

Draft Program  
Monday 23 July

7:30 Registration Desk Opens

8:30	<b>Welcome</b>			
9:00	<b>Plenary 1: Nigel Wilson</b>			
10:00	Morning Tea			
10:30	<b>Automatic bottleneck detection using AVL data: a case study in Amsterdam</b> Ties Brands, Niels van Oort and Menno Yap	<b>Solving periodic timetabling problems with SAT and machine learning</b> Gonçalo P. Matos, Luís M. Albino, Ricardo Saldanha and Ernesto M. Morgado	<b>Digital Transformation in Public Transport</b> Stefan Voss and Leonard Heilig	<b>Optimizing mixed-fleet bus scheduling under range constraint</b> Lu Li, Hong Lo and Feng Xiao
11:00	<b>Non-parametric approach for real time prediction</b> Maguelonne Chandesris and Xavier Chapuis	<b>A Mixed Integer Linear Programming Model for Rolling Stock Rebalancing</b> Federico Farina, Dennis Huisman, Roberto Roberti and Shadi Sharif Azadeh	<b>An Analysis of the Affordability of Public Transport in South African Cities</b> Gary Hayes and Christo Venter	<b>Towards Optimised Deployment of Electric Bus Systems with On-Route Charging using Cooperative ITS</b> Marcin Seredynski and Francesco Viti
11:30	<b>Assessment of models based on GPS data to identify buses skipping formal stops</b> Nicolás García and Juan Carlos Herrera	<b>A branch-and-price-and-cut method for train unit scheduling with complex minimum turnround time requirements</b> Zhiyuan Lin, Pedro Jesus Copado-Mendez and Raymond Kwan	<b>User Equilibrium Model of Ridesharing Transport with High-Occupancy Vehicles Lane</b> Phathinan Thaitakul, Toru Seo, Takahiko Kusakabe and Yasuo Asakura	<b>Optimizing the Preventive-Maintenance Plan of a Public Transport Bus Fleet</b> Charles Fleurent
12:00	Lunch			
13:00	<b>Big Data Sources from GPS-enabled Smartphone Applications: An Exploratory Analysis of Transit App Data</b> Candace Brakewood, Nilofar Ghahramani, Celine Remy and Jonathan Peters	<b>Resolution of Station Level Constraints in Train Unit Scheduling</b> Li Lei, Raymond Kwan, Zhiyuan Lin and Pedro Jesús Copado-Méndez	<b>A metaheuristic-supported evaluation of the suitability of an urban integrated special transport service</b> Marcus Posada and Carl Henrik Hall	<b>Minimizing the waiting time in timetabling</b> Gert-Jaap Polinder, Marie Schmidt and Dennis Huisman
13:30	<b>Passive tracking of passengers to analyse public transport use in case of disturbances</b> Alessio D. Marra, Henrik Becker, Kay W. Axhausen and Francesco Corman	<b>Relationships between capacity, speed heterogeneity, and robustness in railway networks</b> Lars Wittrup Jensen and Alex Landex	<b>Design of Integrated Flexible Transit Service with Given Fixed-Route Services</b> Khaled Saeed and Fumitaka Kurauchi	<b>Frequency and Vehicle Capacity Determination using a Dynamic Transit Assignment Model</b> Oded Cats and Stefan Glück
14:00	<b>Event-Based Passive Tracking of Public Transportation Passengers</b> Yuval Hadas and Boaz Ben Moshe	<b>Train dispatcher desk districting problem in high-speed railway network</b> Jun Zhao, Dian Wang and Qiyuan Peng	<b>User satisfaction issues that public transport integration has brought to Bogotá, Colombia – The case of SITP</b> Carlos Andres Poveda Benitez, Clara Isabel Arango Ruiz and Alvaro Rodriguez	<b>Ride into the danger zone: avoiding the wrong frequency for an express bus service.</b> Homero Larrain and Juan Carlos Munoz
14:30	Afternoon Tea			
15:00	<b>Plenary 2: Lauren Sager Weinstein</b>			
16:00	<b>Driver schedule efficiency vs. public transport robustness: A framework to quantify this trade-off based on passive data</b> Menno Yap and Niels van Oort	<b>Size Limited Iterative Method: A Hybridized Heuristic for Train Unit Scheduling Optimization</b> Pedro Jesus Copado-Mendez, Zhiyuan Lin and Raymond Kwan	<b>A predictive method for public transport operations control</b> Hend Manasra and Tomer Toledo	<b>Stopping Pattern and Frequency Determination for a Multi-Modal Network</b> Oded Cats and Merlijn van Beurden
16:30	<b>Combined use of Smartcard and Wifi detections to estimate real-time operational information of a public transport system</b> Pablo Guajardo and Juan Carlos Herrera	<b>Loaded train combination problem at marshalling station in heavy haul railways</b> Dian Wang, Jun Zhao and Qiyuan Peng	<b>A holding control strategy for diverging bus lines</b> Georgios Laskaris, Oded Cats, Erik Jenelius, Marco Rinaldi and Francesco Viti	<b>Modelling Turns in Transit Network Design</b> Antonio Mauttone and Paula Riganti
17:00	<b>Unsupervised approach to bunching swings phenomenon analysis</b> Viktoria Degeler, Léonie Heydenrijk-Ottens, Ding Luo, Niels van Oort and Hans van Lint	<b>Hybrid stochastic approaches for train trajectory reconstruction</b> Pier Giuseppe Sessa, Valerio De Martinis, Axel Bomhauer-Beins, Francesco Corman and Ulrich A. Weidmann	<b>Bus Bunching Modelling and Control: A Passenger-oriented Approach</b> Dong Zhao and Mohsen Ramezani	<b>Integrating line planning, timetabling and vehicle scheduling: Integer programming formulation and analysis</b> Philine Schiewe, Anita Schöbel, Christian Puchert and Marco Lübbecke
18:00	Social Activity			

Tuesday 24 July

8:00 Registration Desk Opens

8:30	<b>Understanding Fare Evasion Rates in Public Transport</b> Luis-Angel Cantillo, Juan Carlos Munoz, Sebastián Raveau and Paula Iglesias	<b>Railway timetable rescheduling for multiple simultaneous disruptions</b> Yongqiu Zhu, Rob M.P. Goverde and Egidio Quaglietta	<b>A stochastic model for bus injection in a public transport service</b> Diego Morales and Juan Carlos Muñoz	<b>The utility maximising ferry network design problem</b> Michael Bell, Jingjing Pan, Kam-Fung Cheung, Collins Teye and Supun Perera
9:00	<b>Investigating Paper Ticket Usage on London Underground's Network</b> Tolulope Mohammed and Taku Fujiyama	<b>Train Rescheduling Strategies in a Complete Blockage</b> Shuguang Zhan, S. C. Wong, Qiyuan Peng and S.M. Lo	<b>Real-time Transit Operations Using Markov Decision Process</b> Alireza Khani	<b>Equitable Transit Network Design Under Uncertainty</b> Yu Jiang
9:30	<b>Space-time classification of public transit smart card users' activity locations from smart card data</b> Li He, Martin Trépanier and Bruno Agard	<b>A train rescheduling algorithm which minimizes passengers' dissatisfaction based on MILP formulation</b> Keisuke Sato, Keita Koinuma and Norio Tomii	<b>Addressing metro line disruptions through boarding limits: The cost and time of system recovery</b> Carlos E. Bueno-Cadena, Juan Carlos Muñoz and Gabriel E. Sánchez-Martínez	<b>Transit Network Design for Intercity Services Considering Time-Varying Demand</b> Andisheh Ranjbari, Mark Hickman and Yi-Chang Chiu
10:00	Morning Tea			
10:30	Plenary 3: Anita Schoebel			
11:30	<b>A Methodology for Correcting Smartcard Trip Matrices by Fare Evasion</b> Luis-Angel Cantillo, Juan Carlos Munoz, Sebastián Raveau, Paula Iglesias and Sebastián Tamblay	<b>A Next Step in Disruption Management: Combining Operations Research and Complexity Science</b> Mark Dekker, Rolf van Lieshout, Robin Ball, Paul Bouman, Stefan Dekker, Henk Dijkstra, Rob Goverde, Dennis Huisman, Deb Panja, Alfons Schaafsma and Marjan van den Akker	<b>Determinants of passengers' metro car choice revealed through automated data sources: A Stockholm metro case study</b> Soumela Pefitsi, Erik Jenelius and Oded Cats	<b>Time-Dependent Capacitated Transit Routing with Real-Time Demand and Supply Data</b> Omer Verbas, Vadim Sokolov, Joshua Auld and Hubert Ley
12:00	<b>Investigating Sampling Biases in Transit Onboard Surveys and Associated Impacts on Resulting Passenger Socioeconomic and Travel Characteristics</b> Rabi Mishalani, Mark McCord, Andre Carrel and Jakob Zumfelde	<b>Determining and Evaluating Alternative Line Plans in (Near) Out-of-Control Situations</b> Rolf van Lieshout, Paul Bouman and Dennis Huisman	<b>Estimation of Denied Boarding in Urban Rail Systems: Alternative Formulations and Comparative Analysis</b> Zhenliang Ma, Haris Koutsopoulos, Yunqing Chen and Nigel Wilson	<b>Tradeoff Between Processing Time and Solution Quality for an A*-Guided Heuristic Applied to a Multi-Objective Bus Passenger Trip Planning Problem</b> Sylvain M. R. Fournier, Eduardo Otte Hülse and Éder Vasco Pinheiro
12:30	Lunch (With Separate Meeting of ISC)			
14:00	<b>Transit Decision-Making in Transition?: Past, Present, and Future Perspectives on the Use of ITS Data in North America for Transit Planning and Management and Related Challenges</b> Brendon Hemily	<b>Strategic interactions between minimization of train delays and passenger assignment in Microscopic Railway Delay Management</b> Francesco Corman	<b>Using passenger flows to determine key interchange connections for public transport synchronization</b> Menno Yap, Ding Luo and Oded Cats	<b>System Headways in Line Planning</b> Alexander Schiewe, Anita Schöbel, Markus Friedrich and Maximilian Hartl
14:30	<b>Before and After Evaluation of a Bus Network Improvement Using Historical Smart Card Data</b> Renato O. Arbex, Claudio Barbieri Cunha and Bonett João	<b>Modeling delays with generalized linear models for high-speed and suburban train arrivals</b> Marie Milliet de Faverges, Giorgio Russolillo, Christophe Picouleau, Antoine Robin, Boubekeur Merabet and Bertrand Houzel	<b>Rail-to-Bus and Bus-to-Rail Transfer Time Distributions Estimation Based on Passive Data</b> Amr M. Wahaballa, Fumitaka Kurauchi, Jan-Dirk Schmöcker and Takenori Iwamoto	<b>An Optimization Model for Planning Limited-Stop Bus Operations</b> Mahmood Mahmoodi Nesheli, Siva Srikuenthiran and Amer Shalaby
15:00	<b>Analysis of tram users' behavior and evaluation of operation by using smart card data</b> Shoshi Mizokami, Takumasa Morita and Yosiaki Nakamura	<b>Rolling Stock Rescheduling in Case of Delays</b> Rowan Hoogervorst, Twan Dollevoet, Dennis Huisman and Gábor Maróti	<b>Game Theoretic Approach for Reliability Evaluation of Public Transportation Transfers</b> Giorgio Gnecco, Yuval Hadas and Marcello Sanguineti	<b>A novel approach for the optimal design of skip-stop service in transit corridors</b> Yu Mei, Weihua Gu, and Wenbo Fan
15:30	Afternoon Tea			
16:00	<b>Route Choice Stickiness of Public Transport Passengers: Measuring Habitual Bus Ridership Behaviour using Smart Card Data</b> Jiwon Kim, Jonathan Corcoran and Marty Papananolis	<b>Assessing disruption management strategies in rail-bound urban public transport from a passenger perspective</b> Dennis Roelofsen, Oded Cats, Niels van Oort and Serge Hoogendoorn	<b>Minimising transfer penalty in public transit network with Constraint Programming</b> Rejitha Nath Ravindra, Mark Wallace, Graham Currie, Daniel Harabor and Chris Loader	<b>Using Continuous Approximation for Service Quality and Fare Level Optimisation</b> Zhihua Jin, Jan Dirk Schmöcker and Saeed Maadi
16:30	<b>Analyzing Interpersonal and Intrapersonal Variability of Transit Use with Smart Card Data</b> Elodie Deschaintres, Catherine Morency and Martin Trépanier	<b>Exploring the dynamic impact zone for conflict prevention in real-time railway traffic management</b> Sofie Van Thielen, Francesco Corman and Pieter Vansteenwegen	<b>Centralized and Decentralized Optimal Frequency Setting for Routes Sharing a Transfer Stop</b> Matan Shnalderman and Yuval Hadas	<b>Is Flat Fare Fair? Equity Impact of Fare Scheme Change</b> Isak Rubensson, Oded Cats and Yusak Susilo
17:00	<b>Supervised learning: Predicting passenger load in public transport</b> Léonie Heydenrijk-Ottens, Viktoriya Degeler, Ding Luo, Niels van Oort and Hans van Lint	<b>New alternative graph models and methods for the real-time railway traffic management problem</b> Marcella Samà, Andrea D Ariano and Dario Pacciarelli	<b>Multi-Directional Transfer Time Optimization at a Single Transfer Node</b> Zahra Ansarilari, Mahmood Mahmoodi Nesheli, Siva Srikuenthiran, Amer Shalaby and Merve Bodur	<b>Theoretical Evaluation on the Effects of Changes from a Zonal to a Distance-based Fare Structure</b> Saeed Maadi and Jan-Dirk Schmöcker

17:30

Wednesday 25 July

8:00 Registration Desk Opens

8:30	<b>Translating Research to Practice: Implementing Real-time Control on High-Frequency Transit Routes</b> Simon Berrebi, Sean Crudden and Karl Watkins	<b>Agent-based simulation approach for disruption management in rail schedule</b> Nuannuan Leng, Valerio De Martinis and Francesco Corman	<b>What factors determine the variability of the level of service experienced by users?</b> Jaime Soza-Parra, Juan Carlos Munoz and Sebastián Raveau	<b>Impacts of Autonomous Driving on Public Transport Services</b> Joachim R. Daduna
9:00	<b>A Smart Dispatching tool based on AVL data</b> Pedro Lizana, Ricardo Giesen, Felipe Delgado, Juan Carlos Munoz, Diego García and Paul Basnak	<b>Maximum Robust Train Path for an Additional Train Inserted in an Existing Railway Timetable</b> Fredrik Ljunggren, Kristian Persson, Anders Peterson and Christiane Schmidt	<b>Value of Reliability for the Waiting Stage, In-vehicle Stage and Transfer Stage of Demand Responsive Transport (DRT) Services</b> María J. Alonso-González, Sascha Hoogendoorn-Lanser, Niels van Oort, Oded Cats and Serge Hoogendoorn	<b>Deployment Planning of Single-Line Modular-Vehicle Semi-Rapid Transit System</b> Tao Liu, Avishai Ceder and Andreas Rau
9:30	<b>How does considering bus drivers with different driving behaviors impact the performance of interval control tools?</b> Yerly Fabian Martinez, Juan Carlos Muñoz and Felipe Delgado	<b>Evaluation of Bus Bridging Scenarios for Railway Service Disruption Management: A Users' Delay Modelling Tool</b> Aya Aboudina, Alaa Itani, Ehab Diab, Siva Srikuenthiran and Amer Shalaby	<b>Bus bunching prediction based on logistic regression considering rare events bias</b> Wenzhe Sun, Jan-Dirk Schmoecker, Toshiyuki Nakamura and Hiroshi Shimamoto	<b>Optimal Transit Service Design in a Linear Corridor Connecting Multiple Job Centers Considering Residential Location Choice</b> Liang Xia, Xinguo Jiang, Weihua Gu and Wenbo Fan
10:00	Morning Tea			
10:30	<b>Plenary 4: David Hensher and Yale Wong "Shared Smart Mobility, MaaS and Public Transport - A New Future?"</b>			
11:30	<b>OneBusAway: A Ten Year Retrospective of an Open Source Real-time Information System</b> Karl Watkins	<b>A simulation model for assessment and evaluation of bus terminal design</b> Therese Lindberg, Anders Peterson and Andreas Tapani	<b>How the distribution of arrival times at a railway station varies with headway: A study using smart card data</b> Geoffrey Clifton, Corinne Mulley, Loan Ho, Quoc Chinh Ho and Barbara Yen	<b>Identifying quick win opportunities for surface transit, delay reductions obtained through traffic signal timing distribution</b> Alejandro Schmidt, Sebastián Tamblay, Francisco Garrido-Valenzuela, Marina Draicevic and Juan Carlos Herrera
12:00	<b>Route Choice Strategies and Usage of Real Time Information in Public Transport – an empirical survey based on dedicated smartphone application</b> Ulrik Berggren, Carl Johnsson, Helena Svensson and Anders Wretstrand	<b>Assessing platform safety: with innovative data to a novel assessment framework</b> Serge Hoogendoorn, Erik-Sander Smits, Marcel Van Ofwegen and Jeroen van den Heuvel	<b>Modelling Railway-Induced Passenger Delays in Multi-Modal Public Transport Networks: An Agent-Based Copenhagen Case Study Using Empirical Train Delay Data</b> Mads Paulsen, Thomas Kjær Rasmussen and Otto Anker Nielsen	<b>Methodology for Transit Priority Lanes Design Problem Intended for Real Road Networks</b> Saeed Asadi Bagloee and Majid Sarvi
12:30	Lunch			
13:30	<b>Short-Term Multi-Step Ahead Forecasting of Railway Passenger Flows During Special Events With Machine Learning Methods</b> Florian Toqué, Etienne Côme, Martin Trépanier and Latifa Oukhellou	<b>Intelligent Mobility and MaaS - Designing Mobility Packages and Contracts</b> Yale Wong and David Hensher	<b>Improving railway passengers experience: two perspectives</b> Mark van Hagen and Niels van Oort	<b>Passenger Route Choice and Assignment Model for Combined Fixed and Flexible Public Transport Systems</b> Jishnu Narayan, Oded Cats, Niels van Oort and Serge Hoogendoorn
14:00	<b>Can Passenger Flow be Explained by Network Topology in Public Transport?</b> Ding Luo, Oded Cats and Hans van Lint	<b>Assessing the Impact of Future Personalised Public Transport</b> Yu Jiang and Avishai Ceder	<b>Analysing the influence of station characteristics and perceived safety on public transport ridership: A case study from the Greater Copenhagen Area</b> Jesper Bláfoss Ingvardsson, Otto Anker Nielsen and Shahbaz Altaf	<b>Logit-based transit assignment: Approach-based formulation and paradox revisit</b> Sujun Sun, Wai Yuen Szeto and Sin C. Ho
14:30	<b>A Machine Learning Approach to Detecting Long Term Changes in Weekly Trip Patterns of Public Transport Passengers</b> Chun Yong Moon, Jiwon Kim and Mark Hickman	<b>Potential for mode shifts due to Mobility-as-a-Service: results from the Netherlands Mobility Panel</b> Lucas Harms, Anne Durand and Sascha Hoogendoorn-Lanser	<b>Crowding on Trains and Platforms: A New Approach to Big Data</b> Chinh Ho and Loan Ho	<b>The influence of frequency on route choice in mixed schedule- and frequency-based public transport systems – The case of the Greater Copenhagen Area</b> Morten Eltved, Otto Anker Nielsen and Thomas Kjær Rasmussen
15:00	Afternoon Tea			
15:30	<b>Quantifying Transit Travel Experiences from the Users' Perspective with High-Resolution Smartphone and Vehicle Location Data</b> Andre Carrel, Peter S.C. Lau, Rabi G. Mishalani, Raja Sengupta and Joan L. Walker	<b>How far are travellers willing to walk to access a more frequent service: an international comparison?</b> Corinne Mulley, Chinh Ho, Loan Ho, David Hensher and John Rose		
16:00	<b>Social Cost Benefit Analysis for Pre-payment Bus Stops: An Application in Transantiago</b> Guillermo Soto, Sebastián Tamblay, Juan Carlos Herrera and Ignacio Guimpert	<b>Insights into factors affecting the combined bicycle-transit mode</b> Joeri van Mil, Tessa Leferink, Jan Anne Annema and Niels van Oort		
16:30	<b>The underlying effect of public transport reliability over users' satisfaction</b> Jaime Soza-Parra, Juan Carlos Munoz and Sebastián Raveau	<b>Incorporating reliability into Queensland's LUPTAI accessibility model</b> Kelly Bertolaccini, Mark Hickman and Svitlana Pyrohova		
17:00	Close			
18:00	Conference Dinner			