Workshop 1043
**Data Science Meets Statistical Modeling: A Future Research Agenda for Analysis Using Integrated Data and Methods**
Amanda Stathopoulos, Northwestern University, presiding

Sunday, January 8
1:30 PM- 4:30 PM ET
Workshop | AICP Certification | PDH
Data and Information Technology
More Details

**Data-science Meets Statistical Modeling: Critical Research Questions** (P23-21137)
Amanda Stathopoulos, Northwestern University

Emerging Methods Subcommittee, AEP50(1)
**Amanda Stathopoulos**, Northwestern University, presiding
Taha Rashidi, University of New South Wales, presiding
Naveen Eluru, University of Central Florida, presiding

Monday, January 9
8:00 AM- 9:45 AM ET
Planning and Forecasting
More Details

Lectern Session 2008
**Transportation Networks for Autonomous, Connected, and Electrified Vehicles**
Yang Liu, National University of Singapore, presiding
Lectern | Spotlight Theme | AICP Certification | PDH
Data and Information Technology, Vehicles and Equipment, Spotlight Theme: Rejuvenation Out of Disruption: Envisioning a Transportation System for a Dynamic Future
More Details

**Reinforcement Learning for Dynamic Pricing of Shared-Use Autonomous Mobility Systems Considering Heterogeneous Users: Model Development and Scenario Testing** (TRBAM-23-04326)
Hoseb Abkarian, Northwestern University
Hani Mahmassani, Northwestern University

Poster Session 2053
**Building Resilient and Sustainable Communities**
Veronica Murphy, New Jersey Department of Transportation, presiding
Poster
Environment, Society, Transportation, General
More Details

**Third Place Closure Impacts on Social Connection and Mental Health Outcomes for Marginalized Young Adults in the COVID-19 Pandemic** (TRBAM-23-03112, A321)
Elisa Borowski, Northwestern University
Amanda Stathopoulos, Northwestern University
Monday, January 09
8:00 AM-9:45 AM ET
Poster Session 2057
Current Research in Rail Freight Transportation
Guang Tian, University of New Orleans, presiding
Poster
Freight Transportation, Rail (AR040)
More Details

Optimal Payload Problem with Energy Storage Tender Cars for Freight Rail Decarbonization (TRBAM-23-02789, B510)
Max Ng, Northwestern University
Adrian Hernandez, Northwestern University
Pablo Durango-Cohen, Northwestern University
Hani Mahmassani, Northwestern University

Monday, January 09
10:15 AM-12:00 PM ET
Lectern Session 2067
Lasting Impacts of Pandemic Disruptions on Travel Behavior
Ramin Shabanpour, University of North Florida, presiding
Lectern / Spotlight Theme / AICP Certification / PDH
Planning and Forecasting, Transportation, General, Spotlight Theme: Rejuvenation Out of Disruption: Envisioning a Transportation System for a Dynamic Future (AEP30)
More Details

Travel Behavior After a COVID-19 Lockdown in Tel Aviv, Israel: Traditional Commute Versus Microtransit (TRBAM-23-00359)
Jason Soria, Georgia Institute of Technology (Georgia Tech)
Shelly Etzioni, Technion Israel Institute of Technology
Yoram Shiftan, Technion Israel Institute of Technology
Amanda Stathopoulos, Northwestern University
Eran Ben-Elia, Ben-Gurion University of the Negev

Monday, January 09
1:30 PM-3:15 PM ET
Poster Session 2152
Mega Poster Session on Transportation Network Modeling
Yanfeng Ouyang, University of Illinois, Urbana-Champaign, presiding
Poster
Planning and Forecasting, Data and Information Technology (AEP40)
More Details

A game theoretic approach to third-party integration of ride-hail service (TRBAM-23-03303, A291)
Ruijie Li, Southwest Jiaotong University
Yang Liu, National University of Singapore
Xiaobo Liu, Southwest Jiaotong University
Yu Nie, Northwestern University

Convergence of Multi-Agent Multi-Armed Bandit Algorithms in Routing Games: a numerical study (TRBAM-23-04627,A310)
Qianni Wang, Northwestern University
Tianxing Dai, Northwestern University
Ziyu Qiu, Northwestern University
Jiayang Li, Northwestern University
Yu Nie, Northwestern University

FASTER CONVERGENCE OF INTEGRATED ACTIVITY-BASED MODELS IN DYNAMIC MULTIMODAL TRANSIT ASSIGNMENT USING MACROSCOPIC ROAD CONGESTION ESTIMATION (TRBAM-23-05122, A330)
Yuhan Zhou, Northwestern University
Hani Mahmassani, Northwestern University

Monday, January 09
3:45 PM- 5:30 PM ET
Data for Decision-Making Committee
Joseph Schofer, Northwestern University, presiding
Susan Martinovich, HNTB Corporation, presiding
Data and Information Technology (AJE70)
More Details

Poster Session 2214
Factors Impacting Transit Ridership and Mode Choice
Allison Davis, Washington Metropolitan Area Transit Authority, presiding
Lectern | AICP Certification | PDH
Planning and Forecasting, Public Transportation (AMS10)

Monday, January 09
3:45 PM- 5:30 PM ET
Evaluation of Rail Decarbonization Alternatives: Framework and Application (TRBAM-23-02503, B608)
Adrian Hernandez, Northwestern University
Max Ng, Northwestern University
Choudhury Siddique, Argonne National Laboratory
Pablo Durango-Cohen, Northwestern University
Amgad Elgowainy, Argonne National Laboratory
Hani Mahmassani, Northwestern University
Michael Wang, Argonne National Laboratory
Yan Zhou, Argonne National Laboratory

Monday, January 09 Lectern Session 2224
6:00 PM- 7:30 PM ET
Factors Impacting Transit Ridership and Mode Choice
Allison Davis, Washington Metropolitan Area Transit Authority, presiding
Requiem for Transit Ridership? An Examination of Who Abandoned, Who Will Return, and Who Will Ride More with Mobility as a Service (TRBAM-23-00356)
Jason Soria, Georgia Institute of Technology (Georgia Tech)
Deirdre Edward, Northwestern University
Amanda Stathopoulos, Northwestern University

Tuesday, January 10
8:00 AM-9:45 AM ET
Lectern Session 3009
New Mobility Services: Strategy and Network Design
Baloka Belezamo, Arizona Department of Transportation, presiding

Design, Planning and Forecasting, Spotlight Theme: Rejuvenation Out of Disruption: Envisioning a Transportation System for a Dynamic Future (AEP40)

Accessibility-Based Ethics-Aware Transit Design (TRBAM-23-03286)
Tianxing Dai, Northwestern University
Jiayang Li, Northwestern University
Yu Nie, Northwestern University

Tuesday, January 10
8:00 AM-9:45 AM ET
Poster Session 3043
Information and Communication Technologies, Activity Participation, and Travel Choices
Ipek Nese Sener, Texas A&M Transportation Institute, presiding

Modeling the Effects of Telework on the Duration, Distance, and Time of Day of Out-of-Home Non-Work Activities (TRBAM-23-05159, B541)
Nadim Hamad, Northwestern University
Divyakant Tahlyan, Northwestern University
Maher Said, Northwestern University
Hani Mahmassani, Northwestern University
Amanda Stathopoulos, Northwestern University
Susan Shaheen, University of California, Berkeley
Joan Walker, University of California, Berkeley

In-Person, Hybrid or Remote? Employers’ Perspective on the Future of Work Post-Pandemic (TRBAM-23-05026, B542)
Divyakant Tahlyan, Northwestern University
Hani Mahmassani, Northwestern University
Maher Said, Northwestern University
Amanda Stathopoulos, Northwestern University
Susan Shaheen, University of California, Berkeley
Joan Walker, University of California, Berkeley
Breton Johnson, Northwestern University

**MODELING THE IMPACT OF SOCIAL NETWORKS ON DRIVERS’ ROUTE CHOICE BEHAVIOR** (TRBAM-23-01871, B582)
Hongfeng Liang, Northwestern University
Yiheng Qian, Northwestern University
Ying Chen, Northwestern University

**Poster Session 3052**
**Current Research Topics in Urban Freight Transportation**
Ivan Sanchez-Diaz, Chalmers University of Technology, presiding

Tuesday, January 10
8:00 AM - 9:45 AM ET
Poster
Freight Transportation, Terminals and Facilities (AT025)
[More Details]

**Robots at Your Doorstep? Acceptance of Near-Future Modes for Parcel Delivery** (TRBAM-23-04361, A232)
Maher Said, Northwestern University
Spencer Aeschliman, Northwestern University
Amanda Stathopoulos, Northwestern University

**Lectern Session 3059**
**Traffic Flow with Connected and Autonomous Vehicles: Behavioral Insights**
Rachel James, Federal Highway Administration (FHWA), presiding
Lectern | PDH
Operations and Traffic Management, Safety and Human Factors (ACP50)
[More Details]

**Introduction to the Third Generation Simulation (TGSIM) Dataset: Data Collection and Trajectory Extraction** (TRBAM-23-03535)
Rami Ammourah, University of Illinois, Urbana-Champaign
Pedram Beigi, GW: George Washington University
Bingyi Fan, Northwestern University
Samer Hamdar, George Washington University
Rachel James, Federal Highway Administration (FHWA)
Mohammdreza Khajeh-Hosseini, University of Illinois, Urbana-Champaign
Hani Mahmassani, Northwestern University
Dana Monzer, Northwestern University Transportation Center
Alireza Talebpour, University of Illinois, Urbana-Champaign
Tuesday, January 10
1:30 PM- 3:15 PM ET
Poster Session 3149
Transportation Safety Management Systems from Start to Finish
Frank Gross, VHB, presiding
Jaeyoung Lee, Central South University, presiding
Stephanie Malinoff, University of Minnesota, Twin Cities, presiding
Poster
Safety and Human Factors (ACS10)
Learn more about this committee in the TRB Online Directory.

Tuesday, January 10
1:30 PM-3:15 PM ET
Poster Session 3154
Advancing Electric and Autonomous Bus System Planning, Design, and Operation
Guillermo Calves, AECOM, presiding
Jennifer Frost, Dallas Area Rapid Transit (DART), presiding
Poster
Planning and Forecasting, Public Transportation, Vehicles and Equipment (AP050)

Tuesday, January 10
3:45 PM-5:30 PM ET
Lectern Session 3167
Remote Work, Work from Home, Telecommute: A New Era for Work Organization
Venu Garikapati, National Renewable Energy Laboratory (NREL), presiding
Lectern | Spotlight Theme | AICP Certification | PDH
Planning and Forecasting, Data and Information Technology, Spotlight Theme: Rejuvenation Out of Disruption: Envisioning a Transportation System for a Dynamic Future (AEP35)

Trajectories of Telework Through the Pandemic: Outlook and Implications for Cities (TRBAM-23-04664)

TOWARD BETTER DRIVER SAFETY: EMPOWERING PERSONAL NAVIGATION TECHNOLOGIES WITH ROAD SAFETY AWARENESS 3 4 (TRBAM-23-03541)
Runsheng Xu, University of California, Los Angeles
Shibo Zhang, Northwestern University
Peixi Xiong, Northwestern University
Allen Lin, Northwestern University
Jiaqi Ma, University of California, Los Angeles

City-wide Deployment of Autonomous Minibus Service with Semi-on-demand Routes in Grid Networks – Identification, Evaluation, and Simulation TRBAM-23-04859, B534)
Vasileios Volakakis, Northwestern University
Max Ng, Northwestern University
Hani Mahmassani, Northwestern University
Divyakant Tahlyan, Northwestern University
Maher Said, Northwestern University
Hani Mahmassani, Northwestern University
Amanda Stathopoulos, Northwestern University
Susan Shaheen, University of California, Berkeley
Joan Walker, University of California, Berkeley

Tuesday, January 10
3:45 PM-5:30 PM ET
Poster Session 3208
**Critical Infrastructure Protection**
Laurel Radow, FHWA (Retired), presiding
Sybil Derrible, University of Illinois, Chicago, presiding
Poster
Security and Emergencies, Bridges and Other Structures, Society (AMR10 AMR00)

More Details

Uncertainty in Vulnerability of Metro Transit Networks: A Global Perspective
(TRBAM-23-03936, B613)
Alireza Ermagun, George Mason University
Nazanin Tajik, Mississippi State University
Fatemeh Janatabadi, George Mason University
Hani Mahmassani, Northwestern University

Tuesday, January 10
3:45 PM-5:30 PM ET
Poster Session 3212
**Traffic Flow Theory, Part 2: Connected and Autonomous Vehicles (Part 1, Session 2096; Part 3, Session 3213; Part 4, Session 4027)**
Danjue Chen, University of Massachusetts, Lowell, presiding
Poster
Operations and Traffic Management (ACP50)

More Details

Formulation and Calibration of a Hybrid Car-Following Model for Automatic Cruise Controlled Cars In Actual Highway Traffic
(TRBAM-23-04567, B600)
Bingyi Fan, Northwestern University
Rami Ammourah, University of Illinois, Urbana-Champaign
Pedram Beigi, GW: George Washington University
Samer Hamdar, George Washington University
Hani Mahmassani, Northwestern University
Alireza Talebpour, University of Illinois, Urbana-Champaign

Highway Managed Lane Usage and Tolling for Mixed Traffic Flows with Connected Automated Vehicles (CAVs) and High-Occupancy Vehicles (HOVs)
(TRBAM-23-04725, B601)
Max Ng, Northwestern University
Hani Mahmassani, Northwestern University
Tuesday, January 10
6:00 PM-
7:30 PM ET

Poster Session 3213
Traffic Flow Theory, Part 3: Microscopic Traffic Models and Trajectory Analysis
(Part 1, Session 2096; Part 2, Session 3212; Part 4, Session 4027)
Biagio Ciuffo, JRC: European Commission Joint Research Centre, presiding
Poster
Operations and Traffic Management (ACP50)
More Details

From Videography to Traffic Analysis: Exploring the Heavy Vehicle Impact on Headway Distributions Using Extracted High Resolution Trajectory Data on a Washington, DC Expressway (TRBAM-23-04343, B635)
Pedram Beigi, GW: George Washington University
Samer Hamdar, George Washington University
Bingyi Fan, Northwestern University
Rami Ammourah, University of Illinois, Urbana-Champaign
Alireza Talebpour, University of Illinois, Urbana-Champaign
Hani Mahmassani, Northwestern University

Exploring the Relationship Between Lane Changing Behavior and Local Densities Using Vehicle Trajectories (TRBAM-23-05209, B636)
Sharika Hegde, Northwestern University
Hani Mahmassani, Northwestern University
Alireza Talebpour, University of Illinois, Urbana-Champaign
Samer Hamdar, George Washington University

Poster Session 3216
A Fresh Look at Crash Characteristics
Karen Dixon, Texas A&M Transportation Institute, presiding
Poster
Safety and Human Factors (ACS20)
More Details

Tuesday, January 10
6:00 PM-
7:30 PM ET

Examination of Factors Associated with Fault Status and Injury Severity in IntersectionRelated Rear-End Crashes: Application of Binary and Bivariate Ordered Probit Models (TRBAM-23-00132, B501)
Brendan Russo, Northern Arizona University
Fan Yu, Northwestern University
Edward Smaglik, Northern Arizona University

New Users of Shared Airspace Committee
Daniel Frieden Zohn, Embry Riddle Aeronautical University, presiding
Aviation (AV095)
More Details
Comparing Urban Air Mobility Network Airspaces: Experiments and Insights  
(TRBAM-23-04257)  
Christopher Cummings, Northwestern University  
Hani Mahmassani, Northwestern University

Poster Session 4033  
Enhancing Our Knowledge of Transportation as a Social Determinant of Health  
Ipek Nese Sener, Texas A&M Transportation Institute, presiding  
Poster  
Administration and Management (AME70)  
More Details

CAPACITY ANALYSIS OF THE GLOBAL COVID-19 VACCINE DISTRIBUTION PROCESS WITH ECONOMIC IMPACTS  
(TRBAM-23-03518, A122)  
Sharika Hegde, Northwestern University  
Max Ng, Northwestern University  
Marcos Rios, Northwestern University  
Hani Mahmassani, Northwestern University  
Karen Smilowitz, Northwestern University

Poster Session 4039  
Innovations in Freight Planning and Logistics Research  
Evangelos I. Kaisar, Florida Atlantic University, presiding  
Johan Visser, KIM Netherlands Institute for Transport Policy Analysis, presiding  
Poster  
Freight Transportation, Planning and Forecasting (AT015 AT015(1))  
More Details

An Autonomous Modular Vehicle Technology-based Mobility Service for Freight and Passenger Transportation  
(TRBAM-23-03315, A233)  
Kazuya Kawamura, University of Illinois, Chicago  
Jane Lin, University of Illinois, Chicago  
Yu Nie, Northwestern University

Lectern Session 4041  
Multimodal Traffic Flow Models  
Tamara Djukic, Aimsun, presiding  
Lectern | PDH  
Operations and Traffic Management (ACP50)  
More Details

An Area-Wide Network Fundamental Diagram for Bicycles  
(TRBAM-23-05190)  
Meredith Raymer, Northwestern University Transportation Center  
Hani Mahmassani, Northwestern University
Wednesday, January 11
10:15 AM-12:00 PM ET

Poster Session 4063
Information Systems and Technology
Guohui Zhang, University of Hawai‘i, Manoa, presiding

Poster
Data and Information Technology (AED30)

AN OPTIMIZATION APPROACH TO DESIGN BIKE-SHARING STATION UNDER UNCERTAINTY (TRBAM-23-04775, A272)
Tianxing Dai, Northwestern University
Qianni Wang, Northwestern University
Ziyu Qiu, Northwestern University
Ying Chen, Northwestern University

Thursday, January 12
9:00 AM-12:00 PM ET

Workshop 5005
Moving Toward a New Normal: Behavioral Transitions and Their Impacts on Travel in the Post-Pandemic Era
MD Sami Hasnine, Howard University, presiding
Giovanni Circella, Ghent University and University of California, Davis, presiding
Ipek Nese Sener, Texas A&M Transportation Institute, presiding

Planning and Forecasting (AEP60 AEP15 AEP30 AEP35 AEP40)

Shaping the Future of Work: Business and Employee Perspectives (P23-20562)
Amanda Stathopoulos, Northwestern University