



STRC 2016 | Monte Verità

Conference Program

STRC

17th Swiss Transport Research Conference
Monte Verità / Ascona, May 17 – 19, 2017

It is my pleasure to welcome you to the 17th edition of the Swiss Transport Research Conference (STRC). Over the years, STRC has become an excellent opportunity to exchange knowledge and ideas among researchers in Switzerland, covering a variety of aspects regarding transport and land use. This year, the 50 presentations will cover a multiplicity of topics, including: traffic monitoring, modeling and control; automated and connected transport systems; demand modeling; logistics; land use data; public transport operations and infrastructure; big data for transport and mobility, pedestrian modeling, among others. The following Keynote speakers have confirmed their attendance:

Prof. Patricia L. Mokhtarian, Georgia Institute of Technology

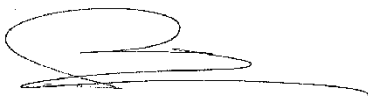
Dr. Georgina Santos, Cardiff University

Prof. M. Grazia Speranza, Università degli Studi di Brescia

We encourage interaction between participants. Take advantage of this opportunity and the excellent venue to spend quality time with your colleagues. The Hotel and Conference Center Monte Verità is an ideal environment in which to meet.

On behalf of the STRC organizing committee, welcome!

Michel Bierlaire, TRANSP-OR, EPF Lausanne



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General Information

Location

Fondazione Monte Verità, Strada Collina 84, CH-6612 Ascona.

The venue is near Ascona and Locarno, both on the Maggiore's lake coast.

Arrival / Shuttle bus

We recommend to travel by train as there are only a limited number of parking places. On Wednesday 17th there will be a shuttle service from Locarno train station to Monte Verità. The timetable is the following:

12:00 h Shuttle (11 seats)

12:30 h Shuttle (30 seats)

12:40 h Shuttle (11 seats)

13:05 h Shuttle (30 seats)

We recommend attendants to plan their arrival to the Locarno station before 13.00h.

On Friday 19th there will be also shuttle services from Monte Verità to Locarno starting at 12:35.

Check-in

Check-in is at the reception of the conference center. There you will find your name badge.

Presentation

The presentation time this year is 20 minutes with 5 minutes for questions.

Please, stick to the schedule.

Information

The present program and the papers of the conference can be accessed through the conference web page: <http://www.strc.ch/>

Also details regarding the venue can be found: <http://www.monteverita.org>

Finally, information concerning travel times by train can be checked at: <http://www.sbb.ch/>

Questions

For other questions regarding the conference, please send us an e-mail at:

strc2017@epfl.ch

For emergency cases you can call Matthieu de Lapparent: +41 76 429 72 01

Keynote Speakers

Patricia L. Mokhtarian

Patricia Mokhtarian is Professor of Civil and Environmental Engineering and coordinator of the Transportation Systems Engineering group at Georgia Institute of Technology.

She has specialized in the application of rigorous quantitative methods to the study of travel behavior for more than 30 years, and has authored or co-authored more than 200 refereed journal articles, technical reports, and other publications.

Her key research interests are the impact of telecommunications technology on travel behavior, land use and transportation interactions, attitudes toward travel itself, congestion-response behavior, travel time budgets, induced demand, and the transportation/air quality impacts of transportation demand management measures.

She is a North American area editor of the journal *Transportation*, and is on the editorial boards of *Transportation Research Part A*, *Transport Policy*, *Transportation Letters*, the *International Journal of Sustainable Transportation*, the *European Journal of Transport and Infrastructure Research*, and *Travel Behaviour and Society*.

She also is the current Chair of the International Association for Travel Behaviour Research



Georgina Santos

Georgina Santos is Senior Lecturer at Cardiff University. She is an economist interested in environmental and transport economics and policy. She has conducted research on the internalisation of transport externalities, with a focus on air pollution, global warming, and traffic congestion; low carbon vehicle/fuel technologies and consumers' choice and modal split.



More recently she has become interested in gender studies, with a focus on gender and academic progression.

She is Editor-in-Chief of Research in Transportation Economics and a member of the Editorial Board of *Transport Policy*.

M. Grazia Speranza

M. Grazia Speranza is full professor of Operations Research at the University of Brescia. She served as Dean of the Faculty of Economics and Business in 2002-2008. She currently serves as Vice Rector of the University of Brescia. She also had responsibilities in scientific societies, as President of EURO (association of European Operational Research Societies) in 2011-2012 and President of the TSL (Transportation Science and Logistics) society of INFORMS in 2014.



Her main scientific interests are: mixed integer programming, combinatorial optimization, transportation and logistics, portfolio optimization. She has been plenary speaker at several international conferences. She is author of about 200 papers that appeared in international journals and volumes. She is editor of journals such as Transportation Science, EURO Journal on Transportation and Logistics, International Transactions in Operational Research, 4OR, and editor-in-chief of the series 'Advanced Tutorials in Operational Research'.

Schedule overview

	17 May 2017	18 May 2017	19 May 2017
		<i>Breakfast</i> 08:45	<i>Breakfast</i>
09:00		08:45 Sessions 3A, 3B: Auditorium and Sala Balint	09:00 Sessions 8A, 8B: Auditorium and Sala Balint
10:00		10:25 Break	10:15 Break
11:00		10:25 Sessions 4A, 4B: Auditorium and Sala Balint	10:30 Sessions 9A, 9B: Auditorium & Sala Balint
12:00	12:00	12:00	11:20 Keynote III by Grazia Speranza M.
13:00	Registration and lunch	Lunch	12:20
14:00	14:00 Keynote I by Patricia L. Mokhtarian	13:30 Keynote II by Georgina Santos	
15:00	15:00 Break	14:30 Break	
16:00	15:15 Sessions 1A, 1B: Auditorium and Sala Balint	14:45 Sessions 5A, 5B: Auditorium and Sala Balint	
17:00	16:55 Break	16:00 Break	
18:00	17:10 Sessions 2A, 2B: Auditorium and Sala Balint	16:15 Sessions 6A, 6B: Auditorium and Sala Balint	
19:00	18:25 Committee meeting	17:05 Break	
20:00	18:30 Dinner	17:20 Sessions 7A, 7B: Auditorium and Sala Balint	
		18:15 Group photo	
		18:35	
		19:00 Gala dinner	

Sessions: 17 May 2017

Keynote			
Chair:			Room: Auditorium
Start	End	Author	Title
14:00	15:00	Patricia L. Mokhtarian	<i>(How) Can We Improve the Behavioral Realism of Large-Scale Land Use/Transportation Models?</i>
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Session IA			
Chair:			Room: Auditorium
Start	End	Author	Title
15:15	15:40	Daniel Emery	<i>Towards Automatic Train Operation in long distance service: State-of-the- Art and challenges</i>
15:40	16:05	Francesco Corman Andrea D'Ariano Marcella Samà Dario Pacciarelli	<i>Strategic interactions in passenger-oriented railway traffic control</i>
16:05	16:30	Martin Sojka	<i>Effect of energy efficient train driving methods on the railway infrastructure capacity in periodic timetable networks</i>
16:30	16:55	Stefan Binder Yousef Maknoon Michel Bierlaire	<i>Efficient exploration of the multiple objectives of the railway timetable rescheduling problem</i>
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Session IB			
Chair:			Room: Balint
Start	End	Author	Title
15:15	15:40	Felix Becker Kay W. Axhausen	<i>Predicting the use of automated vehicles. [First results from the pilot survey]</i>
15:40	16:05	Mark Meeder Ernst Bosina Ulrich Weidmann	<i>Autonomous vehicles: pedestrian heaven or pedestrian hell?</i>
16:05	16:30	Haitao He Monica Menendez Kaidi Yang	<i>Autonomous vehicle for weaving sections</i>
16:30	16:55	Claudia Bongiovanni Mor Kaspi Nikolas Geroliminis	<i>The Electric Autonomous Dial-a-Ride Problem</i>

<i>Session</i>		<i>2A</i>	
Chair:	Mireia Roca-Riu	Room:	Auditorium
Start	End	Author	Title
17:10	17:35	Iliya Markov Michel Bierlaire Jean-François Cordeau Yousef Maknoon Sacha Varone	<i>A general framework for routing problems with stochastic demands</i>
17:35	18:00	Martin Repoux Mor Kaspi Nikolas Geroliminis	<i>On-Line Management of a Multi-Layered Personal Transit System</i>
18:00	18:25	Mireia Roca-Riu Jin Cao Igor Dakic Monica Menendez	<i>Dynamic delivery parking spots in urban areas</i>
<i>Session</i>		<i>2B</i>	
Chair:	Prawira F. Belgiawan	Room:	Balint
Start	End	Author	Title
17:10	17:35	Nobuhito Nishihara Prawira F. Belgiawan Junghwa Kim Jan-Dirk Schmöcker Kay W. Axhausen	<i>Identifying the relationship between parents' and child's car attitudes: For long term management of car ownership</i>
17:35	18:00	Riccardo Curtale Igor Sarman	<i>Children's preferences as drivers for family leisure choices: an hybrid choice model</i>
18:00	18:25	Prawira F. Belgiawan Basil Schmid Ilka Dubernet Kay W. Axhausen	<i>Comparison between RUM, RRM variants, and RAM: Swiss SP and RP data sets</i>
18:30	19:30	Committee meeting	

Sessions: 18 May 2017

<i>Session 3A</i>				
Chair:	Meritxell Pacheco		Room:	Auditorium
Start	End	Author	Title	
08:45	09:10	Andrea Pellegrini Igor Sarman	<i>Stochastic frontier estimation of holiday budgets for Multiple Discrete-Continuous Extreme Value model: An application to tourist expenditure analysis</i>	
09:10	09:35	Anna Fernández-Antolín Virginie Lurkin Matthieu de Lapparent Michel Bierlaire	<i>Discrete-continuous maximum likelihood for the estimation of cross-nested logit models</i>	
09:35	10:00	Basil Schmid Kay W. Axhausen	<i>Investigating suppressed demand effects in a Post Car World: A latent variable random effects Poisson (LVREP) approach</i>	
10:00	10:25	Meritxell Pacheco Paneque Shadi Sharif Azadeh Michel Bierlaire Bernard Gendron	<i>Integrating advanced demand models within the framework of mixed integer linear problems: A Lagrangian relaxation method for the uncapacitated case</i>	
<i>Session 3B</i>				
Chair:	Henrick Becker		Room:	Balint
Start	End	Author	Title	
08:45	09:10	Anastacios Kouvelas Nikolas Geroliminis	<i>Two-level hierarchical control for large-scale urban traffic networks</i>	
09:10	09:35	Kaidi Yang Isabelle Tan Monica Menendez	<i>A reinforcement learning based traffic signal control algorithm in a connected vehicle environment</i>	
09:35	10:00	Isik Ilber Sirmatel Nikolas Geroliminis	<i>Moving Horizon Estimation for Large-scale Urban Networks</i>	
10:00	10:25	Henrick Becker Francesco Ciari Kay W. Axhausen	<i>Modelling free-floating car-sharing use in Switzerland: A spatial regression and conditional logit approach</i>	

Session 4A

Chair:	Marija Nikolic		Room:	Auditorium
Start	End	Author	Title	
10:45	11:10	Joseph Molloy	<i>Improving destination choice modeling using location-based big data</i>	
11:10	11:35	Antonin Danalet Nicole Mathys	<i>The potential of smartphone data for national travel surveys</i>	
11:35	12:00	Marija Nikolic Michel Bierlaire	<i>Review of transportation mode detection approaches based on smartphone data</i>	

Session 4B

Chair:	Marc Sinner		Room:	Balint
Start	End	Author	Title	
10:45	11:10	Lukas Küng Gil Georges Giacomo Pareschi Emir Çabukoglu Konstantinos Boulouchos	<i>Challenges of decarbonizing the Swiss transport system</i>	
11:10	11:35	Raphael Lamotte Nikolas Geroliminis	<i>The morning commute in homogeneous cities</i>	
11:35	12:00	Marc Sinner Ulrich Weidmann	<i>The physical limits of buses and trains in terms of capacity</i>	

Keynote				
Chair:		Ricco Maggi	Room:	Auditorium
Start	End	Author	Title	
13:30	14:30	Georgina Santos	<i>Transport and Climate Change</i>	
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Session 5A				
Chair:		Georgios Sarlas	Room:	Auditorium
Start	End	Author	Title	
14:45	15:10	Thibaut Dubernet Sergio Guidon Kay W. Axhausen	<i>An Innovative Survey to Study the Impact of Joint Decisions on the Characteristics of Leisure Activities</i>	
15:10	15:35	Evanthia Kazagli Michel Bierlaire Matthieu de Lapparent	<i>Modeling route choice in Québec city using mental representations</i>	
15:35	16:00	Georgios Sarlas Kay W. Axhausen	<i>A direct demand modeling framework for traffic volume and speed prediction</i>	
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Session 5B				
Chair:		Leonardo Bellochi	Room:	Balint
Start	End	Author	Title	
14:45	15:10	Lukas Ambühl Allister Loder Monica Menendez Kay W. Axhausen	<i>Performance of dynamic urban traffic allocation</i>	
15:10	15:35	Allister Loder Lukas Ambühl Monica Menendez Kay W. Axhausen	<i>Network features and MFD parameters</i>	
15:35	16:00	Leonardo Bellochi Nikolas Geroliminis	<i>Navigation under congested conditions with limited information</i>	

<i>Session 6A</i>			
Chair:	Nicholas Molyneux	Room:	Auditorium
Start	End	Author	Title
16:15	16:40	Ernst Bosina Mark Meeder Ulrich Weidmann	<i>Pedestrian flows on railway platforms</i>
16:40	17:05	Nicholas Molyneux Riccardo Scarinci Michel Bierlaire	<i>Pedestrian management strategies for improving flow dynamics in transportation hubs</i>
<i>Session 6B</i>			
Chair:	Milos Balac	Room:	Balint
Start	End	Author	Title
16:15	16:40	Maxim Janzen Kay W. Axhausen	<i>Destination and Mode Choice in an Agent-Based Simulation of Long-Distance Travel Demand</i>
16:40	17:05	Milos Balac Kay W. Axhausen	<i>Activity-rescheduling in MATSim</i>
<i>Session 7A</i>			
Chair:	Igor Sarman	Room:	Auditorium
Start	End	Author	Title
17:20	17:45	Katrin Gysin Lekshmi Sasidharan Monica Menendez	<i>Are Roundabouts Really Safer than Intersections?</i>
17:45	18:10	Igor Sarman Homa Hajibaba Riccardo Curtale	<i>Drivers of insurance purchase: An integrated choice and latent variable model</i>

Sessions: 19 May 2017

<i>Session 8A</i>			
Chair:	Jose Balsa Barreiro	Room:	Auditorium
Start	End	Author	Title
09:00	09:25	Lingxuan Zhang Monica Menendez	<i>Influence of urban blocks on road traffic: analysis of the patterns shape using simulation techniques</i>
09:25	09:50	Anugrah Ilahi Kay W. Axhausen	<i>Measuring Accessibility using an Activity Based Model Approach in Jabodetabek</i>
09:50	10:15	Jose Balsa Barreiro Lukas Ambühl Monica Menendez Ruben C. Lois-Gonzales	<i>Representation of the degree of territorial cohesion by using travel-time maps from transport infrastructure networks</i>
<i>Session 8B</i>			
Chair:	Igor Dakic	Room:	Balint
Start	End	Author	Title
09:00	09:25	Michiel Bliemer Mark Raadsen	<i>Static traffic assignment with residual queues and spillback</i>
09:25	09:50	Marti Montesinos Ferrer Nicola Marco Ortelli Evanthia Kazagli Leonardo Bellocchi Nikolas Geroliminis	<i>Modeling simplicity in drivers' route choice behavior</i>
09:50	10:15	Igor Dakic Monica Menendez	<i>Data fusion algorithm for the 3D-MFD estimation</i>

<i>Session 9A</i>				
Chair:	Sergio Guidon		Room:	Auditorium
Start	End	Author	Title	
10:30	10:55	Alexis Gummy Matthieu de Lapparent Emmanuel Ravalet Michel Bierlaire Vincent Kaufmann	<i>Professional cyclic high mobility : modelling state transitions</i>	
10:55	11:20	Sergio Guidon Michael Wicki Kay W. Axhausen Thomas Bernauer	<i>Investigating the Relationship between Individual's Social Networks, Mobility Behavior, and Social Capital – Survey Method and First Results</i>	

<i>Session 9B</i>				
Chair:	Albert Mancera		Room:	Balint
Start	End	Author	Title	
10:30	10:55	Valerio De Martinis Francesco Corman Ambra Toletti Ulrich Weidmann	<i>How to make freight trains more energy-efficient during operation?</i>	
10:55	11:20	Albert Mancera Ulrich Weidmann	<i>Measuring service quality in freight transport networks</i>	

Keynote				
Chair:	Michel Bierlaire		Room:	Auditorium
Start	End	Author	Title	
11:20	12:20	M. Grazia Speranza	<i>Trends in transportation and logistics</i>	

Acknowledgments

Many thanks to the following sponsors



Schweizerische Eidgenossenschaft
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Repubblica e Cantone
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