, Discussion Paper No. **B-432**, Sonderforschungsbereich 303, University of Bonn, 1998.

On the Evolution of Imitative Behavior, joint with Jonas Björnerstedt, Discussion Paper No. **B-378**, Sonderforschungsbereich 303, University of Bonn, 1996.

Dynamic Stability in Perturbed Games, joint with Ross Cressman, Discussion Paper No. **B-321**, Sonderforschungsbereich 303, University of Bonn, 1994.

When does Evolution lead to Efficiency in Communication Games?, Discussion Paper No. **B-299**, Sonderforschungsbereich 303, University of Bonn, 1994.

Evolution in Partnership Games, an Equivalence Result, Discussion Paper No. **B-298**, Sonderforschungsbereich 303, University of Bonn, 1994.

Dynamic Stability in the Repeated Prisoners' Dilemma Played by Finite Automata, Discussion Paper No. **B-243**, Sonderforschungsbereich 303, University of Bonn, 1993.

Cheap Talk and Evolutionary Dynamics, Discussion Paper No. **B-242**, Sonderforschungsbereich 303, University of Bonn, 1993.

Bounded Perception and Learning How to Decide, Discussion Paper No. **972**, The Center for Mathematical Studies in Economics and Management Science, Northwestern University, 1991.

Evolutionary Stability in Games with Equivalent Strategies, Mixed Strategy Types and Asymmetries, Discussion Paper No. **912**, The Center for Mathematical Studies in Economics and Management Science, Northwestern University, 1990.

References

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