



Parallel Sessions Programme

JRC Conference Centre

Bld 36 - JRC Ispra Site



Day 2

Time slot	Corresponding author	Title of the presentation	Thematic area
Parallel session 2.1 - Day 2 , 20 June 2023 - Morning. Room A - Chair P. Christidis (EC JRC)			
10:30 am	Ogata	Application of Graph Neural Network to Traffic Information Big Data and Evaluation by Sites	Advanced data collection and processing
10:50 am	Pavlyuk	Data Valuation in Collaborative Urban Traffic Forecasting	Advanced data collection and processing
11:10 am	Yildirimoglu	A deep learning framework to generate synthetic mobility data	Advanced data collection and processing
11:30 am	Matet	Use of Origin-Destination data in synthetic travel demand synthesis	Advanced data collection and processing
11:50 am	Zhong	Generation of Aggregated Road Network by Vehicle Trajectory Data	Advanced data collection and processing
12:10 pm	Arora	The statistical models and machine learning algorithms for travel and transportation count data.	Advanced data collection and processing
12:30 pm	Fermi	A smartphone-based mobility survey feeding the implementation of the Harmony Model Suite in Turin	Advanced data collection and processing
Parallel session 2.2 - Day 2 , 20 June 2023 - Morning. Room B - Chair: G. Fontaras (EC JRC)			
10:30 am	Buhigas	Comparison of different methods to identify high-emitting vehicles through real-world measurements in Florence using a novel Remote Sensing Device	Evolving transport impact on energy consumption
10:50 am	Nahmias-Biran	Sustainable automated mobility on-demand strategies in dense urban areas	Evolving transport impact on energy consumption
11:10 am	van Rooijen	Modelling the effects of mobility hubs using a Predictive Digital Twin	Evolving transport impact on energy consumption
11:30 am	Yao	Path-based Network signal coordination control optimization: Multi-agent system modeling	Evolving transport impact on energy consumption
11:50 am	Fontaras	A comprehensive methodology for CO2 savings assessment in MAC and other eco-innovative technologies applied to PHEVs	Evolving transport impact on energy consumption
12:10 pm	Dixon	Kenya Transport-Energy Futures: building transport pathways to support climate-compatible	Evolving transport impact on energy consumption
12:30 pm	Mulholland	The role of Europe's heavy-duty vehicle CO2 standards in complying with climate neutrality	Evolving transport impact on energy consumption
Parallel session 2.3 - Day 2 , 20 June 2023 - Morning. Room C - Chair: Y. Yin (University of Michigan)			
10:30 am	Dominguez	Online Demand Forecasting with Spatial-Temporal Graph Attention Networks: A Proof of Concept	Travel demand in the future mobility landscape
10:50 am	Garus	Estimating the environmental and societal impact of new mobility services	Travel demand in the future mobility landscape
11:10 am	Kagho	Identifying Group Travellers for modelling on-demand mobility	Travel Demand in the future mobility landscape
11:30 am	Shafiq	Gaps in Accessibility Levels and Potential Travel Demand in Public Transport Services: A Case Study of Porto Metropolitan Area	Travel demand in the future mobility landscape
11:50 am	Shateri Benam	Exploring the Multi-modal Demand Dynamics During Transport System Disruptions	Travel demand in the future mobility landscape
12:10 pm	Yin	A Unified Framework for End-to-End Transportation Network Equilibrium Modeling	Travel Demand in the future mobility landscape
12:30 pm	Sallard	Bayesian Networks for travel demand generation: An application to Switzerland	Travel Demand in the future mobility landscape
Parallel session 2.4 - Day 2 , 20 June 2023 - Afternoon. Room A - Chair: J. Barcelo (UPC)			
3:00 pm	IBANEZ	Data Compilation Strategies for Passenger Railway Services	Advanced data collection and processing
3:20 pm	NGUYEN-LUONG	Full-scale experimentation of a mixed traditional and GPS-individual travel survey in Paris Region	Advanced data collection and processing
3:40 pm	Margreiter	Data Collection and Processing of Multimodal Trajectories Collected by Aerial Drones	Advanced data collection and processing
4:00 pm	van Gils	Design and working principles of NEMO's Nautilus platform for storing, analyzing and classifying high noise and exhaust emitters in traffic	Advanced data collection and processing
4:20 pm	Tattini	The 2020 update of the transport sector in JRC-IDEES - Analysing the past for robust transport and energy policies	Advanced data collection and processing
4:40 pm	Mochizuki	Robust OD matrix estimation method under low sampling rate, by utilizing multiscale information of questionnaire data	Advanced data collection and processing
5:00 pm	Weschke	Using GBFS-Data to identify user behaviour at urban mobility hubs for transport modelling	Advanced data collection and processing
5:20 pm	Barpounakis	Estimating the impact of traffic congestion on noise emissions using vehicle trajectory data from UAS	Advanced data collection and processing
5:40 pm	Elgohary	The role of the MATSim model in assessing Paratransit performance in a data-scarcity context.	Advanced data collection and processing
Parallel session 2.5 - Day 2 , 20 June 2023 - Afternoon. Room B - Chair: E. Paffumi (EC JRC)			
3:00 pm	Ceccato	Mobility as a Service for commuters. Estimation of environmental impacts in a medium-sized city	Mobility as a Service and complex trip-chains including micromobility
3:20 pm	Kikuchi	Verification of the possibility of transportation conversion through the introduction of MaaS at the University of the Ryukyus	Mobility as a Service and complex trip-chains including micromobility
3:40 pm	Lorente	An Approach based on Simulation and Optimization to integrate Ride-Pooling with Public Transport for a Cooperative Approach	Mobility as a Service and complex trip-chains including micromobility
4:00 pm	Othman	A Prospective Analysis of Vehicles Electrification Based on Floating Car Data: Application to the Urban Area of Lyon, France	Transport electrification
4:20 pm	Zhou	Optimal planning of electric vehicle fast-charging stations considering uncertain charging demands via Dantzig-Wolfe decomposition	Transport electrification
4:40 pm	Lee	An Analytical Model to Evaluate City-wide Waiting and Detour Time for Electric Vehicle Public Charging	Transport electrification
5:00 pm	Würtz	Virtual Testbed for the Planning of Urban Battery Electric Buses	Transport electrification
5:20 pm	Girgin	An agent-based electric vehicle charging demand modelling framework to assess the needs for the energy transition in transport	Transport electrification

**Parallel session 2.6 - Day 2 , 20 June 2023 - Afternoon.
Room C - Chair: B.H. Nahmias Biran (Ariel University)**

3:00 pm	Rodriguez	Optimizing Parking Spaces in Urban Areas: A Methodology for evaluating Parking Information Systems to Improve parking efficiency	Travel Demand in the future mobility landscape
3:20 pm	Lee	A Hierarchical Approach to Solve p-Mobility Hub Location Problems to reduce carbonization	Travel Demand in the future mobility landscape
3:40 pm	Furukawa	Proposed Methodology for Improving Timetables Using GTFS - A Case Study of Yokohama Municipal Bus -	Enhanced demand and traffic management
4:00 pm	Lawphongpanich	Generating Traffic Equilibria under Bounded Rationality	Enhanced demand and traffic management
4:20 pm	Rejuso	TRAFFIC SIGNAL OPTIMIZATION OF URBAN ARTERIAL NETWORK BY VEHICLE-TO-INFRASTRUCTURE	Enhanced demand and traffic management
4:40 pm	Seppacher	A decentralised auctioning scheme for proactive ride-hailing fleet rebalancing	Enhanced demand and traffic management
5:00 pm	Weidl	Does a livable city profit from a shared CCAM Shuttle Bus on demand?	Enhanced demand and traffic management
5:20 pm	Wu	A Queue Length Distribution Estimation Method for Signalized Intersections Using Multi-Section License Plate Recognition Data	Enhanced demand and traffic management
5:40 pm	Seo	Understanding large-scale traffic flow using model-based and data-driven dimension reduction: with COVID-19 and Olympic-Paralympic case study	Enhanced demand and traffic management

Day 3

Time slot	Corresponding author	Title of the presentation	Thematic area
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**Parallel session 3.1 - Day 3, 21 June 2023 - Morning.
Room A - Chair: M. Makridis (ETH)**

10:30 am	Hanabusa	Development of a Nowcast Crowd Simulation Framework	Innovative research methodologies
10:50 am	Blache	A new methodology for sampling traffic scenarios using a priori critical index of functional scenarios	Innovative research methodologies
11:10 am	Freyer	A study on the transformation of virtual validation methods in the development of new mobility solutions	Innovative research methodologies
11:30 am	Sun	Exploring Antifragility in Urban Road Network: Learning through Disturbances with Reinforcement Learning	Innovative research methodologies
11:50 am	Khoueiry	Scalability Of Power Consumption Of An Autonomous Electric Robo-Car Using Different Adaptive Cruise Control Models	Innovative research methodologies
12:10 pm	Ma	Beyond Prediction: On-street Parking Recommendation using Heterogeneous Graph-based List-wise Ranking	Innovative research methodologies

**Parallel session 3.2 - Day 3, 21 June 2023 - Morning.
Room B - Chair: R. Liu (University of Leeds)**

10:30 am	Tang	Train delay propagation analysis, Train delay reason attribution, Data mining, Graph Neural Network	The interaction of different modes (including safety aspects)
10:50 am	L. Marin	Drivers' heterogeneity, vehicle heterogeneity, driving behaviour, independent driver style	The interaction of different modes (including safety aspects)
11:10 am	Duboz	Unintentional Encounter with Automated Delivery Robots: Presentation of a Study involving Pedestrians	The interaction of different modes (including safety aspects)
11:30 am	Albano	A Tradable Credit Scheme to manage the morning commute problem in a Multimodal Network	Pricing strategy
11:50 am	Jian	Joint price and resource strategy under equity constraints	Pricing strategy
12:10 pm	Loder	MobilityCoin system design– modelling challenges and opportunities	Pricing strategy
12:30 pm	Qin	Credit Charge-cum-reward Scheme for Green Multi-modal Mobility	Pricing strategy

**Parallel session 3.3 - Day 3, 21 June 2023 - Morning.
Room C - Chair: C. Lima Azevedo (DTU)**

10:30 am	Rochas	Contextual data integrations to improve the forecasting accuracy of ST-ED-RMGC with bike-sharing data under atypical situations	Enhanced demand and traffic management
10:50 am	Stevanovic	Reservation-based Take Off and Landing in Urban Surface and Air Mobility Management	Enhanced demand and traffic management
11:10 am	Tang	Surrogate Model-based Framework for Urban Traffic Signal Optimization Considering Model Uncertainty	Enhanced demand and traffic management
11:30 am	Toledo	Dynamic network loading based on link travel times	Enhanced demand and traffic management
11:50 am	Agriesti	On integrating large-scale activity-based and traffic assignment models	Enhanced demand and traffic management
12:10 pm	Christidis	Modelling road congestion patterns across EU cities	Enhanced demand and traffic management
12:30 pm	Yang	Privacy-Preserving Adaptive Traffic Signal Control Based on Partially Connected Vehicles	Enhanced demand and traffic management
12:50 pm	Morandi	Including fairness considerations in traffic assignment models using linear programming	Enhanced demand and traffic management

**Parallel session 3.4 - Day 3 , 21 June 2023 - Afternoon.
Room A - Chair: E.R. Wilson (University of Bristol)**

3:00 pm	Di Pace	An Advanced Hybrid Traffic Flow Model for mixed traffic flow	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
3:20 pm	Fauchet	Road-Side Units location optimization: a Mixed Integer Linear Program approach	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
3:40 pm	Kai	Estimating traffic capacity in sag sections using continuum traffic flow theory	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
4:00 pm	L. Marin	Autonomous driver identification using vehicle trajectory data	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
4:20 pm	Mattas	A novel model of Inertia-Oriented Driving Technique	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
4:40 pm	Yang	Dynamic Model-Enhanced Reinforcement Learning For Mixed-Fleet Mobility-on-Demand Systems	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
5:00 pm	Zhang	Non-Survey Methodology to Build a Multi-Regional Input-Output Model	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
5:20 pm	Punzo	Nonlinear string stability analysis of Gipps' model and of the IDM	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation
5:40 pm	Tang	Comparative Assessment of Four Intersection Designs under Signal-Free Intersection Control	Traffic flow theory in the presence of different levels of vehicles' connectivity and automation

**Parallel session 3.5 - Day 3 , 21 June 2023 - Afternoon.
Room B - Chair: Chair: L. Duboz (EC JRC)**

3:00 pm	Ollila	Optimal modal shares for freight transport in Sweden	Freight transportation
3:20 pm	Delle Site	Maximum likelihood estimation of freight transport modal chain choice logit models from aggregate secondary data	Freight transportation
3:40 pm	Zeng	Privacy-preserving Coordination for Cross-carrier Truck Platooning	Freight transportation
4:00 pm	Lassen	Reinforcement learning for congestion pricing with day-to-day dynamics	Enhanced demand and traffic management
4:20 pm	Sun	Exploring Antifragility in Urban Road Network: Learning through Disturbances with Reinforcement Learning	Enhanced demand and traffic management
4:40 pm	Bolong	Unmanned aerial vehicle (UAV) service network design for urban monitoring	Enhanced demand and traffic management
5:00 pm	Oguchi	Development of an Interoperable Traffic Simulation Testbed of the Expressway Network in Tokyo Metropolitan Region	Enhanced demand and traffic management
5:20 pm	Beigi	The Impact of Heavy Vehicles on Headway Distributions: A Study Using Naturalistic Urban Expressway Trajectories Extracted From High Resolution Videos Collected in Washington DC., USA.	Enhanced demand and traffic management
5:40 pm	Meyer	Modelling, feasibility analysis, and potential ramp-up of air taxis services in the Rhine-Main region	Enhanced demand and traffic management

**Parallel session 3.6 - Day 3 , 21 June 2023 - Afternoon.
Room C - Chair: T. Toledo (Technion)**

3:00 pm	Cheraitia	A preliminary study for exploring ML algorithms to understand the mode choice preferences with a special focus on access mode choice to train stations	Discrete choice model
3:20 pm	De Fabiis	Urban Air Mobility in the future mobility landscape: differences in users' approach to airport shuttle and city taxi services	Discrete choice model
3:40 pm	Urata	Developing an Estimation Algorithm for Generalizing the Parameters of the network-GEV model in Destination Choice	Discrete choice model
4:00 pm	HÖRL	Towards replicable mode choice models for transport simulations in France	Discrete choice model
4:20 pm	Naik	Using Digital Twins & Simulation to Aid Operational Planning & Disaster Recovery Responses	Discrete choice model
4:40 pm	Klatte	Comparing a conventional urban logistics chain with an airborne-supplied concept	Urban logistics
5:00 pm	Garus	Automated delivery droids – results from real life experiments	Urban logistics
5:20 pm	Jian	Enhancing the Co-modality of Passengers and Freights in Train Systems	Urban logistics
5:40 pm	Deschle	Towards multi-scale modelling and multiple effect estimation of a logistics hub in a large city with large scale simulation	Urban logistics

Day 4

Time slot	Corresponding author	Title of the presentation	Thematic area
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**Parallel session 4.1 - Day 4, 22 June 2023 - Morning.
Room A - Chair: V. Punzo (University of Napoli)**

10:30 am	Favaro	Interpreting Safety Outcomes: Waymo's Performance Evaluation in the Context of a Broader Determination of Safety Readiness	Safety
10:50 am	Khastgir	Cross-domain (land, air and marine) approach to safety assurance of automated transport systems: learnings and opportunities	Safety
11:10 am	Casas	Using a Cloud-based simulation environment for assessing future safety-critical scenarios with ADS	Safety
11:30 am	Op den Camp	Virtual Simulations to Estimate the Residual Safety Risk of Automated Driving Systems as Part of the Multi-Pillar Approach	Safety
11:50 am	Chaar	Analyse the effect of fog on the perception	Safety
12:10 pm	Chen	Data-Driven Safety Assessment of Adaptive Cruise Control	Safety
12:30 pm	Khastgir	Qualification of virtual test environments for automated driving systems	Safety
12:50 pm	Wilson	Use of Vehicle Test Data and Changes in Mileage Patterns over Time	Safety

**Parallel session 4.2 - Day 4, 22 June 2023 - Morning.
Room B - Chair: A. Kriston (EC JRC)**

10:30 am	Al-Kaisy	Identifying Safety Improvement Sites on Low-Volume Roads: Heuristic Safety Models	Safety
10:50 am	Katsumura	Understandability of accident risk information on road information boards	Safety
11:10 am	Ilic	Roadside LiDAR Sensors for Data Privacy Conform VRU Detection	Safety
11:30 am	Tsubota	Use of vehicle trajectory information in deep learning model for predicting traffic accident occurrence	Safety
11:50 am	Gkioka	Automatic Incident Detection with AI-based Methods using Heterogenous Multimodal Big Data	Safety
12:10 pm	Parada	Assessing the Robustness of Multi-Agent Deep Reinforcement Learning for Collaborative Navigation under Adversarial V2V Attacks	Security
12:30 pm	Asadi Bagloee	Zoning cities for relief transport in disaster management	Disaster

**Steering Committee Meeting - Day 4, 22 June 2023 10.30-12.30
Room C - Chair: M. Kuwahara (Tohoku University)**