

The 18th International Symposium on Transportation and Traffic Theory (ISTTT18)

FINAL PROGRAMME

(as at 14 July 2009)

16 July 2009 (Thursday)

Time	Event
08:30 – 09:00	Registration (Pre-Function Area)
	Welcome Addresses (Chiang Chen Studio Theatre)
09:00 – 09:20	<p>Welcome Address by Ir Prof. J.M. KO Vice President, Academic Staffing and Resources, The Hong Kong Polytechnic University</p> <p>Welcome Address by Ir Prof. William H.K. LAM Chairman, The 18th International Symposium on Transportation and Traffic Theory (ISTTT); President, Hong Kong Society for Transportation Studies</p> <p>Welcome Address by Prof. Carlos Daganzo Convenor, International Advisory Committee, The International Symposium on Transportation and Traffic Theory (ISTTT); Professor, University of California, U.S.A.</p> <p>Opening Address by Ir C.S. Wai, JP Director, Highways Department, The Government of the Hong Kong Special Administrative Region</p>
	Plenary Session 1 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Ben G. Heydecker</i>
09:20 – 09:45	<p>A Game Theoretic Approach to the Determination of Hyperpaths in Transportation Networks Jan-Dirk Schmöcker, Michael G.H. Bell, Fumitaka Kurauchi, Hiroshi Shimamoto</p>
09:45 – 10:10	<p>Network Equilibrium under Cumulative Prospect Theory and Endogenous Stochastic Demand and Supply Agachai Sumalee, Richard D. Connors, Paramet Luatthep</p>
10:10 – 10:30	Group Photos (Staircase near Chiang Chen Studio Theatre)
10:30 – 10:50	Coffee Break (Pre-Function Area)
	Plenary Session 2 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Reinhart Kühne</i>
10:50 – 11:15	<p>Spatiotemporal Effects of Segregating Different Vehicle Classes on Separate Lanes Michael J. Cassidy, Carlos F. Daganzo, Kitae Jang, Koohong Chung</p>
11:15 – 11:40	<p>Microscopic Traffic Behaviour near Incidents Victor L. Knoop, Henk J. van Zuylen, Serge P. Hoogendoorn</p>
11:40 – 12:05	<p>Understanding Stop-and-Go Traffic in View of Asymmetric Traffic Theory Hwasoo Yeo, Alexander Skabardonis</p>
12:05 – 12:30	<p>A Stochastic α-Reliable Mean-Excess Traffic Equilibrium Model with Probabilistic Travel Times and Perception Errors Anthony Chen, Zhong Zhou</p>
12:30 – 14:00	Symposium Lunch (14/F, Li Ka Shing Tower, The Hong Kong Polytechnic University)
	Plenary Session 3 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Michael G.H. Bell</i>
14:00 – 14:25	<p>Equilibrium Trip Scheduling in Congested Traffic under Uncertainty Barbara W.Y. Siu, Hong K. Lo</p>
14:25 – 14:50	<p>Reliable a Priori Shortest Path Problem with Limited Spatial and Temporal Dependencies Yu (Marco) Nie, Xing Wu</p>
14:50 – 15:15	<p>Risk Averse Second Best Toll Pricing Xuegang (Jeff) Ban, Shu Lu, Michael Ferris, Henry X. Liu</p>
15:15 – 15:35	Coffee Break (Pre-Function Area)

16 July 2009 (Thursday)

Time	Event
	Plenary Session 4 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Nathan H. Gartner</i>
15:35 – 16:00	Cordon Pricing Consistent with the Physics of Overcrowding Nikolas Geroliminis, David M. Levinson
16:00 – 16:25	Build-operate-transfer Schemes for Road Franchising with Road Deterioration and Maintenance Effects Zhijia Tan, Hai Yang, Xiaolei Guo
16:25 – 16:50	Equilibria and Inefficiency in Traffic Networks with Stochastic Capacity and Information Provision Tian-Liang Liu, Hai-Jun Huang, Hai Yang, Xiaolei Guo
17:00 – 19:00	Cocktail (Theatre Lounge and Pre-function Area) and Poster Session I (Podium, Core A, The Hong Kong Polytechnic University)
P1	A Gradient Approximation Approach for Adjusting Temporal Origin-destination Matrices Ernesto Cipriani, Michael Florian, Michael Mahut, Marialisa Nigro
P2	Stochastic Multi-modal Transport Network under Demand Uncertainties and Adverse Weather Condition Agachai Sumalee, Kenetsu Uchida, William H.K. Lam
P3	Modeling Multimodal Morning Commute in a One-to-One Corridor Network Zhen (Sean) Qian, H. Michael Zhang
P4	Modeling Heterogeneous Network User Route and Departure Time Responses to Dynamic Pricing Chung-cheng Lu, Hani S. Mahmassani
P5	Multi Vehicle-type Transit Scheduling Avishai (Avi) Ceder
P6	Route Layout Analysis for Express Buses S.C. Wirasinghe, U. Vandebona
P7	Optimization of Transit Priority in the Transportation Network using a Decomposition Methodology Mahmoud Mesbah, Majid Sarvi, Iradj Ouveysi, Graham Currie
P8	From Traffic Breakdown to Energy Flow Analysis Christof Liebe, Reinhard Mahnke, Reinhart Kühne
P9	Heterogeneity in Car-following Behavior: Theory And Empirics Saskia Ossen, Serge P. Hoogendoorn
P10	A Discrete Traffic Kinetic Model - Integrating Lagged Cell Transmission Model with Continuous Traffic Kinetic Model Shoufeng Lu, Shiqiang Dai, Ximin Liu
P11	Comparison of Traffic State Estimation Methods for Lagrangian Data Juan C. Herrera, Alexandre M. Bayen
P12	Analysis and Modelling of Traffic Flow Under Variable Speed Limits Ben G. Heydecker, J.D. Addison
P13	A Reliability-based Land Use and Transportation Optimization Model Kelvin K.W. Yim, S.C. Wong, Anthony Chen, C.K. Wong
P14	Cooperative Game Approaches to Measuring Network Reliability Considering Paradoxes W.Y. Szeto
P15	Quality of Traffic Performance Assessment for Priority Type Intersection with Non-stationary Traffic Flow Demands Marian Tracz, Jansuz Chodur
P16	A Decision-making Rule in Traveler's Route Choice Behavior based on Cumulative Prospect Theory Jing Zhou, Hong-li Xu, Wei Xu

16 July 2009 (Thursday)

Time	Event
17:00 – 19:00	Cocktail (Theatre Lounge and Pre-function Area) and Poster Session I (Podium, Core A, The Hong Kong Polytechnic University)
P17	A Dynamic Model of Activity Generation: Development and empirical derivation Theo A. Arentze, Harry J.P. Timmermans
P18	Tour-based Entropy Maximization Formulations of Urban Commercial Vehicle Movements Qian Wang, José Holguín-Veras
P19	Freeway Service Patrol Deployment Planning for Incident Management and Congestion Mitigation Yingyan Lou, Yafeng Yin, Siriphong Lawphongpanich
P20	Real-time Estimation of Arterial Travel Time under Congested Conditions Henry X. Liu, Wenteng Ma, Xinkai Wu, Heng Hu
P21	Quantifying Perceived Quality of Traffic Service and Its Aggregation Structure Hideyuki Kita, Akira Kouchi

17 July 2009 (Friday)

Time	Event
	Plenary Session 5 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Hani S. Mahmassani</i>
09:00 – 09:25	An Active-set Algorithm for Discrete Network Design Problems Lihui Zhang, Siriphong Lawphongpanich, Yafeng Yin
09:25 – 09:50	Multi-class Multi-modal Network Equilibrium with Regular Choice Behaviors: a General Fixed Point Approach Meng Xu, Ziyou Gao
09:50 – 10:15	Existence of Equilibrium in a Continuous Dynamic Queueing Model for Traffic Networks with Responsive Signal Control Richard Mounce
10:15 – 10:40	Harmonic Analysis and Optimization of Traffic Signal Systems Nathan H. Gartner, Rahul Deshpande
10:40 – 11:00	Coffee Break (Pre-Function Area)
	Plenary Session 6 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Marian Tracz</i>
11:00 – 11:25	A Two-direction Method of Solving Variable Demand Equilibrium Models with and without Signal Control Mike Smith
11:25 – 11:50	Modeling Learning Impacts on Day-to-Day Travel Choice Ozlem Yanmaz-Tuzel, Kaan Ozbay
11:50 – 12:15	A Probit-based Joint Discrete-continuous Model System: Analyzing the Relationship between Timing and Duration of Maintenance Activities Xin Ye, Ram M. Pendyala
12:15 – 12:40	Bayesian Learning, Day-to-Day Adjustment Process, and Stability of Wardrop Equilibrium Shoichiro Nakayama
12:40 – 14:10	Symposium Lunch (Colour Crystal Restaurant, 2/F, Harbour Crystal Centre, 100 Granville Road, Tsimshatsui)
	Plenary Session 7 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Michael Taylor</i>
14:10 – 14:35	Hotspot Identification: A Full Bayesian Hierarchical Modeling Approach H.L. Huang, H.C. Chin, M.M. Haque
14:35 – 15:00	The Continuous Risk Profile Approach for the Identification of High Collision Concentration Locations on Congested Highways KooHong Chung, David R. Ragland, Samer Madanat, Soon Mi Oh
15:00 – 15:25	Estimation of Parameters of Network Equilibrium Models: A Maximum Likelihood Method and Statistical Properties of Network Flow Shoichiro Nakayama, Richard D. Connors, David Watling
15:25 – 15:50	Optimization of a Bus and Rail Transit System with Feeder Bus Services under Different Market Regimes Zhi-Chun Li, William H.K. Lam, S.C. Wong
15:50 – 16:10	Coffee Break (Pre-Function Area)

17 July 2009 (Friday)

Time	Event
	Plenary Session 8 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Serge P. Hoogendoorn</i>
16:10 – 16:35	Modelling Dynamic Generation of a Choice Set in Pedestrian Networks Takamasa Iryo, Yasuo Asakura, Ryota Onishi, Chiharu Samma
16:35 – 17:00	A Common Modeling Framework for Dynamic Traffic Assignment and Supply Chain Management Systems with Congestion Phenomena Georgios Kalafatas, Srinivas Peeta
17:00 – 17:25	A Pedestrian Model Considering Anticipatory Behaviour for Capacity Evaluation Miho Asano, Takamasa Iryo, Masao Kuwahara
17:30 – 21:30	Symposium Banquet (Hung Kee Seafood Restaurant, Sai Kung)

18 July 2009 (Saturday)

Time	Event
	Plenary Session 9 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. S.C. Wirasinghe</i>
09:00 – 09:25	A Comparative Assessment of Stochastic Capacity Estimation Methods Justin Geistefeldt, Werner Brilon
09:25 – 09:50	Supply-demand Diagrams and a New Framework for Analyzing the Inhomogeneous Lighthill-Whitham-Richards Model W.L. Jin, L. Chen, Elbridge Gerry Puckett
09:50 – 10:15	Network Evaluation Based on Connectivity Vulnerability Fumitaka Kurauchi, Nobuhiro Uno, Agachai Sumalee, Yumiko Seto
10:15 – 10:35	Coffee Break (Pre-Function Area)
	Plenary Session 10 (Chiang Chen Studio Theatre) <i>Session Chair: Prof. Jean-Baptiste Lesort</i>
10:35 – 11:00	Reliability-based Dynamic Discrete Network Design with Stochastic Networks Hao Li, Michael C.J. Bliemer, Piet H.L. Bovy
11:00 – 11:25	Flow Breakdown, Travel Reliability and Real-time Information in Route Choice Behavior Jing Dong, Hani S. Mahmassani
11:25 – 11:50	Optimal Sensor Placement for Freeway Travel Time Estimation Xuegang (Jeff) Ban, Ryan Herring, J.D. Margulici, Alexandre M. Bayen
11:50 – 12:15	Updating Dynamic Origin-destination Matrices using Observed Link Travel Speed by Probe Vehicles Toshiyuki Yamamoto, Tomio Miwa, Tomonori Takeshita, Takayuki Morikawa
12:15 – 13:45	Symposium Lunch (Colour Crystal Restaurant, 2/F, Harbour Crystal Centre, 100 Granville Road, Tsimshatsui)
13:45 – 15:15	Historical Review on Transportation and Traffic Theory (Chiang Chen Studio Theatre) <i>Convenor: Prof. Richard Allsop (U.K.)</i>
	<i>Panel members:</i> Martin Beckmann (U.S.A.) Werner Brilon (Germany) Nathan H. Gartner (U.S.A.) Reinhart Kühne (Germany) Michael Taylor (Australia) Marian Tracz (Poland) S.C. Wirasinghe (Canada)
15:15 – 15:35	Coffee Break (Pre-Function Area)
15:35 – 17:05	Future Research on Transportation and Traffic Theory (Chiang Chen Studio Theatre) <i>Convenor: Prof. Carlos Daganzo (U.S.A.)</i>
	<i>Panel members:</i> Michael G.H. Bell (U.K.) Avishai (Avi) Ceder (Israel) Ben G. Heydecker (U.K.) Serge P. Hoogendoorn (The Netherlands) Masao Kuwahara (Japan) William H.K. Lam (Hong Kong) Jean-Baptiste Lesort (France) Hani S. Mahmassani (U.S.A.)
17:05 – 17:30	Closing Address (Chiang Chen Studio Theatre)

14:00 – 17:00

Poster Section II

(Podium, Core A,
The Hong Kong
Polytechnic
University)

See details on the
next page

18 July 2009 (Saturday)

Time	Event
14:00 – 17:00	Poster Section II (Podium, Core A, The Hong Kong Polytechnic University)
B1	A Game Theoretic Approach to the Determination of Hyperpaths in Transportation Networks Jan-Dirk Schmöcker, Michael G.H. Bell, Fumitaka Kurauchi, Hiroshi Shimamoto
B2	Network Equilibrium under Cumulative Prospect Theory and Endogenous Stochastic Demand and Supply Agachai Sumalee, Richard D. Connors, Paramet Luathep
B3	Estimation of Parameters of Network Equilibrium Models: A Maximum Likelihood Method and Statistical Properties of Network Flow Shoichiro Nakayama, Richard D. Connors, David Watling
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B12	Build-operate-transfer Schemes for Road Franchising with Road Deterioration and Maintenance Effects Zhijia Tan, Hai Yang, Xiaolei Guo
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B22	Hotspot Identification: A Full Bayesian Hierarchical Modeling Approach H.L. Huang, H.C. Chin, M.M. Haque
B23	The Continuous Risk Profile Approach for the Identification of High Collision Concentration Locations on Congested Highways Koohong Chung, David R. Ragland, Samer Madanat, Soon Mi Oh
B24	Driver Behavior, Dilemma Zone, and Capacity at Red Light Camera Equipped Intersections Yohannes Weldegiorgis, Manoj K. Jha
B25	Optimization of a Bus and Rail Transit System with Feeder Bus Services under Different Market Regimes Zhi-Chun Li, William H.K. Lam, S.C. Wong
B26	Modelling Dynamic Generation of a Choice Set in Pedestrian Networks Takamasa Iryo, Yasuo Asakura, Ryota Onishi, Chiharu Samma
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B35	Updating Dynamic Origin-destination Matrices using Observed Link Travel Speed by Probe Vehicles Toshiyuki Yamamoto, Tomio Miwa, Tomonori Takeshita, Takayuki Morikawa

Remarks:

- No dining tickets will be distributed. Please remember to wear your name badges on the 3-day symposium.
- The following drinks are provided:*

Cocktail	Milk Tea / Coffee / Orange Tea / Soft Drinks / Red or White Wines / Beers
Coffee breaks	Milk Tea / Coffee / Soft Drinks
Lunches	Chinese Tea
Conference dinner	Chinese Tea / Soft Drinks / Beers