

Data for Decision Making Committee

Monday, January 10 Joseph Schofer, Northwestern University, presiding
8:00 AM- Susan Martinovich, HNTB Corporation, presiding
9:30 AM ET Data and Information Technology (AJE70)

[More Details](#)

Lectern Session 1089

Monday, January 10 **Innovative Research in Freight and Marine Systems Lightning Hybrid Session**

Shannon McLeod, WSP, presiding

10:30 AM- *Lectern*

12:00 PM ET Environment, Freight Transportation, Marine Transportation (AW010 AT020 AT045)

[More Details](#)

Resilience of Rail Intermodal Freight during the Covid-19 Pandemic

(TRBAM-22-01859)

Joseph Schofer, Northwestern University

Hani Mahmassani, Northwestern University

Max Ng, Northwestern University

Poster Session 1104

Monday, January 10 **Poster Session: Emerging Research on Shared Vehicle Services**

10:30 AM- Jean Ruestman, Michigan Department of Transportation, presiding

12:00 PM ET *Poster*

Policy, Public Transportation, Research (about research) (AP020 AP020 AP020(3))

[More Details](#)

An agent-based simulation tool for ride-hail service design

(TRBAM-22-02026)

Kenan Zhang, Northwestern University

Archak Mittal, Ford Motor Company

Shadi Djavadian, Ford Motor Company

Richard Twumasi-Boakye, Ford Motor Company

Yu Nie, Northwestern University

Does Taxing TNC Trips Discourage Solo Riders and Increase the

Demand for Ride Pooling? A Case Study of Chicago Using

Interrupted Time Series and Bayesian Hierarchical Modeling

(TRBAM-22-03258)

Hoseb Abkarian, Northwestern University

Sharika Hegde, Northwestern University

Hani Mahmassani, Northwestern University

Monday,
January 10
10:30 AM-
12:00 PM ET

Poster Session 1109

Innovations in Freight Rail Transportation

Anthony Klaumann, HDR, presiding

Poster

Freight Transportation, Operations and Traffic Management, Rail

[More Details](#)

How Well did Rail and Intermodal Freight Respond to the COVID-19 Pandemic vs. the Great Recession? (TRBAM-22-00397)

Max Ng, Northwestern University

Joseph Schofer, Northwestern University

Hani Mahmassani, Northwestern University

Econometric Analysis of Pandemic Disruption and Recovery Trajectory in the Rail Freight Industry (TRBAM-22-01289)

Max Ng, Northwestern University

Hani Mahmassani, Northwestern University

Joseph Schofer, Northwestern University

Monday,
January 10
4:00 PM-
5:30 PM ET

Poster Session 1177

AR040

Advances in Understanding About Bicycle Safety, Modeling, and Behavior

Cong Chen, University of South Florida, presiding

Poster

Pedestrians and Bicyclists (ACH20)

[More Details](#)

Characterizing the Nature of the COVID-19 Bike Boom

(TRBAM-22-02412)

Adrian Hernandez, Northwestern University

Meredith Raymer, Northwestern University

Ying Chen, Northwestern University

Monday, January 10
4:00 PM-
5:30 PM ET

Poster Session 1181

Emerging Methods in Travel Demand

Amanda Stathopoulos, Northwestern University, presiding

Poster

Planning and Forecasting (AEP50)

[More Details](#)

Monday,
January 10
7:30 PM-
10:00 PM ET

Emerging Methods Subcommittee, AEP50(1)

Amanda Stathopoulos, Northwestern University, presiding

Taha Hossein Rashidi, UNSW: University of New South Wales, presiding

Planning and Forecasting (AEP50 AEP50(1))

[More Details](#)

Poster Session 1216

Intelligent Transportation Systems 2022, Part 1 (Part 2, Session 1264)

Poster

Tuesday,
January 11
8:00 AM-
9:30 AM ET

Operations and Traffic Management (ACP15)

[More Details](#)

Predictive Speed Harmonization Using Machine Learning in Traffic Flow with Connected and Automated Vehicles (TRBAM-22-04397)

Amr Elfar, Bain & Company

Alireza Talebpour, University of Illinois at Urbana-Champaign

Hani Mahmassani, Northwestern University

Lectern Session 1249

Network Models in the Era of Autonomy and Connectivity

Yanfeng Ouyang, University of Illinois at Urbana-Champaign, presiding

Lectern | AICP Certification

Tuesday,
January 11
10:30 AM-
12:00 PM ET

Planning and Forecasting (AEP40)

[More Details](#)

Lightning Presentation: Autonomous Minibus Service with Semi-on-demand Routes in Grid Networks (P22-20529)

Max Ng, Northwestern University

Hani Mahmassani, Northwestern University

New Users of Shared Airspace Committee

Daniel Friedenzohn, Embry Riddle Aeronautical University, presiding
Aviation (AV095)

Tuesday, January
11
1:30 PM-
3:00 PM ET

[More Details](#)

Factors Impacting Demand Consolidation in Urban Air Taxi Operation (TRBAM-22-02678)

Haleh Sadat Ale-Ahmad, Northwestern University

Hani Mahmassani, Northwestern University

Poster Session 1306

Behavior and Choices in Transportation Networks

Tuesday, January 11 Yanfeng Ouyang, University of Illinois at Urbana-Champaign, presiding
1:30 PM-
3:00 PM ET *Poster*
Planning and Forecasting (AEP40 AEP30 AEP30(2))

[More Details](#)

**APPROXIMATE A PRIORI PATH FINDING FOR MULTIPLE
RELIABILITY OBJECTIVES IN STOCHASTIC DYNAMIC**

NETWORKS WITH CORRELATIONS (TRBAM-22-01800)

Monika Filipovska, University of Connecticut

Hani Mahmassani, Northwestern University

Poster Session 1307

Tuesday, January 11

1:30 PM-

3:00 PM ET

Network Design Under Equilibrium

Yanfeng Ouyang, University of Illinois at Urbana-Champaign, presiding

Poster

Planning and Forecasting (AEP40)

[More Details](#)

Integrating Machine Learning Models for Traffic State Prediction in Online Simulation-based Dynamic Traffic Assignment System

Applications (TRBAM-22-03933)

Eunhye Kim, Northwestern University

Hani Mahmassani, Northwestern University

Poster Session 1308

Tuesday, January 11

1:30 PM-

3:00 PM ET

Emerging Mobility Services in Transportation Networks

Yanfeng Ouyang, University of Illinois at Urbana-Champaign, presiding

Poster

Planning and Forecasting, Public Transportation (AEP40)

[More Details](#)

Modeling the Mixed-service Fleet Problem of Shared-use Autonomous Mobility Systems for On-Demand Ridesourcing and Carsharing with Reservations (TRBAM-22-03220)

Hoseb Abkarian, Northwestern University

Hani Mahmassani, Northwestern University

Michael Hyland, University of California, Irvine

Autonomous Minibus Service with Semi-on-demand Routes in Grid Networks (TRBAM-22-04507)

Max Ng, Northwestern University

Hani Mahmassani, Northwestern University

Poster Session 1341

The Length and Breadth of Statewide and National Transportation Data

Tuesday, January 11

4:00 PM-

5:30 PM ET

Penelope Weinberger, American Association of State Highway and Transportation Officials (AASHTO), presiding

Poster

Data and Information Technology (AED10)

[More Details](#)

Accelerating the Adoption of Disruptive Technologies: The Impact of COVID-19 on Intention to Use Self-Driving Vehicles

(TRBAM-22-04210)

Maher Said, Northwestern University

Emma Zajdela, Northwestern University

Amanda Stathopoulos, Northwestern University

Airfield and Airspace Performance Committee

Yu Zhang, University of South Florida, presiding

Aviation, Operations and Traffic Management (AV060)

Tuesday, January 12 [More Details](#)

8:00 AM-

9:30 AM ET

ACRP Student Paper: Air Traffic Flow Models for Varying Airspace Structures and Heading Ranges (TRBAM-22-01374)

Christopher Cummings, Northwestern University

Hani Mahmassani, Northwestern University

Poster Session 1368

Sharing Is Caring: Recent Research on Bikeshare, E-Scooters, and Micromobility

Carl Sundstrom, New York City Department of Transportation, presiding

Poster

Wednesday, January 12 Pedestrians and Bicyclists (ACH20)

8:00 AM-

9:30 AM ET

How Many Are Too Many? Analyzing Dockless Bikesharing Systems with a Parsimonious Model (TRBAM-22-01935)

Hongyu Zheng, Northwestern University

Kenan Zhang, Northwestern University

Yu Nie, Northwestern University

Poster Session 1371

Traffic Flow Theory, Part 4: Intelligent Transportation Systems and Network Optimization (Part 1, Session 1093; Part 2, Session 1178; Part 3, Session 1337)

Vikash Gayah, Pennsylvania State University, University Park, presiding

Poster

Wednesday, January

12

8:00 AM-

9:30 AM ET

Operations and Traffic Management (ACP50)

[More Details](#)

A Game-Theoretic Approach to Ride-Hail Vehicle Routing

(TRBAM-22-01312)

Kenan Zhang, Northwestern University

Archak Mittal, Ford Motor Company

Shadi Djavadian, Ford Motor Company
Richard Twumasi-Boakye, Ford Motor Company
Yu Nie, Northwestern University

Poster Session 1374

Wednesday, January
12
8:00 AM-
9:30 AM ET

Impacts of the COVID-19 Pandemic on Activities and Travel
Mahmudur Fatmi, The University of British Columbia, presiding
Poster
Planning and Forecasting, Policy (AEP35)
[More Details](#)

Characterizing Ride-hailing Driver Attrition and Supply in the City of Chicago through the COVID-19 Pandemic (TRBAM-22-03135)

Sharika Hegde, Northwestern University
Hoseb Abkarian, Northwestern University
Hani Mahmassani, Northwestern University

Latent Transition Analysis of Consumer Spending Behavior and Adaptation Across

Online and In-Person Channels Through the Pandemic (TRBAM-22-04185)

Divyakant Tahlyan, Northwestern University
Maher Said, Northwestern University
Hani Mahmassani, Northwestern University
Amanda Stathopoulos, Northwestern University
Joan Walker, University of California, Berkeley
Susan Shaheen, University of California, Berkeley

Poster Session 1387

Simulation, Human Behavior, and Infrastructure for Evacuations

Xianfeng Yang, University of Utah, presiding
Diana Herriman, FEMA, presiding

Poster

Wednesday,
January 12
8:00 AM-
9:30 AM ET

Security and Emergencies, Transportation, General, Safety and Human Factors (AMR20)

[More Details](#)

Protection or Peril of Following the Crowd in a Pandemic-Concurrent Flood Evacuation (TRBAM-22-02296)

Elisa Borowski, Northwestern University
Amanda Stathopoulos, Northwestern University

Wednesday,
January 12
8:00 AM-
9:30 AM ET

Poster Session 1388

Managing Your Transit Network

Konstantinos Gkiotsalitis, University of Twente, presiding
Siew Hoon Lim, North Dakota State University, presiding

Poster

Planning and Forecasting, Public Transportation (AP010)

[More Details](#)

Bus Transit Automation: Conceptual Framework for Technology Deployment and System-Level Impacts (TRBAM-22-03043)

Adrian Hernandez, Northwestern University

Hani Mahmassani, Northwestern University

Lectern Session 1394

Global Overview of Recent Advances in Traffic Flow Theory Ludovic Leclercq,
Universite Gustave Eiffel, presiding

Lectern

Wednesday, Operations and Traffic Management (ACP50)

January 12

10:30 AM-

12:00 PM ET

[More Details](#)

**Measuring the Impact of Air Traffic Flow Restrictions using 4-D System
Fundamental Diagrams for Urban Air Mobility**
(TRBAM-22-03816)

Christopher Cummings, Northwestern University

Hani Mahmassani, Northwestern University

Lectern Session 1396

**Information and Communications Technology, Telework, and the COVID-19
Pandemic**

Venu Garikapati, National Renewable Energy Laboratory (NREL), presiding

Lectern | AICP Certification

Planning and Forecasting (AEP35)

[More Details](#)

Wednesday,

January 12

10:30 AM-

12:00 PM ET

**For Whom Did Telework Not Work During the Pandemic? Understanding the
Factors Impacting Telework Satisfaction Using a Multiple Indicator Multiple Cause
(MIMIC) Model** (TRBAM-22-03111)

Divyakant Tahlyan, Northwestern University

Maher Said, Northwestern University

Hani Mahmassani, Northwestern University

Amanda Stathopoulos, Northwestern University

Joan Walker, University of California, Berkeley

Susan Shaheen, University of California, Berkeley

Lectern Session 1403

Wednesday,

January 12

**Transit, Accessibility, and Vulnerability During the COVID-19
Pandemic**

10:30 AM-
12:00 PM ET Veronica Murphy, New Jersey Department of Transportation, presiding
Lectern | AICP Certification
Public Transportation, Society, Transportation, General (AME80)
[More Details](#)

Changes in Social Support Networks Across Physical and Virtual Spaces During the COVID-19 Pandemic: Exploring the Experiences of Youth and Marginalized Populations (TRBAM-22-03651)
Elisa Borowski, Northwestern University
Amanda Stathopoulos, Northwestern University

Wednesday,
January 12
4:00 PM-
5:30 PM ET Lectern Session 1421
Data-Driven Infrastructure Investment Decision Making
Joseph Schofer, Northwestern University, presiding
Lectern | Spotlight Theme
Data and Information Technology, Spotlight Theme: Innovating an Equitable, Resilient, Sustainable, and Safe Transportation System (AJE70)
[More Details](#)

Thursday,
January 13
9:00 AM-
12:00 PM ET Workshop 1433
Virtual Activities, Travel Behavior, and Demand Management in a Post-Pandemic Era
Giovanni Circella, University of California, Davis, presiding
Ipek Sener, Texas A&M Transportation Institute, presiding
Md Sami Hasnine, Howard University, presiding
Khandker Nurul Habib, University of Toronto, presiding
Workshop | Spotlight Theme | AICP Certification
Planning and Forecasting, Spotlight Theme: Innovating an Equitable, Resilient, Sustainable, and Safe Transportation System (AEP35 AEP30 AEP60)
[More Details](#)

Panel Discussion: The COVID-19 Pandemic and the Future of Mobility
Chandra Bhat, University of Texas, Austin
Hani Mahmassani, Northwestern University
Yoram Shifan, Technion Israel Institute of Technology
Shin-pei Tsay, Uber Technologies, Inc.
Lisa Snapp, U.S. Environmental Protection Agency (EPA)