

Curriculum vitae Prof. Dr. sc. ETH Allister Loder

October 23, 2023

Address Professorship of Mobility Policy

TUM School of Social Sciences and Technology

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Biosketch

Allister Loder's interest lies in understanding and modeling complex systems and networks where physics, policy, and human behavior interact, as is the case in mobility. His expertise lies in optimization, choice modeling, econometrics, machine learning, and data science with application to traffic flow, travel behavior and transport policy. Notable contributions are developing estimation methods for the multimodal macroscopic fundamental diagram and its applications to transportation planning, conducting a large-scale travel survey to observe the natural experiments of the German public transport fare innovations 9-Euro-Ticket and Deutschlandticket, and investigating new policies for road user charges, e.g., tradable mobility credits, with surveys and simulations.

Allister Loder completed his master's degree in Energy Science and Technology in 2012 at ETH Zurich and received his Ph.D. with distinction in Transportation Sciences in 2019 from the same institution. After completing his Ph.D., he worked as a mobility data and simulation consultant at the Swiss Federal Railways (SBB), where he worked, e.g., on the impact of COVID-19 on travel behavior. From 2021 to 2023, he worked as a postdoctoral researcher at the Chair of Traffic Engineering and Control at the Technical University of Munich (TUM). He has been appointed as an assistant professor of Mobility Policy in October 2023. At the same time, he set up an Emmy-Noether research group funded by the DFG.

During his studies, he was supported by the German Academic Scholarship Foundation (Studienstiftung des deutschen Volkes) and from 2022 to 2023 he was a fellow of the bidt Graduate Center, an Institute of the Bavarian Academy of Sciences and Humanities.

Professional experience

Since 10/2023	Assistant Professor of Mobility Policy TUM School of Social Sciences and Technology Technical University of Munich, Germany
02/2021 - 09/2023	Postdoc Chair of Traffic Engineering and Control Technical University of Munich, Germany
04/2020 - 01/2021	Consultant for mobility data and simulation Swiss Federal Railways (SBB), Berne, Switzerland
11/2019 – 02/2020	Postdoc Institute for Transport Planning and Systems ETH Zurich, Switzerland
07/2015 - 10/2019	Research assistant Institute for Transport Planning and Systems ETH Zurich, Switzerland
04/2015 - 06/2015	Internship Corporate Strategy Deutsche Bahn AG, Frankfurt, Germany
02/2015 - 03/2015	Student research assistant Group for Sustainability and Technology ETH Zurich, Switzerland
02/2014 - 04/2014	Internship Drees & Sommer Advanced Building Technologies GmbH, Stuttgart, Germany
08/2013 - 01/2015	Student research assistant Bits to Energy Lab, ETH Zurich, Switzerland
Education	
08/2015 - 10/2019	Ph.D. (Dr. sc. ETH) in Transportation Sciences ETH Zurich, Switzerland
09/2012 - 02/2015	Master of Science in Energy Science and Technology ETH Zurich, Switzerland
10/2009 - 07/2012	Bachelor of Science Mechatronics Technical University of Hamburg, Germany
07/2009	Abitur Friedrich-Ebert-Gymnasium, Hamburg, Germany

Awards and scholarships

05/2020 ETH-Silver Medal for an outstanding PhD thesis (best 8%)
01/2019 2018 TRB Cunard Award of the Transportation Research Board (TRB)
04/2010 - 02/2015 German Academic Scholarship Foundation (Studienstiftung des

deutschen Volkes)

Research visits

03/2023 Institute of Transport and Logistics Studies, University of Sydney,
Australia

06/2019 Institute of Transport and Logistics Studies, University of Sydney,
Australia

09/2016 Department of Agricultural and Applied Economics, University of
Wisconsin-Madison, USA

Professional activities

Reviewer	•	Case Studies in Transport Policy
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- Transportation Research Part A: Policy and Practice
- Transportation Research Part B: Methodological
- Transportation Research Part C: Emerging Technologies
- Transportation Research Part E: Logistics and Transportation Review
- Transportation Research Record
- Transport Reviews
- Transportation Science
- Transportation

Teaching

2023 – today From Reality to Models to Mobility Policy

Contributions to joint courses

2023 – today Project Seminar – Transportation Systems

2023 – today Marketing Mobility

As teaching assistant

2021 – 2023 Traffic Control Extension

2019 Interdisciplinary Project (ETH Zurich)

2017–2019 Basics of RE&IS (ETH Zurich)

2016–2019 Laboratory Transport and Spatial Planning (ETH Zurich)

List of projects won as PI

Start date (YY/MM)	Sponsor	Title	Duration [Months]	Budget [k€]	Total budget [k€]	Note / Coordinator / Partner
10/2023	DFG	READAPT - Resiliente, anpassungsfähige und emissionsminimale Verkehrssysteme	72	1224	1224	-
10/2022	bidt	App-based mobility management for net-zero and self-sufficiency	48	450	450	-
			Total	1674	1674	

List of projects won in supporting role

Start date (YY/MM)	Sponsor	Title	Duration [Months]	Budget [k€]	Total budget [k€]	Note / Coordinator / Partner
10/2022	MDSI	Mobilität.Leben.daTUM	6	70	35	TUM ECO, TUM FTM
10/2022	AGMBH	Staumusterprognoseverfahren für Autobahnen am Beispiel des südbayerischen Netzes	18	180	180	-
05/2022	TUM-IEAI	Tradeable Mobility Credits: Addressing Ethical Concerns with Algorithm Transparency?	36	228	111	TUM EOI, TUM MSL
07/2021	StMB	MobilityCoins – Anreiz statt Gebühr	24	199	199	-
			Total	677	525	

List of sponsors

- AGMBH: Autobahn GmbH des Bundes
- bidt: Bayerisches Forschungsinstitut für Digitale Transformation, ein Institut der Bayerischen Akademie der Wissenschaften
- DFG: Deutsche Forschungsgemeinschaft
- MDSI: Munich Data Science Institute
- StMB: Bayerisches Staatsministerium für Wohnen, Bau und Verkehr
- TUM IEAI: TUM Institute for Ethics in Artifical Intellience