



TRANSPORTATION RESEARCH BOARD

[TRB] ANNUAL MEETING: **JAN. 8 - 12, 2017**

NORTHWESTERN UNIVERSITY TRANSPORTATION CENTER

[NUTC] PARTICIPATION GUIDE: [Participants, Presenters & Presiders](#)

SUNDAY, JANUARY 8, 2017

Emerging Needs for Improving Simulation Models in the Immediate, Intermediate, and Long-Term Horizons

Workshop 134

Sunday 9:00 AM - 12:00 PM

Convention Center, 103A

Workshop

Network Level Modeling and Applications of CAV Technologies with Focus on the Level 2 (Long Term Needs) Automation

[Hani Mahmassani](#), Northwestern University

From Ad Hoc to Organized: Writing the Road Map for Improving Travel Analysis Methods

Workshop 162

Sunday 1:30 PM – 4:30 PM

Convention Center, 145A

Workshop | AICP Certification

[Hani Mahmassani](#), Northwestern University, participant
David Ory, Metropolitan Transportation Commission (MTC), presiding
Elizabeth Sall, UrbanLabs LLC, presiding
Gregory Erhardt, University of Kentucky, presiding
William Charlton, Because LLC, presiding
Joan Walker, University of California, Berkeley, presiding
Brian Gardner, Federal Highway Administration (FHWA), presiding



MONDAY, JANUARY 9, 2017

11th University Transportation Center Spotlight Conference: Rebuilding and Retrofitting the Transportation Infrastructure

Monday 7:00 AM - 8:00 AM

Marriott Marquis, Gallery Place (M3)

By Invitation

[Joseph Schofer](#), Northwestern University, presiding

Social Media and Travel: Explorations Using New Data and Methods

Event 212

Monday 8:00 AM - 9:45 AM

Convention Center, 146B

Lectern | AICP Certification

Exploring the Role of Social Media Platforms in Informing Trip Planning: The Case of Yelp.com

[Lama Bou Mjahed](#), Northwestern University

[Archak Mittal](#), Northwestern University

[Amr Elfar](#), Northwestern University

[Hani Mahmassani](#), Northwestern University

[Ying Chen](#), Northwestern University

Space, Friendship, and Virtual Social Networks: Properties of Location-Based Social Networks and Travelers' Destination Choice

[Ying Chen](#), Northwestern University

[Hani Mahmassani](#), Northwestern University

[Fei Zhao](#), Northwestern University

Freeway Operations

Event 235

Monday 8:00 AM - 9:45 AM

Convention Center, Hall E

Poster | Practice Ready Paper

Twitter or Chatter? Involving Social Media Data Analysis in Traffic Incident Management

[Ying Chen](#), Northwestern University

[Archak Mittal](#), Northwestern University

[Hani Mahmassani](#), Northwestern University



Traffic Flow Modeling of Connected and Automated Transportation Systems

Event 237

Monday 8:00 AM - 9:45 AM

Convention Center, 101

Lectern

[Hani Mahmassani](#), Northwestern University, presiding

Current Research in Freight Economics and Regulation

Event 259

Monday 8:00 AM - 9:45 AM

Convention Center, Hall E

Poster | Practice Ready Paper

Examining Drivers of Rail Transport Rates over Time: Econometric Analysis

[Michael Hyland](#), Northwestern University

[Lama Bou Mjahed](#), Northwestern University

[Hani Mahmassani](#), Northwestern University

Data for Decisions and Performance Measures Task Force

Monday 8:00 AM - 12:00 PM

Marriott Marquis, Liberty N (M4)

[Joseph Schofer](#), Northwestern University, presiding

Dynamics of Activity Scheduling

Event 292

Monday 10:15 AM - 12:00 PM

Convention Center, 145A

Lectern

Schedule Consistency for Daily Activity Chains in Integrated Activity-Based Dynamic Multimodal Network Assignment

[Xiang Xu](#), Northwestern University

[Ali Zockaie](#), Michigan State University

[Hani Mahmassani](#), Northwestern University

[Hooram Halat](#), Northwestern University

[Omer Verbas](#), Argonne National Laboratory

[Michael Hyland](#), Northwestern University

[Peter Vovsha](#), WSP|Parsons Brinckerhoff

[James Hicks](#), WSP|Parsons Brinckerhoff



Activity Cancellation and Rescheduling by Stressed Households to Improve Convergence in Integrated ABM-DTA Models

[Hooram Halat](#), Northwestern University
[Hani Mahmassani](#), Northwestern University
Ali Zockaie, Michigan State University
Peter Vovsha, WSP|Parsons Brinckerhoff

Development of Freight Fluidity Performance Measures Task Force

Monday 1:30 PM - 3:15 PM
Marriott Marquis, Pentagon (M4)
[Joseph Schofer](#), Northwestern University, presiding

Innovations in Urban Transportation Data

Event 357

Monday 1:30 PM - 3:15 PM
Convention Center, Hall E
Poster | Practice Ready Paper

Inferring Taxi Passenger Waiting Time from Taxi GPS Traces

[Hongyu Chen](#), Northwestern University
[Yu Nie](#), Northwestern University

Past, Present and Future of Nanotechnology in Cement and Concrete

Event 382

Monday 1:30 PM - 3:15 PM
Convention Center, 202B
Lectern

Nanoengineering and Nanoscience of Concrete

[Surendra Shah](#), Northwestern University

Urban Transit and Service Network Design

Event 426

Monday 3:45 PM - 5:30 PM
Convention Center, 146B
Lectern

Demand-Adaptive Paired-Line Hybrid Transit System with Radial Route Structure

[Yu Nie](#), Northwestern University
[Peng Chen](#), Northwestern University



Dynamic Predictive Strategies for Urban Snowplow Routing

[Xiang Xu](#), Northwestern University
[Hani Mahmassani](#), Northwestern University
[Zihan Hong](#), Northwestern University
Roemer Alfelor, Federal Highway Administration (FHWA)

TUESDAY, JANUARY 10, 2017

Lessons from the History of Statistics in U.S. Department of Transportation for a Future of Soundbites, Infographics, and Performance Measurement

Event 496

Tuesday 8:00 AM - 9:45 AM

Convention Center, 152B

Lectern

Panel Presentation

[Joseph Schofer](#), Northwestern University

Route Choice Behavior

Event 506

Tuesday 8:00 AM - 9:45 AM

Convention Center, Hall E

Poster

Testing the Proportionality Assumption with Taxi Trajectory

Jun Xie, Shanghai Jiao Tong University

[Yu Nie](#), Northwestern University

Xiaobo Liu, Southwest Jiaotong University

Surveillance and Control of Sustainable and Resilient Transportation Networks

Event 511

Tuesday 8:00 AM - 9:45 AM

Convention Center, 145A

Lectern

Dynamic Equilibrium-Free Model for Monitoring Signalized Urban Networks Based on Discrete-Time Optimal Control Formulation

Loukas Dimitriou, University of Cyprus

[Athanasios Ziliaskopoulos](#), Northwestern University



Characterization of Trip-Level Pace Variability Based on Taxi GPS Trajectory Data

He Ma, Tsinghua University
Huapu Lu, Tsinghua University
[Amanda Stathopoulos](#), Northwestern University
[Yu Nie](#), Northwestern University

Effectiveness of Predictive Weather-Related ATDM Strategies for Network Management Perspective

[Zihan Hong](#), Northwestern University
[Hani Mahmassani](#), Northwestern University
[Xiang Xu](#), Northwestern University
[Archak Mittal](#), Northwestern University
[Ying Chen](#), Northwestern University
[Hooram Halat](#), Northwestern University
Roemer Alfelor, Federal Highway Administration (FHWA)

Interrupted Flow

Event 531

Tuesday 8:00 AM - 9:45 AM
Convention Center, Hall E
Poster

Dynamic Lane Grouping Analytical Methods for Signalized Intersections

David Hale, Leidos, Inc.
[Hani Mahmassani](#), Northwestern University
Alexander Paz, University of Nevada, Las Vegas
Ana Moreno, Technical University of Munich
Seckin Ozkul, University of South Florida
Zhitong Huang, Leidos, Inc.

Traffic Flow Theory and Characteristics, Part 1 (Part 2, Session 731, Part 3, Session 798, Part 4, Session 848)

Event 532

Tuesday 8:00 AM - 9:45 AM
Convention Center, Hall E
Poster

Network Flow Relations and Travel Time Reliability in a Connected Environment

[Archak Mittal](#), Northwestern University
[Hani Mahmassani](#), Northwestern University
Alireza Talebpour, Texas A&M University



Current Issues in Transportation Energy

Event 563

Tuesday 10:15 AM - 12:00 PM

Convention Center, Hall E

Poster | Practice Ready Paper

Mileage Efficiency-Based Approach to Quantify Energy Consumption and Carbon Emissions of Automotive Vehicles

[Neelesh Patankar](#), Northwestern University

Jane Lin, University of Illinois, Chicago

Tanvee Patankar, Adlai E. Stevenson High School

Evaluating the Performance of Traffic Signal Systems

Event 579

Tuesday 10:15 AM - 12:00 PM

Convention Center, Hall E

Poster | Practice Ready Paper

Assessment of Signal Timing Plan Robustness in an Arterial Corridor Through Seasonal Variation of Traffic Flows

[Marija Ostojic](#), Northwestern University

Aleksandar Stevanovic, Florida Atlantic University

Dusan Jolovic, New Mexico State University

[Hani Mahmassani](#), Northwestern University

Artificial Intelligence Methods and Modeling Tools for Classification, Estimation, Prediction, Recognition, and Detection in Transportation Applications

Event 617

Tuesday 1:30 PM - 3:15 PM

Convention Center, Hall E

Poster

Semisupervised Learning for Discrete Choice Models

[Jie Yang](#), Northwestern University

Sergey Shebalov, Sabre Airline Solutions

[Diego Klabjan](#), Northwestern University

Community Impact Assessment

Event 628

Tuesday 1:30 PM - 3:15 PM

Convention Center, Hall E

Poster



Exploring Active Transport Needs in a Chicago Neighborhood Using Focus Groups

[Alec Biehl](#), Northwestern University

[Amanda Stathopoulos](#), Northwestern University

Optimization and Scheduling of Mainline and Station Operations for Passenger Rail Systems

Event 676

Tuesday 1:30 PM - 3:15 PM

Convention Center, 143C

Lectern | Practice Ready Paper

New Optimization Model for Train Platforming and Routing Problem

Gongyuan Lu, Southwest Jiaotong University

Xiaobo Liu, Southwest Jiaotong University

[Yu Nie](#), Northwestern University

Current Young Professionals' Research in Aviation

Event 679

Tuesday 1:30 PM - 3:15 PM

Convention Center, Hall E

Poster

In-Flight Services Proposed by U.S.-Based Air Carriers: Current Situation and Their Influence on Passenger's Choice Behavior

[Aymeric Punel](#), Northwestern University

Smart Accessibility for Smart Cities

Event 609

Tuesday 3:45 PM - 5:30 PM

Convention Center, 152A

Lectern

[Joseph Schofer](#), Northwestern University, presiding

Law Enforcement and Traffic Safety: Evaluation of Countermeasures, Automated Enforcement, and Geospatial Data

Event 742

Tuesday 3:45 PM - 5:30 PM

Convention Center, Hall E

Poster



Determinants of Red-light Camera Violation Behavior: Evidence from Chicago, Illinois

[Amr Elfar](#), Northwestern University
[Hani Mahmassani](#), Northwestern University
[Archak Mittal](#), Northwestern University
[Marija Ostojic](#), Northwestern University
Omer Verbas, Argonne National Laboratory
[Joseph Schofer](#), Northwestern University

Current Research in Freight Planning and Logistics

Event 754

Tuesday 3:45 PM - 5:30 PM
Convention Center, Hall E
Poster | Practice Ready Paper

Crowdsourced Urban Package Delivery: Modeling Traveler Willingness to Work as Crowdshippers

[John Miller](#), Northwestern University
[Yu Nie](#), Northwestern University

Emerging Methods Subcommittee, ADB40(1)

Tuesday 6:00 PM - 7:30 PM
Marriott Marquis, Monument (M4)

Aruna Sivakumar, Imperial College London, presiding
[Amanda Stathopoulos](#), Northwestern University, presiding

Traffic Modeling and Traffic Control

Event 767

Tuesday 6:00 PM - 7:30 PM
Convention Center, 101
Lectern

Investigating the Effects of Reserved Lanes for Autonomous Vehicles on Congestion and Travel Time Reliability

Alireza Talebpour, Texas A&M University
[Hani Mahmassani](#), Northwestern University
[Amr Elfar](#), Northwestern University



WEDNESDAY, JANUARY 11, 2017

Transportation Planning Applications

Event 780

Wednesday 8:00 AM - 9:45 AM

Convention Center, Hall E

Poster | Practice Ready Paper

Taxonomy of Shared Autonomous Vehicle Fleet Management Problems to Inform Future Transportation Mobility

[Michael Hyland](#), Northwestern University

[Hani Mahmassani](#), Northwestern University

Highway Safety Performance

Event 802

Wednesday 8:00 AM - 9:45 AM

Convention Center, Hall E

Poster | Practice Ready Paper

Modeling the Safety Effects of Red-Light Camera Enforcement with Spillover Effects

Omer Verbas, Argonne National Laboratory

[Hani Mahmassani](#), Northwestern University

[Amr Elfar](#), Northwestern University

[Archak Mittal](#), Northwestern University

[Marija Ostojic](#), Northwestern University

Transportation Network Modeling

Event 827

Wednesday 10:15 AM - 12:00 PM

Convention Center, Hall E

Poster | Practice Ready Paper

Demand-Adaptive Paired-Line Hybrid Transit System with Radial Route Structure

[Peng Chen](#), Northwestern University

[Yu Nie](#), Northwestern University

Dynamic Predictive Strategies for Urban Snowplow Routing

[Xiang Xu](#), Northwestern University

[Hani Mahmassani](#), Northwestern University

[Zihan Hong](#), Northwestern University

Roemer Alfelor, Federal Highway Administration (FHWA)



Effectiveness of Predictive Weather-Related ATDM Strategies for Network Management Perspective

[Zihan Hong](#), Northwestern University
[Hani Mahmassani](#), Northwestern University
[Xiang Xu](#), Northwestern University
[Archak Mittal](#), Northwestern University
[Ying Chen](#), Northwestern University
[Hooram Halat](#), Northwestern University
Roemer Alfelor, Federal Highway Administration (FHWA)

Characterization of Trip-Level Pace Variability Based on Taxi GPS Trajectory Data

He Ma, Tsinghua University
Huapu Lu, Tsinghua University
[Amanda Stathopoulos](#), Northwestern University
[Yu Nie](#), Northwestern University

Dynamic Equilibrium-Free Model for Monitoring Signalized Urban Networks Based on Discrete-Time Optimal Control Formulation

Loukas Dimitriou, University of Cyprus
[Athanasios Ziliaskopoulos](#), Northwestern University

Travel Behavior and Route Choice

Event 828

Wednesday 10:15 AM - 12:00 PM

Convention Center, Hall E
Poster | AICP Certification

Activity Scheduling and Travel Choices in a Dynamic Network: Equilibrium Concept and Properties of ABM-DTA Integrated Model Framework

[Hooram Halat](#), Northwestern University
[Hani Mahmassani](#), Northwestern University
Ali Zockaie, Michigan State University

New Algorithm for Most Likely Path Flow Solution in Traffic Assignment

Jun Xie, Shanghai Jiao Tong University
[Yu Nie](#), Northwestern University

Heuristic Approach to Estimate Travel Costs on Least Generalized Cost Paths for Heterogeneous Users in Integrated ABM-DTA on Large-Scale Networks

[Xiang Xu](#), Northwestern University
Fateme Fakharmoosavi, Michigan State University
[Hani Mahmassani](#), Northwestern University
Ali Zockaie, Michigan State University

Transportation Demand Forecasting Poster Mega-session, Part 1 (Part 2, Session 830)

Event 829

Wednesday 10:15 AM - 12:00 PM

Convention Center, Hall E
Poster | Practice Ready Paper



Exploratory Analysis of Crowdsourced Delivery Service Through a Stated Preference Experiment

[Aymeric Punel](#), Northwestern University

[Amanda Stathopoulos](#), Northwestern University

Transforming Approaches to Address Transformative Mobility

Event 868

Wednesday 2:30 PM - 4:00 PM

Convention Center, 145A

Lectern | AICP Certification | Practice Ready Paper

[Amanda Stathopoulos](#), Northwestern University, presiding

THURSDAY, JANUARY 12, 2017

Active Transportation Operation and Demand Management in Connected and Automated Traffic Systems: Data Collection and Analytics, Modeling, and Control

Workshop 898

Thursday 8:00 AM - 12:00 PM

Convention Center, 101

Workshop

Network Flow Modeling, Simulation, Calibration and Validation in the Era of ATDM and CAV Technologies

[Hani Mahmassani](#), Northwestern University