

# Second International Choice Modelling Conference

Oulton Hall

Leeds

4 July 2011 – 6 July 2011

[www.icmconference.org.uk](http://www.icmconference.org.uk)

[Conference programme](#)



Peter Davidson Consultancy

Transportation Planning, Railways, Research, Modelling & Software



Conference chair: **Stephane Hess**

Conference co-organisers: **Daniel Johnson, Jeremy Shires, Julián Arellana & Qian Fu**

## Conference highlights

**Monday, 11AM-12PM, Oulton 1, 2 & 3**

**Keynote presentation by Jordan Louviere**

*Modeling single individuals: the journey from psych lab to the App Store*

The journey begins with “bottom-up” models in 1927, continues in psychology to 1959 and beyond. McFadden enters in the early 1970s and focuses attention on “top-down” models. Chapman and Staelin (1982) reminded us that Luce and Suppes (1965) provided direction for expanding data; however, Chapman (1984) discouraged many by suggesting that too many observations were required to be of use in real field setting. Meanwhile top-down modelers made great strides in developing ever more complex statistical models that could represent various aspects of individual differences, correlated errors and the like. Enter the DotCom boom - personalised content, one-to-one marketing, individualised search engines. All cried out for individual-level models. At the height of the boom, Sawtooth Software asked about collaborating on a way to design search engines that could incorporate tradeoffs and capture preferences – re-enter individual models. Doing this requires models of single people, or at least a way to capture their tradeoffs and preferences. Our work on Best-Worst Scaling (Finn and Louviere 1992) seemed like a potentially promising way to get more information about preferences. The question was whether it could be made to “work”. The purpose of this talk is to review the journey to the present level of capability to model individual choices from a bottom-up approach. We discuss a number of aspects related to ways to design choice experiments that can be used to model individual. We also discuss ways to analyse the data collected in these experiments, and present several illustrative examples. We conclude by discussing how far we’ve come and how much further we need to go.

**Wednesday, 11.30AM-12.30PM, Oulton 1, 2 & 3**

**Keynote presentation by Andrew Daly**

*Forecasting behaviour: with applications to transport*

Transport analysis and choice modelling have had a fruitful symbiosis over several decades. Transport planning has needed quantitative forecasts of traffic flows, while the appraisal of transport projects has also required measures of willingness to pay: for both of these objectives appeal has been made to choice modelling. On the other hand, developments in choice modelling have offered new capabilities for transport analysis. The paper discusses this interaction, noting the major developments and indicating the current research areas.

A key feature of transport analysis has been the use of revealed preference data, in both disaggregate and aggregate forms. RP data is often collected for other purposes than modelling, making it a cheap if not always ideal resource, while its existence also raises the expectation that models will be consistent with it. Combination with Stated Preferences in various forms is fruitful, but raises issues that have not yet been resolved, while issues also remain with RP data itself: these issues are discussed.

Transport infrastructure is often intended to have a life of many years and to perform well over that period meaning that forecasts of traffic over a lengthy period are needed. The need for forecasts requires a range of choice modelling techniques to be developed, distinct from the estimation techniques that fill the majority of the literature. Again, the key points of this work are set out, new developments presented and current research issues outlined.

**Tuesday, 9AM-12.30PM, Oulton 1, Oulton 2, Oulton 3 & Repton Room  
Workshops**

Workshop 1: Recent advances on modeling multiple discrete-continuous choices (Oulton 1)

**Chair: Chandra Bhat**

**Presenters: David Bunch & Abdul Pinjari**

Numerous consumer choice situations involve the choice of multiple alternatives as opposed to a single alternative. Further, consumer choices typically involve continuous choice components of “how much to consume” along with the discrete choices of “what to choose”. Such multiple discrete-continuous (MDC) choices are pervasive in consumer decision-making and of empirical interest in a variety of social sciences, including economics, marketing, and transportation. Examples include individuals’ time-use choices (decisions to engage in different types of activities and time allocation to each activity), households’ vehicle fleet mix and usage (types of vehicles owned and miles traveled/fuel consumed on each vehicle), and grocery brand choice and purchase quantity decisions.

The past decade has witnessed notable advances in modeling multiple discrete-continuous choices. Recent innovations include:

- The advancement of the Kuhn-Tucker demand systems to modeling MDC choices
- The formulation of flexible and theoretically sound model specifications
- The development of simple and computationally efficient techniques for prediction and welfare analysis with Kuhn-Tucker demand models

The workshop will bring together researchers working in this area to discuss the recent advances and challenges related to modeling MDC choices. Some of the items to be discussed include:

- Theoretical foundations and recent modeling innovations based on the Kuhn-Tucker approach,
- Alternative approaches to modeling MDC choices (e.g., indirect utility methods),
- Current and new empirical applications,
- Flexible model specifications, including non-additive utility forms, correlated utility structures, and alternative stochastic specifications,
- Techniques to apply alternative model specifications for policy/welfare analysis,
- Implied properties of alternative model specifications (e.g., substitution/complementarity),
- Relevant data collection methods, and
- Alternative estimation techniques.

Workshop 2: Working with repeated choice data

**Chair: Andrew Daly**

**Presenters: Stephane Hess & Christine Eckert**

A growing majority of choice modelling applications now make use of data in which multiple choices are captured for each individual, with such data primarily coming from stated choice surveys. Independently of the type of data, the presence of multiple choice observations for each respondent can have significant advantages. First of all, it is clearly cheaper to collect multiple observations from the same respondent than to collect a single observation from

multiple respondents. More importantly however, the presence of multiple responses allows a model to analyse choices for the same respondent across a range of different settings, which permit the analyst to identify statistically the differences between individuals as well as the differences between choice situations for the same respondent. This is not possible when using cross-sectional data. While modellers have been quick to appreciate the advantages of panel data, there has only been limited work on adapting the existing model structures for dealing with this kind of data. Indeed, the majority of choice modelling tools were developed to analyse individual choices in cross-sectional data, while, with panel data, we are dealing with a situation in which a respondent faces multiple choice situations.

The aim of this workshop is to discuss appropriate modelling approaches to deal with the specific characteristics of repeated choice data. The two presentations in this workshop present contrasting views.

The first presentation focuses on how the existing cross-sectional framework should be adapted to estimate sample level models on repeated choice data. The presentation focuses on issues to do with correlation across choices for the same respondent, heterogeneity across respondents and across choices for the same respondent, correction of standard errors when using cross-sectional estimation techniques, and the potential impact of behavioural phenomena such as fatigue/boredom and learning.

The second presentation shows how the presence of multiple observations for each individual can be exploited to estimate individual-specific models, rather than sample level models. Two methods are presented. The first approach is ordinary least squares regression combined with parameter scaling. The second approach is a modified maximum likelihood estimation technique. Results are presented for simulated and empirical data sets. Single individual model performance is compared to performance using individual level parameters derived from the matrix of posterior means using hierarchical Bayes techniques. Performance is compared both in terms of parameter recovery and out of sample holdout prediction. Implications of sample size, number of choice tasks per individual, and the complexity of the underlying data generating process are discussed.

### Workshop 3: Mental representations and discrete choice behavior: state-of-the-art and avenues for future research

**Chair: Theo Arentze**

**Presenters: Benedict Dellaert, Geert Wets, Harmen Oppewal, Caspar Chorus**

How individuals mentally represent a decision problem when making a choice among possible courses of actions in a given situational setting is an area about which only relatively little is known to date. Many choices, such as travel or location choices be it for the short term (e.g., mode and destination of a trip) or longer term (e.g., transport mode availability, residential location) tend to be complex. They require simultaneous decisions on multiple dimensions and involve choice sets that have very many options and with outcomes that are hard to predict. Though there is ample evidence that individuals make such decisions based on mental representations that involve a strong reduction of reality, the way a decision-maker selects attributes and perceives benefits is not so well understood. Yet, this selection in the mental representation will have a strong potential effect on how choice alternatives are evaluated and, hence, on choice outcomes. To date, econometric approaches have conceptualized and modeled heterogeneity in decision strategies in terms of taste variety, predominantly in mixed-logit and latent class frameworks. However, the construction of a mental representation, which may vary across persons and situations, also

affects the structure of evaluation functions and choice sets and may differ between individuals. The way decision makers construct reality, therefore, is an emerging field of research in behavioral decision making that we address in this workshop.

The purpose of the workshop is to review the state-of-the-art in the field and -through interactive discussions- to identify avenues for future research bridging findings in different streams of research. The ambition is to formulate research approaches that go beyond traditional qualitative focus-groups and in-depth interviews that uncover key attributes for stated choice experiments and revealed discrete choice modeling. Questions addressed include: How can mental representations of decision problems be conceptualized, modeled and measured? To what extent and in what ways do revealed mental representations of travelers and consumers vary across situational contexts and person characteristics? What is the influence of the mental constructions of decision problems on choice behavior and what are the implications for and prospective of incorporating this in discrete choice models?

#### Workshop 4: Good data is key to the development of good models so how is innovation in collection keeping apace?

**Chair: Rob Sheldon**

**Presenters: Martin Dix, Terry Flynn & Paul Metcalfe**

This workshop will discuss the intricacies of qualitative and quantitative data collection.

There have been a large number of innovations during recent years which many practitioners are just not aware of. This lack of awareness can potentially lead to sub-optimal decision making for a crucial practical stage.

Quantitative developments will explore the following aspects:

- What are the pros and cons of online data collection processes?
- Can phone approaches be effectively used to capture complex SP data?
- Why does the public sector typically prefer face to face or online approaches?
- How can new technology be harnessed effectively in the process?
- Are there any limits to customisation?
- Can online data collection be improved through better identification of click-through and other behaviour?
- What is the experience of using supplementary questions and best-worst techniques to improve the modelling process?

The qualitative part of the programme will look at how new approaches can substantially enhance the designer's toolkit.

It will aim to explore the following aspects:

- How can deliberative approaches enhance survey design?
- Is there a role for online groups?
- How has qualitative research enhanced our ability to define attributes and communicate hypothetical options realistically?
- Are there risks of 'over-informing' respondents?
- Why don't we always undertake a programme of cognitive tests?
- Is there a role for another qualitative phase after the data collection programme?

**Monday 4 July 2011**

9AM-10.40AM	Registration / tea & coffee					
10.40AM-11AM	Opening session					
11AM-12PM	Plenary session (Oulton 1, 2 & 3) <i>Modeling single individuals: the journey from psych lab to the App Store</i> Jordan Louviere					
	I-A(1) Oulton 1	I-A(2) Oulton 2	I-A(3) Oulton 3	I-A(4) Repton Room	I-A(5) Repton Lounge	I-A(6) Rothwell Suite
12PM-1PM	<i>Modeling the behavior of investors</i>  Thomas Robin, Michel Bierlaire	<i>Exploring the consistency of alternative best and/or worst ranking procedures</i>  Riccardo Scarpa, Anthony A. J. Marley	<i>Analyzing observed heterogeneity in preferences: a semiparametric estimation approach</i>  Paul Koster, Hans Koster	<i>Stochastic choice behaviour on road traffic networks under information provision</i>  Ethan Ge, Xiaokun Wang	<i>Designing a DCE: the value of a qualitative process</i>  Mirja Elisabeth Kloejgaard, Mickael Bech, Rikke Soegaard	<i>Do turbines in the vicinity of respondents' residences influence choices among programmes for future wind power generation?</i>  Juergen Meyerhoff
	<i>Choice models in practice: current tendencies, problems, and welcome research directions</i>  Peter Vovsha	<i>Best-worst scaling: consistency of preferences with discrete choice experiments and stability over time</i>  Peter Burge, Dimitris Potoglou, Terry Flynn, John E Brazier, Ann Netten	<i>Accommodating for taste and variance heterogeneity in discrete choice</i>  Marco Boeri, Edel Doherty, Danny Campbell, Alberto Longo	<i>Consistently estimating flexible route choice models using an MNL lense</i>  Anders Karlstrom, Marcus Sundberg, Qian Wang	<i>Properties of internet and telephone data collection methods in a stated choice value of time study context</i>  Maria Börjesson, Staffan Algers	<i>Within-respondent testing of geographical framing effects of CE choice sets on WTP for environmental changes</i>  Marije Schaafsma, Roy Brouwer
1PM-2PM	Lunch (Calverley Grill)					
	I-B(1) Oulton 1	I-B(2) Oulton 2	I-B(3) Oulton 3	I-B(4) Repton Room	I-B(5) Repton Lounge	I-B(6) Rothwell Suite
2PM-3PM	<i>Estimating the heterogeneity distribution of willingness-to-pay using individualized choice sets</i>  Vishva Danthurebandara, Jie Yu, Martina Vandebroek	<i>Linking response quality to survey engagement: a combined random scale and latent variable approach</i>  Stephane Hess, Amanda Stathopoulos	<i>Selecting a date: a matter of regret and compromises</i>  Caspar Chorus, John Rose	<i>Attribute non-attendance in patients' choice of general practitioner appointment</i>  Arne Risa Hole	<i>Bayesian optimal designs for discrete choice experiments with partial profiles</i>  Roselinde Kessels, Bradley Jones, Peter Goos	<i>Valuation of townscape improvements using a two-level stated preference and priority ranking approach</i>  John Nellthorp, Phani Chintakayala, Mark Wardman
	<i>Investigating preference heterogeneity through individual level modelling</i>  Marek Giergiczny, Mikolaj Czajkowski	<i>Consistently inconsistent: the role of certainty, acceptability and scale in automobile choice</i>  Matthew John Beck, John M Rose, David A Hensher	<i>Random regret minimization: exploration of a new choice model for environmental and resource economics</i>  Mara Thiene, Marco Boeri	<i>Stated and inferred serial and choice task non-attendance in choice experiments in the context of environmental valuation</i>  David Hoyos, Petr Mariel, Jürgen Meyerhoff	<i>Optimal discrete choice experimental designs using genetic algorithms</i>  Doina Olaru, Brett Smith, Jue Wang	<i>On the perception of safety in low income neighbourhoods: using digital images in a stated choice experiment</i>  Paula Iglesias, Margarita Greene, Juan de Dios Ortuzar
3PM-3.30PM	Tea & coffee (Foyer)					
	I-C(1) Oulton 1	I-C(2) Oulton 2	I-C(3) Oulton 3	I-C(4) Repton Room	I-C(5) Repton Lounge	
3.30PM-4.30PM	<i>How urban environment affects travel behaviour? Integrated choice and latent variable model for travel schedules</i>  Lissy La Paix, Michel Bierlaire, Elisabetta Cherchi, Andrés Monzón	<i>Sound recordings used in nightclubs and bars: a fair valuation of the licence using a discrete choice analysis</i>  Patricia Lorenzo, Alejandro Requejo, Danny Ryan, Andrew Wynn	<i>Embedding multiple heuristics into choice models: an exploratory analysis</i>  Waiyan Leong, David Hensher	<i>Reduced dual response</i>  Christian Schlereth, Bernd Skiera	<i>Comparing the latent class model with the random parameters logit- a choice experiment analysis of highly heterogeneous electricity consumers in Hyderabad, India</i>  Julian Sagebiel	
	<i>Latent modal preferences: behavioral mixture models with longitudinal data</i>  Akshay Vij, André Carrel, Joan Walker	<i>Eliciting the illicit: choosing to cheat</i>  Dan Rigby, Kelvin Balcombe, Michael Burton, Ian Bateman, Abay Mulatu	<i>Allowing for heterogeneous decision rules in discrete choice models: an approach and four case studies</i>  Stephane Hess, Amanda Stathopoulos, Andrew Daly	<i>Trivariate probit models of pre-purchase/purchase shopping channel choice: clothing purchases in northern California</i>  Patricia Lyon Mokhtarian, Wei Laura Tang	<i>Selecting random parameters in discrete choice experiment for environmental valuation: a simulation experiment</i>  Petr Mariel, Amaya De Ayala, David Hoyos, Sabah Abdullah	
4.30PM-5PM	Tea & coffee (Foyer)					
	I-D(1) Oulton 1	I-D(2) Oulton 2	I-D(3) Oulton 3	I-D(4) Repton Room	I-D(5) Repton Lounge	
5PM-6PM	<i>Does the inclusion of a cost attribute in forced and unforced choices matter? Results from a web survey applying a discrete choice experiment</i>  Line Bjørnskov Pedersen, Trine Kjær, Jakob Kragstrup, Dorte Gyrd-Hansen	<i>What's in a name? Identifying and accommodating labelling effects within discrete choice experiments</i>  Edel Doherty, Danny Campbell, Stephen Hynes, Tom M van Rensburg	<i>A prospect theory approach to travel time variability</i>  Katrine Hjorth, Farideh Ramjerdi	<i>Modelling stochastic route choice with bi-objective traffic assignment</i>  Judith Y T Wang, Matthias Ehrgott	<i>Freight transport distance and weight as utility conditioning effects on a stated choice experiment</i>  Lorenzo Masiero, David Hensher	
	<i>Are there specific design elements of choice experiments and types of people that influence choice response certainty?</i>  David A Hensher, John M Rose, Matthew Beck	<i>Adjectives qualifying individuals' perceptions impacting on transport mode preferences</i>  Aurélie Glerum, Bilge Atasoy, Alberto Monticone, Michel Bierlaire	<i>Modelling travellers' heterogeneous route choice behaviour as prospect maximizers</i>  Giselle Moraes Ramos, Winnie Daamen, Serge Hoogendoorn	<i>Dynamics of route choice and signal control in capacitated networks</i>  Mike Smith	<i>Shippers' response to transport cost and time and model specification in freight mode and shipment size choice</i>  Daniel Johnson, Gerard De Jong	
7PM onwards	BBQ dinner (Claret Jug)					

**Tuesday 5 July 2011**

	Workshop I Oulton 1	Workshop II Oulton 2	Workshop III Oulton 3	Workshop IV Repton Room		
9AM-10.30AM	Recent advances on modeling multiple discrete-continuous choices  Chair: Chandra Bhat  Presenters: David Bunch & Abdul Pinjari	Working with repeated choice data  Chair: Andrew Daly  Presenters: Stephane Hess & Christine Eckert	Mental representations and discrete choice behavior: state-of-the-art and avenues for future research  Chair: Theo Arentze  Presenters: Benedict Dellaert, Geert Wets, Harmen Oppewal, Caspar Chorus	Good data is key to the development of good models so how is innovation in collection keeping apace?  Chair: Rob Sheldon  Presenters: Martin Dix, Terry Flynn & Paul Metcalfe		
10.30AM-11AM	Tea & coffee (Foyer)					
11AM-12.30PM	workshops continue					
12.30PM-1.30PM	Lunch (Calverley Grill)					
	II-A(1) Oulton 1	II-A(2) Oulton 2	II-A(3) Oulton 3	II-A(4) Repton Room	II-A(5) Repton Lounge	II-A(6) Rothwell Suite
1.30PM-3PM	<i>Choice probability generating functions</i>  Mogens Fosgerau, Dan McFadden, Michel Bierlaire	<i>Comparison of analytic approaches to welfare measurement in logit with income effect</i>  Paolo Delle Site, Marco Valerio Salucci	<i>The social valuation of burying the highway to overcome community severance</i>  Jose Maria Grisolia, Francisco Lopez, Juan de Dios Ortuzar	<i>Choice set formation in residential location choice modelling: implementation of a hazard-based approach</i>  Alireza Zolfaghari, Aruna Sivakumar, John Polak	<i>Service attributes and bucket prices</i>  Christian Schlereth, Bernd Skiera	<i>The modeling of household vehicle type choice accommodating spatial and social interaction effects</i>  Rajesh Paleti, Chandra R Bhat, Ram M Pendyala, Konstadinos G Goulias
	<i>Extreme values, invariances and selection probabilities</i>  Lars-Göran Mattsson, Jörgen W Weibull, Per Olov Lindberg	<i>A new approach to welfare assessment in discrete choice experiments: direct calculation of welfare measures for single individuals</i>  Emily Lanscar	<i>Urging residents to save energy</i>  Qi Han, Ingrid Nieuwenhijzen, Bauke de Vries, Erik Blokhuis, Wim Schaefer	<i>Feasibility of using time-space prism to build choice sets for destination choice models</i>  Seo Youn Yoon, Kathleen Deutsch, Yali Chen, Konstadinos G Goulias	<i>Analysis of annual, long-distance, vacation travel demand in the United States: a multiple discrete-continuous choice framework</i>  Caleb Van Nostrand, Abdul Pinjari, Vijay Sivaraman	<i>Unpacking the theory of sense of place: is it useful for choice modeling?</i>  Kathleen (Kate) E. Deutsch, Seo Youn Yoon, Konstadinos G. Goulias
	<i>Independence from Irrelevant Rankings</i>  André de Palma, Karim Kilani, Gikbert Laffond	<i>Applied welfare economics with discrete choice models: a review of model properties and specification</i>  Richard Batley, Nicolás Ibáñez	<i>Bias in consumer choices for environmental public goods</i>  Katherine S Carson, Susan M Chilton, George Hutchinson	<i>Access and attractiveness as determinants of consideration composition and choice in spatial choice modelling: a simulation study</i>  Ari Pramono, Harmen Oppewal	<i>Priority evaluator and multiple discrete continuous choice models: an analysis of residuals</i>  Kay W Axhausen, Boris Jäggi	<i>Incorporating spatial dynamics and temporal dependency in land use change models</i>  Raghuprasad Sidharthan, Chandra R Bhat
3PM-3.30PM	Tea & coffee (Foyer)					
	II-B(1) Oulton 1	II-B(2) Oulton 2	II-B(3) Oulton 3	II-B(4) Repton Room	II-B(5) Repton Lounge	
3.30PM-4.30PM	<i>A latent variable representation of count data models to accommodate spatial and temporal dependence: application to predicting crash frequency at intersections</i>  Marisol Castro, Rajesh Paleti, Chandra R Bhat	<i>Mixture amount models for handling constraints in conjoint applications</i>  Gamze Dane, Harry Timmermans, James B. Wiley	<i>Skew and attribute non-attendance within the bayesian mixed logit model</i>  Kelvin Balcombe, Michael Burton, Dan Rigby	<i>A behavioral housing search model: a combined hazard based and multinomial logit approach</i>  Taha Hossein Rashidi, Joshua Auld, Abolfazl Mohammadian	<i>Estimating unconstrained customer choice set demand: a case study on airline reservation data</i>  Alwin Haensel, Ger Koole, Jeroen Erdman	
	<i>Structural choice modelling: theory and applications to combining choice experiments</i>  Campbell M. Rungie, Leonard V. Coote, Jordan J. Louviere	<i>Cost thresholds, cut-offs and sensitivities in stated choice analysis: identification and implications</i>  Danny Campbell, David Hensher, Riccardo Scarpa	<i>Using individual-level parameter estimates to investigate evidence of lexicographic behavior and heterogeneity in information processing strategies</i>  Jeffrey Dumont, Thomas J Adler, Stephane Hess, William C Neafsey	<i>Household location, dwelling and tenure types in a dynamic context</i>  Matthieu de Lapparent, André de Palma, Nathalie Picard	<i>The effect of forced choice on choice: an application to nurse location decisions in Liberia</i>  Marko Vujicic, Mandy Ryan, Marco Alfano	
4.30PM-5PM	Tea & coffee (Foyer)					
	II-C(1) Oulton 1	II-C(2) Oulton 2		II-C(4) Repton Room	II-C(5) Repton Lounge	
5PM-6PM	<i>Activated needs, mental representation and choice behavior: an integrated modeling approach</i>  Theo Arentze, Benedict Dellaert, Caspar Chorus	<i>The consequences of the productive use of travel time: revisiting the goods leisure tradeoff in the era of pervasive ICT</i>  Jacek Pawlak, John Polak, Aruna Sivakumar		<i>How many choice-situations are optimal? Investigating ordering effects – the impact of the number of choice situations on individual preference and scale heterogeneity using the G-MNL model</i>  Mikolaj Czajkowski, Marek Giergiczny	<i>Consistent estimation of route choice models with link specific random costs</i>  Anders Karlstrom, Mogens Fosgerau	
	<i>Integrating routine, variety seeking and compensatory choice in a utility maximizing framework</i>  Vic Adamowicz, Joffre Swait	<i>Understanding the spatial differences in the values of work behind the time allocation patterns: the case of Santiago, Chile</i>  Sergio R. Jara-Diaz, Marcela Munizaga, Javiera Olguin		<i>The first time is the hardest: a test of ordering effects in choice experiments</i>  Morten Raun Mørkbak, Fredrik Carlsson, Søren Bøye Olsen	<i>Exploring en-route parking type and parking-search route choice: decision making framework and survey design</i>  Sigal Kaplan, Shlomo Bekhor	
7PM onwards	Conference dinner (Oulton 1, 2 & 3)					

Wednesday 6 July 2011

	III-A(1) Oulton 1	III-A(2) Oulton 2	III-A(3) Oulton 3	III-A(4) Repton Room	III-A(5) Repton Lounge	III-A(6) Rothwell Suite
9.30AM-11AM	<p><i>Modeling demand for electric vehicles: the effect of car users' attitudes and perceptions</i></p> <p>Aurélie Glerum, Michaël Thémans, Michel Bierlaire</p>	<p><i>Consistency and fungibility of monetary valuations in transport: an empirical analysis of framing and mental accounting effects</i></p> <p>Shepley Orr, Stephane Hess, Rob Sheldon</p>	<p><i>A simultaneous equations choice model system of tour type, vehicle type, accompaniment, and tour length</i></p> <p>Karthik Konduri, Ram M Pendyala, Rajesh Paleti, Chandra Bhat</p>	<p><i>Modelling mode choice in passenger transport with integrated hierarchical information integration</i></p> <p>Cornelia Richter, Stephan Keuchel</p>	<p><i>Incorporating the explicit role of psychological factors on mode choice: a hybrid mode choice model by using data from an innovative psychometric survey</i></p> <p>Alejandro Tudela, Khandker Nurul Habib, Juan Antonio Carrasco, Ahmed Osman</p>	<p><i>Estimation of stochastic scale with best-worst data</i></p> <p>Andrew T Collins, John M Rose</p>
	<p><i>Discrete choice analysis for trip timing decisions of morning commuters – estimations from joint SP/RP-GPS data</i></p> <p>Yin-Yen Tseng, Paul Koster, Stefanie Peer, Jasper Knockaert, Erik Verhoef</p>	<p><i>Distributed values of time for route choice – the impact of “non-traders”</i></p> <p>John Bates, John Richardson</p>	<p><i>Change of scale and forecasting with the control-function method in logit models</i></p> <p>Cristian Angelo Guevara, Moshe Emmanuel Ben-Akiva</p>	<p><i>How the choice of mode is conditioned by information Source</i></p> <p>Agha Faisal Habib Pathan, Peter Bonsall, Gerard de Jong</p>	<p><i>Incorporating latent attitudes in analysing food choices</i></p> <p>Vikki Lynn Gibson, Stephane Hess, Danny Campbell, George Hutchinson</p>	<p><i>Quantifying response shift or adaptation effects in quality of life by synthesising best-worst scaling and discrete choice data</i></p> <p>Terry Nicholas Flynn, T J Peters, J Coast</p>
	<p><i>Estimation efficiency of RP/SP models considering SP design and error structures</i></p> <p>Nobuhiro Sanko, Toshiyuki Yamamoto</p>	<p><i>Using prospect theory to investigate the low value of travel time for small time changes</i></p> <p>Katrine Hjorth, Mogens Fosgerau</p>	<p><i>Metropolis-Hastings sampling of alternatives for route choice models</i></p> <p>Gunnar Flötteröd, Michel Bierlaire</p>	<p><i>Simultaneous estimation of mode choice for commuting trips and preference for vehicle ownership in an urban area: the case of Córdoba city in Argentina</i></p> <p>Juan Jose Pompilio Sartori, Carlos Walter Robledo</p>	<p><i>Mode choice with attitudinal latent class: a Swiss case-study</i></p> <p>Bilge Atasoy, Aurélie Glerum, Michel Bierlaire</p>	<p><i>Conceptual relations between expanded rank data and models of the unexpanded rank data</i></p> <p>A. A. J. Marley</p>
11AM-11.30AM	Tea & coffee (Foyer)					
11.30AM-12.30PM	Plenary session (Oulton 1, 2 & 3) <i>Forecasting behaviour: with applications to transport</i> Andrew Daly					
12.30PM-1.30PM	Lunch (Calverley Grill)					
	III-B(1) Oulton 1	III-B(2) Oulton 2	III-B(3) Oulton 3	III-B(4) Repton Room	III-B(5) Repton Lounge	III-B(6) Rothwell Suite
1.30PM-2.30PM	<p><i>Comparing single and joint preferences: a choice experiment on residential location in three-member households</i></p> <p>Edoardo Marcucci, Amanda Stathopoulos, Romeo Danielis, Lucia Rotaris</p>	<p><i>Attending to the reasons for attribute non-attendance in choice experiments</i></p> <p>Mohammed Hussen Alemu, Morten Raun Mørkbak, Søren Bøye Olsen, Carsten Lyng Jensen</p>	<p><i>Monte Carlo analysis of two simultaneous estimation methods for travel mode choice with qualitative attributes</i></p> <p>Ricardo A. Daziano, Denis Bolduc</p>	<p><i>Exploring the possibility of combining discrete choice modelling and social networks analysis: an application to the analysis of weather-related uncertainty in long-distance travel behaviour</i></p> <p>Alberto M Zanni, Tim Ryley</p>	<p><i>Stability of latent class segments over time: results from a stated preference experiment</i></p> <p>Simone C Mueller</p>	<p><i>Transport choices in remote communities</i></p> <p>Jon Crockett, David Connolly, Brittany Byrd, Gerard Whelan, David Notman</p>
	<p><i>Couple residential location and spouses' workplaces</i></p> <p>Nathalie Picard, Pierre-André Chiappori, André de Palma</p>	<p><i>Modelling the effects of stated attribute non-attendance on its inference: an application to visitors benefits from the alpine grazing commons</i></p> <p>Riccardo Scarpa, Roberta Raffaelli, Sandra Notaro, Jordan J. Louviere</p>	<p><i>On the computation of probit choice probabilities</i></p> <p>Richard Connors, Stephane Hess, Andrew Daly</p>	<p><i>The effects of risk presentations and risk reduction methods on WTP estimates</i></p> <p>Seda Erdem, Dan Rigby</p>	<p><i>Testing for value stability with a meta-analysis of choice experiments: river health in Australia</i></p> <p>John Colin Rolfe, Roy Brouwer</p>	<p><i>Estimating potential demand for Autolib' - a new transport system for Paris</i></p> <p>Marco Kouwenhoven, Eric Kroes, Eric Tardivel, Cyrille Gazave</p>
2.30PM-3PM	Tea & coffee (Foyer)					
3PM-4PM	Plenary session (Oulton 1, 2 & 3) Workshop reports					
4PM-4.30PM	Closing session and announcement of host venue for 2013 conference					



# Oulton Hall

## Ground, First Floor and Claret Jug Plans

