

# **hEART 2023**

11<sup>th</sup> Symposium of the European Association for Research in Transportation

6-8 September 2023, ETH Zürich, Switzerland

### **Session Details**



ETH

Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

Version 18 - 2023.09.01 fc

#### 1 Sessions

			HIL E3	HIL E6	HIL E7	HIL E8	HIL E9
			Α	В	С	D	Е
wed 06.09	9:30- 10:30		Keynote1				
wed 06.09	11.00- 12.30	1	demand	energy choice	logistics	active modes	shared mobility
wed 06.09	14.00- 15.30	2	demand	choice models	logistics	active modes	shared mobility
wed 06.09	16.00- 17.30	3	demand	choice models	transit	active modes	shared mobility
wed 06.09	18.00- 19.30	4	demand	choice models	transit	economics	shared mobility
thu 07.09	09.00- 10.30	5	demand	choice models	transit	economics	road
thu 07.09	11.00- 12.30	6	demand	choice models	transit	economics	road
thu 07.09	14:00- 15:00		Keynote 2				
thu 07.09	15.30- 17.00	7	demand	choice models	transit	economics	road
fri 08.09	09.30- 11.00	8	working from home	energy	transit	economics	covid
fri 08.09	09.30- 11.00		Keynote 3				

#### Last minute changes:

9483 Chris ten Dam, Francisco Bahamonde-Birke, Dick Ettema, Gert Jan Kramer and Vinzenz Koning. The influence of the built environment on real world car energy efficiency. **is scheduled in Session B8** (fri 9.30-11) (and available in the list of accepted papers)

1397 Joris Wagenaar, Marie Schmidt and Evelien van der Hurk. A model for Robust Rolling Stock Scheduling. Will not be presented and is canceled from session C5 (thu 9.00-10.30)

8433 Sijia Sun, Hossam Abdelghaffar, Sérgio Batista, Mónica Menéndez and Yuanqing Wang. Analyzing Network-wide Energy Consumption of Electric Vehicles in a Multimodal Traffic Context: Insights from Drone Data. **Will not be presented and is canceled from Session B8** (fri 9.30-11)

# 2 Session details

There are 5 parallel tracks A-B-C-D-E and 8 time slots; a total of 115 papers are presented.

			Sess	ion A1	
Deman	d modeli	ing	200		E3
Start	End	ID	Authors	Title	
wed 11:00	wed 11:30	6556	Cristian Domarchi and Elisabetta Cherchi	Changes in car ownership due to life events: Insights from the UK Longitudinal Household Survey	
wed 11:30	wed 12:00	7441	Janody Pougala, Tim Hillel and Michel Bierlaire	Modelling the impact of activity duration on utility-based scheduling decisions: a comparative analysis	
wed 12:00	wed 12:30	9070	Jaime Soza-Parra and Oded Cats	Who is ready to live a car-independent life- style? A latent class cluster analysis of atti- tudes towards car ownership and usage	
			Sess	ion A2	
Deman	d modeli	ing			E3
Start	End	<b>ID</b>	Authors	Title	
wed 14:00	wed 14:30	840	Ruben A. Kuipers and Michelle Ochsner	The Impact of Weather Phenomena on Passenger Volumes for Commuter Trains	
wed 14:30	wed 15:00	3890	Menno Yap, Howard Wong and Oded Cats	Public Transport Crowding Valuation in a Post-Pandemic Era	
wed 15:00	wed 15:30	1055	Arkadiusz Drabicki, Oded Cats and Rafał Kucharski	Willingness to wait with real-time crowding information in urban public transport – before vs. after COVID-19 pandemic	
			Sess	ion A3	
Deman	d modeli	ing	500		E3
Start	End	ID	Authors Benoit Matet, Etienne	Title	
wed 16:00	wed 16:30	4553	Côme, Angelo Furno, Se- bastian Hörl and Latifa Oukhellou	Use of Origin-Destination data for calibration and spatialization of synthetic travel demand	
wed 16:30	wed 17:00	8170	Aurore Sallard and Milos Balac	Bayesian Networks for travel demand generation: An application to Switzerland	
wed 17:00	wed 17:30	8955	Ida Kristoffersson and Chengxi Liu	Estimation of demand models for long-distance cross-border travel	
			Sess	ion A4	
Deman	d modeli	ing	500		Е3
Start	End	ID	Authors	Title	
wed 18:00	wed 18:30	8690	Ana Tsui Moreno, Mat- thias Langer and Rolf Moeckel	How mobile are persons with mobility restrictions? Analysis of number of days with activities using one-week activity schedules in Germany	
wed 18:30	wed 19:00	8819	Benjamin Gramsch Calvo and Kay W. Axhausen	Exploring the impact of the social network geography on the individual's activity space using structural equation models	
wed 19:00	wed 19:30	3158	Daniel Hörcher and Daniel Graham	The spatial variation of travel time valuations: A general equilibrium model and application in project appraisal	

Domos	d modeli	ina	Sess	ion A5	E3
Start	a moden End	ing ID	Authors	Title	E3
thu 9:00	thu 9:30	4390	Filippos Adamidis, Sara Moghavem Ghaffari and Constantinos Antoniou	Acceptance of car-reducing measures: observed factors and latent attitudes	
thu 9:30	thu 10:00	8134	Anna Reiffer and Peter Vortisch	Estimating Household-Level Time-Use within a Week Activity Scheduling Framework – Application of the MDCEV Model	
thu 10:00	thu 10:30	9280	Margarita Gutjar, Chiara Calastri and Matthias Ko- wald	Householdfleet adaptation as reaction to price regulations: A stated adaptation experiment on the promotion of electric vehicles	
			Sess	ion A6	
Deman	d modeli	ing			Е3
Start	End	ID	Authors	Title	
thu 11:00	thu 11:30	2359	Muhamad Rizki, Tri Basuki Joewono and Yu- sak Susilo	Exploring the Effect of Apps Evolution and Users' Personality on Mobile Apps Adoption and Post-Adoption Pattern Over Time: Evidence from Super-Apps Users in Indonesian Cities	
thu 11:30	thu 12:00	9291	Jing Lyu, Feixiong Liao and Soora Rasouli	Modeling Visit Probabilities within Space-Time Prisms of Daily Activity-Travel Patterns	
thu 12:00	thu 12:30	9370	Gijsbert Koen de Clercq, Maaike Snelder, Arjan van Binsbergen and Bart van Arem	Analysing the Effects of Adding Shared Electric Bicycles as a New Mode on the Modal Split of Multimodal Trips between Delft and Rotterdam Using an Unlabelled Multimodal Supernetwork	
			Sess	ion A7	
Deman	d modeli	ing	5033	Oli A)	E3
Start	End	<b>ID</b>	Authors	Title	
thu 15:30	thu 16:00	6461	Hao Yin and Elisabetta Cherchi	A stated choice experiment to estimate preference for fully automated taxis: comparison between immersive virtual reality and online surveys	
thu 16:00	thu 16:30	4548	Vishal Mahajan, Guido Cantelmo and Constanti- nos Antoniou	An open-source framework for the robust calibration of large-scale traffic simulation models	
thu 16:30	thu 17:	00			
			Sess	ion A8	
Workir	ng from l	nome			E3
Start	End	ID	Authors	Title	
fri 9:30	fri 10:00	856	Takara Sakai, Takashi Ak- amatsu and Koki Satsu- kawa	Welfare impacts of remote and flexible working policies in the bottleneck model	
fri 10:00	fri 10:30	5830	Camila Balbontin, John Nelson, David Hensher and Matthew Beck	Identifying main drivers for students and staff members' mode choice or to work/study from home: A case study in Australia	

			Sess	ion B1	
Energy	and cho	ice mod	elling		<b>E6</b>
Start	End	ID	Authors	Title	
wed 11:00	wed 11:30	2854	Ilka Dubernet and Dennis Seibert	Investigating preferences for powertrains when buying a car in Germany	
wed 11:30	wed 12:00	7360	Elham Hajhashemi, Patri- cia Lavieri and Neema Nassir	Applying a latent class cluster analysis to identify consumer segments of electric vehicle charging styles	
wed 12:00	wed 12:30	5957	Gabriel Hannon, Joanna Ji, Qin Zhang, Ana Tsui Moreno and Rolf Moeckel	Implementing an Agent-Based Formation of Social Networks for Joint Travel	
			Sess	aion B2	
Choice	models				<b>E6</b>
Start	End	ID	Authors	Title	
wed 14:00	wed 14:30	554	Sander Van Cranenburgh and Francisco Garrido Valenzuela	Using computer vision-enriched discrete choice models to assess the visual impact of transport infrastructure renewal projects: A case study of the Delft railway zone	
wed 14:30	wed 15:00	1203	Thomas Hancock, Cha- risma Choudhury, Joan Walker and Stephane Hess	Quantum choice models leap out of the laboratory: capturing real-world behavioural change.	
wed 15:00	wed 15:30	1250	Bastián Henríquez-Jara, C. Angelo Guevara and Angel Jimenez-Molina	Identifying instant utility (latent emotion) triggers using psychophysiological indicators with an Experience-Based Choice Model in a travel experiment	
			g	· D2	
			Sess	sion B3	
Choice	models		Sess	aion B3	<b>E6</b>
Choice Start	models End	ID	Authors	ion B3  Title	<b>E6</b>
		ID 727			<b>E6</b>
Start wed	End wed		Authors  Tom Haering and Michel	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete	<b>E6</b>
Start wed 16:00 wed	End wed 16:30 wed	727	Authors  Tom Haering and Michel Bierlaire  Gabriel Nova, C. Angelo Guevara, Stephane Hess	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete Choice Demand Modeling Random Utility Maximization model consider-	E6
wed 16:00 wed 16:30 wed	<b>End</b> wed 16:30 wed 17:00 wed	727 9449	Authors  Tom Haering and Michel Bierlaire  Gabriel Nova, C. Angelo Guevara, Stephane Hess and Thomas O. Hancock  Stephane Hess and Sander Van Cranenburgh	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete Choice Demand Modeling Random Utility Maximization model consider- ing the information search process  Combine and conquer: model averaging for out-of-distribution forecasting	E6
wed 16:30 wed 17:00	End wed 16:30 wed 17:00 wed 17:30	727 9449	Authors  Tom Haering and Michel Bierlaire  Gabriel Nova, C. Angelo Guevara, Stephane Hess and Thomas O. Hancock  Stephane Hess and Sander Van Cranenburgh	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete Choice Demand Modeling Random Utility Maximization model considering the information search process  Combine and conquer: model averaging for	
Start wed 16:00 wed 16:30 wed 17:00	End wed 16:30 wed 17:00 wed 17:30	727 9449 566	Authors  Tom Haering and Michel Bierlaire  Gabriel Nova, C. Angelo Guevara, Stephane Hess and Thomas O. Hancock  Stephane Hess and Sander Van Cranenburgh	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete Choice Demand Modeling Random Utility Maximization model considering the information search process  Combine and conquer: model averaging for out-of-distribution forecasting	E6
wed 16:30 wed 17:00	End wed 16:30 wed 17:00 wed 17:30	727 9449	Authors  Tom Haering and Michel Bierlaire  Gabriel Nova, C. Angelo Guevara, Stephane Hess and Thomas O. Hancock  Stephane Hess and Sander Van Cranenburgh	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete Choice Demand Modeling Random Utility Maximization model considering the information search process  Combine and conquer: model averaging for out-of-distribution forecasting	
wed 16:30 wed 17:00 Choice	End wed 16:30 wed 17:00 wed 17:30	727 9449 566	Authors  Tom Haering and Michel Bierlaire  Gabriel Nova, C. Angelo Guevara, Stephane Hess and Thomas O. Hancock  Stephane Hess and Sander Van Cranenburgh	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete Choice Demand Modeling Random Utility Maximization model considering the information search process Combine and conquer: model averaging for out-of-distribution forecasting  Title In-depth, Breath-first or Both? Toward the Development of a RUM-DFT Discrete Choice Model	
wed 16:30 wed 17:00 Choice Start wed	wed 17:00 wed 17:30 models End wed	727 9449 566 ID	Authors  Tom Haering and Michel Bierlaire  Gabriel Nova, C. Angelo Guevara, Stephane Hess and Thomas O. Hancock  Stephane Hess and Sander Van Cranenburgh  Sess  Authors  Gabriel Nova and C. An-	Title A Spatial Branch and Bound Algorithm for Continuous Pricing with Advanced Discrete Choice Demand Modeling Random Utility Maximization model considering the information search process  Combine and conquer: model averaging for out-of-distribution forecasting  Title In-depth, Breath-first or Both? Toward the Development of a RUM-DFT Discrete Choice	

			Sess	ion B5	
Choice Start	models End	ID	Authors	Title	<b>E6</b>
thu 9:00	thu 9:30	4019	Shadi Haj Yahia, Omar Mansour and Tomer To- ledo	Incorporating Domain Knowledge in Deep Neural Networks for Mode Choice Analysis	
thu 9:30	thu 10:00	4339	Laurent Cazor, Mirosława Łukawska, Mads Paulsen, Thomas Rasmussen and Otto Nielsen	Whose preferences matter more? Handling unbalanced panel data for choice modelling	
thu 10:00	thu 10:30	4477	Niousha Bagheri Khoulen- jani, Milad Ghasri and Mi- chael Barlow	Post-hoc explanation methods for deep neural networks in choice analysis	
			Sess	ion B6	
	models				<b>E6</b>
Start	End	ID	Authors	Title	
thu 11:00	thu 11:30	5382	Nicola Ortelli, Matthieu de Lapparent and Michel Bierlaire	Faster estimation of discrete choice models via weighted dataset reduction	
thu 11:30	thu 12:00	6199	Giancarlos Parady, Yuki Oyama and Makoto Chikaraishi	Text-aided Group Decision-making Process Observation Method (x-GDP): A novel meth- odology for observing the joint decision-mak- ing process of travel choices	
thu 12:00	thu 12:30	6466	Fernanda Guajardo and Sebastián Raveau	Travel mode choice modelling of visually impair people through latent variables	
			Sess	ion B7	
	models	TD			<b>E6</b>
Choice Start	models End	ID	Authors	Title	E6
		<b>ID</b> 1540	Authors Rui Yao and Renming Liu		<b>E6</b>
<b>Start</b> thu	End thu			Title Can Bayesian Optimization be the Last Puzzle for Automatic Estimation of Neural Network Discrete Choice Models? An experiment A new flexible and interpretable choice model with monotonicity constraints, non-linearity,	<b>E6</b>
Start thu 15:30 thu	End thu 16:00 thu	1540 9818	Rui Yao and Renming Liu  Eui-Jin Kim and Prateek	Title Can Bayesian Optimization be the Last Puzzle for Automatic Estimation of Neural Network Discrete Choice Models? An experiment A new flexible and interpretable choice model	<b>E6</b>
thu 15:30 thu 16:00 thu	End thu 16:00 thu 16:30	1540 9818	Rui Yao and Renming Liu Eui-Jin Kim and Prateek Bansal	Title Can Bayesian Optimization be the Last Puzzle for Automatic Estimation of Neural Network Discrete Choice Models? An experiment A new flexible and interpretable choice model with monotonicity constraints, non-linearity,	Е6
Start thu 15:30 thu 16:00 thu 16:30 Energy	End thu 16:00 thu 16:30 thu 17:	1540 9818 000 wer aspe	Rui Yao and Renming Liu Eui-Jin Kim and Prateek Bansal Sess	Title  Can Bayesian Optimization be the Last Puzzle for Automatic Estimation of Neural Network Discrete Choice Models? An experiment  A new flexible and interpretable choice model with monotonicity constraints, non-linearity, and taste heterogeneity	E6
Start thu 15:30 thu 16:00 thu 16:30	End thu 16:00 thu 16:30 thu 17:	1540 9818 -00	Rui Yao and Renming Liu Eui-Jin Kim and Prateek Bansal Sess ects Authors	Title Can Bayesian Optimization be the Last Puzzle for Automatic Estimation of Neural Network Discrete Choice Models? An experiment A new flexible and interpretable choice model with monotonicity constraints, non-linearity, and taste heterogeneity	
thu 15:30 thu 16:00 thu 16:30	End thu 16:00 thu 16:30 thu 17:	1540 9818 000 wer aspe	Rui Yao and Renming Liu Eui-Jin Kim and Prateek Bansal Sess	Title  Can Bayesian Optimization be the Last Puzzle for Automatic Estimation of Neural Network Discrete Choice Models? An experiment  A new flexible and interpretable choice model with monotonicity constraints, non-linearity, and taste heterogeneity	
thu 15:30 thu 16:00 thu 16:30 Energy Start fri	thu 16:00 thu 16:30 thu 17:	1540 9818 :00 wer aspe	Rui Yao and Renming Liu  Eui-Jin Kim and Prateek Bansal  Sess Sets Authors Carlos Gaete-Morales, Julius Jöhrens, Florian Heining and Wolf-Peter	Title Can Bayesian Optimization be the Last Puzzle for Automatic Estimation of Neural Network Discrete Choice Models? An experiment A new flexible and interpretable choice model with monotonicity constraints, non-linearity, and taste heterogeneity  Title Power sector effects of alternative options for	

			Sess	ion C1	
Logisti					<b>E7</b>
Start	End	ID	Authors	Title	
wed 11:00	wed 11:30	618	Sebastian Hörl and Puchinger Jakob	Modeling the ecological and economic foot- print of last-mile parcel deliveries using open data: A case study for Lyon	
wed 11:30	wed 12:00	9659	Jose Holguin-Veras, Diana Ramirez-Rios and Trilce Encarnacion	Who is Responsible for the Externalities Produced by Freight Carriers? Hint: The Answer is Not as Simple as it Seems	
wed 12:00	wed 12:30	3928	Jingyi Cheng and Shadi Sharif Azadeh	A data-driven dynamic demand hotspots fore- casting framework for on-demand meal deliv- ery platforms	
			Sess	ion C2	
Logisti	cs				<b>E7</b>
Start	End	ID	Authors	Title	
wed 14:00	wed 14:30	5245	Rong Cheng, Andreas Fessler, Allan Larsen, Otto Anker Nielsen and Yu Jiang	Assessing the Impacts of Public Transport- Based Crowdshipping: A Case Study in Nør- rebro District in Copenhagen	
wed 14:30	wed 15:00	7914	Ryota Okazaki, Yuki Oyama, Naoto Imura and Katsuhiro Nishinari	Day-to-day delivery demand management: Evaluation based on routing efficiency and customer satisfaction	
wed 15:00	wed 15:30	8845	Adrien Nicolet and Bilge Atasoy	Choice-driven Service Network Design and Pricing in Intermodal Transport	
			C		
D1.12	Т	4	Sess	ion C3	T0.5
	Transpo End				E7
Public Start wed 16:00	Transpo End wed 16:30	rt ID 2398	Authors Florian Fuchs, Viera Klasovitá and Francesco Corman	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-Based Benders Approach	E7
Start wed	End wed	ID	Authors Florian Fuchs, Viera Klasovitá and Francesco	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-	E7
Start wed 16:00 wed	End wed 16:30 wed	ID 2398	Authors Florian Fuchs, Viera Klasovitá and Francesco Corman Christina Iliopoulou, Michail Makridis and Ana-	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-Based Benders Approach Resilience-Oriented Design for Public	E7
wed 16:00 wed 16:30 wed	<b>End</b> wed 16:30 wed 17:00 wed	2398 4378	Authors Florian Fuchs, Viera Klasovitá and Francesco Corman Christina Iliopoulou, Michail Makridis and Anastasios Kouvelas Inneke Van Hoeck and Pieter Vansteenwegen	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-Based Benders Approach Resilience-Oriented Design for Public Transport Networks A heuristic approach to improve the robustness of a railway timetable in a bottleneck area	E7
wed 16:30 wed 16:30 wed 17:00	<b>End</b> wed 16:30 wed 17:00 wed	2398 4378 4434	Authors Florian Fuchs, Viera Klasovitá and Francesco Corman Christina Iliopoulou, Michail Makridis and Anastasios Kouvelas Inneke Van Hoeck and Pieter Vansteenwegen	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-Based Benders Approach Resilience-Oriented Design for Public Transport Networks A heuristic approach to improve the robustness of a railway timetable in a bottleneck	E7
wed 16:30 wed 16:30 wed 17:00	wed 17:00 wed 17:30	2398 4378 4434	Authors Florian Fuchs, Viera Klasovitá and Francesco Corman Christina Iliopoulou, Michail Makridis and Anastasios Kouvelas Inneke Van Hoeck and Pieter Vansteenwegen  Sess Authors	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-Based Benders Approach Resilience-Oriented Design for Public Transport Networks A heuristic approach to improve the robustness of a railway timetable in a bottleneck area  ion C4 Title	
wed 16:30 wed 17:00 Public	End  wed 16:30  wed 17:00  wed 17:30	1D 2398 4378 4434	Authors Florian Fuchs, Viera Klasovitá and Francesco Corman Christina Iliopoulou, Michail Makridis and Anastasios Kouvelas Inneke Van Hoeck and Pieter Vansteenwegen  Sess	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-Based Benders Approach Resilience-Oriented Design for Public Transport Networks A heuristic approach to improve the robustness of a railway timetable in a bottleneck area	
wed 16:30 wed 17:00 Public Start wed	End  wed 16:30  wed 17:00  wed 17:30  Transpo End  wed	2398 4378 4434 ert ID	Authors Florian Fuchs, Viera Klasovitá and Francesco Corman Christina Iliopoulou, Michail Makridis and Anastasios Kouvelas Inneke Van Hoeck and Pieter Vansteenwegen  Sess Authors Gülin Göksu Başaran, Jesper Bláfoss Ingvardson	Title Routing Passengers while Timetabling Based on Promises from Line Planning: A Logic-Based Benders Approach Resilience-Oriented Design for Public Transport Networks A heuristic approach to improve the robustness of a railway timetable in a bottleneck area  ion C4  Title Influence of station characteristics, urban surroundings and perceived safety on satisfaction	

			Sess	ion C5	
Public	Transpo	rt	5000		E7
Start	End	ID	Authors	Title	
thu 9:00	thu 9:30	4427	Léa Ricard, Guy De- saulniers, Andrea Lodi and Louis-Martin Rous- seau	The stochastic multiple depot electric vehicle scheduling problem with recourse	
thu 9:30	thu 10:00	6024	Emily Morey, R. Eddie Wilson and Kevin Galvin	Simulation of Mixtures of Legacy and Autonomous Mainline Rail Operations	
thu 10:00	thu 10:30	<del>1397</del>	Joris Wagenaar, Marie Schmidt and Evelien van der Hurk	A model for Robust Rolling Stock Scheduling	
			Sacc	ion C6	
Public	Transpo	rt	5688	ion Co	E7
Start	End	ID .	Authors	Title	Δ,
thu 11:00	thu 11:30	629	Alessio Daniele Marra and Francesco Corman	Evaluating real-time information systems on public transport disturbances	
thu 11:30	thu 12:00	7670	Kacper Rossa, Andrew Smith, Richard Batley and Phillip Hudson	The valuation of arrival and departure delays in the UK passenger rail using satisfaction survey data	
thu 12:00	thu 12:30	4604	Federico Bigi, Nicola Schwemmle and Francesco Viti	Evaluating the impact of Free Public Transport using agent-based modeling: the case-study of Luxembourg	
			Sess	ion C7	
				· · · · · ·	
Public	Transpo	rt			E7
Public Start	Transpo End	rt ID	Authors	Title	<b>E7</b>
	_		Authors Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus Bogenberger		E7
<b>Start</b> thu	<b>End</b> thu	ID	Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus	Title  Detection of Bus Bunching through the Analy-	E7
start thu 15:30 thu	End thu 16:00 thu	1943 7809	Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus Bogenberger Kailin Chen, Daniel Gra- ham, Richard Anderson, Anupriya Anupriya and	Title  Detection of Bus Bunching through the Analysis of Prevalent Public Transport Control Data  Understanding the Capacity of Airport Run-	<b>E7</b>
thu 15:30 thu 16:00 thu 16:30	End thu 16:00 thu 16:30 thu 17:	1943 7809 00	Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus Bogenberger Kailin Chen, Daniel Gra- ham, Richard Anderson, Anupriya Anupriya and Prateek Bansal	Title  Detection of Bus Bunching through the Analysis of Prevalent Public Transport Control Data  Understanding the Capacity of Airport Run-	
thu 15:30 thu 16:00 thu 16:30	thu 16:00 thu 16:30 thu 17:	1943 7809 00	Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus Bogenberger Kailin Chen, Daniel Gra- ham, Richard Anderson, Anupriya Anupriya and Prateek Bansal	Title  Detection of Bus Bunching through the Analysis of Prevalent Public Transport Control Data  Understanding the Capacity of Airport Runways	E7
thu 15:30 thu 16:00 thu 16:30	End thu 16:00 thu 16:30 thu 17:	1943 7809 00	Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus Bogenberger Kailin Chen, Daniel Gra- ham, Richard Anderson, Anupriya Anupriya and Prateek Bansal	Title  Detection of Bus Bunching through the Analysis of Prevalent Public Transport Control Data  Understanding the Capacity of Airport Runways	
thu 15:30 thu 16:00 thu 16:30	thu 16:00 thu 16:30 thu 17:	1943 7809 00	Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus Bogenberger Kailin Chen, Daniel Gra- ham, Richard Anderson, Anupriya Anupriya and Prateek Bansal	Title  Detection of Bus Bunching through the Analysis of Prevalent Public Transport Control Data  Understanding the Capacity of Airport Runways	
thu 15:30 thu 16:00 thu 16:30  Public Start fri	thu 16:00  thu 16:30 thu 17:  Transpo End fri	1943 7809 00 rt ID	Leon Weinsziehr, Frederik Bachmann, Antonios Tsakarestos and Klaus Bogenberger Kailin Chen, Daniel Graham, Richard Anderson, Anupriya Anupriya and Prateek Bansal  Sess Authors Rowan Hoogervorst, Evelien van der Hurk, Philine Schiewe, Anita Schöbel	Title  Detection of Bus Bunching through the Analysis of Prevalent Public Transport Control Data  Understanding the Capacity of Airport Runways  ion C8  Title	

			Sess	ion D1	
Micron	nobility	and Act	ive mobility		E8
Start	End	ID	Authors	Title	
wed 11:00	wed 11:30	324	Anders Fjendbo Jensen and Jeppe Rich	Empirical analysis of cycling trends in two of Europe's most bicycle-friendly regions: Identifying the successes and the setbacks	
wed 11:30	wed 12:00	2045	Rasha Bowirrat, Karel Martens and Yoram Shiftan	Explaining Walking in Cities – a Machine Learning Approach	
wed 12:00	wed 12:30	2590	Georgios Kapousizis, Ru- mana Sarker, Baran Ulak and Karst Geurs	Acceptance of new technologies affecting safety on electric bicycles: evidence from five European countries	
			Sess	ion D2	
Micron	nobility	and Act	ive mobility		E8
Start	End	ID	Authors	Title	20
wed 14:00	wed 14:30	2155	Mads Paulsen and Jeppe Rich	Optimal bicycle network expansions with endogenous demand	
wed 14:30	wed 15:00	3525	Ying-Chuan Ni, Michail Makridis and Anastasios Kouvelas	Investigating Link- and Network-level Bicycle Traffic Flow Characteristics using a Microsim- ulation Approach	
wed 15:00	wed 15:30	4126	David Kohlrautz and Tobias Kuhnimhof	Modeling the Demand for Bicycle Parking Facilities	
			Sess	ion D3	
Micron	nobility :	and Act	ive mobility		E8
Micron Start	nobility a End	and Act	Authors	Title	E8
	-		_		E8
Start wed	End wed	ID	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Gra-	Title Understanding the cycle traffic impacts of Cy-	E8
Start wed 16:00 wed	End wed 16:30 wed	ID 5543	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Gra- ham Khashayar Khavarian, Shaghayegh Vosough and	Title Understanding the cycle traffic impacts of Cycle Superhighways in London How do electric bikes affect the route choice	E8
wed 16:30 wed wed	End wed 16:30 wed 17:00 wed	<b>ID</b> 5543 5563	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Graham Khashayar Khavarian, Shaghayegh Vosough and Claudio Roncoli Bingyuan Huang, Hans Wüst and Mathijs de Haas	Title Understanding the cycle traffic impacts of Cycle Superhighways in London How do electric bikes affect the route choice of cyclists? A case study of Greater Helsinki Assessing the Long-term Impact of E-bikes on Sustainable Mobility: A National-Level Study in the Netherlands	E8
wed 16:30 wed 17:00	End wed 16:30 wed 17:00 wed 17:30	<b>ID</b> 5543 5563	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Graham Khashayar Khavarian, Shaghayegh Vosough and Claudio Roncoli Bingyuan Huang, Hans Wüst and Mathijs de Haas	Title Understanding the cycle traffic impacts of Cycle Superhighways in London How do electric bikes affect the route choice of cyclists? A case study of Greater Helsinki Assessing the Long-term Impact of E-bikes on Sustainable Mobility: A National-Level Study	
wed 16:30 wed wed	End wed 16:30 wed 17:00 wed 17:30	<b>ID</b> 5543 5563	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Graham Khashayar Khavarian, Shaghayegh Vosough and Claudio Roncoli Bingyuan Huang, Hans Wüst and Mathijs de Haas	Title Understanding the cycle traffic impacts of Cycle Superhighways in London How do electric bikes affect the route choice of cyclists? A case study of Greater Helsinki Assessing the Long-term Impact of E-bikes on Sustainable Mobility: A National-Level Study in the Netherlands	E8
wed 16:30 wed 17:00 Econor	End wed 16:30 wed 17:00 wed 17:30	5543 5563 8554 ID	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Graham Khashayar Khavarian, Shaghayegh Vosough and Claudio Roncoli Bingyuan Huang, Hans Wüst and Mathijs de Haas	Title Understanding the cycle traffic impacts of Cycle Superhighways in London How do electric bikes affect the route choice of cyclists? A case study of Greater Helsinki Assessing the Long-term Impact of E-bikes on Sustainable Mobility: A National-Level Study in the Netherlands	
wed 16:30 wed 17:00	End  wed 16:30  wed 17:00  wed 17:30	5543 5563 8554	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Graham Khashayar Khavarian, Shaghayegh Vosough and Claudio Roncoli Bingyuan Huang, Hans Wüst and Mathijs de Haas  Sess  Authors Hannes Wallimann, Kevin Blättler and Widar von Arx	Title Understanding the cycle traffic impacts of Cycle Superhighways in London How do electric bikes affect the route choice of cyclists? A case study of Greater Helsinki Assessing the Long-term Impact of E-bikes on Sustainable Mobility: A National-Level Study in the Netherlands ion D4  Title	
wed 16:30 wed 17:00 Econor Start wed	End wed 16:30 wed 17:00 wed 17:30 mics End wed	5543 5563 8554 ID	Authors Xiaowei Zhu, Anupriya Anupriya and Daniel Graham Khashayar Khavarian, Shaghayegh Vosough and Claudio Roncoli Bingyuan Huang, Hans Wüst and Mathijs de Haas  Sess Authors Hannes Wallimann, Kevin	Title Understanding the cycle traffic impacts of Cycle Superhighways in London How do electric bikes affect the route choice of cyclists? A case study of Greater Helsinki Assessing the Long-term Impact of E-bikes on Sustainable Mobility: A National-Level Study in the Netherlands ion D4  Title Do price reductions attract customers in urban	

			Sess	ion D5	
Econor	nics				E8
Start	End	ID	Authors	Title	
thu 9:00	thu 9:30	3552	Louis Balzer and Ludovic Leclercq	Cooperation between Ride-Hailing and Public Transportation with Tradable Credit Schemes	
thu 9:30	thu 10:00	4249	Mingye Luan, S.Travis Waller and David Rey	A non-additive path-based reward credit scheme for traffic congestion management	
thu 10:00	thu 10:30	8505	Gaurav Malik and Chris Tampère	Application of a Metamodel-Based Optimization Approach for Toll Optimization and its comparison with Metaheuristics-based Model Optimization via a Case Study.	
			Sess	ion D6	
Econor	nics				<b>E8</b>
Start	End	ID	Authors	Title	
thu 11:00	thu 11:30	1241	Konstantin Krauss	Shifting to sharing: Are external costs reduced or merely redistributed?	
thu 11:30	thu 12:00	3545	Farnoud Ghasemi, Arkadi- usz Drabicki and Rafał Ku- charski	Dynamics of the Ride-Sourcing Market: A Co- evolutionary Model of Competition between Two-Sided Mobility Platforms	
thu 12:00	thu 12:30	9239	Marko Maljkovic, Gustav Nilsson and Nikolas Gero- liminis	On fair discounted charging in electric ride- hailing markets with limited budgets	
			Sess	ion D7	
Econor	nics		Sess	ion D7	E8
Econor Start	nics End	ID	Sess	ion D7  Title	E8
		ID 2447			E8
<b>Start</b> thu	End thu		Authors Anupriya Anupriya, Daniel Graham and Prateek	Title  Quantification of non-linear effects in agglom-	E8
Start thu 15:30 thu	End thu 16:00 thu	2447 3039	Authors Anupriya Anupriya, Daniel Graham and Prateek Bansal Dimitrios Pappelis, Emmanouil Chaniotakis, Tim Hillel and Maria Ka-	Title  Quantification of non-linear effects in agglomeration economies for transport appraisals  Modelling Travel Time Anticipation Under Rational Inattention and Endogenous Information	E8
thu 15:30 thu 16:00 thu	End thu 16:00 thu 16:30	2447 3039	Authors Anupriya Anupriya, Daniel Graham and Prateek Bansal Dimitrios Pappelis, Emmanouil Chaniotakis, Tim Hillel and Maria Kamargianni	Title  Quantification of non-linear effects in agglomeration economies for transport appraisals  Modelling Travel Time Anticipation Under Rational Inattention and Endogenous Information	E8
thu 15:30 thu 16:00 thu	End thu 16:00 thu 16:30 thu 17:	2447 3039	Authors Anupriya Anupriya, Daniel Graham and Prateek Bansal Dimitrios Pappelis, Emmanouil Chaniotakis, Tim Hillel and Maria Kamargianni	Title  Quantification of non-linear effects in agglomeration economies for transport appraisals  Modelling Travel Time Anticipation Under Rational Inattention and Endogenous Information Constraints	E8
thu 15:30 thu 16:00 thu 16:30	End thu 16:00 thu 16:30 thu 17:	2447 3039	Authors Anupriya Anupriya, Daniel Graham and Prateek Bansal Dimitrios Pappelis, Emmanouil Chaniotakis, Tim Hillel and Maria Kamargianni  Sess Authors	Title  Quantification of non-linear effects in agglomeration economies for transport appraisals  Modelling Travel Time Anticipation Under Rational Inattention and Endogenous Information Constraints	
thu 15:30 thu 16:00 thu 16:30	End thu 16:00 thu 16:30 thu 17:	2447 3039 00	Authors Anupriya Anupriya, Daniel Graham and Prateek Bansal Dimitrios Pappelis, Emmanouil Chaniotakis, Tim Hillel and Maria Kamargianni  Sess Authors Allister Loder and Klaus Bogenberger	Title  Quantification of non-linear effects in agglomeration economies for transport appraisals  Modelling Travel Time Anticipation Under Rational Inattention and Endogenous Information Constraints	
thu 15:30 thu 16:00 thu 16:30  Econor Start fri	thu 16:00 thu 16:30 thu 17: mics End fri	2447 3039 00 ID	Authors Anupriya Anupriya, Daniel Graham and Prateek Bansal Dimitrios Pappelis, Emmanouil Chaniotakis, Tim Hillel and Maria Kamargianni  Sess Authors Allister Loder and Klaus	Title  Quantification of non-linear effects in agglomeration economies for transport appraisals  Modelling Travel Time Anticipation Under Rational Inattention and Endogenous Information Constraints  ion D8  Title  MobilityCoins - an integrated multimodal	

			Sess	ion E1	
Shared	Mobilit	y			E9
Start	End	ID	Authors	Title	
wed 11:00	wed 11:30	717	Patrick Stokkink, André de Palma and Nikolas Geroli- minis	Carpooling with Transfers and Travel Time Uncertainty	
wed 11:30	wed 12:00	2727	Thomas Schatzmann, Felix Zwick and Kay Axhausen	Investigating the preferences for the use of urban ridepooling	
wed 12:00	wed 12:30	3758	Manon Seppecher and Ludovic Leclercq	An auctioning process for large-scale ride- hailing vehicles repositioning	
			Sess	ion E2	
Shared	Mobilit	v			E9
Start	End	<b>D</b>	Authors	Title	
wed 14:00	wed 14:30	6563	Caio Vitor Beojone and Ni- kolas Geroliminis	Providing a Revenue-forecasting Scheme to Relocate Groups of Ride-Sourcing Drivers	
wed 14:30	wed 15:00	5954	Michal Bujak and Rafal Kucharski	Assessing expected ride-pooling performance with non-deterministic, heterogeneous travellers' behaviour.	
wed 15:00	wed 15:30	6443	Tai-Yu Ma, Yumeng Fang, Richard Connors, Fran- cesco Viti and Haruko Na- kao	A fast algorithm to optimize meeting-point- based electric first-mile feeder services with capacitated charging stations	
Chanad	Mak:124	_	Sess	ion E3	ΕO
Snared Start	Mobility End	y ID	Authors	Title	<b>E9</b>
wed 16:00	wed	ш	Kenan Zhang, Andres	What do walking and e-hailing bring to scale	
	16:30	6043	Fielbaum and Javier Alonso-Mora	economies? A general microeconomic model for on-demand mobility	
wed 16:30	16:30 wed 17:00	6043 9052	Fielbaum and Javier Alonso-Mora Lynn Fayed, Gustav Nils- son and Nikolas Geroli-	economies? A general microeconomic model	
wed	wed		Fielbaum and Javier Alonso-Mora Lynn Fayed, Gustav Nils-	economies? A general microeconomic model for on-demand mobility  On the dynamic pricing of pool ride-hailing	
wed 16:30 wed	wed 17:00 wed	9052	Fielbaum and Javier Alonso-Mora Lynn Fayed, Gustav Nilsson and Nikolas Geroliminis Severin Diepolder, Andrea Araldo, Tarek Chouaki, Santa Maiti, Sebastian Horl and Costantinos Antoniou	economies? A general microeconomic model for on-demand mobility  On the dynamic pricing of pool ride-hailing services in bus lanes  On the Computation of Accessibility Provided by Shared Mobility	
wed 16:30 wed 17:00	wed 17:00 wed 17:30	9052 6772	Fielbaum and Javier Alonso-Mora Lynn Fayed, Gustav Nilsson and Nikolas Geroliminis Severin Diepolder, Andrea Araldo, Tarek Chouaki, Santa Maiti, Sebastian Horl and Costantinos Antoniou	economies? A general microeconomic model for on-demand mobility  On the dynamic pricing of pool ride-hailing services in bus lanes  On the Computation of Accessibility Provided	Е9
wed 16:30 wed 17:00	wed 17:00 wed	9052 6772	Fielbaum and Javier Alonso-Mora Lynn Fayed, Gustav Nilsson and Nikolas Geroliminis Severin Diepolder, Andrea Araldo, Tarek Chouaki, Santa Maiti, Sebastian Horl and Costantinos Antoniou	economies? A general microeconomic model for on-demand mobility  On the dynamic pricing of pool ride-hailing services in bus lanes  On the Computation of Accessibility Provided by Shared Mobility	E9
wed 16:30 wed 17:00	wed 17:00 wed 17:30	9052 6772	Fielbaum and Javier Alonso-Mora Lynn Fayed, Gustav Nilsson and Nikolas Geroliminis Severin Diepolder, Andrea Araldo, Tarek Chouaki, Santa Maiti, Sebastian Horl and Costantinos Antoniou  Sess	economies? A general microeconomic model for on-demand mobility  On the dynamic pricing of pool ride-hailing services in bus lanes  On the Computation of Accessibility Provided by Shared Mobility	Е9
wed 16:30 wed 17:00 Shared Start wed	wed 17:00 wed 17:30 Mobility End wed	9052 6772 y	Fielbaum and Javier Alonso-Mora Lynn Fayed, Gustav Nilsson and Nikolas Geroliminis Severin Diepolder, Andrea Araldo, Tarek Chouaki, Santa Maiti, Sebastian Horl and Costantinos Antoniou  Sess  Authors Sara Momen, Bart van Arem and Shadi Sharif	economies? A general microeconomic model for on-demand mobility  On the dynamic pricing of pool ride-hailing services in bus lanes  On the Computation of Accessibility Provided by Shared Mobility  ion E4  Title  Dynamic location for charging operations of	E9

			Sess	ion E5	
Road T	ranspor	t			<b>E9</b>
Start	End	ID	Authors	Title	
thu 9:00	thu 9:30	2329	Felix Hofinger and Martin Fellendorf	Lane change behavior on motorways based on naturalistic trajectory data	
thu 9:30	thu 10:00	2643	Gunnar Flötteröd	Improved precision in a heuristic for particle- based and stochastic dynamic traffic assign- ment	
thu 10:00	thu 10:30	2677	Magdalena Schilling, Marvin V. Baumann, Jörg Sonnleitner, Markus Friedrich and Peter Vortisch	Design hourly volume estimation at freeway nodes using floating car data	
			Sess	ion E6	
Road T	ranspor	t			<b>E9</b>
Start	End	ID	Authors	Title	
thu 11:00	thu 11:30	5254	Hassan Idoudi, Mostafa Ameli, Cyril Nguyen Van Phu, Mahdi Zargayouna and Abderrezak Rachedi	Enhancing Evacuation Planning and Management through Vehicular Communication	
thu 11:30	thu 12:00	5383	Lubing Li, Ka Fai Ng, Ja- cob Lo and Hong Lo	Adaptive Traffic Signal Control: A Novel Modelling Approach	
thu 12:00	thu 12:30	5528	Yiru Jiao, Simeon Calvert, Sander van Cranenburgh and Hans van Lint	Varying critical time to collision: a perspective of driver space	
			Sess	ion E7	
Road T	ranspor	t			E9
Start	End	ID	Authors	Title	
thu 15:30	thu 16:00	6488	Milad Malekzadeh, Di- mitrios Troullinos, Ioannis Papamichail and Markos Papageorgiou	Microscopic Simulation-based Testing of Internal Boundary Control of Lane-free Automated Vehicle Traffic	
thu 16:00	thu 16:30	8738	Josephine Grau, Lea Fuchs, Torben Lelke and Peter Vortisch	City-wide bottleneck and deficiency analysis on a road network generated from the Open Street Map road network using Floating Car Data (FCD)	
thu	thu 17:	:00		Data (1 OD)	
16:30					
			Sess	ion E9	
Covid a	and epid	emics			E9
Start	End	ID	Authors	Title	
fri 9:30	fri 10:00	4391	Han Zhou, Yashar Araghi, Bachtijar Ashari and Maaike Snelder	An activity-based latent class modelling approach to assess the impact of hybrid working on travel demand in the Netherlands after COVID-19	
fri 10:00	fri 10:30	7898	Nejc Geržinič, Maurizio van Dalen, Barth Donners and Oded Cats	The impact of covid-19 on modal shift in long-distance travel	
			1 1' 0' . 7'	The form of the state of the st	
fri 10:30	fri 11:00	4260	Joanna Ji, Qin Zhang, Ana Tsui Moreno and Rolf Moeckel	The impact of social networks and coordinated destination choice on the spread of epidemics using Episim	

### 3 Accepted abstracts and papers

The list of accepted abstracts is available at:

https://heart2023.org/abstracts.pdf

The list of accepted papers is available, in due time, at:

https://transp-or.epfl.ch/heart/2023.php