

THE 10TH INTERNATIONAL CONFERENCE OF HONG KONG SOCIETY FOR TRANSPORTATION STUDIES

Transportation and the Economy

10 December 2005, InterContinental Grand Stanford Hong Kong,

70 Mody Road, Tsimshatsui East, Kowloon, Hong Kong

FINAL PROGRAMME

Time	Event				
08:30 – 09:00	Registration (Pre-Function Area)				
09:00 – 09:10	Welcome Addresses (Picasso Room)				
09:10 – 10:00	<p style="text-align: center;">Keynote Addresses (Picasso Room)</p> <p style="text-align: center;">Mr. Joshua LAW, JP Permanent Secretary for the Environment, Transport and Works (Transport), HKSAR</p> <p style="text-align: center;">Prof. Michael G.H. BELL Imperial College London, UK</p>				
10:00 – 10:20	Coffee Break (Pre-Function Area)				
10:20 – 11:50	<p style="text-align: center;">Plenary Session (Picasso Room)</p> <p style="text-align: center;">Prof. J.D. HUNT, University of Calgary, Canada</p> <p style="text-align: center;">Prof. Lawrence W. LAN, National Chiao Tung University, Taiwan</p> <p style="text-align: center;">Dr. W.Y. SZETO, University of Dublin, Ireland (Outstanding Dissertation Paper Awardee)</p>				
11:50 – 13:00	Conference Lunch (Academy Room, 1/F)				
13:00 – 14:15	<p style="text-align: center;">Session 1 (Picasso Room)</p> <p>Network Modeling and Optimization I</p>	<p style="text-align: center;">Session 2 (Picasso Room A)</p> <p>Intelligent Transportation Systems</p>	<p style="text-align: center;">Session 3 (Picasso Room B)</p> <p>Road Pricing and Economic Appraisal</p>	<p style="text-align: center;">Session 4 (Monet Room A)</p> <p>Travel Behavioural Analysis I</p>	<p style="text-align: center;">Session 5 (Monet Room B)</p> <p>Traffic Management and Control</p>
14:15 – 14:30	Coffee Break (Pre-Function Area)				
14:30 – 15:30	<p style="text-align: center;">Session 6 (Picasso Room)</p> <p>Network Modeling and Optimization II</p>	<p style="text-align: center;">Session 7 (Picasso Room A)</p> <p>Transportation Demand Modeling</p>	<p style="text-align: center;">Session 8 (Picasso Room B)</p> <p>Outstanding Student Paper Award</p>	<p style="text-align: center;">Session 9 (Monet Room A)</p> <p>Travel Behavioural Analysis II</p>	<p style="text-align: center;">Session 10 (Monet Room B)</p> <p>Land Use and Transport Planning</p>
15:30 – 15:45	Coffee Break (Pre-Function Area)				
15:45 – 16:45	<p style="text-align: center;">Session 11 (Picasso Room)</p> <p>Airport Planning and Freight Operation</p>	<p style="text-align: center;">Session 12 (Picasso Room A)</p> <p>Non-motorized Transport</p>	<p style="text-align: center;">Session 13 (Picasso Room B)</p> <p>Public Transportation</p>	<p style="text-align: center;">Session 14 (Monet Room A)</p> <p>Logistics and Supply Chain Management</p>	<p style="text-align: center;">Session 15 (Monet Room B)</p> <p>Sustainable Transportation</p>
16:45 – 17:00	Closing Address (Picasso Room)				
18:30 – 20:30	Conference Dinner (Optional)				

Welcome Addresses (Picasso Room)

- 09:00 – 09:05** Welcome Speech by Prof. Andrew BALDWIN, Dean, Faculty of Construction & Land Use, The Hong Kong Polytechnic University
- 09:05 – 09:10** Opening Speech by Prof. William H.K. LAM, Chair, 10th HKSTS Conference & President of HKSTS

Keynote Addresses (Picasso Room)

Session Chair: Prof. William H.K. LAM

- 09:10 – 09:35** **The Pivotal Role of Transport Infrastructure in Hong Kong's Sustainable Economic Development** – Mr. Joshua LAW, JP
- 09:35 – 10:00** **Decision-making under Uncertainty in Transport: The Principle of Regret** – Prof. Michael G.H. BELL
Souvenir Presentation to Keynote Speakers

10:00 – 10:20 Coffee Break

Plenary Session (Picasso Room)

Session Chair: Prof. John J. LIU

- 10:20 – 10:50** **Enhanced Policy Analysis using Integrated Land Use Transport Economic Models** – Prof. J.D. HUNT (with B.J. GREGOR, T.J. WEIDNER and J.E. ABRAHAM)
- 10:50 – 11:20** **A Refined Parsimony Procedure to Investigating Nonlinear Traffic Dynamics** – Prof. Lawrence W. LAN (with Yi-San HUANG)
- 11:20 – 11:45** **Dynamic Traffic Assignment: Properties and Extensions** – Dr. W.Y. SZETO (with Hong K. LO)
- 11:45 – 11:50** Souvenir Presentation to Invited Lecturers and Outstanding Dissertation Paper Award Prize Presentation

11:50 – 13:00 Conference Lunch

Session 1: Network Modeling and Optimization I (Picasso Room)

Session Chair: Dr. S.C. WONG

- 13:00 – 13:15** **Bi-level Programming for Stochastic Dynamic Traffic Network under ATIS** – Hualing REN, Ziyu GAO and Wei REN
- 13:15 – 13:30** **Traffic Equilibrium Problem: Incorporating Traffic Restraint and Random Perception** – Zhong ZHOU and Anthony CHEN
- 13:30 – 13:45** **Heuristic Algorithms for Dynamic Traffic Assignment with Departure Time Choice** – Ziqi SONG and C.O. TONG
- 13:45 – 14:00** **Analysis of the Inefficiency of Stochastic User Equilibrium** – Xiaolei GUO and Hai YANG

Session 2: Intelligent Transportation Systems (Picasso Room A)

Session Chair: Dr. Donggen WANG

- 13:00 – 13:15** **The Advanced Traveler Information System for Shanghai Metropolitan Expressways** – HongCheng GAN and LiJun SUN
- 13:15 – 13:30** **Modelling Speed-Density Relationships for Real-time Traveller Information System Development in Hong Kong** – Mei-Lam TAM and William H.K. LAM
- 13:30 – 13:45** **On-line Travel Time Forecasts for Real-time Traveller Information System in Hong Kong** – K.S. CHAN and William H.K. LAM

13:45 – 14:00 **Online Travel Time Prediction for Motorways and Urban areas by Microscopic Simulation** – Marc MISKA, Theo MULLER and Henk J. VAN ZUYLEN

Session 3: Road Pricing and Economic Appraisal (Picasso Room B)

Session Chair: Dr. Timothy D. HAU

13:00 – 13:15 **Cost-Effectiveness Analysis of Cross-Harbour Tunnels in Hong Kong** – Alfred LAM, William H.K. LAM and Hing-Po LO
 13:15 – 13:30 **International Experience in Road Congestion Charging: Lessons for Hong Kong** – Timothy D. HAU and Jennifer L.M. LI
 13:30 – 13:45 **Analysis of the Inefficiency of Private Toll Road Competition** – Feng XIAO, Hai YANG and Deren HAN
 13:45 – 14:00 **Dynamic Network Pricing Models for Elastic Demand** – Andy H.F. CHOW
 14:00 – 14:15 **A Partially Inexact Trial Method for the Traffic Restraint and Road Pricing Problem** – Wei XU, Deren HAN and Hai YANG

Session 4: Travel Behavioural Analysis I (Monet Room A)

Session Chair: Prof. J.D. HUNT

13:00 – 13:15 **Modeling Traveler's Route Choice Criteria under Uncertainty** – Hu SHAO, William H.K. LAM and Mei-Lam TAM
 13:15 – 13:30 **Degradable Transport Network with Perception Variations in Traffic Conditions** – Barbara W.Y. SIU and Hong K. LO
 13:30 – 13:45 **Microsimulating Urban Commercial Tours in Calgary** – J.D. HUNT and K.J. STEFAN
 13:45 – 14:00 **On Travel Time Perception and Judgment Heuristics** – Atsushi NAGAKUBO, Akira KIKUCHI and Ryuichi KITAMURA

Session 5: Traffic Management and Control (Monet Room B)

Session Chair: Dr. W.G. WONG

13:00 – 13:15 **Development of Genetic Fuzzy Logic Controller-based Ramp Metering Strategies** – Yu-Chiun CHIOU and Yun-Ching WANG
 13:15 – 13:30 **Using Cellular Automata to Explore Spatiotemporal Traffic Patterns** – Lawrence W. LAN and Chih-Cheng HSU
 13:30 – 13:45 **Traffic Detecting and Tracking for the Measurement of Traffic Flow at Intersections** – Masanori MATSUDA, Shoji MATSUMOTO and Kazushi SANO
 13:45 – 14:00 **An Improved Fixed-end Beam Deflection Curve Model for Overtaking on Highway** – Tie-Qiao TANG, Hai-Jun HUANG, Zheng LIU and Chao-Qun MEI
 14:00 – 14:15 **Comparison of Foamability between Shell 60 and Shell 100** – Gui-ping HE and Wing-gun WONG

14:15 – 14:30 **Coffee Break**

Session 6: Network Modeling and Optimization II (Picasso Room)

Session Chair: Prof. Michael FLORIAN

14:30 – 14:45 **Solving Semi-asymmetric Traffic Assignment Problems with the Dantzig-Wolfe Decomposition Method** – William CHUNG
 14:45 – 15:00 **A Note on Computing Shortest Paths with Logistic Constraints** – Teodor Gabriel CRAINIC and Michael FLORIAN
 15:00 – 15:15 **Multi-layer Network Approach for Modeling General Combined-mode Trips** – Z.X. WU, H.S. YE, M. SUN and William H.K. LAM

- 15:15 – 15:30 **A Logit-based Stochastic User Equilibrium Model with Asymmetric Travel Costs** – Chao YANG, Anthony CHEN and Xiao-Hong CHEN

Session 7: Transportation Demand Modeling (Picasso Room A)

Session Chair: Prof. Hai YANG

- 14:30 – 14:45 **A Recommended Neural Trip Distribution Model** – Serkan TAPKIN and Ozdemir AKYILMAZ
- 14:45 – 15:00 **The Albatross Model System: Sensitivity Tests and Pilot Applications** – Theo ARENTZE and Harry TIMMERMANS
- 15:00 – 15:15 **Regional Development and Unobservable Demand for Intercity Rail Travel** – Alexander BAYARMA and Ryuichi KITAMURA
- 15:15 – 15:30 **Cell-based Short-term Traffic Flow Forecasting using Time Series Modelling** – Bidisha GHOSH, W.Y. SZETO, Biswajit BASU and Margaret O'MAHONY

Session 8: Outstanding Student Paper Award (Picasso Room B)

Session Chair: Prof. Hai-Jun HUANG

- 14:30 – 14:45 **Deivation of Continuum Traffic Model for Weaving Sections on Freeways** – D. NGODUY
- 14:45 – 15:00 **Existence and Uniqueness of a Solution for the Multi-class User Equilibrium Problem in a Continuum Transportation System** – H.W. HO
- 15:00 – 15:15 **Analysis on Safety Margins for Airport Ground Access Journeys** – Mei Ling TAM
- 15:15 – 15:30 Outstanding student award committee discussion and judgement

Session 9: Travel Behavioural Analysis II (Monet Room A)

Session Chair: Dr. H.P. LO

- 14:30 – 14:45 **Structural Equation Analysis of Interactions between Job-housing Relations, Transport Mode and Commuting Times in Beijing** – Donggen WANG and Yanwei CHAI
- 14:45 – 15:00 **Exploratory Study of the Impacts of Internet Use on Business Work-travel Behaviour on Trains in The Netherlands** – Jasper H.N. LIM, Min ZHANG and Toon VAN DER HOORN
- 15:00 – 15:15 **A Use of the Prospect Theory in the Study of Travelers' Choice – Evidence from the West Rail Experience** – Hing-Po LO, Mei-Yee LI and Linda LU
- 15:15 – 15:30 **Developing a Disaggregate Model of Mode Choice in Kathmandu using SP and RP Data** – P.M. PARAJULI, J.E. ABRAHAM, J.D. HUNT and S.C. WIRASINGHE

Session 10: Land Use and Transport Planning (Monet Room B)

Session Chair: Dr. Hong K. LO

- 14:30 – 14:45 **The Random Utility Theory Foundations of PECAS** – J.E. ABRAHAM and J.D. HUNT
- 14:45 – 15:00 **Spatially Disaggregated Economic Modelling with Input-output Tables** – J.D. HUNT, J.E. ABRAHAM, M. ZHONG and A.T. BROWNEE
- 15:00 – 15:15 **LUTDMM: An Operational Prototype of a Microsimulation Travel Demand System for Transport-Land Use Studies** – Min XU, Michael A.P. TAYLOR and Stephen L. HAMNETT
- 15:15 – 15:30 **The Effect of Lane Utilization on the Capacity of Multi-lane Traffic Roundabout** – Jing BIE, Hong K. LO and S.C. WONG

15:30 – 15:45

Coffee Break and Collection of CPD Certificates

Session 11: Airport Planning and Freight Operation (Picasso Room)

Session Chair: Dr. Stephen W.K. LAM

- 15:45 – 16:00 Introduction to Evolution of Airport Airside Configurations – A.G.A.N. NANAYAKKARA and S.C. WIRASINGHE
- 16:00 – 16:15 New Security Procedures at Airports and their Impact on the Planning and Operation of Passenger Terminals – Alexandre G. DE BARROS
- 16:15 – 16:30 Building a Comprehensive, Innovative and Multimodal Truck/Freight Model for the Los Angeles Metropolitan Area – A Preliminary Model using Cube Cargo – Luke CHENG

Session 12: Non-motorized Transport (Picasso Room A)

Session Chair: Dr. Becky P.Y. LOO

- 15:45 – 16:00 Pedestrians' Crossing Behaviour in Hong Kong – Becky P.Y. LOO and M.K. TSUI
- 16:00 – 16:15 Contributory Factors to Road Pedestrian Accidents in Hong Kong – N.N. SZE, S.C. WONG, Becky P.Y. LOO, Hong K. LO and W.T. HUNG
- 16:15 – 16:30 A Study of Pedestrian Movements in Hong Kong Urban Area With and Without Pedestrianisation Scheme – Jodie Y.S. LEE and William H.K. LAM

Session 13: Public Transportation (Picasso Room B)

Session Chair: Dr. C.O. TONG

- 15:45 – 16:00 Modelling the Crowding Effects of Transit System on Commuters' Arrival Behaviors – Qiong TIAN, Hai-Jun HUANG and William H.K. LAM
- 16:00 – 16:15 Probit-based Multi-class Passenger O-D Estimation in Networks with Public Transport Information System – Liu YANG and William H.K. LAM
- 16:15 – 16:30 Quality of Transit Service Information and Travelers' Mode Choices – Quentin K. WAN and Hong K. LO
- 16:30 – 16:45 Dynamic Transit Network Assignment using a Stochastic Generalized Cost Function – S.W.C. FUNG, C.O. TONG and S.C. WONG

Session 14: Logistics and Supply Chain Management (Monet Room A)

Session Chair: Prof. Janny M.Y. LEUNG

- 15:45 – 16:00 Flexible Timetables for Real-time Train Rescheduling – A. D'ARIANO, D. PACCIARELLI and M. PRANZO
- 16:00 – 16:15 On a Vehicle Routing Problem with Time Windows and Stochastic Travel Times – Jack J. CHEN, Jacky C.F. WONG, Janny M.Y. LEUNG and C.H. CHENG
- 16:15 – 16:30 Strategies for the Dynamic Dial-A-Ride Problem – K.I. WONG
- 16:30 – 16:45 Understanding Order Volatility of MTO Outsourcing with Price Speculation and Information Asymmetry – Jia YAN and John J. LIU

Session 15: Sustainable Transportation (Monet Room B)

Session Chair: Dr. W.T. HUNG

- 15:45 – 16:00 Vehicular Emissions and the Regulation of Motor Fuels – J. LUDWIGSON, F.W. RUSCO and W. D. WALLS

- 16:00 – 16:15** **Travel Characteristics of Residents Living in Sha Tin: How Do They Differ from the Rest of the City? What are the Implications on Sustainable Urban Transport?** – Becky P.Y. LOO and Alice S.Y. CHOW
- 16:15 – 16:30** **Urban Density Required for Sustainable Rail Services** – Z.W. WANG and Hong K. LO
- 16:30 – 16:45** **Identification of Principle Factors Affecting West Rail Patronage** – K.L. MAK, P.C. LAM and W.T. HUNG

Closing Address (Picasso Room)

- 16:45 – 16:50** Outstanding Student Paper Award Prize Presentation Ceremony
- 16:50 – 16:55** Closing Address by Prof. John J. LIU, Head and Chair Professor in Maritime Studies, Department of Logistics, The Hong Kong Polytechnic University
- 16:55 – 17:00** Invitation from the chair of the 11th International HKSTS Conference (Dr. S.C. WONG, The University of Hong Kong)