

Colin Rowat

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Employment

Senior Lecturer in Economics, University of Birmingham	2015 – present
Lecturer in Economics, University of Birmingham	2001 – 2015
Director, MSc in Mathematical Finance	
Chair, University Research Computing Management Committee	
Member, University IT Infrastructure Group	
Member, Academic IT Reference Group	
Departmental careers link	
Departmental alum officer	
Adjunct Assistant Professor of Economics, NYU	2001

Education

Certificate in Advanced Risk and Portfolio Management, Baruch College	2009
Director: Attilio Meucci	
Ph.D. Economics, University of Cambridge	2001
Supervisor: Jim Mirrlees	
Cambridge Commonwealth Trust and Overseas Research Studentship (1997 – 2000), Athanasios Asimakopulos Award (1996, 1998)	
MPhil Economics, University of Cambridge	1996
Awarded with distinction; finished second in class of c. 60 students	
Diploma Economics, University of Cambridge	1995
BA Psychology, Carleton University	1993
Awarded with highest honours (University Medal in Social Sciences)	
1989 – 1992 in School of Industrial Design before transfer to Psychology	

Publications

1. “An introduction to mechanized reasoning”, with M. Kerber and C. Lange, *Journal of Mathematical Economics*, vol. 66, pp. 26–39, October 2016
2. “Pillage games with multiple stable sets”, with S. MacKenzie and M. Kerber, *International Journal of Game Theory*, vol. 44 (4), pp. 993–1013, November 2015
3. “Sufficient conditions for unique stable sets in three agent pillage games”, with M. Kerber, *Mathematical Social Sciences*, vol. 69, pp. 69–80, May 2014
4. “Set Theory or Higher Order Logic to Represent Auction Concepts in Isabelle?”, with M. Caminati, M. Kerber, and C. Lange, *Lecture Notes in Computer Science*, vol. 8543, pp. 236–251, 2014
5. “Efficient sets are small”, with A. Beardon, *Journal of Mathematical Economics*, vol. 49 (5), pp. 367–374, October 2013
6. “A qualitative comparison of the suitability of four theorem provers for basic auction theory”, with C. Lange, M. B. Caminati, M. Kerber, T. Mossakowski, M. Wenzel and W. Windsteiger, *Lecture Notes in Computer Science*, vol. 7961, pp. 200–215, 2013

7. “The ForMaRE Project - Formal Mathematical Reasoning in Economics”, with C. Lange, and M. Kerber, *Lecture Notes in Computer Science*, vol. 7961, pp. 330334, 2013
8. “Using *Theorema* in the Formalization of Theoretical Economics”, with M. Kerber and W. Windsteiger, *Lecture Notes in Computer Science*, vol. 6824, pp. 58–73, 2011
9. “A Ramsey bound on stable sets in Jordan pillage games”, with M. Kerber, *International Journal of Game Theory*, vol. 40 (3), pp. 461–466, August 2011
10. “Optimal voting rules for two member tenure committees”, with I. Ayres, and N. Zakariya, *Social Choice and Welfare*, vol. 36 (2), pp. 323–354, February 2011
11. “Non-linear strategies in a linear quadratic differential game”, *Journal of Economic Dynamics and Control*, vol. 31 (10), pp. 3179–3202, October 2007
12. “Iraqi GDP since 2003: some simple calculations”, *International Journal of Contemporary Iraqi Studies*, vol. 1 (2), pp. 233 – 245, September 2007. (Arose from calculations for Bernasek, “An Early Calculation of Iraq’s Cost of War”, *New York Times*, 22 October, 2006.)
13. “The commons with capital markets”, with J. Dutta, *Economic Theory*, vol. 31 (2), pp. 225–254, May 2007
14. “Intermediation by aid agencies”, with P. Seabright, *Journal of Development Economics*, vol. 79 (2), pp. 469–491, April 2006

Conference proceedings (peer reviewed)

1. “Sound auction specification and implementation”, with M. Caminati, M. Kerber and C. Lange, *EC’15: Proceedings of the Sixteenth ACM Conference on Economics and Computation*, 2015
2. “Applying Mechanised Reasoning in Economics - Making Reasoners Applicable for Domain Experts”, with C. Lange, and M. Kerber, Informatik 2013 (Computer science adapted to humans, organization and the environment, 43rd annual meeting of the German Informatics Society (Gesellschaft für Informatik e.V. (GI))), *Lecture Notes in Informatics*, No. P-220, pp. 153156, 2013
3. “Developing an Auction Theory Toolbox”, with C. Lange, W. Windsteiger and M. Kerber, *AISB Annual Convention*, 2013
4. “Formal representation and proof for cooperative games”, with M. Kerber, and C. Lange, *AISB Annual Convention*, 2012

Working papers

1. “An exchange economy with pillage”, mimeo (2008)
2. “The road to extinction: commons with capital markets”, with J. Dutta, University of Birmingham Economics Discussion Paper 04-11RR (2007)
3. “A repeated prisoner’s dilemma with endogenous monitoring”, with I. Ray, mimeo (2007)
4. “Functional Nash equilibria in commons games”, University of Birmingham Economics Discussion Paper 02-13, (2002)
5. “Asymmetric play in a linear quadratic differential game with bounded controls”, University of Birmingham Economics Discussion Paper 02-12, (2002).

Grants

- “Formal representation and proof for cooperative games”, EPSRC grant # EP/J007498/1, with M. Kerber (2012 – 2015; £389,557)
- “Weak property rights: financial markets and development”, ESRC grant # RES-156-25-0022, with J. Dutta (2005 – 2009; £57,002), graded *outstanding*

Chapters

“Technological and regulatory developments in broadcasting: an overview”, *The Economic Regulation of Broadcasting Markets: Evolving Technology and the Challenges for Policy*, eds. P. Seabright and J. von Hagen. Cambridge University Press (2007)

“Performance of financial institutions: lessons from transition banking”, with S. Fries and P. Seabright, *Transition Report 1998*, European Bank for Reconstruction and Development (1998)

Refereeing & editorial

American Economic Review, *American Political Science Review*, *Berkeley Electronic Journals in Theoretical Economics*, *Bulletin of Economic Research*, Cambridge University Press, *Canadian Journal of Economics*, *Contemporary Economic Policy*, *Dynamic Games & Applications*, *Econometrica*, *Economic Journal*, *Economic Theory*, *Economics Letters*, *Economica*, *Economics & Politics*, *Economics Bulletin*, *Electronic Markets*, *Energy Economics*, *Environmental & Resource Economics*, *Ethics & International Affairs*, *Games & Economic Behavior*, Harvard University Press, *International Economic Review*, *International Journal of Game Theory*, *Japanese Economic Review*, *Journal of Computational & Applied Mathematics*, *Journal of Development Economics*, *Journal of Economic Behavior & Organization*, *Journal of Economic Dynamics & Control* (Outstanding referee award, 2011), *Journal of Economic Theory*, *Journal of Institutional & Theoretical Economics*, *Journal of Law, Economics & Organization*, *Journal of Mathematical Economics*, *Journal of Public Economic Theory*, *Journal of Public Economics*, *Mathematical Social Sciences*, *Oxford Economic Papers*, Palgrave, *Resource & Energy Economics*, *Review of Economic Studies*

Guest co-editor, *Mathematics in Computer Science*, vol. 8(1) (2014)

Reviewer *AMS MathSciNet*

Seminars & conference papers

“Asymmetric three agent majority pillage games”: SAET (Jul 2016)

“Sound auction specification and implementation”: Viennese Workshop on Optimal Control and Dynamic Games (May 2015), Economics & Computation '15 (Jun 2015)

“An economist’s guide to mechanised reasoning”: Initiative for Computational Economics, University of Chicago (Jul 2012, invited)

“Stable sets in multigood pillage games are small”: ESWC Shanghai (Aug 2010), Moscow (Oct 2010), SAET (Jun 2011)

“Asymmetric play in a linear quadratic differential game with bounded controls”: CeNDEF Amsterdam (Jan 2009), SCE’s Computing in Economics and Finance (July 2009)

“Stable sets in three agent pillage games”: Far Eastern Meeting of the Econometric Society (FEMES; Jul 2008), Econometric Society European Meeting (ESEM; Aug 2008), Latin American Meeting of the Econometric Society (LAMES; Nov 2008), SAET (June 2011)

“An exchange economy with pillage”: Leicester, Liverpool, Queen Mary London (Nov 2006), Warwick (Dec 2006), Nottingham (Feb 2007), European GE workshop (Jun 2007), North American Summer Meeting of the Econometric Society (NASMES; Jun 2007), ESRC World Economy and Finance workshop (Jul 2007), ESEM (Aug 2007), University of East Anglia (Oct 2007), Reading (Oct 2007), Birkbeck, Jerusalem (Mar 2008), Brunel (Oct 2008), New Haven (Feb 2009), McGill (Mar 2009), Public Economy Theory (Jun 2009), Zurich (Mar 2010), Moscow (Oct 2010), SAET (Jun 2011), Hitotsubashi (Apr 2015), Kyoto University (Apr 2015)

“Optimal two stage committee decisions”: Warwick (Jun 2004), Brown (Sep 2004), ESRC Game Theory workshop (Jun 2005), NASMES (Jun 2006), U Zurich (Mar 2010), SCE’s Computing in Economics and Finance (Jul 2010)

“Intermediation by Aid Agencies”: Edinburgh (Mar 2005), Canterbury (Nov 2005), LSE FMG (Jan 2006)

“The road to extinction: the commons with capital markets”: Midlands Game Theory Workshop (Jan 2004), NASMES (Jun 2004), ESEM (Aug 2004), Royal Economic Society (Mar 2005), ESRC World Economy and Finance workshop (Jun 2007), Montpellier, Toulouse (Mar 2008), CeNDEF Amsterdam (Jun 2010)

“Asymmetric nonlinear strategies in a linear-quadratic differential game with bounded controls”: Cambridge (Oct 1999), LSE Maths (Nov 1999)

Research student supervision

PhD thesis committee: Tong Zhang (2013 –), Yi Jin (2008 – 2013), Edward Robinson (–2011; Computer Science), Arjun Chandra (–2011; Computer Science, University of Oslo), Vimal Thakoor (2005 – 2010; IMF)

Summer interns: Abhay Poal (2009; IIT Madras), Antoine Delattre (2007; École Nationale Supérieure de Techniques Avancées)

Teaching

Risk analytics, Birmingham	2009 – present
MSc	14 – 24 students
Core module for MSc Mathematical Finance, shared with Maths School. Coverage similar to that of Baruch College’s Certificate in Advanced Risk and Portfolio Management; student trading accounts on <i>Interactive Brokers</i> platform.	
Mathematical modelling for economists, Birmingham	2003 – present
1 st year UG	c. 100 students
‘seminar’ approach to economics as analytical method; students present proofs of existing results. 2007 ‘lecturer overall’ ratings highest of any 1 st year module, 3 rd highest of any UG module. Teaching bought out 2008	
Economics of corporate finance, Birmingham	2003 – 2005, 2010 – 2012
2 nd year UG	c. 160 students
Embeds corporate financial decisions in economic models, particularly asymmetric information. Major modification of existing module. Teaching bought out 2006, 2007.	
Financial and business systems, Birmingham	2005
1 st year UG	c. 150 students
Co-taught with Business School; introduces students to financial markets and assets. Teaching bought out 2006, 2007.	
Advanced Quantitative Methods, Birmingham	2002 – 2003
MA	c. 20 students
Introductory econometrics for Social Sciences students; co-taught with Geography. Created module.	
Basic Quantitative Methods, Birmingham	2001 – 2002
1 st year UG	c. 160 students
Introductory maths and statistics for students without A-level maths.	
Introductory macroeconomics, NYU	2001
1 st year UG	c. 20 students
Summer course for Policy track students.	

Pre-sessional maths classes, Cambridge MPhil Designed and taught optimisation course (21 – 27 hours); prepared 140 page workbook.	1997 – 1999 c. 60 students
Econometrics problem classes, Cambridge MPhil TA for Andrew Harvey.	1998 c. 45 students
Economic theory problem classes, Cambridge 3 rd year UG TA for Chris Harris’s inventory theory and social choice lectures.	1997 c. 15 students
Mathematical economics problem classes, Cambridge 2 nd year UG TA for Bob Evans and Stephen Siklos (Maths).	1996 c. 60 students

Other

Economist Intelligence Unit contributor on Iraqi economy, 2004 – 2012

“Iraqi economic policy post-2003”, *Harvard Center for Middle Eastern Studies* (Apr 2007)

“The impact of economic sanctions”, written evidence for *Select Committee on Economic Affairs, House of Lords* (2006)

“Governance capacity in Iraq”, *Foreign and Commonwealth Office* lunch briefing for Edward Chaplin, HMA Baghdad Delegate (Jun 2004)

“Oil for Food”, *Next Century Foundation* briefing for US House International Relations Committee staffers, London (May 2004)

London Middle East Institute deputy coordinator of implementation guidance project for DfID’s Political Participation Fund for Iraq. With Bob Springborg (SOAS) (2004)

CWC Iraq industry conferences (June 2013, Dec 2008, Feb 2004, Oct 2003, Jul 2002, Jul 2000)

“Issues shaping Iraq’s economic future”, *BBC World* seminar, White City, London (May 2003)

Cambridge Union Iraq debate with Jeremy Carver, Tony Gammon, Lord Hannay and Sir Hooky Walker (Jan 2002)

“Potential civilian consequences of increased U.S. military action against Iraq”, prepared statement for *Hearings before the Committee on Foreign Relations, United State Senate*. With Prof. Peter Pellett (U Mass Amherst) (2002)

Iraq Revenue Watch (Open Society Institute) international advisory board member (2003 - 2005)