**UNSW School of Aviation S2-2015 Colloquium Series**

*Location:* School of Aviation, Old Main Building, Level 2, Room 221  
*Time:* 1100 - 1200  
*Date:* Fortnightly  
*Coffee and Tea available prior to each presentation*

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Upcoming

4 November 2015 – Dr Yang Bai, “Analysis of subsidy policy in regional aviation markets”.

Research highlights:
Past


Research highlights:
• Poor speed management is one of the leading causes of car crashes involving young drivers in Australia.
• The aim of the present study was to examine the utility of cognitive training methods (Self-explanation, Reflection, and Feedback) in improving young drivers speed management behaviour.
• One hundred and two young drivers completed three test drives using a computer-based driving simulator.
• The results showed that cognitive training methods reduced young drivers tendency to exceed the speed limit.
• These findings have important implications for the development of a new approach to improve young drivers speed management behaviour.

7 October 2015 – Dr Belinda Dinnell, “Alternative methods of identifying expert pilots”

Research highlights:
• Salience of number amounts of cockpit gauges
• Rigidity of expertise
• Experts ability to chunk information
23 September 2015 – Dr Horace Yang, “A comparison of flight choice models in a dual-airport region between overlapping error components and cross-nested structure”

**Research highlights:**
- Investigating the similarity among flight routes with GNL and ECL models in a dual-airport region.
- Model comparisons with three criteria of interpretation, reproduction, and generalization.
- ECL with overlapping EC can be effective in dealing with cross correlations among alternatives.
- The flying route with two international airports could suffer competition from multiple sources.
- Airfare and access time are proven as significant variables to increase the share of flying routes.


**Research highlights:**
- The aim was to identify differences in perception of glass cockpits in light aircraft between men and women pilots in Australia and South Africa.
- A view of traditional and glass cockpits
- Combination of qualitative and quantitative methods using Casner’s(2008) survey
- Qualitative responses revealed categories with both positive and negative perceptions
- Quantitative analysis lead to a revised survey
- Differences between Australian and South African men and women pilots identified.
26 August 2015 – Dr Felipe Delgado Breinbauer, “A risk averse approach to the optimal capacity problem in the airline cargo industry”

**Research highlights:**
In air cargo transportation capacity can be reserved via allotment, which are contracts with fixed price, and free, in which higher tariffs are charged. In this presentation we propose a two stage stochastic programming model to determine the optimal capacity allocation. The demand, the tariff, and the show-up rate for the free mode are stochastic. We consider risk neutral and risk averse formulations, using the Conditional Value-at-Risk as a risk measure. We solve the resulting problems using the Sample Average Approximation, and test our models with nine experiments representing different demand patterns using real data from a major airline.

19 August 2015 – Professor Peter Forsyth, “The wider economic benefits of air transport”

**Research highlights:**
The Wider Economic Benefits of surface transport have been recognised for several years, though their measurement remains difficult. In the same way, there may be WEBs of air transport- these could be of importance in evaluating airports, assessing liberalisation proposals, and more generally, in evaluating the costs and benefits of policies, such as air passenger duties. If WEBs are to be factored into evaluations, such as Cost Benefit or Computable General Equilibrium studies, it needs to be established that they are genuine net benefits, such as those accruing from externalities or market imperfections, and not just impacts which have already been taken account of by the users of air transport. There are several possible WEBs, some of which have been recognised for decades (such as frequency economies), and others which has been attracting attention lately (such as connectivity effects). Several are considered here: frequency or Mohring effects; connectivity and interaction effects; tourism effects; market power and imperfect competition effects; agglomeration effects; time savings effects and effects which come about through competition, specialisation and trade. The paper concludes by considering techniques of measuring the effects, including economy wide econometric studies, micro econometric studies, and CGE modelling studies. At this stage of research, there is a big divergence between theoretical studies and econometric studies which needs to be resolved.
12 August 2015 – Dr Tay Koo, “Measuring the effect of aviation safety risk reduction on passengers' flight choice: some evidence from simple choice experiments”

**Research highlights:**
- Left unprompted, travelers tend not to explicitly nominate safety as an important factor in their choice of flight options.
- When specific safety risk information is available, travelers use that information when making choices between flight options.
- Safety information and price emerge as the most important factors influencing flight choice, although there are substantial variation in the willingness-to-pay for safety reduction across individuals.

29 July 2015 – Dr Brett Molesworth, “Altering the way key information is presented to overcome the detrimental effect of in-cabin aircraft noise on recall performance”.

**Research highlights:**
- Noise levels inside commercial aircraft are loud (80 dBA).
- Key safety related information is often provided aurally, competing with this noise.
- Presenting information visually has the potential to overcome some of the noise effects.
- Working memory appears immune from these noise effects.
- Recognition memory is adversely affected by noise.
- Visual presentation of key safety related information can overcome the noise effects on recognition memory.