# Transportation Research Board 92nd Annual Meeting

## Northwestern University Faculty and Student Presentations

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<tr>
<th>Date</th>
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| Sunday     | 9:00AM- 12:00PM   | Marriott, Washington B3 | Workshop 102  
Concrete Research for Transportation Applications: Celebrating Our Legacy and Anticipating Our Future, Part 1  
P14-5049: Concrete in Transportation: Advancements Made During the Past Decades  
Surendra P. Shah |
| Sunday     | 9:00AM- 12:00PM   | Marriott, Washington B5 | Workshop 103  
Crowd Flow Dynamics, Modeling, and Management  
P14-7047: Simulation  
Hani S. Mahmassani |
| Sunday     | 9:00AM- 12:00PM   | Shoreham, Blue Room    | Workshop 127  
One Hundred Years of the Panama Canal: Legacy and Future, Part 1 (Part 2, Session 182)  
P14-5832: Keynote Address  
Joseph L. Schofer |
| Sunday     | 1:30PM- 4:30PM    | Marriott, Washington B3 | Workshop 163  
Concrete Research for Transportation Applications: Celebrating Our Legacy and Anticipating Our Future, Part 2 (Part 1, Workshop 102)  
P14-5056: Panel Discussion  
Surendra P. Shah |
| Sunday     | 1:30PM- 4:30PM    | Marriott, Washington B5 | Workshop 172  
Simulation: Looking Back and Looking Ahead  
P14-7061: Panel Discussion  
Hani S. Mahmassani |
Sunday 1:30PM- 4:30PM  
Workshop 188  
Activity-Travel Behavioral Impacts and Travel Demand Modeling Implications of Driverless Cars  
P14-6527: Potential Activity-Travel and Land Use Impacts of Driverless Cars  
Hani Mahmassani

Sunday 6:00PM- 8:00PM  
Data and Information Systems Section Executive Board  
Data and Information Technology  
Joseph L. Schofer

Monday 7:00AM- 8:00AM  
Development of Freight Fluidity Performance Measures Task Force  
Freight Transportation, Operations and Traffic Management, Planning and Forecasting  
Joseph L. Schofer

Monday 8:00AM- 9:45AM  
Session 234  
Behavior, Modeling, and Analysis of Disrupted Networks  
P14-3568: How Many Runs? Analytical Method for Optimal Scenario Sampling to Estimate the Variance of Travel Time Distributions in Vehicular Traffic Networks  
Jiwon Kim  
Hani Mahmassani

Monday 8:00AM- 9:45AM  
Session 219  
Crowd Dynamics: Empirical Analyses, Modeling, Simulation and Management  
P14-1609: Exploring Area-Wide Dynamics of Pedestrian Crowds Using a Three-Dimensional Approach  
Meead Saberi  
Hani S. Mahmassani

Monday 10:15AM- 12:00PM  
Session 288  
e-Books and Transportation: Familiar Technology in a New Setting  
P14-7094: Managing eBooks at the Institutional Level – An Introduction  
Roberto A. Sarmiento
Monday 1:30PM - 5:30PM
Library and Information Science for Transportation Committee
Administration and Management, Data and Information Technology
Roberto A. Sarmiento, presiding

Monday 6:00PM - 7:15PM
Thomas B. Deen Distinguished Lecture and Presentation of Awards
Data and Information Technology, Freight Transportation
P14-0001: Moving the Goods: Performance Measures and the Value Proposition for Transportation Projects
Joseph Schofer, Thomas B. Deen Lecturer

Monday 7:30PM - 9:30PM
Session 460
Modeling Theories and Practices in Freight Planning and Logistics, Part 1 (Part 2, Session 461)
P14-1463: City Logistics: Freight Distribution Management with Time-Dependent Travel Times and Disruptive Events
Lan Jiang
Hani S. Mahmassani

Monday 7:30PM - 9:30PM
Session 461
Modeling Theories and Practices in Freight Planning and Logistics, Part 2: Energy Development, Predictive Analytics, and Rural Corridors (Part 1, Session 460)
P14-2224: Predictive Analytics to Improve Pricing and Sourcing in Third-Party Logistics Operations
Christopher Lindsey
Andreas Frei
Hani S. Mahmassani
Young-Woong Park
Diego Klabjan

Monday 7:30PM - 9:30PM
Session 445
Intelligent Transportation System Technology Development and Connected Vehicles: System Control, Safety, and Evaluation
P14-3631: Near-Crash Identification in a Connected Vehicle Environment
Alireza Talebpour
Hani S. Mahmassani
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<td><strong>Tuesday 8:00AM- 9:45AM</strong></td>
<td><strong>Hilton, Columbia Hall 4</strong></td>
<td><strong>Session 510</strong></td>
<td>Transportation Network Optimization and Design</td>
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<td><strong>P14-4804: Tradable Credit Schemes on Networks with Mixed Equilibrium Behaviors</strong></td>
<td><strong>Yu Nie</strong></td>
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<td><strong>Tuesday 8:30AM- 10:15AM</strong></td>
<td><strong>Hilton, International Center</strong></td>
<td><strong>Session 522</strong></td>
<td>Alternative Transportation Fuels and Technologies</td>
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<td><strong>P14-3831: Planning Plug-in Electric Vehicle Charging Infrastructure in City Centers</strong></td>
<td><strong>Mehrnaz Ghamami, Yu Nie, Ali Zockaie Kheiraie</strong></td>
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<td><strong>Tuesday 8:30AM- 10:15AM</strong></td>
<td><strong>Marriott, Salon 2</strong></td>
<td><strong>Session 514</strong></td>
<td>Advances in Traffic Flow Theory and Characteristics, Part 1 (Part 2, Session 841)</td>
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<td><strong>Tuesday 10:15AM- 12:00PM</strong></td>
<td><strong>Hilton, International East</strong></td>
<td><strong>Session 559</strong></td>
<td>Using Social Media to Improve Urban Transportation</td>
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<td><strong>P14-3477: Role of Social Media in Communicating Transit Disruptions</strong></td>
<td><strong>Raymond Chan, Joseph L. Schofer</strong></td>
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<td><strong>Tuesday 10:15AM- 12:00PM</strong></td>
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<td><strong>Session 534</strong></td>
<td>Fifty Years of Traffic Flow Theory: Achievements and Challenges</td>
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<td><strong>P14-6888: Reflection on 50 Years of Traffic Flow Theory</strong></td>
<td><strong>Hani S. Mahmassani</strong></td>
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<td><strong>Tuesday 4:15PM- 6:00PM</strong></td>
<td><strong>Hilton, International Center</strong></td>
<td><strong>Session 691</strong></td>
<td>Transportation Demand Forecasting: Models and Methods</td>
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<td><strong>P 14-4025: Mode Choice with Memory and Social Networks: Agent-Based Simulation Model</strong></td>
<td><strong>Madison Fitzpatrick</strong></td>
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Tuesday 7:30PM- 9:30PM  Marriott, Delaware A
Session 711
Urban Traffic Modeling and Management Using the Macroscopic Fundamental Diagram
P 14-2845: Estimating Network Fundamental Diagram Using Three-Dimensional Vehicle Trajectories: Extending Edie’s Definitions of Traffic Flow Variables to Networks
Meead Saberi
Hani S. Mahmassani
Tian Hou
Ali Zockaie Kheiraie

Wednesday 8:00AM- 9:45AM  Hilton, Lincoln West
Session 756
Model Integration by Parts of the Research Community
P 14-4298: Integrated Demand and Supply Model: Networkwide Validation
Alireza Talebpour

Wednesday 8:00AM- 9:45AM  Marriott, Thurgood Marshall West
Session 735
Macroscopic Approaches to Traffic Flow
P 14-1841: Dynamics of Urban Network Traffic Flow During Large-Scale Evacuation
Ali Zockaie Kheiraie
Hani S. Mahmassani
Meead Saberi
Ismail Omer Verbas

Wednesday 8:30AM- 10:15AM  Hilton, International Center
Session 772
Best Presentations from Annual Interuniversity Symposium on Infrastructure
P 14-6242: Application of Structural Time Series Model for Condition Assessment in Structural Health Monitoring
Yikai Chen
Pablo Luis Durango-Cohen

Wednesday 2:30PM- 4:00PM  Marriott, Maryland B
Session 822
User Information and Driver Behavior
Andreas Frei
Hani S. Mahmassani
Ali Zockaie Kheiraie
Charlotte Frei
Session 842
Advances in Network Modeling

P 14-2437: Finite Mixture Model of Vehicle-to-Vehicle and Day-to-Day Variability of Traffic Network Travel Times
Jiwon Kim
Hani S. Mahmassani

P14-6757: How Many Runs? Analytical Method for Optimal Scenario Sampling to Estimate the Variance of Travel Time Distributions in Vehicular Traffic Networks (14-3568)
Jiwon Kim
Hani S. Mahmassani

P14-6802: Optimal Transit Routing with Partial Online Information (14-3396)
Peng Chen
Yu Nie

P14-6799: Finding Optimal Hyperpaths in Large Transit Networks with Realistic Headway Distributions (14-2230)
Qianfei Li
Peng Chen
Yu Nie

P14-2487: Adaptive Drivers and Time-Dependent Origin-Destination Demand Estimation: Methodology and Application to Large-Scale Network
Ali Zockaie Kheiraie
Ying Chen
Hani S. Mahmassani

P14-5305: Semianalytical Approach for Solving the Bottleneck Model with General User Heterogeneity
Yang Liu
Yu Nie

P14-6820: Plan B: Simulation-Based Method for Finding Minimum Travel Time Budget Paths in Stochastic Networks with Correlated Link Times (14-5615)
Ali Zockaie Kheiraie
Yu Nie
Hani S. Mahmassani
Wednesday 2:45PM- 4:30PM
Marriott, Salon 2
Session 841
Advances in Traffic Flow Theory and Characteristics, Part 2 (Part 1, Session 514)

P14-3687: The Influence of Stop Time on Arterial Travel Time Variability
Tian Hou
Hani S. Mahmassani

Thursday 8:00AM- 9:45AM
Hilton, Georgetown West
Session 865
Please "Like" Our Session on Social Media Data in Modeling

P14-3566: From Personal Attitudes to Public Opinion: Information Diffusion in Social Networks Toward Sustainable Transportation
Ying Chen
Andreas Frei
Hani S. Mahmassani

Thursday 8:00AM- 9:45AM
Hilton, Jefferson West
Session 863
Network Models in Public Transport Systems

P14-2230: Finding Optimal Hyperpaths in Large Transit Networks with Realistic Headway Distributions
Qianfei Li
Peng Chen
Yu Nie

P14-3396: Optimal Transit Routing with Partial Online Information
Peng Chen
Yu Nie

Thursday 10:15AM- 12:00PM
Hilton, Georgetown East
Session 877
Doctoral Student Research in Transportation Modeling, Part 2 (Part 1, Session 862)

P14-7155: Path finding and traffic equilibrium in stochastic networks considering link travel time correlations
Ali Zockaie
Thursday 10:15AM- 12:00PM   Hilton, Jefferson West

Session 878
Handling Uncertainty in Transportation Networks

P14-5615: Plan B: Simulation-Based Method for Finding Minimum Travel Time Budget Paths in Stochastic Networks with Correlated Link Times

Ali Zockaie Kheiraie
Yu Nie
Hani S. Mahmassani