

# VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

*Zeit:* Donnerstag, 19. November 2015, 16:30 Uhr

*Ort:* Raum 253, Gebäude 11.40

*Es spricht:* Andrea Raith, Senior Lecturer Engineering Science, University of Auckland

*Zum Thema:* **Biobjective Traffic Assignment Models**

*Abstract:* Transport modelling is a key component in analysing road transport network congestion and prioritising infrastructure improvements. In a generic transport modelling process transport demands are modelled between different origins and destinations in the network and split between transport modes such as motorised vehicles, public transport and cycling. The final stage is traffic assignment where the route choice of network users is modelled to obtain estimates of the flow of traffic on each road in the network based on the assumption that drivers aim to minimise their travel time or so-called generalised cost function. By modelling the nonlinear relationship between flow and travel time on a road congestion effects are captured. We propose to model route choice of drivers as a biobjective problem where drivers explicitly distinguish two (or more) objectives such as travel time and toll cost resulting biobjective traffic assignment (equilibrium) models. We introduce some approaches to solving these problems. Further, an application of biobjective route choice models is used to model cyclist route choice and to predict usage of cycling infrastructure.

**Die Vorträge zum Operations Research wenden sich an alle Interessierten!**

Ab 17:00 Uhr ist am Institut für Operations Research (Gebäude 11.40, Raum 249) Gelegenheit zu einem Gespräch mit dem Referenten bei einer Tasse Kaffee gegeben.

Bei Rückfragen wenden Sie sich bitte an:

Prof. Dr. Stefan Nickel, Institut für Operations Research.