

Tilman Börgers
Curriculum Vitae

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Date of Birth: 1959

Place of Birth: Oberhausen, Germany

Citizenship: German, US permanent resident

Family: Married, two children.

1. Education

Habilitation, Universität Basel, 1993.

PhD in Economics, London School of Economics, 1987.

Diplom Volkswirt, Universität Köln, 1983.

2. Employment

Current Position:

Professor of Economics, and Samuel Zell Professor of the Economics of Risk, University of Michigan, since 2005.

Past Positions:

Professor of Economics, University College London, 1996 - 2005.

Reader in Economics, University College London, 1993 - 1996.

Lecturer in Economics, University College London, 1991 - 1993.

Assistant, Universität Basel, 1987 - 1991.

Visiting Positions:

Visitor, Center for Mathematical Studies in Economics and Management Science, Northwestern University, May 5-9, 2009.

Visiting Professor, Institute for Advanced Studies, Vienna, June 2006.
Visiting Scholar, Princeton University, January 1998 – June 1998.
Visitor, Institut d'Anàlisi Econòmica, Barcelona, April 1996 – May 1996.
Visiting Lecturer, Indira Gandhi Institute for Development Research, Bombay, December 1995.
Visiting Lecturer, Institute for Advanced Studies, Vienna, May 1995 – June 1995.
Visitor, Indian Statistical Institute, New Delhi, December 1994 – January 1995.
Visiting assistant professor of economics, University of California, San Diego, September 1990 – August 1991.

3. Editorial Positions

The B.E. Journals in Theoretical Economics (since 2004: Member of the Editorial Board).
Games and Economic Behavior (since 2004: Member of the Editorial Board).
Mathematical Social Sciences (1998 - 2003: Member of the Editorial Board).
Review of Economic Studies (1992 – 1994: Assistant Editor, 1994 – 1995: Managing Editor, 1995 – 2001: Member of the Editorial Board).
Ricerche Economiche (1996 - 2001: Associate Editor).

4. Publications

Books:

1. *An Introduction to the Theory of Mechanism Design*, manuscript (I am about to accept an offer from *Oxford University Press* for publication of this book).

Refereed Journal Articles:

1. Efficient Compromising (with Peter Postl), *Journal of Economic Theory* 144 (2009), 2057-2076.
2. A Note on Budget Balance under Interim Participation Constraints: The Case of Independent Types (with Peter Norman), *Economic Theory* 39 (2009), 477-489.
3. Information Invariant Equilibria of Extensive Games (with Timothy McQuade), *The B.E. Journal of Theoretical Economics (Contributions)*, Vol. 7 (2007), Article 42.
4. Strange Bids: Bidding Behaviour in the United Kingdom's Third Generation Spectrum Auction, *Economic Journal*, 115 (2005), 551-578 (with Christian Dustmann). [This paper was awarded the prize for the best paper in the *Economic Journal* in 2005.]
5. Costly Voting, *American Economic Review* 94 (2004), 57 - 66.
6. Expedient and Monotone Learning Rules, *Econometrica* 72 (2004), 383 – 405 (with Antonio Morales and Rajiv Sarin).
7. Awarding Telecom Licenses: The Recent European Experience, *Economic Policy* 36 (2003), 216-268 (with Christian Dustmann).

8. Rationalizing the UMTS Spectrum Bids: The Case of the UK Auction, *Ifo Studien* 48 (2002), 77 - 109 (with Christian Dustmann). [Reprinted in: Gerhard Illing and Ulrich Klüh (editors), *Spectrum Auctions and Competition in Telecommunications*, Cambridge: MIT Press, 2003, 119 - 157.]
9. The British UMTS Auction: A Response to Klemperer and Schmidt, *Ifo Studien* 48 (2002), 121 - 122 (with Christian Dustmann).). [Reprinted in: Gerhard Illing and Ulrich Klüh (editors), *Spectrum Auctions and Competition in Telecommunications*, Cambridge: MIT Press, 2003, 171 - 172.]
10. Naïve Reinforcement Learning With Endogenous Aspirations, *International Economic Review* 41 (2000), 921 - 950 (with Rajiv Sarin).
11. Is Internet Voting a Good Thing?, *Journal of Institutional and Theoretical Economics* 156 (2000), 531-547.
12. Learning Through Reinforcement and Replicator Dynamics, *Journal of Economic Theory* 77 (1997), 1-14 (with Rajiv Sarin).
13. On the Relevance of Evolution and Learning to Economic Theory, *Economic Journal* 106 (1996), 1274 – 1385.
14. On the Dominance Solvability of Large Cournot Games, *Games and Economic Behavior* 8 (1995), 297 – 321 (with Maarten Janssen).
15. Weak Dominance and Approximate Common Knowledge, *Journal of Economic Theory* 64 (1994), 265 – 276.
16. Pure Strategy Dominance, *Econometrica* 61 (1993), 423 – 430.
17. 'Cautious' Utility Maximization and Iterated Weak Dominance, *International Journal of Game Theory* 21 (1992), 13 – 25 (with Larry Samuelson).
18. Iterated Elimination of Dominated Strategies in a Bertrand-Edgeworth Model, *Review of Economic Studies* 59 (1992), 163 – 176.
19. Undominated Strategies and Coordination in Normalform Games, *Social Choice and Welfare* 8 (1991), 65 – 78.
20. Upper Hemicontinuity of the Correspondence of Subgame-Perfect Equilibrium Outcomes, *Journal of Mathematical Economics* 20 (1991), 89–106.
21. Perfect Equilibrium Histories of Finite and Infinite Horizon Games, *Journal of Economic Theory* 47 (1989), 218–227.

Contributions to Books:

1. Complexity Constraints and Adaptive Learning: An Example, in: S. Huck (editor), *Advances in Understanding Strategic Behaviour: Game Theory, Experiments, and Bounded Rationality: Essays in Honour of Werner Güth*, Basingstoke: Palgrave, 2004 (with Antonio Morales).
2. Auction Theory for Auction Design, in: M. Janssen (editor), *Auctioning Public Assets*, Cambridge: Cambridge University Press, 2003, 19-63 (with Eric van Damme).
3. The Design of Treasury Bond Auctions: Some Case Studies, in: M. Janssen (editor), *Auctioning Public Assets*, Cambridge: Cambridge University Press, 2003, 230-256 (with Joe Swierzbinski).
4. When Does Learning Lead to Nash Equilibrium?, in K. Inderfurth et al. (editors), *Operations Research Proceedings 1999*, Berlin etc.: Springer Verlag, 2000, 176-202.

5. Comments on Economics and Language, in: A. Rubinstein, *Economics and Language*, Cambridge: Cambridge University Press, 2000, 108 - 113.
6. Game Theory (Economic Applications), in: A. Kuper and J. Kuper (editors), *The Social Science Encyclopedia* (2nd edition), London: Routledge, 1996, p. 325. Revision forthcoming in the 3rd edition.
7. A Note on Implementation and Strong Dominance, in: W. Barnett, H. Moulin, M. Salles and N. Schofield (editors), *Social Choice, Welfare and Ethics*, Cambridge: Cambridge University Press, 1995, 277 - 287.

Book Reviews:

1. Review of Michael Chwe, “Rational Ritual - Culture, Coordination and Common Knowledge”, *Economica* 71 (2004), 689 - 691.
2. Recent Books on Evolutionary Game Theory, *Journal of Economic Surveys* 15 (2001), 237 - 250.
3. Review of Bacharach et. al. (editors), “Epistemic Logic and The Theory of Games and Decisions”, *Journal of Economic Literature* 37 (1999), 669 – 671.
4. Recent Textbooks on Game Theory, *Journal of Economic Surveys* 8 (1994), 83 – 98.

Working Papers:

1. Equilibrium Bids in Sponsored Search Auctions: Theory and Evidence (with Ingemar Cox, Martin Pesendorfer and Vaclav Petricek), revision invited, *American Economic Journal: Microeconomics*.
2. When Are Signals Complements or Substitutes? (with Angel Hernando-Veciana and Daniel Krähmer).
3. Dynamic Mechanism Design with Costly Participation (with Katalin Bognar and Moritz Meyer-ter-Vehn).

5. Current Research

Robustness in mechanism design and auctions. Game Theory.

6. Research Grants

1. National Science Foundation grant for the “Socio-Technical Infrastructure for Electronic Transactions” program at the University of Michigan (joint with six other principal investigators), 2007-2012, \$3,000,000.
2. Economic and Social Research Council (ESRC), research grant RES-000-23-0201 for research on “Quantitative Methods for Behavioural Mechanism Design”, 2003 – 2006, approximately £150,000 (jointly held with Steffen Huck and Hide Ichimura).
3. ESRC conference grant RES-451-26-0010 for conferences on “Game Theory and Applications”, 2003-2005, approximately £15,000 (jointly held with Bhaskar Dutta and V. Bhaskar).

4. ESRC center grant for the *Centre for Economic Learning and Social Evolution* at University College London, 1995 - 2005, approximately £450,000 per year (this grant was jointly held with colleagues at University College London; I was director of the center 2001 - 2005).
5. ESRC conference grants R45126448496 and R45126477098 for conferences on “Game Theory”, 1997 – 2000, approximately £26,000 (joint with Murali Agastya and Martin Cripps).
6. ESRC research grant R000235526 for research on “Learning Processes in Game Theory”, 1994 – 1996, approximately £40,000.
7. Schweizerischer Nationalfonds, 1990 – 1991, grant for a one year visit to the economics department of the “University of California at San Diego” approximately £25,000.

7. Presentations

Invited Conference Presentations:

Invited Lecture at conference on mechanism design, Barcelona, 2001.
 Invited Lecture at the Annual Meeting of Germany’s Society for Operations Research, Magdeburg, 1999.
 Invited Talk at the 10 Year Anniversary Symposium of CenTER, Tilburg, 1998.
 Discussant of Jorgen Weibull’s plenary lecture at the European Meeting of the Econometric Society, Toulouse, 1997.
 Invited lectures on evolutionary game theory at the Easter School of the Royal Economic Society, 1997.
 Discussant of Ariel Rubinstein’s “Churchill Lectures”, Churchill College, Cambridge, 1996.

Talks:

2009: University of Bonn.
 2008: NYU, North Carolina, Texas A&M, Northwestern, Game Theory World Congress, Brown University (NBER/NSF conference on general equilibrium theory and mathematical economics)
 2007: Columbia, Boston University, Duke (Econometric Society), Budapest (Econometric Society), Harvard/MIT, Rice, Texas.
 2006: Vienna, Michigan State, Michigan (inaugural lecture, STIET seminar).
 2005: Michigan, York, Bonn (Max Planck Institute, and Economics Department), Bern, Illinois (Decentralization Conference), Gerzensee (CEPR theory workshop), Penn State.
 2004: UCL (Aadal Park seminar series), Dundee, London Business School (Conference on Spectrum Trading), Cambridge (Communications Innovation Institute Launch), Essex (Theory Conference), Warwick (Game Theory Conference), Vienna (Workshop on Voting), Columbia Business School (Conference on Spectrum Management).

2003: Washington (Annual Meeting of the American Economic Association) Kiel (Workshop on Information and Network Industries), Birmingham (Economic Theory Mini-Conference.)

2002: UCL (Computational Neuroscience Unit), Radiocommunications Agency, Newcastle (Scotland-Newcastle Economic Theory Group), University of Arizona (Tucson), University of British Columbia, Alicante.

2001: Essex, Northwestern, Mannheim, Copenhagen, Lausanne (European Economic Association), Cornell, UCL, Oxford, Munich, Brussels (Auction Workshop), Munich (CES/Ifo workshop), London Business School.

2000: UCL, Tilburg, Dortmund, Royal Holloway College, Harvard/MIT.

8. PhD Students

At Michigan:

As committee chair:

Doug Smith, *Robust Mechanism Design*.

Katalin Bogнар, *Essays on Costly Voting*, 2008.

As committee member:

Shrutivandana Sharma, (Electrical Engineering and Computer Science), *Decentralized Resource Allocation in Networks and Multi-Agent Systems*.

Johannes Urpelainen (political science), *Distributional Conflict in International Cooperation* (political science), 2009, now at Columbia University.

Thomas Chadeaux (political science), *Negotiating Power*, 2009, now at Rochester University.

At University College London:

Martin Bøg, *Endogenous Social Interactions*, 2006, now at Erasmus University Rotterdam.

Pedro Rey, *Psychology, Economics and Incentives*, 2005, now at Universitat Autònoma de Barcelona (joint supervision with Steffen Huck).

Peter Postl, *Mechanism Design for Information Acquisition*, 2004, now at the University of Birmingham.

Angel Hernando, *Essays on Auction Theory*, 2000, now at the University of Carlos III, Madrid.

Antonio Morales, *Learning, Imitation, and Economic Rationality*, 1999, now at the University of Malaga.

Nir Vulkan, *Uncertainty, Information Acquisition, and Economic Equilibria*, 1996, now at the Said Business School (Oxford), (joint supervision with Ken Binmore).

Antonella Ianni, *Interaction Patterns, Learning Processes, and Equilibria in Population Games*, 1996, now at the Universities of Southampton.

9. Teaching

At Michigan:

Undergraduate course in Intermediate Microeconomic Theory, Contract Theory, and Economics of Information.

Graduate courses in Game Theory and Mechanism Design.

At University College London:

Undergraduate courses in Game theory, Microeconomics, and Mathematics for Economists.

Undergraduate course unit in Economic Policy Analysis.

Graduate courses (MSc Level) in Game theory and Microeconomics.

Graduate courses (PhD Level) in Game Theory.

10. Professional Activities

Refereeing:

Since 1 May 2008 I have refereed for the following journals and institutions: *American Economic Review*, *Econometrica*, *Games and Economic Behavior*, *Journal of Economic Theory*, *Journal of the European Economic Association*, *Journal of Law, Economics and Organization*, *Quarterly Journal of Economics*, *The Review of Economic Studies*, *Theoretical Economics*.

Conference Organization:

Member of the program committee, Fifth Workshop on Ad Auctions (in conjunction with the ACM Conference on Electronic Commerce), Chicago, 2008

Member of the Programme Committee, fifth conference on economic design, 2008.

Program chair for the Midwest Economic Theory meetings, Ann Arbor, November 2007.

Co-organizer of a conference on the occasion of Ken Binmore's 65th birthday, London, 2005.

Member of the Programme Committee, World Congress of the Econometric Society, 2005.

Co-organizer of the ESRC Research Seminars in Game Theory 2003 – 2005.

Member of the Programme Committee, European Meeting of the Econometric Society, 1996, 1997, 1998, 2001, 2002.

Member of the Programme Committee, Annual Meeting of the European Economic Association, 2001.

Co-founder and Co-organizer of the ESRC Research Seminars in Game Theory 1997 – 2000.

Co-organizer of a workshop on auction theory and applications, London, 1996.
Co-organizer of the ENTER-meeting, London, 1995.

External Member of Appointment and Promotion Committees for Professor Positions:

University of Warwick (2004), University of Nottingham (2004), University of Warwick (2002), University of East Anglia (2000).

External Examination of Degree Courses:

External Examiner, University of Essex, BSc in Mathematics, Operations Research and Economics, 1991 – 1994.

External Examiner, Birkbeck College, University of London, MSc in Economics, 1996 – 2000.

External Examination of PhD Theses:

Alex Possajennikov, Tilburg University, 2000.

Isabella Imperato, Birkbeck College, University of London, 1997.

David Squires, Oxford University, 1996.

Sjaak Hurkens, Tilburg University, 1995.

11. Consulting

Advice to Frontier Economics on a spectrum auction in Singapore, 2007.

Advice to the British Horseracing Board, 2004.

Advice regarding the Nuon/Reliant merger (with NERA), 2003/2004.

Advice to ISO New England, The New York ISO and PJM Interconnection on capacity markets (with NERA), 2003.

Advice to a private client on competition policy issues, 2003.

Advice to the Office for Gas and Electricity Markets (UK) on auctions for long-term entry capacity to the gas transmission system, 2002.

Advice on secondary trading of radio spectrum for the Radiocommunications Agency (UK) (with NERA), 2002.

Advice on the design of a UMTS auction to the government of Latvia (with NERA), 2002.

Advisor to the Dutch government regarding allocation mechanisms (with a team of academics at the University of Rotterdam), 2001.

Foreign expert for the Dutch parliament's review of the Dutch UMTS auction, 2001.

Advice to the Radiocommunications Agency (UK) on the design of a UMTS spectrum auction, 1997-2000.

Advice to the government of Peru about the sale of telecommunications licenses, Lima, Peru, 1996.

Evaluation of the research programme on “Economic Beliefs and Behaviour” for the Economic and Social Research Council, 1999.

12. University Administration

Member, Executive Committee of the STIET program, Michigan, 2007-present.

Member, Graduate Program Committee, Economics Department, Michigan, 2008/9.

Member, Graduate Admissions Committee, Economics Department, Michigan, 2007/8.

Member, Executive Committee, Economics Department, University of Michigan, 2005-2007.

Chair of a tenure review panel, University of Michigan, 2006.

Director, Centre for Economic Learning and Social Evolution, 2002 – 2005.

Acting Director, Centre for Economic Learning and Social Evolution, 2001 – 2002.

Deputy Scientific Director, Centre for Economic Learning and Social Evolution, 1998 – 2001.

Chair, Departmental Sub-Committee for Senior Appointments in Economic Theory, Economics Department, University College London, 1998 – 2000, and 2002 - 2003.

Chair, Departmental Graduate Committee, Economics Department, University College London, 2000-2002.

Chair, Departmental Tenure and Promotions Committee, Economics Department, University College London, 1996 – 1999.