

**Northwestern University Presenters at TRB 103<sup>rd</sup> Annual Meeting**

<b>Date &amp; Location</b>	<b>EVENT</b>	<b>Presentation / Poster Title</b>	<b>Presenters</b>
<p><b>Monday</b>, January 8 08:00 - 09:45 AM</p> <p>Convention Center, Hall A, B553</p>	<p><b>Poster Session 2052</b> Leveraging food delivery programs as a community resilience resource: A demand-driven spatial and temporal analysis of need</p>	<p>Leveraging food delivery programs as a community resilience resource: A demand-driven spatial and temporal analysis of need</p>	<ul style="list-style-type: none"> <li>• Gretchen Bella, Northwestern</li> <li>• Elisa Borowski, University of California, Irvine</li> <li>• Amanda Stathopoulos, Northwestern</li> </ul>
<p>Monday, January 8 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, A201</p>	<p><b>Poster Session 2099</b> Innovations in Big Urban Data Applications</p>	<p>V2V4Real: A Real-world Large-scale Dataset for Vehicle-to-Vehicle Cooperative Perception</p>	<ul style="list-style-type: none"> <li>• Xiaoyu Dong, Northwestern</li> </ul>
<p>Monday, January 8 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, B501</p>	<p><b>Poster Session 2117</b> Current Research in Rail Equipment</p>	<p>Abatement Cost Curve Analysis of Freight Rail Decarbonization Alternatives</p>	<ul style="list-style-type: none"> <li>• Adrian Hernandez, Northwestern</li> <li>• Max Ng, Northwestern</li> <li>• Choudhury Siddique, Argonne National Laboratory (ANL)</li> <li>• Pablo Durango-Cohen, Northwestern</li> <li>• Amgad Elgowainy, ANL</li> <li>• Hani Mahmassani, Northwestern</li> <li>• Michael Wang, ANL</li> <li>• Yan Zhou, ANL</li> </ul>
<p>Monday, January 8 1:30 PM- 3:15 PM ET</p> <p>Convention Center, Room A, 152B</p>	<p><b>Lectern Session 2129</b> Network Modeling in the Era of Shared Mobility</p>	<p>Semi-on-Demand Hybrid Transit Route Design with Shared Autonomous Mobility Services</p>	<ul style="list-style-type: none"> <li>• Max Ng, Northwestern</li> <li>• Florian Dandl, Technische Universitat Munchen</li> <li>• Hani Mahmassani, Northwestern</li> <li>• Klaus Bogenberger, Technische Universitat Munchen</li> </ul>
<p>Monday, January 8 1:30 PM- 3:15 PM ET</p> <p>Convention Center, Hall A, A241</p>	<p><b>Poster Session 2161</b> Unveiling the Journey: Analyzing Travel Behavior Across the COVID-19 Spectrum</p>	<p>Passenger Time Use Comparison Between Traditional and Autonomous Vehicles: A Latent Class and Transition Analysis</p>	<ul style="list-style-type: none"> <li>• Nadim Hamad, Northwestern</li> <li>• Divyakant Tahlyan, Northwestern</li> <li>• Hoseb Abkarian, Northwestern</li> <li>• Hani Mahmassani, Northwestern</li> </ul>
<p>Monday, January 8 1:30 PM- 3:15 PM ET</p>	<p><b>Poster Session 2162</b> Navigating the Future: Analyzing</p>	<p>Do words matter? Autonomous, Self-Driving, or</p>	<ul style="list-style-type: none"> <li>• Vasileios Volakakis, Northwestern</li> </ul>

**Northwestern University Presenters at TRB 103<sup>rd</sup> Annual Meeting**

Convention Center, Hall A, A240	Evolving Vehicle Ownership Trends	Driverless Vehicles -- the impact of word choice on individual perceptions	<ul style="list-style-type: none"> <li>• Hoseb Abkarian, Northwestern</li> <li>• Nadim Hamad, Northwestern</li> <li>• Hani Mahmassani, Northwestern</li> </ul>
Monday, January 8 1:30 PM- 3:15 PM ET  Convention Center, Hall A, B677	<b>Poster Session 2171</b> Examining the Equity Impact of Transportation Policies and Practices	The Return to Transit in a Changing Landscape: Telework and Safety Concerns	<ul style="list-style-type: none"> <li>• Spencer Aeschliman, Northwestern</li> <li>• Amanda Stathopoulos, Northwestern</li> </ul>
Monday, January 8 3:45 PM- 5:30 PM ET  Convention Center, 146A	<b>Lectern Session 2198</b> Examining the Equity Impact of Transportation Policies and Practices	Is Transit Providing Fair Service? Analyzing Public Perceptions of Equity Ideals in Chicago, IL	<ul style="list-style-type: none"> <li>• Erik Huang, Northwestern</li> <li>• Amy Hofstra, University of Illinois, Chicago</li> <li>• Amanda Stathopoulos, Northwestern</li> </ul>
Monday, January 8 3:45 PM- 5:30 PM ET  Convention Center, Hall A, B657	<b>Poster Session 2226</b> Current Issues in Aviation	Dynamic Traffic Assignment with Multi-Dimensional Air Traffic Flow Models: A Solution for Urban Air Mobility Traffic Flow Management	<ul style="list-style-type: none"> <li>• Hani Mahmassani, Northwestern</li> <li>• Vasileios Volakakis, Northwestern</li> <li>• Christopher Cummings, United Airlines, Inc.</li> </ul>
Monday, January 8 6:00 PM- 7:30 PM ET  Convention Center, Hall A, B729	<b>Poster Session 2231</b> Intelligent Transportation Systems	A Systematic Approach to Evaluate the State of Illinois' Preparedness for Smart Mobility	<ul style="list-style-type: none"> <li>• Angeli Jayme, University of Illinois, Urbana-Champaign</li> <li>• Berkan Usta, WSP-USA</li> <li>• Nadim Hamad, Northwestern</li> <li>• Divyakant Tahlyan, Northwestern</li> <li>• Breton Johnson, Northwestern</li> <li>• Hani Mahmassani, Northwestern</li> <li>• Imad Al-Qadi, University of Illinois, Urbana-Champaign</li> <li>• Jerry Quandt, Mobility IL</li> </ul>
Monday, January 8 6:00 PM- 7:30 PM ET  Convention Center, Hall A, B719	<b>Poster Session 2234</b> Traffic Flow Theory, Part 2: Microscopic Traffic Models and Trajectory Analysis (Part 1, Session 2233; Part 3, Session 4068; Part 4, Session 4069)	Investigating Conflicts, Lane Changes, and Platoons in Relation to Local Densities along a Congested Freeway Weaving Section	<ul style="list-style-type: none"> <li>• Sharika Hegde, Northwestern</li> <li>• Hani Mahmassani, Northwestern</li> <li>• Yanlin Zhang, University of Illinois, Urbana-Champaign</li> <li>• Alireza Talebpour, University of Illinois, Urbana-Champaign</li> <li>• Samer Hamdar, George Washington University</li> </ul>

**Northwestern University Presenters at TRB 103<sup>rd</sup> Annual Meeting**

<p><b>Tuesday</b>, January 9 8:00 AM- 9:45 AM ET</p> <p>Convention Center, Salon C</p>	<p><b>Lectern Session 3002</b> Network Modeling and Control</p>	<p>Game-theoretical approach to decentralized multi-drone conflict resolution and emergent traffic flow operations</p>	<ul style="list-style-type: none"> <li>• Serge Hoogendoorn, Technische Universiteit, Delft</li> <li>• Victor Knoop, Delft University of Technology</li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> <li>• Sascha Hoogendoorn-Lanser, Delft University of Technology</li> </ul>
<p>Tuesday, January 9 8:00 AM- 9:45 AM ET</p> <p>Convention Center, Hall A, A213</p>	<p><b>Poster Session 3045</b> Passive Data Collection in Travel Surveys</p>	<p>Processing and Validating Passively Generated Mobile Phone Data for Commute Pattern Estimation: a Case Study from Chicago</p>	<ul style="list-style-type: none"> <li>• <a href="#">Tianxing Dai, Northwestern</a></li> <li>• <a href="#">Gretchen Bella, Northwestern</a></li> <li>• Peeter Kivestu, Oplytix, LLC</li> <li>• <a href="#">Amanda Stathopoulos, Northwestern</a></li> <li>• <a href="#">Yu Nie, Northwestern</a></li> </ul>
<p>Tuesday, January 9 8:00 AM- 9:45 AM ET</p> <p>Convention Center, Hall A, A202</p>	<p><b>Poster Session 3059</b> Expanding Our Knowledge of Transportation and Health</p>	<p>“I’m Pissed Off with the Whole System”: A Qualitative Analysis of Barriers to Healthcare Access Faced by Low-Income Older Adults in Chicago</p>	<ul style="list-style-type: none"> <li>• <a href="#">Gretchen Bella, Northwestern</a></li> <li>• <a href="#">Elisa Borowski, University of California, Irvine</a></li> <li>• <a href="#">Amanda Stathopoulos, Northwestern</a></li> </ul>
<p>Tuesday, January 9 8:00 AM- 9:45 AM ET</p> <p>Convention Center, Hall A, A203</p>	<p><b>Poster Session 3059</b> Expanding Our Knowledge of Transportation and Health</p>	<p>A ‘Near Undefinable Aspect to Social Interaction in Person’: An Exploration of the Subjective Value of Travel Through the Words of LGBTQ+ Young Adults</p>	<ul style="list-style-type: none"> <li>• <a href="#">Elisa Borowski, University of California, Irvine</a></li> <li>• <a href="#">Amanda Stathopoulos, Northwestern</a></li> </ul>
<p>Tuesday, January 9 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Salon C</p>	<p><b>Lectern Session 3069</b> Car-Following and Lane-Changing Theory Revisited</p>	<p>An Investigation of Discretionary Lane- changing Decisions: Insights From the Third Generation SIMulation (TGSIM) Dataset</p>	<ul style="list-style-type: none"> <li>• Yanlin Zhang, University of Illinois, Urbana-Champaign</li> <li>• Alireza Talebpour, University of Illinois, Urbana-Champaign</li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> <li>• Samer Hamdar, George Washington University</li> </ul>
<p>Tuesday, January 9 10:15 AM- 12:00 PM ET</p>	<p><b>Poster Session 3118</b> Fatigued by Fatigue Cracking: Asphalt</p>	<p>On the Impact of Delivery Vehicles on Pavement Performance in</p>	<ul style="list-style-type: none"> <li>• <a href="#">Callahan Skiles, Northwestern</a></li> <li>• <a href="#">Jing Yu, Northwestern</a></li> <li>• <a href="#">Pablo Durango-Cohen, Northwestern</a></li> </ul>

**Northwestern University Presenters at TRB 103<sup>rd</sup> Annual Meeting**

Convention Center, Hall A, B721	Pavement Solutions to Improve Cracking	Residential Areas: A Case Study in Evanston, Illinois	
Tuesday, January 9 10:15 AM-12:00 PM ET  Convention Center, Hall A, B584	<b>Poster Session 3119</b> Responding to Natural and Humanmade Disasters of Different Scales: Our Society and Our Efforts	Resource-Sharing Behavior During Flooding Events: A Latent Class Analysis to Guide Community-Based Relief Distribution	<ul style="list-style-type: none"> <li>• <a href="#">Chi-Ya Chou, Northwestern</a></li> <li>• <a href="#">Elisa Borowski, University of California, Irvine</a></li> <li>• <a href="#">Amanda Stathopoulos, Northwestern</a></li> </ul>
Tuesday, January 9 1:30 PM-3:15 PM ET  Marriott Marquis, Liberty Salon P (M4)	<b>Emerging Methods Subcommittee, AEP50(1)</b>	Planning and Forecasting, Data and Information Technology, Policy	<ul style="list-style-type: none"> <li>• <a href="#">Amanda Stathopoulos, Northwestern, presiding</a></li> <li>• <a href="#">Naveen Eluru, University of Central Florida, presiding</a></li> </ul>
Tuesday, January 9 1:30 PM-3:15 PM ET  Marriott Marquis, Liberty Salon I (M4)	<b>Data for Decision Making Committee</b>	Data and Information Technology	<ul style="list-style-type: none"> <li>• <a href="#">Joseph Schofer, Northwestern, presiding</a></li> <li>• <a href="#">Susan Martinovich, HNTB Corporation, presiding</a></li> </ul>
Tuesday, January 9 1:30 PM-3:15 PM ET  Convention Center, Hall A, A200	<b>Poster Session 3167</b> Safe and Smart Transportation Systems Powered by Artificial Intelligence	Bridging the Domain Gap for Multi-Agent Perception	<ul style="list-style-type: none"> <li>• <a href="#">Runsheng Xu, University of California, Los Angeles</a></li> <li>• <a href="#">Jinlong Li, Cleveland State University</a></li> <li>• <a href="#">Xiaoyu Dong, Northwestern</a></li> <li>• <a href="#">Hongkai Yu, Cleveland State University</a></li> <li>• <a href="#">Jiaqi Ma, University of California, Los Angeles</a></li> </ul>
Tuesday, January 9 3:45 PM-5:30 PM ET  Convention Center, 150A	<b>Lectern Session 3184</b> Big Data Approaches in Travel Surveys	A Bias Paradox: an evaluation of data representativeness and effects of smart phone privacy restrictions on passively-generated mobile phone data	<ul style="list-style-type: none"> <li>• <a href="#">Gretchen Bella, Northwestern</a></li> <li>• <a href="#">Tianxing Dai, Northwestern</a></li> <li>• <a href="#">Peeter Kivestu, Oplytix, LLC</a></li> <li>• <a href="#">Yu Nie, Northwestern</a></li> <li>• <a href="#">Amanda Stathopoulos, Northwestern</a></li> </ul>
Tuesday, January 9 3:45 PM-5:30 PM ET  Convention Center, 152B	<b>Lectern Session 3185</b> Design and Operations of Transportation and	Is Order-2 Proportionality Good Enough for Approximating the Most Likely Path Flow in User	<ul style="list-style-type: none"> <li>• <a href="#">Liyang Feng, Southwest Jiaotong University</a></li> <li>• <a href="#">Jun Xie, Southwest Jiaotong University</a></li> <li>• <a href="#">Xiaobo Liu, Southwest Jiaotong University</a></li> </ul>

**Northwestern University Presenters at TRB 103<sup>rd</sup> Annual Meeting**

	Electrification Networks	Equilibrium Traffic Assignment?	<ul style="list-style-type: none"> <li>• Youhua Tang, Southwest Jiaotong University</li> <li>• David Wang, Nanyang Technological University</li> <li>• Yu Nie, Northwestern</li> </ul>
Tuesday, January 9 3:45 PM- 5:30 PM ET  Convention Center, 144C	<b>Lectern Session 3209</b> Advances in Last-Mile Package Delivery and Logistics	Modeling Ridehail Customers' Willingness to Help with Package Delivery in an Autonomous Mixed-service Fleet Operation	<ul style="list-style-type: none"> <li>• Hoseb Abkarian, Northwestern</li> <li>• Nadim Hamad, Northwestern</li> <li>• Hani Mahmassani, Northwestern</li> </ul>
Tuesday, January 9 3:45 PM- 5:30 PM ET  Convention Center, Hall A, A132	<b>Poster Session 3216</b> The Effects of Information and Communication Technologies on Transportation Choices	A Random Intercept Latent Transition Analysis (RI-LTA) of Consumer Spending Across Online and In-Person Channels Through the Pandemic	<ul style="list-style-type: none"> <li>• Hani Mahmassani, Northwestern</li> <li>• Divyakant Tahlyan, Northwestern</li> <li>• Amanda Stathopoulos, Northwestern</li> <li>• Maher Said, Northwestern</li> <li>• Susan Shaheen, University of California, Berkeley</li> <li>• Joan Walker, University of California, Berkeley</li> </ul>
Tuesday, January 9 3:45 PM- 5:30 PM ET  Convention Center, Hall A, A130	<b>Poster Session 3216</b> The Effects of Information and Communication Technologies on Transportation Choices	Modeling Ridehailing Shift Before and After the COVID-19 Pandemic: An Ordered Logit Approach	<ul style="list-style-type: none"> <li>• Draco Tong, Northwestern</li> <li>• Hoseb Abkarian, Northwestern</li> <li>• Nadim Hamad, Northwestern</li> <li>• Hani Mahmassani, Northwestern</li> </ul>
Tuesday, January 9 3:45 PM- 5:30 PM ET  Convention Center, Hall A, A131	<b>Poster Session 3216</b> The Effects of Information and Communication Technologies on Transportation Choices	The Emergence of Third Places beyond Central Cores: A Case Study of Chicago	<ul style="list-style-type: none"> <li>• Nadim Hamad, Northwestern</li> <li>• Divyakant Tahlyan, Northwestern</li> <li>• Ying Chen, Northwestern</li> <li>• Hani Mahmassani, Northwestern</li> </ul>
Tuesday, January 9 6:00 PM- 7:30 PM ET  Convention Center, Hall A, B553	<b>Poster Session 3229</b> Vehicle-Highway Automation, Part 2 (Part 1, Session 3162; Part 3, Session 4028)	Man vs. Machine: A Closer Look at the Differences Between Human Driver Behavior and Automated Vehicle Decision-Making	<ul style="list-style-type: none"> <li>• Alireza Talebpour, University of Illinois, Urbana-Champaign (UIUC)</li> <li>• Hani Mahmassani, Northwestern</li> <li>• Samer Hamdar, George Washington University</li> <li>• Chun-Chien Hsiao, UIUC</li> <li>• Dana Monzer, Northwestern</li> </ul>

**Northwestern University Presenters at TRB 103<sup>rd</sup> Annual Meeting**

			<ul style="list-style-type: none"> <li>• <a href="#">Nachuan Li, Northwestern</a></li> <li>• <a href="#">Rami Ammourah, UIUC</a></li> <li>• <a href="#">Tina Radvand, UIUC</a></li> <li>• <a href="#">Victor Okoth, Northwestern</a></li> <li>• <a href="#">Yanlin Zhang, UIUC</a></li> </ul>
<p><b>Wednesday,</b> January 10 8:00 AM- 9:45 AM ET</p> <p>Convention Center, 152B</p>	<p><b>Lectern Session 4006</b> How Could Technology and Post- Pandemic Work Norms Change Travel Behavior?</p>	<p>From Intention to Action: A Longitudinal Examination of Factors Contributing to Active Transportation Mode Shifts Amid and After Pandemic</p>	<ul style="list-style-type: none"> <li>• <a href="#">Fan Yu, Arizona State University</a></li> <li>• <a href="#">Amanda Stathopoulos, Northwestern University</a></li> <li>• <a href="#">Hani Mahmassani, Northwestern University</a></li> </ul>
<p>Wednesday, January 10 8:00 AM- 9:45 AM ET</p> <p>Convention Center, Hall A, B745</p>	<p><b>Poster Session 4027</b> Omnibus Session on Bicycle Modeling and Shared Micromobility Research</p>	<p>Is Competition for Losers in Dockless Bikesharing?</p>	<ul style="list-style-type: none"> <li>• <a href="#">Hongyu Zheng, Northwestern</a></li> <li>• <a href="#">Kenan Zhang, Ecole Polytechnique Federale de Lausanne</a></li> <li>• <a href="#">Yu Nie, Northwestern</a></li> </ul>
<p>Wednesday, January 10 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, A162</p>	<p><b>Poster Session 4069</b> Traffic Flow Theory, Part 4: Traffic Modeling, Monitoring, and Control (Part 1, Session 2233; Part 2, Session 2234; Part 3, Session 4068)</p>	<p>A Close Look into the Spatio- Temporal Distribution of Speed, Lane Changes and Heavy Vehicles in a Congested Freeway Weaving Section</p>	<ul style="list-style-type: none"> <li>• <a href="#">Nachuan Li, Northwestern</a></li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> <li>• <a href="#">Yanlin Zhang, University of Illinois, Urbana-Champaign</a></li> <li>• <a href="#">Alireza Talebpour, University of Illinois, Urbana-Champaign</a></li> <li>• <a href="#">Samer Hamdar, George Washington University</a></li> </ul>
<p>Wednesday, January 10 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, B551</p>	<p><b>Poster Session 4071</b> Transportation Network Modeling Mega Poster Session</p>	<p>Entropy Maximization in Multi-class Traffic Assignment</p>	<ul style="list-style-type: none"> <li>• <a href="#">Qianni Wang, Northwestern</a></li> <li>• <a href="#">Liyang Feng, Southwest Jiaotong University</a></li> <li>• <a href="#">Jiayang Li, Northwestern</a></li> <li>• <a href="#">Jun Xie, Southwest Jiaotong University</a></li> <li>• <a href="#">Yu Nie, Northwestern</a></li> </ul>
<p>Wednesday, January 10 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, B550</p>	<p><b>Poster Session 4071</b> Transportation Network Modeling Mega Poster Session</p>	<p>Express Bus Service Design for Accessibility and Equity Improvement</p>	<ul style="list-style-type: none"> <li>• <a href="#">Tianxing Dai, Northwestern</a></li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> <li>• <a href="#">Yu Nie, Northwestern</a></li> </ul>

**Northwestern University Presenters at TRB 103<sup>rd</sup> Annual Meeting**

<p>Wednesday, January 10 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, B553</p>	<p><b>Poster Session 4071</b> Transportation Network Modeling Mega Poster Session</p>	<p>Predictive Vehicle Repositioning for On-Demand Ridepooling Services</p>	<ul style="list-style-type: none"> <li>• Roman Engelhardt, Technische Universität Munchen</li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> <li>• Klaus Bogenberger, Technische Universität Munchen</li> </ul>
<p>Wednesday, January 10 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, B552</p>	<p><b>Poster Session 4071</b> Transportation Network Modeling Mega Poster Session</p>	<p>Local Area Directional Network Fundamental Diagrams for Travel Time Estimation in Dynamic Rideshare Fleet Operations</p>	<ul style="list-style-type: none"> <li>• <a href="#">Sharika Hegde, Northwestern</a></li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> </ul>
<p>Wednesday, January 10 10:15 AM- 12:00 PM ET</p> <p>Convention Center, Hall A, B635</p>	<p><b>Poster Session 4074</b> Tackling Asset Management Emerging Trends to Engage, Enrich, and Empower Practitioners</p>	<p>BALANCING THE ECONOMIC, ENVIRONMENTAL, AND SERVICE TRADE-OFFS IN ROAD DESIGN: AN INPUT-OUTPUT MODEL WITH SUBSTITUTION</p>	<ul style="list-style-type: none"> <li>• <a href="#">Jing Yu, Northwestern</a></li> <li>• <a href="#">Pablo Durango-Cohen, Northwestern</a></li> </ul>
<p>Wednesday, January 10 3:45 PM- 5:30 PM ET</p> <p>Convention Center, Hall A, A151</p>	<p><b>Poster Session 4084</b> Advancing Travel Forecasting Methods and Practices</p>	<p>Modeling the Demand for Ridesharing in a Mixed-service Autonomous Vehicle Fleet with Parcel Delivery Service</p>	<ul style="list-style-type: none"> <li>• <a href="#">Hoseb Abkarian, Northwestern</a></li> <li>• <a href="#">Nadim Hamad, Northwestern</a></li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> </ul>
<p><b>Thursday</b>, January 11 9:00 AM- 12:00 PM ET</p> <p>Convention Center, 145B</p>	<p><b>Workshop 5007</b> Hybrid Work, Activity Patterns, and Travel Choices in the Post-Pandemic Era</p>	<p>The Evolving Landscape of Hybrid Work</p>	<ul style="list-style-type: none"> <li>• <a href="#">Amanda Stathopoulos, Northwestern</a></li> <li>• <a href="#">Hani Mahmassani, Northwestern</a></li> <li>• <a href="#">Divyakant Tahlyan, Northwestern</a></li> </ul>