

# Optimisation and Machine Learning in Economics

## A cemmap Conference

**Thursday 8<sup>th</sup> March – Friday 9<sup>th</sup> March 2018**  
Ada Salter Suite, Friends House, 173-177 Euston Road, London, NW1 2BJ

organised by Alfred Galichon (NYU and TSE) and Sokbae Simon Lee (cemmap and Columbia)

### Programme

#### Day 1 : Thursday 8<sup>th</sup> March

08:30-09:10 Registration and Refreshments

09:10-10:30 Session 1

Roger Koenker (cemmap and UCL) *“Shape Constrained Density Estimation via Penalized Rényi Divergence”* with Ivan Mizera

Rahul Mazumder (MIT) *“Solving Structured Nonconvex Problems in Multivariate Statistical Learning”*

10:30-11:00 Coffee/Tea Break

11:00-13:00 Session 2

Rakesh Vohra (UPenn) *“Fairness Incentives for Myopic Agents”*

Patrick Combettes (NC State) *“Data Analysis via Perspective Functions”*

Tim Roughgarden (Stanford) *“Data-Driven Optimal Auction Theory”*

13:00-14:00 Lunch

14:00-15:20 Session 3

Robert Miller (Carnegie Mellon) *“Innovation and Diffusion of Medical Treatment”* with Barton H. Hamilton, Andres Hincapie and Nicholas W. Papageorge

Ariel Pakes (Harvard) *“Learning Techniques and the Analysis of Dynamic Games; Equilibrium Concepts and Computational Issues”*

15:20-15:40 Coffee/Tea Break

15:40-17:00 Session 4

Han Hong (Stanford) and Dennis Kristensen (cemmap and UCL) *"Bayesian Indirect Inference and the ABC of GMM"* with Michael Creel and Jiti Gao

Tim Christensen (NYU) *"Monte Carlo Confidence Sets for Identified Sets"* with Xiaohong Chen and Elie Tamer

## Day 2 : Friday 9<sup>th</sup> March

09:10-11:10 Session 5

Victor Chernozhukov (MIT) *"Double/De-biased Machine Learning with Regularized Riesz Representers"*

Jose Blanchet (Stanford) *"Distributionally Robust Optimization via Optimal Transport and Its Applications"*

Jose Montiel Olea (Columbia) *"(Machine) Learning Parameter Regions"* with James Michael Nesbit

11:10-11:40 Coffee/Tea Break

11:40-13:00 Session 6

Guillaume Carlier (Université Paris Dauphine) *"Entropic Regularisation of Transport Problems and Applications"*

Matt Shum (Caltech) *"Inference on Estimators defined by Mathematical Programming"* with Yu-Wei Hsieh and Xiaoxia Shi

13:00-14:00 Lunch

14:00-15:20 Session 7

Francis Bach (INRIA) *"Submodularity in Machine Learning"*

Serena Ng (Columbia) *"An Econometric View of Subsampling Algorithms"* with Sokbae Simon Lee

15:20-15:40 Coffee/Tea Break

15:40-17:00 Session 8

Lars Nesheim (UCL) *"Using Penalized Likelihood to Select Parameters in a Random Coefficients Multinomial Logit Model"*

Martin Weidner (UCL) *"Nuclear Norm Regularized Estimation of Panel Regression Models"* with Hyungsik Roger Moon

17:00 Close of Conference

## Delegate List

Konstantinos	Adamopoulos	Birkbeck - University of London
Fahim	Amiri	Government Economic Service
Elliott	Ash	University of Warwick
Francis	Bach	INRIA
Jihyun	Bae	University College London
Joel	Becker	Institute for Fiscal Studies
Arie	Beresteanu	University of Pittsburgh
Debopam	Bhattacharya	University of Cambridge
Wasel	Bin Shadat	University of Manchester
Jose	Blanchet	Stanford University
Jack	Blundell	University of Oxford
Guillaume	Carlier	Université Paris Dauphine
Le-Yu	Chen	University College London
Victor	Chernozhukov	MIT
Andrew	Chesher	cemmap and University College London
Tim	Christensen	New York University
Patrick	Combettes	NC State
Valentina	Corradi	University of Warwick
Lee	Crawford	University of Sussex
Riccardo	D'Adamo	University College London
Hao	Dong	London School of Economics and Political Science
Jun	Du	Aston University
Pierre	Dubois	Toulouse School of Economics
Andy	Duff	OFWAT
Hector	Espinoza	National Institute of Economic and Social Research
Michal	Fabinger	University of Tokyo
Paul	Fenton Villar	University of East Anglia
Ivan	Fernandez-Val	Boston University
Daniel	Foley	Government Economic Service
Ruth	Fortmann	London School of Economics and Political Science
Wolfgang	Fruehwirt	Medical University of Vienna
Rong	Fu	Heriot-Watt University
Alfred	Galichon	NYU and TSE
Ana Beatriz	Galvao	University of Warwick
Maria	Grith	Erasmus University Rotterdam
Karishma	Gulrajani	Compass Lexecon
Sweta	Gupta	University of Sussex
Vedika	Hegde	Fideres
Ayden	Higgins	Kingston University
Han	Hong	Stanford University
Stefan	Hubner	University of Oxford
Xiyu	Jiao	University of Oxford
Dongwoo	Kim	University College London
Roger	Koenker	cemmap and University College London
Dennis	Kristensen	cemmap and University College London
Jacques	Laurent	RBB Economics
Stepana	Lazarova	Queen Mary - University of London
Sokbae Simon	Lee	cemmap and Columbia
Peter	Leighton	Institute for Fiscal Studies
Veline	L'Esperance	King's College London
Guangjie	Li	Cardiff University
Jiaoshan	Li	University of East Anglia
Lixion	Li	The Pennsylvania State University
Han	Lin	University of East Anglia
Lin	Lin	Coventry University
Deming	Luo	Zhejiang University
Rahul	Mazumder	MIT
Renuka	Metcalfe	

Robert	Miller	Carnegie Mellon University
Syed Abbas	Mohsin	Compass Lexecon London Office
Jose	Montiel Olea	Columbia University
Jamie	Moore	National Institute of Economic and Social Research
Rashid	Muhamedrahimov	Compass Lexecon London Office
Kathleen	Murty	Lloyds Banking Group
Mateusz	Mysliwski	University College London
Andrea	Naghi	
Lars	Nesheim	cemmap and University College London
Jenny	Neuburger	Department of Health
Whitney	Newey	Massachusetts Institute of Technology
Serena	Ng	Columbia University
Ariel	Pakes	Harvard University
Aureo	de Paula	University College London
Angus	Phimister	Institute for Fiscal Studies
Mercedes	Pingarron	RBC Capital Markets
Ellie	Price	PwC
Chen	Qiu	London School of Economics and Political Science
Gavin	Roberts	Department of Health
Claudia	Robles-Garcia	London School of Economics and Political Science
Tim	Roughgarden	Stanford University
Hiba	Sameen	Government Economic Service
Patrick	Schmidt	Goethe University Frankfurt
Rushab	Shah	Government Economic Service
Matt	Shum	Caltech
Sonia	Singh	busuu
Gabriela	Smarrelli	Institute for Fiscal Studies
Sorawoot	Srisuma	University of Surrey
Sami	Stouli	University of Bristol
Tian Huey	Teh	University College London
Aleksey	Tetenov	University of Bristol
Davide	Veronese	
Adrian	Vetta	McGill University
Rakesh	Vohra	University of Pennsylvania
Jun	Wang	Coventry University
Weining	Wang	Humboldt University Berlin
Yuhui	Wang	Coventry University
Martin	Weidner	University College London
Daniel	Wilhelm	University College London
Lei	Xu	National Institute of Economic and Social Research
Waqas	Zahid	Department for Work and Pensions
Pengfei	Zhang	University of Oxford
Yixiu	Zhao	Swansea University



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