

# 3<sup>rd</sup> Kuhmo-Nectar Summer School and Conference

Transport and Urban Economics

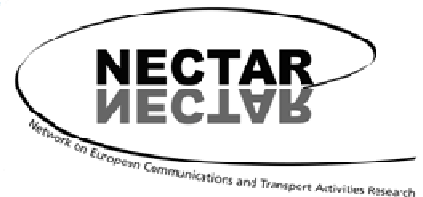
VU University Amsterdam  
30 June – 4 July, 2008

## PROGRAMME

Organized and sponsored by:  
VU University, Tinbergen Institute, TRANSUMO, DVS Centre for Transport and  
Navigation, NECTAR



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## **Welcome**

It is a great pleasure for us to welcome you to Amsterdam for the Kuhmo Nectar Summer School and Conference, which are this year hosted by the Department of Spatial Economics of the VU University Amsterdam.

This edition will be the third in a sequence that started in Finland in 2006, and Urbino in 2007. We will do our best to come close to the standards set by these meetings, seeking a combination of inspiring lectures, innovative research papers, and lively discussions, all in a pleasant and informal atmosphere. Quite a challenge indeed!

We thank our sponsors, without whom this meeting would not have been possible: DVS Centre for Transport and Navigation, Transumo, Tinbergen Institute, VU University and Nectar.

We wish you all an inspiring meeting!

The Local Organizing Committee  
Erik Verhoef  
Hadewijch van Delft  
Edoardo Marcucci  
Esko Niskanen

## **Venue**

The summer school and conference are held in the Vrije Universiteit (VU), Main Building, De Boelelaan 1105, Amsterdam.

## **Registration**

Monday 30 June from 08.00 to 09.00 and on Thursday 3 July from 08.30 to 09.30. Outside these hours, please contact the Conference Secretariat, Mrs Hadewijch van Delft, personally. Registration will take place on the second floor, close to the rooms where the summer school lectures and conference sessions are held.

## **Rooms**

All lectures and sessions are held on the second floor, in rooms 2A-02, 2A-05 and 2A-06.

**Lunches** will be held in the university restaurant, on the ground floor level.

**Coffee breaks** are held in an area close to the lectures and session rooms.

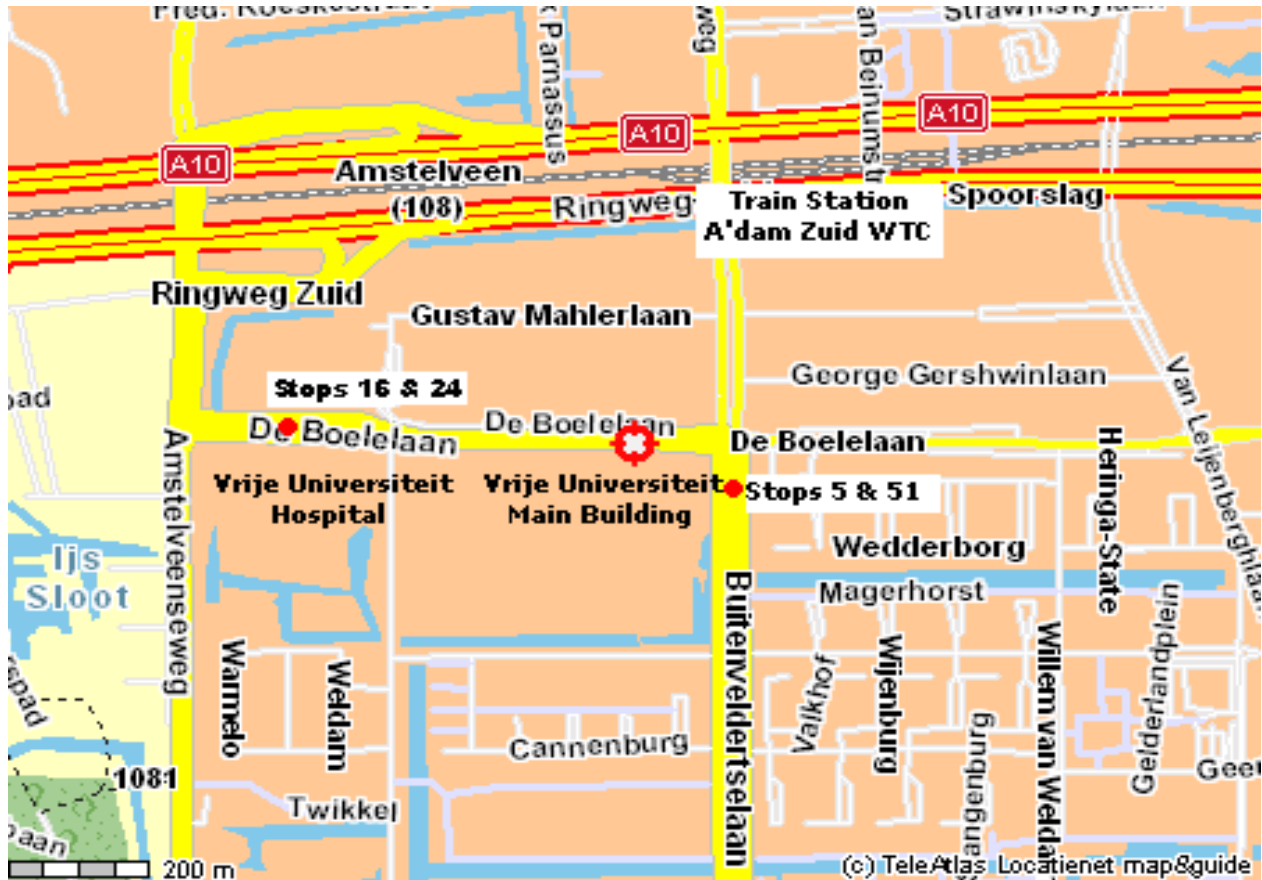
## **How to get there**

The VU is well accessible by local public transport. From the city centre, you can take:

- Tram 5, direction Amstelveen/Binnenhof. The stop “De Boelelaan/VU” is next to the main building. It takes around 25 minutes from Amsterdam Central Station.
- Sneltram 51 (combined metro/express tram), direction Amstelveen/Westwijk. The stop “De Boelelaan/VU” is next to the main building. It takes around 16 minutes from Amsterdam Central Station.
- Tram 16 and 24, direction VU Medisch Centrum. The stop “VU Medisch Centrum” is in front of the Vrije Universiteit’s Hospital, which is next to the university’s main building (a five minutes walk). It takes around 20 minutes from Amsterdam Central Station.

Your hotel service desk can advise you about the best connection from your hotel.

When arriving directly from Schiphol Airport, you can take a direct train to Amsterdam Zuid WTC, and either walk to the main building (5-10 minutes) or use tram 5 or sneltram 51 (one stop, same directions as above).



### **Public transport**

The conference bag that you receive upon registration contains a public transport pass. Please stamp this pass the first time you use it (in the yellow stamp machine inside the tram, on the platform, or with the bus driver). After stamping, you can make unlimited use of trams, buses, metro's and night buses in the city of Amsterdam for a period of 48 (conference) or 72 (summer school) hours.

### **Presentation technology**

A lap-top and beamer will be available in each room for presentations. Our default assumption is that you will use these for your PowerPoint presentation, which you can bring along on diskette, CD-ROM or USB memory device (risk averse individuals bring along at least two of these). To avoid the loss of time, hooking up of personal lap-tops is discouraged. Presenters are invited to the room 10 minutes prior to the start of the session, so that presentations can be copied onto the lap-top before the session starts. Please avoid the use of file names like kuhmonectar.ppt, as this may replace your colleagues' presentations. If you wish to use traditional overhead slides, please inform us beforehand so that we can

arrange an overhead projector. The computers will be ready for PowerPoint 2007 presentations (and earlier versions).

### **Chairs**

Chairs are invited to come to the room 10 minutes prior to the start of the session. They introduce the session and the speakers, make sure that the time available is divided equally over the papers to be presented, and guide the discussion with the floor following the presentation. The conference programme identifies the chairs for individual sessions. In case a chair does not show up, the presenter of the last paper is expected to take over the role of chair.

### **Internet**

Computers with an internet connection will be available for delegates in Room 3A-12 of the Main Building (on the third floor). The room will be open from Monday to Friday from 09.00 to 17.00. To get access to the network, a login name and password are required, which will be included in the conference bag that you receive upon registration. The number of available computers is finite. Etiquette stipulates that in case of a queue, a user will not keep a computer occupied for more than 30 minutes. In case of technical problems, please consult the ICT helpdesk in Room 3A-16.

### **Photocopying**

Photocopying facilities are available during office hours in the basement of the University's main building (below the main entrance). Copy cards can be purchased at the Main Building's reception desk, immediately to the left of the main entrance when entering the building. A card valid for 100 copies costs € 5.

## **Committees**

### ***Local Organizing Committee***

- Erik Verhoef, Vrije Universiteit Amsterdam, The Netherlands, chair
- Hadewijch van Delft, Vrije Universiteit Amsterdam, The Netherlands, congress secretariat
- Edoardo Marcucci, Università Roma Tre, Italy, NITEL, CIRIAF
- Esko Niskanen, STAResearch, Helsinki, Finland

### ***Conference Scientific Committee***

- Erik Verhoef, VU University Amsterdam, The Netherlands
- Edoardo Marcucci, Università Roma Tre, Italy, NITEL, CIRIAF
- Esko Niskanen, STAResearch, Helsinki, Finland
- Richard Arnott, UC Riverside, USA
- Alex Anas, State University of New York, Buffalo, USA
- Jan K Brueckner, University of California, Irvine, USA
- Francis Cheung, DVS Centre for Transport and Navigation, The Netherlands
- André de Palma, University of Cergy-Pontoise and ENPC, Paris, France, and adpC, Belgium
- Piet Rietveld, VU University Amsterdam, The Netherlands
- Kenneth Small, University of California, Irvine, USA
- Bernhard Wieland, Technical University of Dresden, Germany

### ***Summer School Steering Committee***

- Richard Arnott, UC Riverside, USA
- Edoardo Marcucci, Università Roma Tre, Italy, NITEL, CIRIAF
- Esko Niskanen, STAResearch, Helsinki, Finland
- Erik Verhoef, VU University Amsterdam, The Netherlands



Monday 30 June – Wednesday 2 July

## SUMMER SCHOOL

VU University Main Building  
Room 2A-05



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## Monday 30 June

### GENERAL INTRODUCTION

- |             |  |
|-------------|--|
| 09.00-09.05 | Opening by Erik Verhoef, chair of the local organizing committee   |
| 09.05-10.30 | Lecture 1<br><i>Urban transport demand modelling: state of the art</i><br>Kenneth Small                  |
| 10.30-11.00 | Coffee break   |
| 11.00-12.30 | Lecture 2<br><i>Urban transport supply modelling: state of the art</i><br>Kenneth Small                  |
| 12.30-12.50 | Presentation Saskia Zwartjes from DVS Centre for Transport and Navigation                                |
| 12.50-13.45 | Lunch break  |
| 13.45-15.15 | Lecture 3<br><i>Static and dynamic equilibria and optima in urban transport</i><br>Richard Arnott        |
| 15.15-15.30 | Coffee break   |
| 15.30-17.30 | Lecture 4<br><i>Discrete choice models: theory and application</i><br>André de Palma and Nathalie Picard |
| 18.30       | Dinner at 'Het Blauwe Theehuis' in the Vondelpark  |

## Restaurant Het Blauwe Theehuis

Vondelpark 5

([www.blauwetheehuis.nl](http://www.blauwetheehuis.nl))

### Route description from the VU University:

Take tram 5 (direction Central Station)

Get off at 'Willemsparkweg', 10 minutes walking (red line on the map)

Total travel time approximately 30 minutes



**Tuesday 1 July**

**URBAN TRANSPORT ANALYSIS**

09.00-10.30	Lecture 5 <i>Travel time unreliability and valuation</i> Mogens Fosgerau
10.30-11.00	Coffee break
11.00-12.30	Lecture 6 <i>Transport and urban land use: conceptual issues</i> Richard Arnott
12.30-13.30	Lunch break
13.30-15.00	Lecture 7 <i>Applied integrated transport and land use modeling</i> Alex Anas
15.00-15.30	Coffee break
15.30-17.00	Lecture 8 <i>Transport nodes and urban development</i> Piet Rietveld
17.30-23.00	Dinner at IJmuiden Beach ( <a href="http://www.paviljoenzeezicht.nl">www.paviljoenzeezicht.nl</a> ) Bus leaves at 17.30 from the university in front of the main entrance Arriving back at the VU around 23.00

## Wednesday 2 July

### URBAN TRANSPORT POLICIES: INVESTMENT AND PRICING

09.00-10.30	Lecture 9 <i>Hub airports and economic development</i> Jan Brueckner
10.30-11.00	Coffee break
11.00-12.30	Lecture 10 <i>Pricing and capacity choice in urban transport</i> Erik Verhoef
12.30-13.30	Lunch break
13.30-15.00	Lecture 11 <i>Congestion management in aviation</i> Jan Brueckner
15.00-15.30	Coffee break
15.30-17.00	Lecture 12 <i>Second-best public and private provision of tolled roads</i> Erik Verhoef
17.30-18.30	Exam
19.30	Dinner at 'IJ-kantine'

## Restaurant IJ-Kantine

MT Ondinaweg 15-17

([www.ijkantine.nl](http://www.ijkantine.nl))

### Route description from the VU University:

Take tram 51 to 'Central Station'

Take (free) ferry to 'NDSM-werf' (red line on the map), boarding behind Central Station on De Ruijterkade; so take the back entrance of the station.

The ferry departs every 15 minutes (18.30, 18.45, etc.). The restaurant is located just near the quay.

Total travel time approximately 40 minutes.



Thursday 3 July - Friday 4 July

## CONFERENCE

VU University Main Building

Rooms 2A-02, 2A-05, 2A-06



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## **THURSDAY 3 JULY**

### **09.15-10.30 Room 2A-05 Opening and key note lecture**

- Opening by Erik Verhoef, chair of the local organizing committee
- Key note by Jan Brueckner *Atomistic Congestion Tolls at Concentrated Airports? Seeking a Unified View in the Internalization Debate*

### **10.30-11.00 Coffee break**

### **11.00-12.30 Room 2A-05 Investment and Financing I: Theory**

Chair: Edoardo Marcucci

- Olga Ivanova *Formulation of Simultaneous Car and Public Transport Network Equilibrium in the Form of Mixed Complementarity Problem in the Context of Bi-level Programming*
- Eran Leck, Shlomo Bekhor, Daniel Gat *Equity and Efficiency Impacts of Transportation Improvements in a System of Cities Characterized by a Core-Periphery Structure*
- André de Palma, Stef Proost, Saskia van der Loo *Financing Constraints in the Bottleneck Model*

### **11.00-12.30 Room 2A-06 Public Transport**

Chair: Francis Cheung

- Yin Yen Tseng, Erik Verhoef, Piet Rietveld *The Analysis of Anticipating Departures and the Value of Implied Schedule Delay for Railway Passengers*
- Salvatore Amoroso, Marco Migliore, Mario Catalano, Fabio Galatioto *A Demand-based Methodology for Planning the Bus Network of a Small-medium Sized Town*
- Matthew G. Karlaftis *Ownership and Competition in European Public Transport: A dynamic ARCH Stochastic Frontier Efficiency Assessment*

### **12.30-13.30 Lunch break**

### **13.30-15.00 Room 2A-02 Pay As You Drive (Verzekeren per kilometer)**

Chair: Jasper Knockaert

- Jan-Willem Bolderdijk, Linda Steg *Acceptability and Adoption of Pay-As-You-Drive Vehicle Insurance: the Role of Privacy Concerns*
- Kobus Zantema, Dirk v. Amelsfort, Piet Bovy, Michiel Bliemer *Pay-As-You-Drive (PAYD): a Case Study into the Safety and Accessibility Effects of PAYD Strategies*
- Jasper Knockaert, *Behavioural Aspects of PAYD*

**13.30-15.00 Room 2A-05 Investment and Financing II: Case Studies**

Chair: Ken Small

- Petros Ieromonachou, Stephen Potter, James Warren *The Olympic Legacy Dilemma - Designing Transport Systems for Beyond the Games*
- Isabella Lami, Elena Donellini *Potential Roles of Project Financing in Transforming the Port of Genoa*
- Mark Koetse, Jan Rouwendal *Transport and Welfare Consequences of Infrastructure Investment: A Case Study for the Betuweroute*

**13.30-15.00 Room 2A-06 Choice Behaviour**

Chair: Mogens Fosgerau

- Karel Spitaels, Sven Maerivoet *An Empirical Agent-based Model of Parking Behaviour*
- Jan Rouwendal *Car use, Car ownership, and Quality Choice*
- Gila Albert, Tomer Toledo, Shalom Hakkert *Monetary Evaluation of Safety Measures*

**15.00-15.30 Coffee break**

**15.30-17.00 Room 2A-02 Avoiding the Peak (Spitsmijden)**

Chair: Jasper Knockaert

- Michiel Bliemer, Dirk van Amelsfort *Rewarding Instead of Charging Road Users: a Model Case Study Investigating Effects on Traffic Conditions*
- Dick Ettema, Jasper Knockaert, Erik Verhoef *Using Incentives as a Traffic Management Tool*
- Jan Rouwendal, Erik Verhoef, Jasper Knockaert *Congestion in the Dutch Randstad*

**15.30-17.00 Room 2A-05 Investment and Financing III: Theory**

Chair: Erik Verhoef

- Noemi Patumi, Giuliano Sparacino *Public Private Partnership for Urban Mobility*
- Kenneth Small, Chen Ng *Tradeoffs among Free-flow Speed, Capacity, Cost, and Environmental Footprint in Highway Design*
- Marco Alderighi *The Dynamics of Domestic and International Infrastructure Investments*

## THURSDAY 3 JULY

### **15.30-17.00 Room 2A-06 Freight**

Chair: Piet Rietveld

- Oleg Poklad *Scheduling System for the Regulation of Long-haul Service with Use of Road Trains.*
- Olaf Jonkeren, Erhan Demirel, Jos van Ommeren, Piet Rietveld *Imbalance in Trade Flows as a Determinant of Transport Prices in a Spatial Network*
- Erhan Demirel, Jos van Ommeren, Piet Rietveld *Water-Level Risk on the Rhine River*

18.30 Dinner at Restaurant Het Tuynhuys

### **Restaurant Het Tuynhuys**

Reguliersdwarstraat 28

([www.tuynhuys.nl](http://www.tuynhuys.nl))

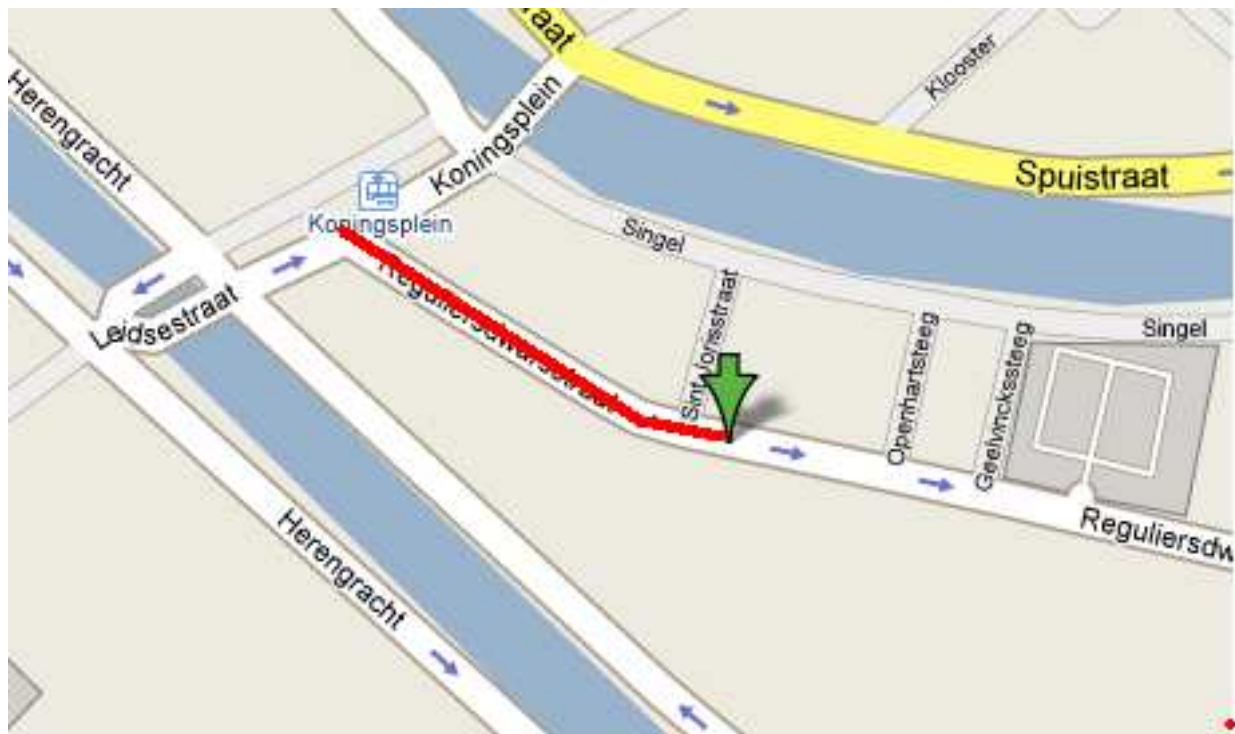
#### Route description from the VU University:

Take tram 5 direction Central Station

Get off at 'Koningsplein'

Walk 1 minute to restaurant (red line on the map)

Total travel time approximately 20 minutes



**09.00-10.30 Room 2A-05 Road Pricing I: Modelling**

Chair: Jan Brueckner

- Siriphong Lawphongpanich, Yafeng Yin *Exact and Approximate Pareto-Improving Congestion Tolls*
- Andrew Koh, Simon Shepherd *Tolling, Capacity Selection and Equilibrium Problems with Equilibrium Constraints*
- Bruno De Borger *Optimal Congestion Pricing in a Wage Bargaining Model*

**09.00-10.30 Room 2A-06 Heterogeneity**

Chair: Mogens Fosgerau

- Vincent van den Berg, Eric Kroes, Erik Verhoef *Biases in Willingness-to-Pay Measures from Multinomial Logit Estimates due to Unobserved Heterogeneity*
- Elenna R. Dugundji *Socio-Dynamic Discrete Choice on Networks*
- Pedro Cantos-Sánchez, Rafael Moner-Colonques, José J. Sempere-Monerris, Óscar Álvarez San-Jaime *Viability of a New Road Infrastructure with Heterogeneous Users in Madrid Access*
- Marco Alderighi, Claudio Piga *The Circular City with Heterogeneous Firms*

**10.30-11.00 Coffee break**

**11.00-12.30 Room 2A-05 Road Pricing II: Design and Impacts**

Chair: Saskia Zwartjes

- Julie Bulbeau, *Modelling Urban Toll Associated to a Modal Policy: Objective to Reduce External Effects of Cars*
- Borja Beltran, Stefano Carrese *Environmental Equilibrium Assignment*
- Edoardo Marcucci, Romeo Danielis, Lucia Rotaris *The Ecopass System in Milan: Theoretical Reflections and Preliminary Evaluations*

**11.00-12.30 Room 2A-06 Aviation I: Pricing**

Chair: Eric Pels

- Leonardo J. Basso, Anming Zhang *On the Relationship between Airport Pricing Models*
- Joseph Daniel, Katherine Thomas Harback *Pricing the Major Hub Airports*
- Christiaan Behrens, Eric Pels *Intermodal Competition in the London-Paris Passenger Market: High-speed rail and Air Transport*

**12.30-13.30 Lunch break**

## **FRIDAY 4 JULY**

### **13.30-15.00 Room 2A-02 Land Use and Transport I**

Chair: Edoardo Marcucci

- Isabella Lami, Laurent Staffelbach *The Transformation of the Zurich Central Station: Processes of Urban Renewal and Regeneration*
- Vincenzo Del Giudice, Pierfrancesco De Paola, Francesca Torrieri *A Random Utility Model for the Location of Real Estate Investment*
- Guillaume Pouyanne *Urban Form and Daily Mobility. Methodological Aspects and Empirical Study in the Case of Bordeaux (France)*

### **13.30-15.00 Room 2A-05 Road Pricing III: Design and Impacts**

Chair: Esko Niskanen

- James Warren, Petros Ieromonachou *Design Rules Applied to Road User Charging Schemes*
- Eva Gutiérrez-i-Puigarnau, Jos van Ommeren *Labour Supply and Commuting: Implications for Optimal Road Taxes*
- Mark Lijesen *Solving Congestion with Tradable Reservations*

### **13.30-15.00 Room 2A-06 Aviation II: Efficiency and Competition**

Chair: Eric Pels

- Jan Veldhuis, Joost Zuidberg *Estimation of Hub Sustainability*
- Jane Edwards *What is a Low Cost Airline? Defining Carrier Business Models*
- Paolo Malighetti, Gianmaria Martini, Stefano Paleari, Renato Redondi *The Efficiency of European Airports: Do the Importance in the EU Network and the Intensity of Competition Matter?*

### **15.00-15.30 Coffee break**

### **15.30-17.00 Room 2A-02 Land Use and Transport II**

Chair: Alex Anas

- Daniel Gat, Shlomo Bekhor, Eran Leck *A Sustainable Urban District: Layout, Transportation, Environment*
- Mogens Fosgerau, Jos Van Ommeren *The Workers' Marginal Costs of Commuting*
- Wouter Vermeulen, Jan Rouwendal *Urban Expansion or Clustered Deconcentration? An Applied Welfare Economic Analysis of Growth Controls and the Foundation of Satellites*

**15.30-17.00 Room 2A-05 Reliability**

Chair: Kenneth Small

- Shahram Tahmasseby, Rob van Nes *The Role of Infrastructure on Public Transport Service Reliability*
- Mogens Fosgerau, Anders Karlström *The Value of Reliability*
- Martijn Brons, Piet Rietveld *The Effect of Travel Time Reliability on Choice Behavior in the Door-to-door Rail Trip*
- Paul Koster, Erik Verhoef, Eric Kroes, Eric Pels *Valuing the Costs of Travel Time Unreliability*

**15.30-17.00 Room 2A-06 Joint Session with the German Aviation Research Society**

Chair: Hans-Martin Niemeier

- Jan Brueckner and Vivek Pai *Technological Innovation in the Airline Industry: the Impact of Regional Jets*
- Nathalie McCaughey *Frequent Flier Programs, Taxation and Profits*
- Paolo Beria and Aaron B. Scholz *Strategies for Infrastructure Development of Airports: a Comparison between Milan Malpensa and Berlin Brandenburg International*
- Eric Pels *Network Competition in the Open Aviation Area*

**19.15 Dinner on Canal cruise**

**Dinner on Amsterdam canals with ‘Holland International Rondvaart’**

Boarding at 19.15 at Prins Hendrikkade opposite to Central Station (red dot on the map). The boat will return to this location at approximately 21.30.

**Route description from the VU University:**

Take tram 51 to Central Station (final destination), take exit ‘Stationsplein’  
Walk to boarding location in front of the Central Station (red line on the map, next page).  
Total travel time approximately 25 minutes.

**FRIDAY 4 JULY**

