

**The 7th International Symposium on Dynamic Traffic Assignment:
Smart Transportation
The University of Hong Kong
6-8 June 2018**

Symposium Programme (version 6.5.2018)

Time \ Date	6 Jun (Wed)	7 Jun (Thur)		8 Jun (Fri)
08:15-09:00	Registration			
Venue	WGW Theatre	WGW Theatre	Rm P5-03	WGW Theatre
09:00-10:40	A1 Opening, <i>Public Transport I</i> & Photo taking	B1 Traffic and Demand Management I	B2 Day-to-day Dynamics I	C1 Within-day Equilibrium II
10:40-11:00	Coffee Break			
11:00-12:40	A2 Within-day Equilibrium I	B3 Behavior Modeling	B4 Sharing Economy	C2 Dynamic Traffic Control II
12:40-14:00	Lunch Break			
14:00-15:40	A3 Network Loading and Simulation I	B5 Travel Demand Management and Estimation	International Scientific Committee Meeting	C3 Day-to-day Dynamics II
15:40-16:00	Coffee Break			
16:00-17:40	A4 Dynamic Traffic Control I	B7 Network Loading and Simulation II	B8 Public Transport II	C4 Traffic and Demand Management II & Closing
<i>17:40-18:40</i>	Keynote Presentation			
<i>19:00-22:00</i>	Conference Dinner			

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Symposium Programme

Day 1: 6 Jun (Wed)	
Wang Gungwu Theatre, Graduate House	
A1 Opening & Public Transport I <i>Chair: Mark Hickman</i>	09:00-10:40
Welcome Speech	W.Y. Szeto
<i>Passenger-Oriented Train Schedule Generation Model for a Railway System</i>	<i>Jiemin Xie, Shuguang Zhan, S.C. Wong and S.M. Lo</i>
<i>Mixed Bus Fleet Routing and Scheduling Considering Driving Range and Locations of Charging Stations</i>	<i>Lu Li, Hong K. Lo and Feng Xiao</i>
<i>Real-Time Integrated Re-Scheduling for Tramway Operations</i>	<i>Kam-Fung Cheung, Yong-Hong Kuo, David S.W. Lai and Janny M.Y. Leung</i>
<i>Train Rescheduling Strategies in a Complete Blockage</i>	<i>Shuguang Zhan, S.C. Wong, Qiyuan Peng and S.M. Lo</i>
Photo -Taking	
A2 Within-day Equilibrium I <i>Chair: Xuegang Ban</i>	11:00-12:40
Dynamic User Equilibrium with Recourse and Variable Message Signs	Kenneth A. Perrine and Michael W. Levin
Modeling Link-Based Dynamic User Equilibria with Differential Complementarity Systems	Xuegang Ban
A Scenario-Based Approach for the Reliability-Based User Equilibrium Problem in Dynamic Stochastic Networks Considering Travel Time Correlations and Heterogeneous Users	Ali Zockaie, Hani S. Mahmassani and Fatemeh Fakhrrmoosavi
<i>An Inner Approximation Algorithm for the Time Varying Network User Equilibrium Problem</i>	<i>Athanasios Ziliaskopoulos</i>
A3 Network Loading and Simulation I <i>Chair: Stephen D. Boyles</i>	14:00-15:40
A Policy Based Chronological Link Transmission Model for Stochastic Time Dependent Traffic Networks	Hemant Gehlot and Satish Ukkusuri
Handling Non-Unique Flows in Macroscopic First-Order Intersection Models - An Equilibrium Theory	Yen-Hsiang Chen and Chris M.J. Tampère
Riemann Solvers at a Junction for Traffic Flow on a Road Network by Using a Conserved Higher-Order Model	D.L. Qiao, P. Zhang, K. Zhang and H. Liu
Understanding the Trade Offs between DTA Models Realism and Robustness: The Impact of Spillback Modeling	Stephen D. Boyles and Natalia Ruiz Juri
A4 Dynamic Traffic Control I <i>Chair: Feng Zhu</i>	16:00-17:40
Controlling Pedestrian Flows Using a Dynamic Traffic Management System	Nicholas Molyneaux, Riccardo Scarinci and Michel Bierlaire
Architectures of Urban Traffic Control with Consideration of Drivers' Route Choices	Andy H.F. Chow
Dynamic Traffic Signal Optimization Considering Network Equilibrium Flows	Wei Huang and Hong K. Lo
Safety, Stability and Smoothness in Control of Connected Autonomous Vehicles	Benjamin Heydecker and Dirk Yihua Chen

Day 2: 7 Jun (Thur)	
Wang Gungwu Theatre, Graduate House	
B1 Traffic and Demand Management I <i>Chair: Takamasa Iryo</i>	09:00-10:40
Traffic Network Partitioning for Hierarchical Macroscopic Fundamental Diagram Applications Based on Fusion of GPS Probe and Loop Detector Data	Kang An, Xianbiao Hu and Xiaohong Chen
A Cell-Based Dynamic Congestion Pricing Considering Travel Distance and Congestion Level	Qixiu Cheng and Zhiyuan Liu
An Online Interactive Experiment to Evaluate Tradable Mobility Credit Strategies	Ye Tian and Yi-Chang Chiu
An Optimal Control Framework for Multi-Region Macroscopic Fundamental Diagram Systems Considering Route Choice and Departure Time Choice	Renxin Zhong, Yunping Huang, Jianhui Xiong, Nan Zheng, William Lam and Agachai Sumalee
B3 Behavior Modeling <i>Chair: Andy H.F. Chow</i>	11:00-12:40
Modeling the Users Departure Time Choice Adaption for a Tolling System	Benedikt Bracher and Klaus Bogenberger
Empirical Analysis of Detours on Freeways in UK, France <u>and</u> Germany	Markus Auer, Hubert Rehborn <u>and</u> Klaus Bogenberger
Assess the Effectiveness of En-Route Information Provision in No-Notice Evacuation Using Agent-Based Simulation	Yi Wang, Miltos Kyriakidis and Vinh N. Dang
User's Behavior and Dynamic Network Loading	Sergio F.A. Batista and Ludovic Leclercq
B5 Travel Demand Management and Estimation <i>Chair: Carolina Osorio</i>	14:00-15:40
A Fuzzy Set-Based Approach to Estimate the Dynamic Demands in Urban Road Networks with Imprecise Data	Bei Wang and Yu Jiang
An Efficient Algorithm for High-Dimensional Dynamic Origin-Destination Demand Estimation of Inefficient Large-Scale Stochastic Simulation-Based Traffic Models	Carolina Osorio
Hourly Origin-Destination Demand Estimation Using Time Coefficients from Traffic Counts Based on Semi-Dynamic Traffic Assignment	Motohiro Fujita and Shinji Yamada
A Linear Programming Formulation for Incentive-Based Travel Demand Management	Shantanu Chakraborty, David Rey <u>and</u> S. Travis Waller
B7 Network Loading and Simulation II <i>Chair: Ludovic Leclercq</i>	16:00-17:40
A Probabilistic Analytical Traffic-Theoretic Network Loading Model for Large-Scale Network Optimization	Jing Lu and Carolina Osorio
Interfacing a Dynamic Discrete Choice Based Travel Demand Model to an Agent Based Traffic Simulation Model	Mohammad Saleem, Oskar B. Västberg and Anders Karlström
A Probabilistic Sensitivity Analysis Guided Cross Entropy Method for Efficient Calibration of Traffic Models	Xiuxia Xie, Siwei Hu, Kaiyan Fu and Renxin Zhong
Efficient Calibration of an Activity-Based Multimodal Transport Microsimulation Model	Ashraf Uz Zaman Patwary, Wei Huang and Hong K. Lo
Keynote Presentation <i>Chair: WY Szeto</i>	
<i>The Near-term Future of Dynamic Traffic Assignment</i>	<i>Terry L. Friesz</i>

Day 2: 7 Jun (Thur)	
Rm P5-03, Graduate House	
B2 Day-to-day Dynamics I <i>Chair: Feng Xiao</i>	09:00-10:40
Day-To-Day Dynamics under Advanced Traffic Information	Hongbo Ye, Feng Xiao and Hai Yang
Day-To-Day Flow Dynamics for Stochastic User Equilibrium and a General Lyapunov Function	Feng Xiao, Minyu Shen, Zhengtian Xu, Ruijie Li, Hai Yang and Yafeng Yin
Day-To-Day Multimodal Dynamic Traffic Assignment: Impacts of the Learning Process in Case of Non-Unique Solutions	Mostafa Ameli, Jean Patrick Lebacque and Ludovic Leclercq
Effects of Traffic Information on Drivers' Day-To-Day Route Choices	Genaro Peque Jr., Toshihiko Miyagi and Fumitaka Kurauchi
Effect of Information Collection Behaviour on Stability of a Simplified Departure Time Choice Problem	Takamasa Iryo
B4 Sharing Economy <i>Chair: Jiancheng Long</i>	11:00-12:40
A Dynamic Green Bike Repositioning Problem	Chin Sum Shui and W.Y. Szeto
The Fleet Deployment Problem for Leisure-Oriented Electric Vehicle Sharing Systems with Uncertain Demand	Chung-Cheng Lu, Hui-Ju Chen and Hsiao-Tung Wang
Modeling and Managing Morning Commute with Park and Ride-Sharing	Zhihui Huang, Jiancheng Long and Haoxiang Liu
On the Morning Commute Problem in a Y-Shaped Network with Individual and Household Travelers	Dongdong He, Yang Liu, Qiuyan Zhong and David Z.W. Wang
B6 Public Transport I <i>Chair: Mark Hickman</i>	14:00-15:40
Passenger-Oriented Train Schedule Generation Model for a Railway System	Jiemin Xie, Shuguang Zhan, S.C. Wong and S.M. Lo
Mixed-Bus Fleet Routing and Scheduling Considering Driving Range and Locations of Charging Stations	Lu Li, Hong K. Lo and Feng Xiao
Real-Time Integrated Re-Scheduling for Tramway Operations	Kam-Fung Cheung, Yong-Hong Kuo, David S.W. Lai and Janny M.Y. Leung
Train Rescheduling Strategies in a Complete Blockage	Shuguang Zhan, S.C. Wong, Qiuyan Peng and S.M. Lo
B8 Public Transport II <i>Chair: Yu Jiang</i>	16:00-17:40
Simulating the Behaviors of Taxi-Cruising and Taxi-Dispatching Markets in a Cell-Based Network	R.C.P. Wong, W.H. Yang, W.Y. Szeto, and R.T.H. Wong
Scheduling Synchronization with Time-Dependent Data	Yu Jiang, Kelvin Lee, Avishai Ceder and Otto Nielsen
Commuter's Departure Time Choice with Fare-Reward Scheme in a Multi-To-Single Mass Transit System	Yili Tang, Hai Yang and Chenzhe Liu
Bus Schedule Optimization for Multimodal Emergency Evacuation	Xia Yang, Xiaozheng (Sean) He and Xuegang (Jeff) Ban

Day 3: 8 Jun (Fri)	
Wang Gungwu Theatre, Graduate House	
C1 Within-day Equilibrium II <i>Chair: Yang Liu</i>	09:00-10:40
Dynamic Traffic Assignment in a Corridor Network Optimum Vs. Equilibrium	Haoran Fu, Takashi Akamatsu and Kentaro Wada
A Link-Based Probit Model for Dynamic Traffic Assignment	Genaro Peque Jr., Junji Urata and Takamasa Iryo
A Dynamic System Optimal Model for Hybrid Network of Reservoirs and Connecting Links	Qian Ge, Ke Han, Haoran Fu and Daisuke Fukuda
Route Choice Equilibration Algorithm for Stochastic Dynamic Traffic Assignment with Full Route Set	Jeroen Verstraete, Willem Himpe and Chris M.J. Tampère
C2 Dynamic Traffic Control II <i>Chair: Gunnar Flotterod</i>	11:00-12:40
Modeling and Simulation of Air Pollution from the Dispersion of Vehicle Exhaust in a City: Continuum Modeling Approach	Liangze Yang, Tingting Li, S.C. Wong, Chi-Wang Shu and Mengping Zhang
Autonomous Intersection Management for Connected and Automated Vehicles Using Multi-Agent Reinforcement Learning	Yuanyuan Wu, Shunzhi Qian and Feng Zhu
Traffic Control Strategies for Urban Network: Centralised Vs Decentralised Methods	Roberta Di Pace, Andy H.F. Chow, Stefano de Luca and Rui Sha
Dynamic Traffic Signal Control, Dynamic Queueing, and Dynamic Route Choice	Gunnar Flotterod and Michael J. Smith
C3 Day-to-day Dynamics II <i>Chair: David Z.W. Wang</i>	14:00-15:40
One Is Not Like the Other: Deterministic Vs Stochastic Day-To-Day DTA Models: Part 1	Katharina Parry, Ahmad Mahmoodjanlou and Martin Hazelton
One Is Not Like the Other: Deterministic Vs Stochastic Day-To-Day DTA Models: Part 2	Ahmad Mahmoodjanlou, Martin Hazelton and Katharina Parry
Day-To-Day Flow Dynamics for Stochastic User Equilibrium and a General Lyapunov Function	Feng Xiao, Minyu Shen, Zhengtian Xu, Ruijie Li, Hai Yang and Yafeng Yin
Effect of Information Collection Behaviour on Stability of a Simplified Departure Time Choice Problem	Takamasa Iryo
Day-To-Day Network Dynamics over Different Scales: From Micro to Macro	Weimeng Li and Ning Jia
C4 Traffic and Demand Management II & Closing <i>Chair: Michael W. Levin</i>	16:00-17:40
Robust Multi-Period Tradable Credit Scheme to Promote Zero-Emissions Vehicles under Travel Demand Uncertainty	Mohammad Miralinaghi and Srinivas Peeta
Real Time Dynamic Traffic Control Based on Traffic State Estimation	Afzal Ahmed, Ahsan Naqvi, Dong Ngoduy and David Watling
An Algorithm for the User Equilibrium with Agent-Based Dynamic Transit Assignment	Mark Hickman
An Optimization Model for a Station-Based Bike Sharing System Rebalancing Problem	Yufeng Zhang and Alireza Khani
Closing Speech and DTA2020	Hong K. Lo