Network Modelling of Road Pricing: Current Issues and Challenges

Congestion in world cities has been a growing problem worldwide for many years; one solution favoured by transport economists is to charge users for road space through congestion charging or road pricing mechanisms. There are now a number of operational schemes worldwide utilising a variety of different pricing mechanisms for different stated objectives. All such schemes are theoretically sub-optimal for a variety of practical considerations; however theoretical optimal tolling solutions whilst solved under certain special conditions, remain in general a difficult and unsolved problem.

This talk will consider the challenges inherent in modelling road pricing in realistic complex networks, will discuss theoretical solutions which exist in the case of static models and finally will present current work in the area of modelling road pricing using dynamic assignment models.