

Northwestern Presentation Schedule
105th Transportation Research Board Annual Meeting

Date & Time	Event	Presentation / Poster Title	Presenters
Sunday, January 11 07:00 - 08:30 PM ET Marquis Salon 9&10 (M2), Marriott Marquis	Memorial and Tribute for Professor Hani S. Mahmassani (1956–2025)	<i>This session will offer a chance for attendees to describe Hani's irreplaceable role in our community and how he impacted TRB and its work.</i>	<ul style="list-style-type: none"> • Robert Bertini, University of Alabama, presiding • Samer Hamdar, George Washington University, presiding
Monday, January 12 10:30 - 12:15 PM ET Convention Center, Hall A	Poster Session 2072 Bicycle Transportation Research Roundup	Station-Level Bikeshare Demand Modeling: A Predictive Framework for Policy Integration	<ul style="list-style-type: none"> • Alene Holmgren, Jacobs • Hussein Kobeissi, Northwestern • Ying Chen, Northwestern
Monday, January 12 10:30 - 12:15 PM ET Convention Center, Hall A	Poster Session 2075 Multimodal Dynamic Forecasting of Traffic Conditions Using AI Techniques	Learning Traffic Dynamics via Guided Diffusion with Multi-Source Observations	<ul style="list-style-type: none"> • Zihao Wang, University of Michigan, Ann Arbor (UofM) • Xingmin Wang, UofM • Naichen Shi, Northwestern • Zachary Jerome, UofM, Transportation Research Institute • Henry Liu, UofM
Monday, January 12 1:30 PM- 3:15 PM ET Convention Center, 145B	Lectern Session 2090 Integrating Infrastructure, Policy, and Technology for Future-Proof Mobility Management	Modeling the Spread of Sustainable Transportation Preferences: Insights from Survey Data in the US State of Georgia	<ul style="list-style-type: none"> • Hussein Kobeissi, Northwestern • Alene Holmgren, Jacobs • Ilsu Kim, Georgia Institute of Technology (GATech) • Patricia Mokhtarian, GATech • Ying Chen, Northwestern
Monday, January 12 4:00 PM- 5:45 PM ET Convention Center, 145B	Lectern Session 2137 Travel Behavior in Flux: Insight from Surveys, Ridership, and Forecasting	A 2024 Update to Employer Perspectives on the Future of Hybrid Work: Implications for Urban Mobility	<ul style="list-style-type: none"> • Nadim Hamad, Northwestern • Divyakant Tahlyan, Northwestern • Hani Mahmassani, Northwestern • Breton Johnson, Northwestern

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Monday, January 12 4:00 PM- 5:45 PM ET Convention Center, 209	Lectern Session 2141 Advancing Fleet Transitions: Data-Driven Approaches to Vehicle Replacement and Technology Adoption	Comparative Analysis of Optimal Truck Replacement Under Technology Evolution	<ul style="list-style-type: none"> • Dana Monzer, Northwestern • Pablo Durango-Cohen, Northwestern • Hani Mahmassani, Northwestern
Monday, January 12 4:00 PM- 5:45 PM ET Convention Center, Hall A	Poster Session 2165 Current Issues in Aviation	Strategic Planning for the Integration of Advanced and Urban Air Mobility in Illinois	<ul style="list-style-type: none"> • Vasileios Volakakis, Northwestern • Christopher Cummings, United Airlines, Inc. • Lawrence Audenaerd, Northwestern • William Viste, Illinois Department of Transportation • Hani Mahmassani, Northwestern
Monday, January 12 6:15 PM- 7:45 PM ET Convention Center, Hall A	Poster Session 2170 The Impact of Location, Infrastructure, Housing, and Social Factors on Community Travel Behavior and Access	Spatial Econometric Analysis on the Perceptions of Fairness in Transit Accessibility	<ul style="list-style-type: none"> • Zhuangcun Chen, Northwestern • Amanda Stathopoulos, Northwestern
Tuesday, January 13 8:00 AM- 9:45 AM ET Convention Center, Hall A	Poster Session 3029 Urban Accessibility and Infrastructure Resilience Frameworks for Assessment	Max-Pressure Signal Control with Transit Priority and Lane Blockage Mitigation	<ul style="list-style-type: none"> • Hussein Kobeissi, Northwestern • Nachuan Li, Northwestern • Hani Mahmassani, Northwestern • Ying Chen, Northwestern
Tuesday, January 13 10:30 AM- 12:15 PM ET Convention Center, Hall A	Poster Session 3078 Research in Transit Data and Emerging Technologies	Mining Hidden Ridesharing Patterns: A Data-Driven Gap Analysis of Chicago TNC Trips	<ul style="list-style-type: none"> • Elaheh Sebti, Northwestern • Ying Chen, Northwestern
Tuesday, January 13 10:30 AM- 12:15 PM ET Convention Center, Hall A	Poster Session 3078 Research in Transit Data and Emerging Technologies	Bayesian Choice and Survival Modeling of Transit Panel Survey Participation	<ul style="list-style-type: none"> • Spencer Aeschliman, Northwestern • Janody Pougala, Northwestern • Amanda Stathopoulos, Northwestern

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<p>Tuesday, January 13 10:30 AM- 12:15 PM ET Convention Center, Hall A</p>	<p>Poster Session 3080 Research in Transit System Planning: Ridership and Mode Choice</p>	<p>Transit Design, Transportation Policy, and Location-Mode Choice in the Era of Telework</p>	<ul style="list-style-type: none"> • Tianxing Dai, Northwestern • Yu Nie, Northwestern
<p>Tuesday, January 13 1:30 PM- 3:15 PM ET Convention Center, Salon C</p>	<p>Lectern Session 3100 Funding, Financing, and Creative Investment Strategies for Transportation Infrastructure</p>	<p>The Value of Managerial Flexibilities in Highway Concessions</p>	<ul style="list-style-type: none"> • Pablo Teixeira, Northwestern • Pablo Durango-Cohen, Northwestern
<p>Tuesday, January 13 1:30 PM- 3:15 PM ET Convention Center, 147B</p>	<p>Lectern Session 3107 Freight Nodes and Networks</p>	<p>Evaluating Multimodal Freight Transportation Network Design: A Case Study in the United States</p>	<ul style="list-style-type: none"> • Vasileios Volakakis, Northwestern • Adrian Hernandez, Northwestern • Callahan Skiles, Northwestern • Hiba Baroud, Vanderbilt • Ahmad Taha, Vanderbilt • Craig Philip, Vanderbilt • Pablo Durango-Cohen, Northwestern • Hani Mahmassani, Northwestern
<p>Tuesday, January 13 1:30 PM- 3:15 PM ET Convention Center, Hall A</p>	<p>Poster Session 3114 Integrating Infrastructure Data and Advertising Effects in Traffic Modeling</p>	<p>Learning From Real- World Trajectories: A Hybrid Genetic Algorithm and Reinforcement Learning Approach for Vulnerable Road User Model Calibration</p>	<ul style="list-style-type: none"> • Shayan Bafandkar, University of Illinois, Urbana-Champaign (UIUC) • Pedram Beigi, George Washington University • Nachuan Li, Northwestern • John Hourdos, Federal Highway Administration (FHWA) • Samer Hamdar, George Washington University • Hani Mahmassani, Northwestern • Alireza Talebpour, UIUC

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<p>Tuesday, January 13 1:30 PM- 3:15 PM ET Convention Center, Hall A</p>	<p>Poster Session 3119 Optimization of Urban Traffic Networks for Operational Performance</p>	<p>Entropy As a Measure Of The Scatter In Speed/Flow At a Given Density On The Network Macroscopic Fundamental Diagram Using Pneuma Open Dataset.</p>	<ul style="list-style-type: none"> • Victor Okoth, Northwestern • Hani Mahmassani, Northwestern
<p>Tuesday, January 13 4:00 PM- 5:45 PM ET Convention Center, Hall A</p>	<p>Poster Session 3152 Advances in Traffic Assignments and Passenger Flows in Network Modeling</p>	<p>A General Algorithm for Traffic Assignment Problems with Continuously Distributed User Attributes</p>	<ul style="list-style-type: none"> • Qianni Wang, Northwestern • Hui Li, Southwest Jiaotong University • Jun Xie, Southwest Jiaotong University • Yu Nie, Northwestern • Jiayang Li, University of Hong Kong
<p>Wednesday, January 14 8:00 AM- 9:45 AM ET Convention Center, 143</p>	<p>Lectern Session 4022 Current Research in Inland Waterways Operations and Infrastructure</p>	<p>Travel Time Reliability Assessment of U.S. Inland Waterways Through Empirical Analysis</p>	<ul style="list-style-type: none"> • Chenxi Bao, Northwestern • Hiba Baroud, Vanderbilt • Pablo Durango-Cohen, Northwestern • Adrian Hernandez, Northwestern • Paul Johnson, Vanderbilt • Hani Mahmassani, Northwestern • Craig Philip, Vanderbilt • Ahmad Taha, Vanderbilt
<p>Wednesday, January 14 8:00 AM- 9:45 AM ET Convention Center, Hall A</p>	<p>Poster Session 4025 Modeling and Predicting Autonomous Vehicle Lane Changing Behavior</p>	<p>A Data-Driven Comparison of Car-Following Behaviors of Autonomous and Human-Driven Vehicles and Their Traffic Flow Impacts under Naturalistic Traffic Conditions</p>	<ul style="list-style-type: none"> • Pedram Beigi, George Washington University • Nachuan Li, Northwestern • Shayan Bafandkar, University of Illinois, Urbana-Champaign (UIUC) • Dana Monzer, Northwestern • John Hourdos, Federal Highway Administration (FHWA) • Hani Mahmassani, Northwestern • Alireza Talebpour, UIUC • Samer Hamdar, George Washington University

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Wednesday, January 14 8:00 AM- 9:45 AM ET Convention Center, Hall A	Poster Session 4032 Research in Transit User Experience: Fare Policy	How Our Values and Means Shape Optimal Transit Fare Policy	<ul style="list-style-type: none"> • Tianxing Dai, Northwestern • Yu Nie, Northwestern
Wednesday, January 14 10:30 AM- 12:15 PM ET Convention Center, Hall A	Poster Session 4056 Data-Driven Approaches for Performance Evaluation of Autonomous Vehicles	Can the Waymo Open Motion Dataset Support Realistic Behavioral Modeling? A Validation Study with Naturalistic Trajectories	<ul style="list-style-type: none"> • Yanlin Zhang, University of Illinois, Urbana-Champaign • Sungyong Chung, University of Illinois, Urbana- Champaign • Nachuan Li, Northwestern • Dana Monzer, Northwestern • Hani Mahmassani, Northwestern • Samer Hamdar, George Washington University • Alireza Talebpour, University of Illinois, Urbana-Champaign
Wednesday, January 14 10:30 AM- 12:15 PM ET Convention Center, Hall A	Poster Session 4062 Research in Transit Management: Performance	Causal Inference of Crime Type Impacts on Ridesharing and Public Transit in Chicago	<ul style="list-style-type: none"> • Suppanat Suttisirikul, Northwestern • Ying Chen, Northwestern
Wednesday, January 14 4:00 PM- 5:45 PM ET Convention Center, Hall A	Poster Session 4076 Modeling Approaches in Travel Behavior Research	Identifying Emotional Heterogeneity in Parental Time Use and Mobility	<ul style="list-style-type: none"> • Janody Pougala, Northwestern • Amanda Stathopoulos, Northwestern