Workshop A2 - New Directions in Experimental Design

Workshop chair:
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The use of stated preferences has a long tradition in transportation, as controlled experiments allow researchers to not only better identify causal relationships that may be hard to disentangle in revealed behavior but also analyze hypothetical situations such as the introduction of new alternatives. In this workshop, the evolution of experimental design will be discussed in the context of the rapid changes and challenges that the transportation field is experiencing. The transportation ecosystem is moving toward new modalities (mobility on demand) and new technologies (automation) and, at the same time, there are new tools to collect and analyze data. Therefore, new technology as both subject of study and tool for data collection will be a key theme in the discussion. Specific topics and emerging issues that will be discussed include (and will not be limited to): immersive and interactive virtual experience and visualization of experiment conditions, treatment effects, natural and behavioral experiments, customization, and methods for analysis of mental processes involved with performing a task.

Papers for oral presentation
- Elisabetta Cherchi.
  Using eye track devises to understand individual decisions process in stated preferences experiments: an application to the choice of electric vehicles
- Hamzeh Alizadeh, Pierre-Léo Bourbonnais, Catherine Morency, Bilal Farooq and Nicolas Saunier.
  An Online Survey to Enhance the Understanding of Car Drivers Route Choices

Papers for poster presentation related to workshop
- Luis Macea, Victor Cantillo and Ivan Serrano.
  The use of stated choice surveys for estimation of deprivation cost functions
- Luis Márquez, Victor Cantillo and Julián Arellana.
  Understanding the complexity of indicators on the estimation of a hybrid demand model
- Felix Becker and Kay W. Axhausen.
  Predicting the use of autonomous vehicles in the short and long term.
- Rico Krueger, Taha H. Rashidi and Vinayak V. Dixit.
  Will Driverless Cars Induce Urban Sprawl? Experimental Design of a Stated Choice Study
- Bozhezi Peng, Rico Krueger and Taha Hossein Rashidi.
  Modelling Market Uptake of a New Mobility Option in the Sydney Metropolitan area: A Stated Choice Study on Motorcycle Taxis
- Gary Hayes and Christo Venter.
  Observing real-time revealed preference route choice on a congested urban road network with cumulative motorway tolls
- Joram Langbroek, Joel Franklin and Yusak Susilo.
  A stated adaptation tool for studying travel patterns after electric vehicle adoption

- Chandra Bhat, Sebastian Astroza and Patricia Lavieri.
  A New Microeconomic Theory-Based Model for Ranking Data
- Prateek Bansal and Ricardo Daziano.
  Influence of Choice Experiment Designs in Eliciting Preferences for Autonomous Vehicles
- Kristina Currans, Ricardo Hurtubia and Kelly Clifton.
  Using Imagery in Stated Preference Surveys: Lessons Learned from a Review of the Practice
- Xia Jin and Kollol Shams.
  Stated Preference Survey for Valuation of Travel Time Reliability in Freight Transport