



Business School

2018 CPMD Workshop on Market Design

12th & 13th June 2018

Dr Chau Chak Wing Building,
Level 8, Room 3

PROGRAM

Tuesday 12th June

8:15am	REGISTRATION/ARRIVAL TEA
9:00 – 9:15	Welcome
9:15 – 9:40	Tayfun Sönmez (Boston College) “Efficient and Incentive Compatible Liver Exchange”
9:45 – 10:10	Mohammad Akbarpour (Stanford University) “Credible Mechanisms”
10:15 – 10:40	Michael Ostrovsky (Stanford Graduate School of Business) “Carpooling and the Economics of Self-Driving Cars”
10:45am	MORNING TEA
11:15 – 11:40	John Ledyard (California Institute of Technology) “Tradable Permit Programs under Imprecise Measurement”
11:45 – 12:10	Claudio Mezzetti (University of Queensland) “Information and Bargaining Design”
12:15 – 12:40	Haris Aziz (UNSW) “Generalizing Top Trading Cycles for Housing Markets with Fractional Endowments”
12:45pm	LUNCH
2:15 – 2:40	Frank Wolak (Stanford University) “Designing Nonlinear Price Schedules to Balance Revenue and Conservation Goals”
2:45 – 3:10	Leslie Martin (University of Melbourne) “The Margins of Response to Road Use Prices: A Field Experiment”
3:15 – 3:40	Tom Wilkening (University of Melbourne) “Land Defragmentation: Market Design in a Development Context”
3:45pm	AFTERNOON TEA
4:15 – 4:40	Gary Stoneham (University of Melbourne) Case Study Presentation: “An Economic Design Approach to public sector policy problems”
4:45 – 5:45	Round Table Discussion on “Auction and Matching Design”
7:00pm	Workshop Dinner The Port, Darling Harbour

PRESENTERS

Tuesday 12th June



Professor Tayfun Sönmez (Boston College)

Presentation title: “Efficient and Incentive Compatible Liver Exchange”

Tayfun Sönmez is a Professor of Economics at Boston College. His research agenda focuses on the theory and practice of Market Design, with an emphasis on its applications in Matching Markets. He is best known for his contributions to the formulation, analysis, and practical design of kidney exchange and school choice. His current research interests include analysis and design of transplant organ allocation policies, analysis and design of affirmative action schemes, and practical applications of matching with contracts.



Assistant Professor Mohammad Akbarpour (Stanford Graduate School of Business)

Presentation title: “Credible Mechanisms”

Mohammad Akbarpour is an Assistant Professor of Economics at Stanford Graduate School of Business. He spent one year as a Research Fellow at the University of Chicago in 2016. He received his PhD in Economics from Stanford University in 2015 and his B.Sc from Sharif University of Technology in Tehran. In 2016, he was invited to the Review of Economic Studies Tour, an award given to the world’s most promising graduating doctoral students of Economics and Finance. Mohammad’s research bridges between Computer Science and Economic Theory, and is focused on Market Design, Network Economics, and economic and ethical aspects of organ markets. He has held positions at Auctionomics and Microsoft.



Professor Michael Ostrovsky (Stanford Graduate School of Business)

Presentation title: “Carpooling and the Economics of Self-Driving Cars”

Michael Ostrovsky is a Professor of Economics at the Stanford Graduate School of Business. He also serves as a co-director of the Market Design Working Group at the National Bureau of Economic Research and a co-editor of the American Economic Journal: Microeconomics. Michael’s research is in the areas of Game Theory, Market Design, Industrial Organisation, and Finance. In particular, his work has addressed such topics as the economics of carpooling and self-driving cars, the properties of internet advertising auctions, information aggregation in financial markets, stability in trading networks, and voting in shareholder meetings.



Professor John Ledyard (California Institute of Technology)

Presentation title: Tradable Permit Programs under Imprecise Measurement

John O. Ledyard is Emeritus Professor in the Division of the Humanities and Social at the California Institute of Technology. He is a Fellow of the Econometric Society the American Academy of Arts and Sciences, the Public Choice Society, and the Society for the Advancement of Economic Theory. His primary research is on the theoretical foundations and applications of Mechanism Design. Most recently he is working on connecting experimental findings for repeated games with learning models. His more applied work has included the design and development of computer-assisted markets for managing spacecraft and instrument design, for trading pollution rights, acquiring logistics contracts, swapping portfolios of thinly traded securities, prediction markets, and advertising time. His current applied research includes the design of market-based approaches for managing groundwater and fisheries.

PRESENTERS

Tuesday 12th June



Professor Claudio Mezzetti (University of Queensland)

Presentation title: "Information and Bargaining Design"

Claudio Mezzetti is a Theoretical Economist whose main research interest is in Mechanism Design. His main focus has been the study of conditions under which economic efficiency can be achieved in spite of the privacy of information, the ability of agents to refuse to participate, and the possible presence of informational externalities. He has studied trading mechanisms between buyers and sellers, the property and design of auctions, common agency problems, acquisition of information before a contractual agreement, intellectual property, among others. He has also worked on game theory; in particular the evolutionary and equilibrium properties of economic and social system in which agents have bounded rationality and learn over time.



Dr Haris Aziz (CSIRO & University of NSW)

Presentation title: "Generalizing Top Trading Cycles for Housing Markets with Fractional Endowments"

Haris Aziz is a Senior Research Scientist at Data61 (CSIRO) and a Senior Conjoint Lecturer at UNSW Sydney. His research interests lie at the intersection of Artificial Intelligence, Theoretical Computer Science, and Microeconomics. Haris is a recipient of the Scientia Fellowship (2018-2022), CORE Chris Wallace Award (2017) and the Julius Career Award (2016 - 2019). In 2016, he was selected by the Institute of Electrical and Electronics Engineers (IEEE) for the "10 AI Researchers to Watch" list. His research has been covered by media outlets such as Scientific American, Sydney Morning Herald, Quanta Magazine, Die Zeit, and Inside Science. He has held visiting academic positions at Oxford University, Harvard University, and University Paris Dauphine.



Professor Frank Wolak (Stanford University)

Presentation title: "Designing Nonlinear Price Schedules to Balance Revenue and Conservation Goals"

Frank A. Wolak is the Holbrook Working Professor of Commodity Price Studies in the Economics Department and Director of the Program on Energy and Sustainable Development at Stanford University. His current research and teaching focuses on design, performance, and monitoring of energy and environmental markets in the United States and globally. From April 1998 to April 2011, he was Chair of the Market Surveillance Committee of the California Independent System Operator. He was also a member of the Emissions Market Advisory Committee (EMAC) for California's Market for Greenhouse Gas Emissions allowances from January 2012 to December 2014. He has also advised the Australian Competition and Consumer Commission (ACCC) on competition and market design questions in the electricity supply industry.

PRESENTERS

Tuesday 12th June



Dr Leslie Martin (University of Melbourne)

Presentation title: “The Margins of Response to Road Use Prices: A Field Experiment”

Leslie Martin is a Lecturer (Assistant Professor) in the Department of Economics at the University of Melbourne. Her primary fields are Environmental Economics and Energy Economics, with secondary fields are Industrial Organisation and International Development. Leslie’s research currently focuses on (1) consumer responses to the availability of smart meter data in markets with retail competition and (2) interactions between regulation, firms, and environmental outcomes in industrialising countries. She has also conducted a recent evaluation of driver responses to road use charges. She spent several years as a Research Scholar at the International Institute for Applied Systems Analysis, studying the impact of climate change-related disasters on developing countries, and as a consultant for the World Bank in Bolivia working on productivity and competitiveness, pension reform, and hydrocarbon taxes.



Associate Professor Tom Wilkening (University of Melbourne)

Presentation title: “Land Defragmentation: Market Design in a Development Context”

Tom Wilkening is an Associate Professor at the University of Melbourne. His research combines experiments, theory, and behavioural economics to help understand how economic institutions evolve and how they can be made better. Tom is particularly interested in economic design in settings where information asymmetries make the design of institutions important, but where behavioural biases exist that must also be overcome. His work has been published in the American Economic Review, the Journal of the European Economic Association, and the Journal of Economic Literature.



Professor Gary Stoneham (University of Melbourne)

Presentation title: “An Economic Design Approach to public sector policy problems”

Gary Stoneham has specialised in applying an economic design process to reform public sector policy mechanisms. In his former role as Chief Economist at the Department of Environment in Victoria, Gary pioneered the design and creation of market-based mechanisms for the environment and natural resources sectors. This has resulted in a number of innovative and successful policy mechanisms. Until recently, Gary worked at the Department of Treasury and Finance (Victoria) on a broader set of policy design problems including human services, procurement and matching markets. This has evolved into the Centre for Market Design at the University of Melbourne where Gary is the Director of Policy Projects.

PROGRAM

Wednesday 13th June

8:15am	ARRIVAL TEA
9:00 – 9:15	Welcome
9:15 – 9:40	Stanley Reynolds (University of Arizona) “Measuring Market Power in Wholesale Electricity Markets: A Dynamic Competition Approach”
9:45 – 10:10	Arthur Campbell (Monash University) “Social Learning with Differentiated Products”
10:15 – 10:40	Murali Agatsya (University of Sydney) “Informational Rents and Residual Control Rights”
10:45am	MORNING TEA
11:15 – 11:40	Flavio Menezes (University of Queensland) “Infrastructure Access Pricing: Auctions versus Regulated Uniform prices”
11:45 – 12:10	Steve Tadelis (Haas School of Business) “Buying Reputation as a Signal of Quality: Evidence from an Online Marketplace”
12:15 – 12:40	Matt Van Essen (University of Alabama) “Allocating Positions Fairly: An Auction and its Relationship to the Shapley Value”
12:45pm	LUNCH
2:15 – 2:40	Vijay Krishna (Penn State University) “Communication and Cooperation”
2:45 – 3:10	Simon Loertscher (University of Melbourne) “Merger Review for Markets with Buyer Power”
3:15 – 3:40	Kentaro Tomoeda (University of Technology Sydney) “Finding a stable matching under type-specific minimum quotas”
3:45pm	AFTERNOON TEA
4:15 – 4:40	Melanie Ayre (CSIRO) Case study presentation: “ASPIRE: Industrial Ecology Marketplace”
4:45 – 5:45	Round Table Discussion on “Energy Economics”
5:45pm	End of Workshop

PRESENTERS

Wednesday 13th June



Professor Stanley Reynolds (University of Arizona)

Presentation title: “Measuring Market Power in Wholesale Electricity Markets: A Dynamic Competition Approach”

Stanley Reynolds is Eller Professor of Economics at the University of Arizona, where he is also affiliated with the Institute for Energy Solutions. He serves as Vice Dean of Faculty and Research at the Eller College of Management. His research is in the fields of Environmental/Energy Economics and Industrial Organisation. He has published his research in leading professional journals such as The Quarterly Journal of Economics, Econometrica, Journal of Economic Theory, Journal of Political Economy, and the RAND Journal of Economics. His recent research is focused on the economics of solar energy, quantifying the value of intermittent renewable energy, investment incentives for renewable energy, and on the performance of wholesale electricity market institutions.



Associate Professor Arthur Campbell (Monash University)

Presentation title: “Social Learning with Differentiated Products”

Arthur Campbell joined Monash University as an Associate Professor of Economics in January 2017. Arthur’s research interests include: Industrial Organisation, Strategy (Pricing, Marketing, Information), Organisational Economics, Market Design and the Energy Economics. His research has appeared in leading economic journals such as American Economic Review, American Economic Journal: Microeconomics, Rand Journal of Economics and Economic Theory. Before joining Monash Arthur has previously worked as an Associate Professor of Economics at Yale University in the School of Management, Senior Data Scientist at Uber Technologies and Consultant at Frontier Economics. He graduated from Massachusetts Institute of Technology with a PhD in Economics in 2009.

Professor Murali Agastya (University of Sydney)

Presentation title: “Informational Rents and Residual Control Rights”

Murali Agastya’s main research interests are in the theory of auctions, optimal selling procedures/mechanism design, and learning in games and market microstructure. Before coming to Sydney University, he was a permanent academic at the University College London and a Research Fellow of The Centre for Economic Learning and Social Evolution. He has previously held an Australian Junior Research Fellowship and short/medium term visiting professorial positions at Caltech, IIM Bangalore, NUS Singapore, University of Tokyo and University of Western Ontario. He has published in a range of Economics Journals including Games & Economic Behaviour, International Economic Review, Journal of Economic Theory, Review of Economic Studies and the RAND Journal.¹

PRESENTERS

Wednesday 13th June



Professor Flavio Menezes (University of Queensland)

Presentation title: “Infrastructure Access Pricing: Auctions versus Regulated Uniform prices”

Flavio Menezes is a Professor of Economics at the University of Queensland. Flavio was also a part-time Vice President with the Regulatory Economics and Public Policy Practice at CRA International in Canberra until May 2006 and a Senior Consultant until May 2007. He is the current Deputy Chair of the Queensland Competition Authority. Flavio has published over 70 journal articles on the Economics of auctions, competition and Regulatory Economics, Industrial Organisation, and Market Design. He is the Deputy Chair of the Queensland Competition Authority, the Chair of the Economics and Commerce Research Evaluation Committee of ERA 2018, a Fellow of the Academy for Social Sciences in Australia, the immediate past president of the Economic Society of Australia (Queensland), the co-editor of the Economic Record, and a member of editorial boards and associate editor of a number of international journals.



Professor Steve Tadelis (Haas School of Business)

Presentation title: “Buying Reputation as a Signal of Quality: Evidence from an Online Marketplace” with Lingfang (Ivy) Li and Xiaolan Zhou

Steve Tadelis is the James J. and Marianne B. Lowrey Chair in Business and a Professor of Economics, Business and Public Policy at Haas School of Business, University of California, Berkeley, and also served as the Associate Dean for Strategic Planning (2006-2009). Steve also held positions as a Senior Director and Distinguished Economist at eBay Research Labs (2011-2013) and Vice President of Economics and Market Design at Amazon (2016-2017). He continues to advise Amazon part-time as an Amazon Economist Fellow. Steve’s current areas of research are E-commerce, Industrial Organisation, the Economics of incentives and organisations, and Procurement Contracting.



Associate Professor Matt Van Essen (University of Alabama)

Presentation title: “Allocating Positions Fairly: An Auction and its Relationship to the Shapley Value”

Matt Van Essen is an Associate Professor of Economics at the University of Alabama. His research agenda focuses on topics in Mechanism Design, Bargaining, and Game Theory. His current work in Mechanism Design focuses on settings that require the allocation of commonly owned assets. He has published in the journals: Journal of Economic Theory, Games and Economic Behaviour, Economic Inquiry, Social Choice and Welfare, Review of Economic Design, Southern Economic Journal, and the Journal of Public Economic Theory.



Professor Vijay Krishna (Penn State University)

Presentation title: “Communication and Cooperation”

Vijay Krishna is a Distinguished Professor of Economics at Penn State University. He has written and published in a variety of areas of Economics and Game Theory, including Auctions and Mechanism Design, Repeated Games, Bargaining, Strategic Communication and Voting. His book Auction Theory is a standard reference in the area. Professor Krishna is a Fellow of the Econometric Society, of the Game Theory Society and of the Society for the Advancement of Economic Theory.

PRESENTERS

Wednesday 13th June



Professor Simon Loertscher (University of Melbourne)
Presentation title: “Merger Review for Markets with Buyer Power”

Simon Loertscher is a Professor of Economics and Director of the Centre for Market Design (CMD) at the University of Melbourne. His research focuses on Mechanism Design for markets with privately informed traders and applies mechanism design techniques to pertinent issues in Industrial Organisation. He is a co-founder of the Asia-Pacific Industrial Organisation Conference (APIOC).



Dr Kentaro Tomoeda (University of Technology Sydney)
Presentation title: “Finding a stable matching under type-specific minimum quotas”

Kentaro Tomoeda is a Lecturer (Assistant Professor) at the Economics Discipline Group at the University of Technology Sydney. His research area is Mechanism and Market Design with a focus on practical matching problems. Kentaro’s current research interests include college admission problems in China, matching with type-specific constraints, and dynamic course allocations. His work has been published in Journal of Economic Theory and Economics Letters. Before joining UTS, Kentaro received a PhD in Economics from Harvard University in 2016.



Dr Melanie Ayre (CSIRO)
Presentation title: “ASPIRE: Industrial Ecology Marketplace”

Melanie Ayre is part of CSIRO’s Inclusive Socio-Technical Innovation team, which takes a multi-disciplinary approach to exposing information latent in communities such that it can be used in markets or for decision-making. After a degree in electronic engineering and a PhD in Physics, she has been developing an interest in the interaction between people and information systems, as expressed through market design. She has led ASPIRE since its inception in 2013. Also, as a founding member of the Network Team, Melanie wanted to see what would happen if it was made easy for CSIRO scientists and engineers to discover capabilities they need, based on the evidence of what people have actually done rather than what they choose to write about themselves.



Dr Andrew Reeson (CSIRO)
Round table discussion on “Energy Economics”

Andrew Reeson is a Principal Research Scientist in CSIRO’s Data61. His work combines Behavioural Economics with econometric modelling to address issues of national significance to Australia. After a misspent youth taking Biology at Oxford, he switched to Economics in order to focus on the more challenging aspects of real-world problems. On joining CSIRO in 2004, he worked on the design and implementation of environmental policy tools. Over the last few years he has switched his focus to the digital economy. Current interests include the impact of technology on employment markets and potential policy responses. He currently leads a multidisciplinary research team in Data61 focussed on socio-technical aspects of market design. He has a diverse range of research publications.

ORGANISERS



Professor Isa Hafalir (University of Technology Sydney)

Isa Hafalir is a Professor of Economics and Director of Centre for Policy and Market Design (CPMD) at UTS. Before joining UTS in 2017, he worked as Associate Professor of Economics at Tepper School of Business in Carnegie Mellon University. His research mainly focuses on Game Theory, Mechanism Design and Market Design, and in particular on Auction Theory and Matching Theory. He has published numerous articles in *The American Economic Review*, *Management Science*, *Journal of Economic Theory*, *Theoretical Economics*, *Games* and *Economic Behavior* among others.



Dr Emil Temnyalov (University of Technology Sydney)

Emil Temnyalov joined UTS as a Lecturer (Assistant Professor) in 2015, after receiving his PhD from Northwestern University. He works on topics in Microeconomic Theory and Industrial Organisation, including Contests, Antitrust Regulation, Mechanism Design, and Information Design. Emil is especially interested in questions with significant public policy implications and social welfare consequences. He is currently working on projects on Information Design within organisations and in Innovation Contests.



Professor John Wooders (NYU Abu Dhabi and University of Technology Sydney)

John Wooders is a Global Network Professor of Economics at NYU Abu Dhabi, and a Distinguished Research Professor of University of Technology Sydney. He is a Fellow of the Econometric Society and of the Society for the Advancement of Economic Theory. His research combines theory with data from the laboratory and the field to understand behaviour in markets and games. He is an expert on Internet Auctions, and has published several widely cited papers that study the economic issues raised by such auctions. His most recent work is on using auctions to allocate items, priorities of service, positions, or property rights among parties who have equal claims. He is an expert on the effect of experience on behaviour, and he authored a now-famous paper *Minimax Play at Wimbledon* based on data from professional tennis.

NOTES

NOTES

NOTES



Centre for Policy and Market Design

p: +61 2 9514 3064
e: cpmd@uts.edu.au