

Pre-Summit Research Day Transport Innovation for Sustainable Development: Re-shaping Mobility in the Wake of Covid-19

11-12 May 2021, Virtual meeting

Programme

The International Transport Forum (ITF), together with the European Conference of Transport Research Institutes (ECTRI), the US Transportation Research Board (TRB) and the World Conference on Transport Research Society (WCTRS), are pleased to announce the holding of a Research Day on "Transport Innovation for Sustainable Development". This Research Day will be held virtually on Tuesday 11 May and Wednesday 12 May 2021, in conjunction with the International Transport Forum's 2021 Annual Summit.

Objectives

The objective of the Pre-Summit Research Day is to bring together top academics researchers and practitioners to present and discuss topics relevant to the Summit's theme. It is critically important that research results are brought into practice, especially considering the pace with which our transport system is currently evolving. The Research Day offers a great opportunity to exchange ideas not only between researchers, but also with representatives from governments, cities, and other decision makers.

Focus

The 2021 ITF Summit on *"Transport Innovation for Sustainable Development: Re-shaping Mobility in the Wake of Covid-19"* will discuss linkages between innovation in the transport sector in all of its dimensions (regulation; infrastructure design, MaaS; drones; air connectivity; IOT; algorithms etc.) and will cut across individual/passenger travel and freight logistics and supply chains. The 2021 Summit will also discuss the role of innovation in tackling the effects of COVID-19 that are now being felt across transport sector.

The Pre-Summit Research Day will limit its scope to four specific topics, with a special session dedicated to a discussion on how transport innovation can support Covid-19 recovery. In particular, in order to plan their actions for the coming years, policy makers need the input from researchers to provide knowledge and solutions on how to:

- Seize the opportunities offered by micromobility and active transport;
- Connect remote and rural areas with innovative sustainable transport solutions;
- Stimulate adoption of low-carbon vehicle technologies;
- Use innovation to promote sustainable urban mobility in post-Covid 19 recovery.











Tuesday, May 11th 2021 (13:30 – 18:00 CET)

Moderation of the Day: Tatiana Samsonova (International Transport Forum, OECD)

13:30-13:35: Welcome to the Research Day

Young Tae Kim, Secretary General, International Transport Forum, OECD

13:35-13:45 Introduction to the Research Day

Stephen Perkins, Head of Research and Policy Analysis, International Transport Forum, OECD

13:45-15:00 SESSION 1: LOW-CARBON VEHICLE TECHNOLOGIES

Moderator: Philippe Froissard, Head of Unit, Future Urban and Mobility Systems, DG RTD, European Commission

Comparing Life Cycle Greenhouse Gas Emissions of Low-Carbon Powertrains for Heavy-duty Commercial Trucks: A Singapore Case Study

Lynette Cheah, Singapore University of Technology and Design, Singapore

Solar-Powered Automated Transportation Networks: A Bold Leap Forward for Truly Sustainable Transportation

Burford Furman, San Jose State University, USA

Predicting the intention to use different types of shared electric vehicles using a multiple linear regression approach

Gustav Bösehans, Newcastle University, United Kingdom

15:00-15:15 BREAK

15:15-16:30 SESSION 2: TRANSPORT INNOVATION FOR RURAL AND REMOTE AREAS Moderator: Lucie Kirstein, International Transport Forum, OECD

Shared mobility services in Swedish rural areas: Development and demonstration of the KomILand-concept

Jessica Berg & Göran Smith, VTI - Swedish national road and transport research institute, Sweden

Looking for efficient public transport services in rural areas. Results of the pilot study "Transport-on-demand service in Vidzeme"

Kristine Malnaca, Vidzeme Planning region, Transport and Telecommunication Institute, Latvia

Introduction of Smart Mobility Challenge Project for social implementation of new mobility service in Japan - evaluation of feasibility and social acceptability of new service Naohisa Hashimoto, AIST National Institute of Advanced Industrial Science and Technology, Japan











16:30-16:45 BREAK

16:45-18:00 SESSION 3: MICROMOBILITY AND ACTIVE TRANSPORT Moderator: Alexandre Santacreu, International Transport Forum, OECD

> **Time Versus Money: How overvaluing travel time savings overvalues motorized travel to the detriment of slower, cheaper, resource-efficient modes** Todd Litman, Victoria Transport Policy Institute, Canada

> **Development and Implementation of an Active Walking and Cycling Route Visualization Tool to Support Community Health and Mobility** Fernando Cordero, Auburn University, USA

> **Implementing micromobility services: a multi-perspective assessment of the introduction of micromobility in Germany** Kerstin Stark, DLR Institute of Transport Research, Germany

18:00 CLOSURE

Wednesday, May 12th 2021 (13:30 – 17:00 CET)

13:30-13:35 Introduction to the second day

13:35-13:45 KEYNOTE SPEECH

Matthew Baldwin, Deputy Director-General, DG MOVE, European Commission

13:45-15:00 TRANSPORT INNOVATION AND COVID-19 RECOVERY

PARALLEL SESSION 4: SHORT AND LONG-TERM IMPACTS OF COVID-19 ON TRAVEL DEMAND IN URBAN AREAS

Moderator: Torsten Klimke, Head Unit, Innovation and Research, DG MOVE, European Commission

Investigating the Temporary vs. Longer-term Impacts of the COVID-19 Pandemic on Mobility Giovanni Circella, University of California, Davis, USA

The impact of COVID-19 on mobility - first insights based on the Netherlands Mobility Panel (MPN)

Marije Hamersma, KiM Netherlands Institute for Transport Policy Analysis, The Netherlands

Explaining Demand Patterns during COVID-19 using Opportunistic Data: a case study of the city of Munich

Vishal Mahajan, Technical University of Munich, Germany

PARALLEL SESSION 4: TRANSPORT INNOVATION AND COVID-19 RECOVERY: IMPACTS ON PUBLIC TRANSPORT

Moderator: Robert Missen, Senior Expert, Innovation and Research DG MOVE, European Commission

Public Transport Post Covid – New Roles, Strategies and Funding Models John Hultén, K2 - Swedish knowledge center for public transport, Sweden

Using Incentives to Rebuild Passenger Counts and Defeat Post-Covid Congestion











Paul Minett, tripconvergence, Mineta Transportation Institute, New Zealand

The Impacts of the COVID-19 Pandemic on Commuting Travel and Metro Passenger Flow in Shanghai

Xiaohe Zhang, Tongji University, China

15:00-15:15 BREAK

15:15-16:30 TRANSPORT INNOVATION AND COVID-19 RECOVERY PARALLEL SESSION 5: TRANSPORT INNOVATION AND COVID-19 RECOVERY: DESIGNING URBAN ENVIRONMENT

Moderator: Philippe Crist, International Transport Forum, OECD

Public views on the reallocation of street space and walking during and after the COVID-19 pandemic

Robert B. Noland, Rutgers University, USA

Urban vehicle access regulations in the CIVITAS-ReVeAL project: building blocks for sustainable mobility transformations for cities in a post-Covid 19 era Koos Fransen, Ghent University, Belgium

Barriers and opportunities in sustainable urban mobility planning in response to the Covid-19 pandemic

Christina Georgouli, UCL MaaSLab, UK

PARALLEL SESSION 5: TRANSPORT INNOVATION AND COVID-19 RECOVERY: "DEALING WITH A PANDEMIC"

Moderator: Tatiana Samsonova, International Transport Forum, OECD

Vehicle Design Strategies to Reduce COVID-19 Transmission in Shared and Pooled Vehicles Ashley DePew, University of California, Davis, USA

Driving in the middle of a pandemic: Public transport, ride-hailing and delivery drivers during COVID-19 in Santiago, Chile Andres Fielbaum, TU Delft, The Netherlands

Contact tracing in transit networks

Simon Stebbins, University College London, United Kingdom











Background

Transport is considered as a key sector when it comes to sustainable development-. It can add to economic growth and enhance access to opportunities, but is also associated with a number of direct and indirect externalities such as traffic congestion, air pollution and road accidents. Overall, sustainable transport is essential in meeting several of the SDGs and Targets of the 2030 Agenda. But how can governments ensure that transport connectivity stimulates development and economic activity, while engaging with communities and being sensitive to the environment? In this respect, several issues would benefit from discussions at the Research Day:

- Micromobility and active transport: In most markets today, micromobility refers to shared scooters and bikes (both human-powered and those with electric motors, docked/dockless). E-scooters and dockless bikes in particular have appeared in cities in great numbers in recent years. These services have clearly resonated with consumers. As conventional bikes, they have the potential to better connect people with public transit, reduce reliance on private vehicles, and make the most of urban space, all while reducing greenhouse gas emissions. Yet, many of these services have faced resistance, backlash, especially from city governments. It is also not clear to what extent these new services help achieve sustainable development objectives and if they actually come to change the way urbanites move around cities. What are the future trends in adoption of these new forms of micromobility? What are the impact of micromobility on a broad set of outcomes (e.g. health, access, economic activity and emissions), and on different groups in society?
- Transport innovation for rural and remote areas: As innovative mobility solutions emerge in urban contexts, access to public transportation options remains a challenge in rural areas. In the context of urban-rural divide, governments need to find a new, cost-effective way to provide services that are flexible, yet offer wider territorial coverage, thereby to ensure that people living in these areas could move about with the same freedom as populations in large towns and cities. Demand-responsive transport is seen as one of the key options to meet public transport challenges in rural areas. These networks however, require advanced technical solutions in order to be able to operate efficiently. And technology indeed has helped to solve a lot of issues with regard to for example route planning, navigation, communication. Yet challenges remain. What are the key ingredients for a successful deployment: from operational, infrastructure, technology and regulatory perspectives? How to ensure that demand-responsive services are part of a broader, multimodal package of solutions, supplementing regular public transport services?
- Low-Carbon Vehicle Technologies: Governments around the world are increasingly intervening in automobile markets to improve fuel economy and reduce emissions of CO2 from new vehicles. Electric vehicles (EVs) in particular are widely considered as a promising solution for GHG reduction and key to a low-carbon mobility future. However, the transition to a low carbon transport will not be instantaneous and any policy or technological change implemented now will take years to have the desired effect. Policies that support the electrification of vehicles should also consider that the overall reduction in CO2 emissions will depend on the extent to which energy is decarbonised. What are the effects different incentives for reducing the generalised cost of driving low carbon vehicles? How can governments accelerate the development and diffusion of low-emissions innovations in the transport sector?
- **Transport innovation and Covid-19 recovery:** The COVID-19 pandemic has had a profound impact on transport sector, highlighting several key vulnerabilities of existing transport systems. Covid-19 also presents an opportunity to shape more sustainable, resilient and human-centric urban mobility. Many cities have put a focus on re-allocation of road space and promotion of alternative mobility options. Yet what are the likely impacts of COVID-19 on mobility patterns in the medium- to long-term? How transport innovation, such as MaaS and ITS, can support Covid-19 recovery and ensure that it's aligned with sustainability objectives? What is the role of new mobility services in shaping the post Covid-19 mobility landscape?











Practical Information

Date: The Research Day will take place virtually on the 11th and 12th of May;

Who can attend: The event is aimed at researchers and policy makers involved in transport connectivity for regional integration questions.

<u>Registration</u>: The first 150 places are free of charge on a first-come first-served basis. After the first 150 places have been attributed, a registration fee of €45.00 will apply to attend the Pre-Summit Days.

Contacts

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SPEAKERS



Todd Litman is founder and executive director of the Victoria Transport Policy Institute, an independent research organization dedicated to developing innovative solutions to transport problems. His work helps expand the range of impacts and options considered in transportation decision-making, improve evaluation methods, and make specialized technical concepts accessible to a larger audience. His research is used worldwide in transport planning and policy analysis.

Mr. Litman has worked on numerous studies that evaluate transportation costs, benefits and innovations. He authored the Online TDM Encyclopedia, a comprehensive Internet resource for identifying and evaluating mobility management strategies; Transportation Cost and Benefit Analysis: Techniques, Estimates and Implications, a comprehensive study which provides cost and benefit information in an easy-to-apply format; and Parking Management Best Practices, a comprehensive book on innovative management solutions to parking problems.

Mr. Litman has worked as a research and planning consultant for a diverse range of clients, including government agencies, professional organizations, developers and nongovernment organizations. He has worked in more than two dozen countries, on every continent except Antarctica.



Fernando Cordero is a Ph.D. student in transportation engineering in the Department of Civil and Environmental Engineering at Auburn University in Auburn, Alabama. Fernando received his Bs. in Civil Engineering from Universidad Centroamerica in Managua, Nicaragua, and his MSc. in Civil Engineering from Auburn University. He previously worked as a field engineer in rural road construction at the border of Nicaragua and Costa Rica. He also worked as a service supervisor and product support advisor at Nicaragua Machinery Company, a mining and construction equipment dealer. Since 2017 he has completed research in transportation engineering, including safety, intercity travel, multimodal travel, long-distance travel during COVID-19, and active transportation. His research interest includes travel behavior, long-distance and intercity travel modeling, big data, geographic information systems (GIS), multimodal transportation, sustainability, and resilience in transportation. Fernando served as president of the local Institute of Transportation Engineers (ITE) student chapter at Auburn University in 2019, and secretary in 2018. He was a recipient of the Fulbright foreign scholarship in 2017.













Kerstin Stark is a researcher at the DLR Institute of Transport Research. She is a sociologist and political scientist and has a PhD in urban planning from the University of Kassel, Germany. Her research focuses on user, social and political requirements, traffic-related effects and framework conditions in relation to mobility innovations. Her methodological focus is on qualitative empirical social research and innovative participatory approaches.













Jessica is senior researcher at the Swedich national road and transport research institute, VTI. She is a public health scientist with a PhD in Ageing and later life. Jessica's research concerns transport related social exclusion/inclusion, mobility and accessibility in rural areas, and mobility and accessibility among vulnarable groups: older, young and people with psysical and/or neuropsychological disabilities. She is interested in how social, geographical and political conditions shape and enable people's opportunities to access to work, education and essential social activities, and how the transport system can enable och restrict accessibility.

She is affiliated to K2, the Swedish knowledge center for public transport. At VTI, Jessica has been involved in initiating a research group for research on social justice and participation in the transport system. Jessica works mainly with interviews, focus groups and questionnaires, and uses both qualitative and quantitative analyses methods.



Göran Smith is a Senior Researcher at RISE Research Institutes of Sweden. He studies how digital innovations can initiate, facilitate, and shape sustainability transitions. In particular, his research is focused on understanding what governments can do to pave the way for emerging mobility services while also ensuring that they contribute to making transport systems less car centric. Göran, moreover, works as a Regional Developer at Region Västra Götaland and holds an Honorary Senior Principal Research Associate position at the Institute of Transport and Logistics Studies at the University of Sydney Business School.



Kristine Malnaca is experienced professional in transport for 24 years. Primary areas of expertise include transport infrastructure system analysis, transport project economic analysis (cost-benefit analysis), risk analysis, urban and rural transport planning, and road safety.

As a consultant in transport sector since 2011, she works with international financing institutions (EC, EIB, WB), national transport administrations, regional and local municipalities, and industry. Mrs. Malnaca possesses international experience in a number of feasibility studies and cost-benefit analysis of transport investment projects. Mrs. Malnaca is actively involved in research projects related to innovative solutions in sustainable transport development, alternative fuels, urban and rural mobility at Transport and Telecommunication Institute (Latvia). As a transport expert of Vidzeme Planning region (Latvia), she has been involved in a number of EU funded projects related to mobility in rural areas. Mrs. Malnaca has acquired Master's degree in Civil Engineering at Purdue University (USA), studying Transportation Infrastructure Systems.













Naohisa Hashimoto is a researcher of human mobility research center in AIST. He joined AIST 2005, and has been engaging the automated vehicles projects and MaaS projects. He is managing the mobility research team as a team leader. AIST is a secretariat, which is promoting MaaS project with the Ministry of Economy Trade and Industry.













Lynette Cheah is an Associate Professor of Engineering Systems at the Singapore University of Technology and Design (SUTD). She directs the Sustainable Urban Mobility research laboratory, which develops data-driven models and tools to reduce the environmental impacts of passenger and urban freight transport. She is currently Review Editor for the UN IPCC's Sixth Assessment Report and Associate Editor for the Journal of Industrial Ecology. She is also a member of Singapore's Public Transport Council. She received her Ph.D. in Engineering Systems from MIT and master's in management science from Stanford University. More information about her research is available at <u>http://mobility.sutd.edu.sg</u>.



Burford (Buff) Furman is a professor of Mechanical Engineering at San José State University, where he has been since 1994. Prior to SJSU, he worked in disk drive development at IBM in San José from 1982 to 1993. He is also a registered professional mechanical engineer in the state of California since 1984. His areas of teaching and research are focused primarily in mechatronics, Automated Transit Networks (ATN), precision machine design, and dynamics. Buff is a Research Associate with the Mineta Transportation Institute (MTI) and was the Principal Investigator for a major study on the state of the ATN industry published by MTI in 2014. Since 2012, he has been working intensely with interdisciplinary groups of students to develop solar powered ATN.



Gustav is a Sustainable Transport Researcher with an Environmental Psychology background. Having received his PhD from the University of Bath in 2018, his main research interests lie in shared electric mobility hubs (eHUBs), sustainable urban design, and traveller segmentation. Currently, Gustav is working as a Research Associate on the EU-funded eHUBS project (electric mobility hubs) of which Newcastle University (NU) is a project partner (NU PI: Dr Dilum Dissanayake). His main responsibilities include the design and administration of online surveys, data management and analysis, as well as the writing of project reports and research publications. Gustav is part of the Future Mobility Group, based at the School of Engineering at Newcastle University, and is also a member of the Association for European Transport (AET). Apart from his activities as a transport researcher, Gustav is also actively supervising international MSc and PhD students, and constantly looking for opportunities for international collaboration.













Giovanni Circella is the Honda Distinguished Scholar for New Mobility Studies and the Director of the 3 Revolutions Future Mobility Program at the University of California, Davis, and a Senior Research Engineer in the School of Civil and Environmental Engineering of the Georgia Institute of Technology. Dr. Circella's interests include travel behavior, emerging mobility services, travel demand modeling, data collection and travel survey methods, and policies for sustainable mobility. His recent research has focused on the impacts of ICT, shared mobility, micromobility and vehicle automation on travel behavior and auto ownership, and the evolving lifestyles and mobility patterns of various population segments (e.g. "millennials") in various regions of the U.S., Europe, South America and the Middle East. Dr. Circella is leading a major research effort on the impacts of the COVID-19 pandemic on activity organization and travel choices (more details available at https://postcovid19mobility.ucdavis.edu/). He is the Chair of the Transportation Research Board (TRB) Standing Committee on ICT and Transportation (AEP35) and a member of the Travel Behavior and Values (AEP30) Committee. Dr. Circella is an elected member of the Executive Board of the International Association for Travel Behaviour Research (IATBR), and he serves on several NCHRP/TCRP panels on the impacts of emerging transportation technologies. Dr. regularly cooperates with metropolitan planning Circella organizations (MPOs), other agencies and non-profit organizations in the U.S., Europe and South America.



Marije Hamersma works at KiM Netherlands Institute for Transport Policy Analysis. The institute provides knowledge inputs for the preparation of mobility policy at the Ministry of Infrastructure and Water Management. Marije's research and activities focus om personal mobility. Recently, she did several studies on the relationship between COVID-19 and mobility.



Vishal Mahajan is a civil engineer with a specialization in transportation. He holds a Bachelors's degree in civil engineering from the Indian Institute of Technology, Roorkee (India), and a Master of Science degree in Transportation Systems from the Technical University of Munich, Germany. Presently Vishal is pursuing his doctoral degree and supervised by Prof. Constantinos Antoniou at the Chair of Transportation Systems Engineering at the Technical University of Munich. During this doctorate, he works on the TraMPA (Transport Modeling using Publicly Available Data) project funded by the German Research Foundation (DFG). His goal is to check and establish the efficacy of diverse publicly available data sources in transport modeling. He is interested in using the publicly available data sources (including Open Data) to develop and calibrate large-scale traffic simulation models for real-time traffic











management. His research could help reduce the dependence of transport modeling on conventional data sources, which are generally cost and time-intensive. To achieve his research goals, vishal applies statistical and machine learning techniques for understanding the data and predictive modeling. His other research interests are traffic safety and driving behavior analysis.













Robert B. Noland is Distinguished Professor at the Edward J. Bloustein School of Planning and Public Policy and serves as the Director of the Alan M. Voorhees Transportation Center and Director of the PhD program in Planning and Public Policy. He received his PhD at the University of Pennsylvania in Energy Management and Environmental Policy. Prior to joining Rutgers University he was Reader in Transport and Environmental Policy at Imperial College London, a Policy Analyst at the US Environmental Protection Agency and also conducted post-doctoral research in the Economics Department at the University of California at Irvine. The focus of Dr. Noland's research is the impacts of transportation planning and policy on both economic and environmental outcomes. Work on economic effects has included examining behavioral reactions to changes in reliability, associations with the built environment, and trip chaining behavior. Environmental work includes impacts on safety, climate, health, and other factors associated with overall quality of life. Active research areas include evaluation of traffic safety data and how safety modeling is used in economic assessment and planning of infrastructure; analysis of the costs and benefits of road diet conversions; analysis of walking behavior and links to other travel behavior and the built environment; analysis of climate change impacts on accessibility; and, evaluation of bike-sharing systems. Dr. Noland's research has been cited throughout the world in debates over transport infrastructure planning and environmental assessment of new infrastructure. Dr. Noland is currently the co-Editor-in-Chief of Transportation Research part D (Transport and Environment) and Associate Editor of the International Journal of Sustainable Transportation and was formerly the Chair of the Transportation Research Board Special Task Force on Climate Change and Energy.



Koos Fransen has a background in Industrial Engineering – Land Surveying as well as Urbanism and Spatial Planning. He currently works as a post-doctoral researcher at the Cosmopolis Centre for Urban Research at the Vrije Universiteit Brussel and the Intelligent System Engineering research group at Ghent University. In addition, he is the founder of the urban think tank STR.AAT (https://www.straat.be), focusing on urban mobility, public space and co-creation.

His research centers on accessibility and its link to spatial planning and transport policy, with a primary focus on aspects of social exclusion and transport poverty. He is coordinating various European and national projects, such as Civitas-ReVeAL (https://civitas-reveal.eu) or MOVE (https://northsearegion.eu/move/).

This paper was written together with Julie Schack Møller-Kristensen (WSP), Dirk Lauwers (Ghent University) and Sidharta Gautama (Ghent University, Flanders Make).











The CIVITAS-ReVeAL project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 815008. The project is a cooperation of Stadt Bielefeld, Centro de Estudios Ambientales, City of London, Ghent University, Gemeente Helmond, Universita degli Studi di Padova, Jerusalem, Comune di Padova, Polis, Rupprecht Consult, Sadler Consultants, Transport for London, TRT, V-Tron and WSP.



Christina has been involved in several projects on urban transport planning and sustainable development. Her focus has been on sustainable transport, travel behaviour, urban form and development of indicator frameworks. She has extensive experience in assessing both small and large scale mobility projects with review, analysis and interpretation of environmental, social and economic impacts. In 2013 she obtained her MEng in Urban Planning and Regional Development Engineering from Aristotle University of Thessaloniki and in 2015 she completed a MSc in Traffic Planning and Traffic Engineering at Technical University of Denmark.













John Hultén is director at K2, the Swedish knowledge center for public transport. He manage and coordinate research activities in a unique collaboration between universities, research institutes, public transport agencies and national authorities responsible for transport, innovation and sustainable development. He holds a phd in political science from Lund university and has worked with strategic transportation policy and planning for more than 15 years within academia and in public agencies such as the Swedish Road Administration, the Swedish Transport Administration and as an advisor within the governmental office of Sweden. As a researcher he has a particluar interest in issues related to governance, funding, strategic planning and organization of mobility.



Paul Minett is a researcher and business strategy consultant based in Auckland, New Zealand. He is managing director of Trip Convergence Ltd., established in 2004 to leverage insights into transportation and which led to a patent award in 2007, and chief executive of Strategic Lift Ltd., a strategy consultancy providing advice to small and medium sized businesses, mostly in New Zealand. He is also a Research Associate with the Mineta Transportation Institute in San Jose, California. He earned a Master of Business Administration from the University of Auckland in 1993. He has over 15 years of research interest in methods to reduce traffic with a particular focus on carpooling and has completed several related research projects. He is a co-founder of both the Ridesharing Institute and the Ridesharing sub-committee of the Transportation Research Board of the National Academy of Sciences.



I'm a Ph.D. student in the College of Architecture and Urban Planning in Tongji University. My major research area is urban traffic planning and management. At this stage, my research mainly focus on how the COVID-19 pandemic affects people's commute and travel behavior in Shanghai.













Ashley is a current graduate student at University of California, Davis in the Energy Graduate Group earning her Master of Science in Energy Systems with a Policy and Management track. She has plans to pursue her PhD in Energy Systems at UC Davis as well. Ashley's research interests include decarbonization and electrification, renewable energy deployment, distributed energy resources, and energy and environmental justice. Her work incorporates behavioral science and decision-making to the technical, market, and practical landscape of the energy industry. At UC Davis, she conducts research projects within the Energy and Efficiency Institute, Western Cooling Efficiency Center, and Plug-in Hybrid Electric Vehicle Research Center.

Ashley earned her Bachelor of Science at Michigan State University in 2019, where she graduated with Highest Honors. During her undergraduate career, Ashley was the Laboratory Coordinator of the Team Interaction Dynamics NASA research laboratory, and she completed her Honor's Thesis in visual psychophysics in the Visual Neuroscience laboratory. Ashley was also the founding student researcher in the Energy Values Lab in the Department of Community Sustainability with a mentor professor. Ashley is a member of the Phi Beta Kappa Society.



I am Andrés Fielbaum. I graduated as a Mathematical Engineer with an MSc in Transports Engineering at Universidad de Chile in 2014, and as a PhD in Engineering Systems at the same University in 2019. My research interests express this mixture between mathematics and transportation theory, aiming at using mathematical tools to solve transport-related problems, and studying mathematical problems inspired by transportation systems.

Within transportation science, I am mostly interested in public transport and the impact of new technologies. As such, my PhD thesis studied optimal public transport design under different demand conditions, and I am a current postdoc at TU Delft analyzing on-demand ridepooling systems. On a related note, I have studied the working conditions of drivers that work for appbased mobility platforms. Whereas in math, my interests relate to combinatorial optimization, algorithms, and game theory, as these are topics that emerge naturally in several transportation systems.

Besides my academic work, I've had relevant participation in national (Chilean) discussions in education, politics, and transports. In 2013 I was the President of the Students' Union of my University, and spokesman of University students at a national level. I am part of Comunes political party, which participates in the Chilean Frente Amplio.













Dr Simon Stebbins is a research fellow at University College London and is a member of the MaaSLab (<u>https://www.maaslab.org</u>).

Having previously worked as a software engineer for SAP Research and IBM, he completed his PhD at The University of Queensland in 2018. His research interests include the development of transport planning and simulation software, connected and autonomous vehicles, and machine learning.







