



# **Guide to NUTC Projects, Presenters, and Presiders**

Transportation Research Board  
2016 Annual Meeting  
January 10-14, 2016 | Washington, D.C.

# Sunday, January 10, 2016

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Workshop 113

**Young People's Life Choices and Travel Behavior**

9:00 AM – 12:00 PM

Convention Center, 146B

**NUTC Presenter: Hani Mahmassani**

Title: "I'm Too Old for This: Technology Engagement and Cohort Effects in Forecasting Activity and Travel Choices"

Workshop 149

**Breaking News: How We Can Help Journalists Tell the Transportation Story**

1:30 PM – 4:30 PM

Convention Center, 152B

**NUTC President: Joseph Schofer**

Workshop 181

**Transportation System Simulation Manual**

1:30 PM – 4:30 PM

Convention Center, 102A

**NUTC Presenter: Hani Mahmassani**

Title: "Content Considerations"

# Monday, January 11, 2016

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Session 221

## **Crowd Dynamics: Empirical Analyses, Modeling, Simulation, and Management**

8:00 AM – 9:45 AM

Convention Center, 103B

**NUTC Presenters: Lama Bou Mjahed, Hani Mahmassani, Alireza Talebpour (alum)**

Title: “Directional Analysis of Pedestrian Flow”

## **Special Task Force on Data for Decisions and Performance Measures**

8:00 AM – 12:00 PM

Marriott Marquis, Liberty N (M4)

**NUTC President: Joseph Schofer**

Session 249

## **Freeway Operations**

8:30 AM – 10:15 AM

Convention Center, Hall E

**NUTC Presenters: Amr Elfar, Hani Mahmassani, Alireza Talebpour (alum)**

Title: “Analyzing Queue Warning in a Connected Environment: Microsimulation Approach”

Session 260

## **Advanced Clustering and Optimization Tools for Traffic Operation and Control Applications**

10:15 AM – 12:00 PM

Convention Center, 151A

**NUTC Presenters: Zihan Hong, Hani Mahmassani**

Title: “Network Topology Aware Moving Object Trajectory Clustering”

Session 263

## **Social Networks, Crowdsourced Data, and Activity-Travel Choices**

10:15 AM – 12:00 PM

Convention Center, 156

**NUTC Presenters: Ying Chen, Hani Mahmassani**

Title: “Exploring Activity and Destination Choice Behavior in Two Metropolitan Areas Using Social Networking Data”

Session 265

**Modeling the Demand for New Mobility Concepts and Services**

10:15 AM – 12:00 PM

Convention Center, 145A

**NUTC President: Amanda Stathopoulos**

**NUTC Presenters: Michael Hyland, Hani Mahmassani, Charlotte Frei (alum)**

Title: “Assessing Potential for Demand-Adaptive Transit via Stated-Preference Choice Survey”

**Emerging Methods Subcommittee, ADB40(1)**

1:30 PM – 3:15 PM

Marriott Marquis, Independence H (M4)

**NUTC President: Amanda Stathopoulos**

Session 338

**Data Science in Transportaiton**

1:30 PM – 3:15 PM

Convention Center, 145A

**NUTC Presenter: Joseph Schofer**

Title: “Synthesis of Opportunities at Interface of Data Science and Transportation”

Session 414

**Integrated Traffic Flow Models and Analysis for Connected Automated Vehicles**

3:45 PM – 5:30 PM

Convention Center, 101

**NUTC Presenters: Fabian Bustamante, Hani Mahmassani, Alireza Talebpour (alum)**

Title: “Modeling Driver Behavior in a Connected Environment: Integrated Microscopic Simulation of Traffic and Mobile Wireless Telecommunication Systems”

Session 426

**Advancing Freight Fluidity: Report from Fluidity Workshop and FHWA Implementation Plan**

3:45 PM – 5:30 PM

Convention Center, 143A

**NUTC Presenter: Joseph Schofer**

Title: “Key Points from Freight Fluidity Workshop”

Session 438

**Current Issues in Transportation and Air Quality**

4:15 PM – 6:00 PM

Convention Center, Hall E

**NUTC Presenter: Yu (Marco) Nie**

Title: “Understanding Truck-Related Greenhouse Gas Emissions in Urban Logistics Networks”

**Thomas B. Deen Distinguished Lecture**

6:00 PM – 7:15 PM

Convention Center, 146C

**NUTC Presenter: Hani Mahmassani (Deen Distinguished Lecturer)**

Title: “Micro Models and Mega Data: Taming Complexity for Deep Insight and Robust Decisions”

# Tuesday, January 12, 2016

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Session 485

## **Traffic Network Management**

8:00 AM – 9:45 AM

Convention Center, 146B

**NUTC Presenters: Hani Mahmassani, Ali Zockaie (alum), Jiwon Kim (alum)**

Title: “Network-wide Time-dependent Link Travel Time Distributions with Temporal Spatial Correlations”

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**NUTC Presenters: Hani Mahmassani, Yu (Marco) Nie, Ali Zockaie (alum)**

Title: “Path Finding in Stochastic Time Varying Networks with Spatial and Temporal Correlations for Heterogeneous Travelers”

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**NUTC Presenters: Ying Chen, Zihan Hong, Hani Mahmassani**

Title: “Weighted Cluster Analysis for Operational Scenario Definition in Traffic Management Applications”

Session 524

## **TDM at Work and Play: From Theory to Practice**

8:30 AM – 10:15 AM

Convention Center, Hall C

**NUTC Presenter: Yu (Marco) Nie**

Title: “On the Design of Tradable Mobility Credit Strategies”

Session 528

## **Current Issues in Transportation Energy and Climate Change**

8:30 AM – 10:15 AM

Convention Center, Hall E

**NUTC Presenters: Yu (Marco) Nie, Mehrnaz Ghamami (alum), Ali Zockaie (alum)**

Title: “A General Corridor Model for Designing Plug-in Electric Vehicle Charging Infrastructure to Support Intercity Travel”

Session 589

## **Traffic Flow Theory and Characteristics, Part 3 (23)**

10:45 AM – 12:30 PM

Convention Center, Hall E

**NUTC Presenters: Ömer Verbas, Hani Mahmassani, Amr Elfar**

Title: “Integrated Optimization and Simulation Framework for Large-Scale Crowd Management Application”

**Development of Freight Fluidity Performance Measures Task Force**

1:30 PM – 3:15 PM

Marriott Marquis, Woodley Park (M3)

**NUTC President: Joseph Schofer**

Session 620

**Advances in Modeling and Traffic Management for Large-Scale Urban Networks**

1:30 PM – 3:15 PM

Convention Center, Salon C

**NUTC President: Hani Mahmassani**

Session 660

**Emerging and Innovative Topics in Public Transport**

2:00 PM – 3:45 PM

Convention Center, Hall E

**NUTC Presenters: Zihan Hong, Archak Mittal, Hani Mahmassani**

Title: “Effect of Bicycle-sharing on Public Transport Accessibility: Application to Chicago Divvy Bicycle-sharing System”

Session 661

**Exploring Market Demand for Ridesharing and Shared Automated Vehicles**

2:00 PM – 3:45 PM

Convention Center, Hall E

**NUTC Presenters: Zihan Hong, Ying Chen, Hani Mahmassani**

Title: “Spatial Trajectory Clustering for Potential Route Identification and Participation Analysis for Carpool Commuters”

Session 710

**Critical Transportation Infrastructure Protection and Resilience**

2:00 PM – 3:45 PM

Convention Center, Hall E

**NUTC Presenters: Joseph Schofer, Pablo Durango-Cohen, Raymond Chan**

Title: “Dynamic Learning Process for Selecting Storm Protection Investments”

Session 675

**MAP-21 and Beyond in Transportation Performance Management**

3:45 PM – 5:30 PM

**NUTC Presenter: Joseph Schofer**

Title: “Managing for Performance: Highlights of 5<sup>th</sup> International Transportation Systems Performance Measurement and Data Conference”

Session 683

**Solutions to Urban Network Problems**

3:45 PM – 5:30 PM

Convention Center, 146B

**NUTC Presenters: Yu (Marco) Nie, Peng Chen**

Title: “A Demand Adaptive Paired-Line Hybrid Transit System”

Session 734

**Current Research on Freight Rail Transportation**

4:15 PM – 6:00 PM

Convention Center, Hall E

**NUTC Presenters: Hani Mahmassani, Michael Hyland, Lama Bou Mjahed**

Title: “Analytical Models of Rail Transportation Service in the Grain Supply Chain:  
Deconstructing the Operational Advantages of Shuttle Train Service”



# Wednesday, January 13, 2016

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Session 785

## **Travel Demand Models R Us**

8:30 AM – 10:15 AM

Convention Center, Hall E

**NUTC Presenters: Hani Mahmassani, Ömer Verbas, Hooram Halat, Xiang Xu, Ali Zockaie (alum)**

Title: “Dynamic Network Equilibrium for Daily Activity-Trip Chains of Heterogeneous Travelers: Application to Large-Scale Networks”

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**NUTC Presenters: Hani Mahmassani, Ömer Verbas, Michael Hyland, Hooram Halat**

Title: “Integrated Mode Choice and Dynamic Traveler Assignment in Multimodal Transit Networks: Mathematical Formulation, Solution Procedure, and Large-Scale Application”

Session 855

## **Transportation Network Modeling**

2:45 PM – 4:30 PM

Convention Center, Hall E

**NUTC Presenters: Hani Mahmassani, Ali Zockaie (alum), Jiwon Kim (alum)**

Title: “Network-wide Time-dependent Link Travel Time Distributions with Temporal and Spatial Correlations”

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**NUTC Presenters: Ying Chen, Zihan Hong, Hani Mahmassani**

Title: “Weighted Cluster Analysis for Operational Scenario Definition in Traffic Management Applications”

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**NUTC Presenters: Hani Mahmassani, Yu (Marco) Nie, Ali Zockaie (alum)**

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Title: “A Demand Adaptive Paired-Line Hybrid Transit System”