

# GUIDE TO TRB 2018

A comprehensive guide to where NITC researchers will be at TRB.

P = Poster Session | L = Lecture | W = Workshop | C = Committee | \* = Student

*Accurate at time of creation, please check TRB's online guide for up-to-date times.*

	Time	#	Room	Session	Presentation	Researchers	University
Sun, Jan 7	1:30 PM-4:30 PM	W - 153	151B	Big Data Applications and Methods in Transportation	(Presiding)	Kristin Tufte	Portland State University
	1:30 PM-4:30 PM	W - 148	143A	Disruptive Technologies: Impacts on Transportation Revenues	Impacts of Autonomous Vehicles and E-Commerce on Local Government Budgeting and Finance	Nico Larco	University of Oregon
	8:00 AM-12:00 PM	C	Marriott Salon 5	Intelligent Transportation Systems Committee	(Presiding)	Larry Head	University of Arizona
Monday, Jan 8	8:00 AM-9:45 AM	P - 255	Hall E	Advances in Urban Freight Transportation Research and Practices	Are Commercial Vehicle Double Park Fines Economically Rational?	Miguel Figliozzi; Chawalit Tipagornwong*	Portland State University
	8:00 AM-9:45 AM	L - 201	154	Applications of Unmanned Aerial Systems to Help with Infrastructure Inspection	UAV Studies – TxDOT Experience: Safety protocols and Applications in Transportation Pavement and Bridge Infrastructure	Anand Puppala	University of Texas, Arlington
	8:00 AM-9:45 AM	P - 254	Hall E	Current Research in Freight Planning and Logistics	Tabu Search for Joint Location-Inventory Problem with Stochastic Inventory Capacity Constraints	Kristin Tufte	Portland State University
	8:00 AM-9:45 AM	L - 231	147A	Shared Mobility: Equity, Adoption, and Tools for Management	People of Color Contemplating Bikeshare: Insights for Marketing and Outreach	Jennifer Dill; Nathan McNeil; John Macarthur; Joseph Broach	Portland State University
	10:15 AM-12:00 PM	L - 290	102B	Bikeshare Users and System Design	Bikeshare for Everyone? Views of residents in lower-income communities of color	Nathan McNeil; Jennifer Dill; John Macarthur; Joseph Broach	Portland State University
	10:15 AM-12:00 PM	L - 294	143B	Commuter Rail: Land Use and Technology	Analysis of the Variation in Apartment and Office Market Rents with Respect to Commuter Rail Transit Station Distance in Metropolitan San Diego and Salt Lake City	Arthur Nelson; Robert Hibberd	University of Arizona
	10:15 AM-12:00 PM	P - 322	Hall E	Data-Driven Analysis of Intersection Operations	Building Intelligence in the Automated Traffic Signal Performance Measures with Advanced Data Analytics	Sirisha Kothuri	Portland State University
	10:15 AM-12:00 PM	P - 309	Hall E	Innovations in Collecting and Applying Traffic Data	(Presiding)	Yao-Jan Wu	University of Arizona
	10:15 AM-12:00 PM	L - 293	147A	Innovations in Public Transit Service Availability and Accessibility Measurement	(Presiding)	Matt Miller	University of Utah

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(featuring Transportation Bingo + Prizes!)  
Monday, Jan 8th (7 – 10:30p) @ Fado Irish Pub

Monday, Jan 8

Time	#	Room	Session	Presentation	Researchers	University
10:15 AM-12:00 PM	P - 310	Hall E	Latest in Bicycle and Pedestrian Data Research	Annual Average Non-Motorized Traffic Estimates from Manual Counts: Quantifying Error	Dylan Johnstone*; Sirisha Kothuri	Portland State University
10:15 AM-12:00 PM	P - 306	Hall E	New Research on Truck Payload Distribution and Freeway Volume Data Imputation	A Functional Data Analysis Based Approach For Freeway Volume Data Imputation	Yao-Jan Wu; Larry Head	University of Arizona
10:15 AM-12:00 PM	L - 282	Salon A	TSM&O in the Age of On-Demand Mobility	Integration of Active Demand Management and TSM&O	Yi-Chang Chiu	University of Arizona
1:30 PM-3:15 PM	P - 386	Hall E	Advanced Modeling, Recognition, and Classification Methods in Transportation Applications	Vehicle Reidentification in a Connected Vehicle Environment Using Machine Learning Algorithms	Larry Head	University of Arizona
1:30 PM-3:15 PM	P - 379	Hall E	Analyzing the Effectiveness of Congestion Pricing and Managed Lanes	Agent-Based Approach to Analyzing the Effects of Dynamic Ridesharing in a Multimodal Network	Zhuo Chen; Xiaoyue Cathy Liu	University of Utah
1:30 PM-3:15 PM	P - 385	Hall E	Artificial Intelligence and Machine Learning Tools for Estimation, Detection, and Prediction Applications in Transportation	Systematic Clustering Approach to Identifying and Characterizing Spatiotemporal Congestion on Freeway Corridors	Yao-Jan Wu	University of Arizona
1:30 PM-3:15 PM	P - 376	Hall E	Current Trends and Opportunities in Transportation Funding and Financing	Explaining Transportation Funding Ballot Measure Success	Tyce Herrman*; Rebecca Lewis	University of Oregon
1:30 PM-3:15 PM	P - 395	Hall E	Cycling Infrastructure and Operations	Valuing Bicycle Infrastructure in Portland, Oregon	Jenny Liu; Wei Shi	Portland State University
1:30 PM-3:15 PM	L - 351	204B	Implementation and Extension of Geotechnical Asset Management Practice	A Framework for Assessment of Sustainability and Resilience in Subgrade Stabilization for a High-Volume Road	Anand Puppala	University of Texas, Arlington
1:30 PM-3:15 PM	L - 364	143C	Influence of Transit Quality of Service on Mode Choice	Another One Rides The Bus? The Connections Between Bus Stop Amenities, Bus Ridership, and ADA Paratransit Demand	Keith Bartholomew; Reid Ewing	University of Utah
1:30 PM-5:30 PM	C	Marriott, Liberty J (M4)	Transportation Education and Training Committee	Evaluating Student Perception of Civil and Environmental Engineering Undergraduate Research	Avinash Unnikrishnan	Portland State University
3:45 PM-5:30 PM	P - 459	Hall E	Current Issues in Aviation	A Study of Unmanned Aerial Vehicles Energy and CO2 Emissions Efficiency	Miguel Figliozzi	Portland State University

Monday, Jan 8

Tuesday, Jan 9

Time	#	Room	Session	Presentation	Researchers	University
3:45 PM-5:30 PM	P - 446	Hall E	Frontiers in Social and Economic Factors of Transportation	Leveraging App Technology to Measure the Impact of Transportation Disadvantage: A methodological case study	Noelle Fields; Courtney Cronley; Stephen Mattingly	University of Texas, Arlington
3:45 PM-5:30 PM	L - 419	207A	Innovations and Advances in Transportation Geotechnics	Applications of UAVs in Transportation Geotechnics	Anand Puppala	University of Texas, Arlington
3:45 PM-5:30 PM	P - 444	Hall E	Perspectives on Economic Development Impacts of Transportation Investments & Policies	(Presiding)	Jenny Liu	Portland State University
3:45 PM-5:30 PM	P - 454	Hall E	Transportation Safety Management: Start to Finish	Development of a Crash Risk Scoring Tool for Pedestrian and Bicycle Projects in Oregon	Yi Wang*; Christopher Monsere	Portland State University
3:45 PM-5:30 PM	L - 428	103B	User Information Needs for Connected Vehicle Environments and Automation	The Challenge of ADAS Assessment: A Scale for the Assessment of the HMI of Advanced Driver Assistance Technology	Douglas Getty; Joel Cooper; David Strayer	University of Utah
8:00 AM-9:45 AM	P - 520	Hall E	Advances in Intelligent Connected and Automated Transportation Systems	Assistive System to Improve Pedestrians Safety and Mobility in a Connected Vehicle Technology Environment	Larry Head	University of Arizona
8:00 AM-9:45 AM	P - 518	Hall E	Data-Driven Approaches to Planning a Sustainable and Resilient Future	(Presiding)	John Macarthur	Portland State University
8:00 AM-9:45 AM	P - 517	Hall E	Emerging Research in Transportation and Land Development	Trip and Parking Generation Rates for Different Housing Types: Effects of Compact Development	Guang Tian*; Keunhyun Park; Reid Ewing	University of Utah
8:00 AM-9:45 AM	P - 517	Hall E	Emerging Research in Transportation and Land Development	Exploring ITE's Trip Generation Handbook: Assessing Age of Data and Land-Use Taxonomy in Vehicle Trip Generation for Transportation Impact Analyses	Kelly Clifton; Kristina Currans	Portland State University
8:00 AM-9:45 AM	P - 517	Hall E	Emerging Research in Transportation and Land Development	Informing the Transportation Impacts of Affordable Housing with Trip Generation Analysis Using Travel Survey Data	Amanda Howell; Kristina Currans; Gregory Norton*; Kelly Clifton	Portland State University
8:00 AM-9:45 AM	P - 517	Hall E	Emerging Research in Transportation and Land Development	A Toolkit for Successful TOD Planning: Evidence from Five American Cities	Shima Hamidi; Philip Stoker	University of Texas, Arlington; University of Utah

Tuesday, Jan 9

Time	#	Room	Session	Presentation	Researchers	University
8:00 AM-9:45 AM	P - 517	Hall E	Emerging Research in Transportation and Land Development	Does Urban Sprawl Exacerbate Housing Foreclosure? A Nationwide Study of Built Environmental Characteristics, Transportation Accessibility and Housing Foreclosure in the U.S.	Shima Hamidi; Hamid Hajjafari	University of Texas, Arlington
8:00 AM-9:45 AM	L - 483	207A	Select Papers on Basic Research and Emerging Technologies Related to Concrete	(Presiding)	Amanda Bordelon	University of Utah
8:00 AM-9:45 AM	P - 521	Hall E	Uninterrupted Flow	(Presiding)	Xiaoyue Cathy Liu	University of Utah
8:00 AM-12:00 PM	C	Marriott Marquis, Liberty J (M4)	Conduct of Research Committee	(Presiding)	Hau Hagedorn	Portland State University
10:15 AM-12:00 PM	L - 558	147B	Advances in Light Rail and Streetcar Planning and Management	Streetcars and Economic Development: A Comparative Study of Four Streetcar Systems	Arthur Nelson; Sarah Hinners; Martin Buchert	University of Arizona; University of Utah
10:15 AM-12:00 PM	L - 558	147B	Advances in Light Rail and Streetcar Planning and Management	Using the Real Estate Market to Establish Streetcar Catchment Areas: Case Study of Multifamily Residential Rental Property in Tucson, Arizona	Robert Hibberd; Arthur Nelson	University of Arizona
10:15 AM-12:00 PM	P - 567	Hall E	Current Issues in Alternative Transportation Fuels and Technologies	Electrification of Transport Refrigeration Units for Temperature-sensitive Freight: Technical Assistance Case Study in EPA Region 10	John Macarthur; Husam Barham*	Portland State University
10:15 AM-12:00 PM	L - 562	150A	Freight Day, Part 2: Automated Freight Transportation Systems	Add Underground Freight Transport Systems Developments in UK and USA	Mohammad Najafi	University of Texas, Arlington
10:15 AM-12:00 PM	P - 568	Hall E	Geometric Design Research and Graduate Student Poster Session	Statistical Road Safety Modeling Approaches for Estimating Road, Vehicle, and Driver Effects on Crash Type and Injury Severity Outcomes at Intersections	Michael Shea*	University of Utah
10:15 AM-12:00 PM	P - 575	Hall E	Highway Safety Performance	Bicyclist Safety Performance Functions for Road Segments in a U.S. City	Sirisha Kothuri	Portland State University

Time	#	Room	Session	Presentation	Researchers	University
10:15 AM-12:00 PM	P - 576	Hall E	Innovative Research on Pedestrian Safety and Behavior	An Analysis of the Safety Effectiveness of Pedestrian Crossing Enhancements in Oregon	Christopher Monsere; Sirisha Kothuri; Ali Razmpa; Miguel Figliozi	Portland State University
10:15 AM-12:00 PM	P - 576	Hall E	Innovative Research on Pedestrian Safety and Behavior	Exploring the Determinants of Vulnerable Road Users' Crash Severity in State Roads	Alvaro Caviedes*; Miguel Figliozi	Portland State University
10:15 AM-12:00 PM	C	Marriott, Liberty J (M4)	Urban Big Data Subcommittee, ABJ30(2)	(Presiding)	Kristin Tufte	Portland State University
1:30 PM-3:15 PM	L - 621	143B	A Tale Between Two Cities: Emerging Trends in Intercity Bus Transportation	A Network Design Problem Formulation and Solution Procedure for Intercity Transit Services	Yi-Chang Chiu	University of Arizona
1:30 PM-3:15 PM	L - 596	146B	Location Choice and Integrated Models	Understanding Stated Neighborhood Preferences: The Roles of Lifecycle Stage, Mobility Style, and Lifestyle Aspirations	Kelly Clifton; Patrick Singleton	Portland State University
1:30 PM-3:15 PM	P - 634	Hall E	New Research on Travel Time, Speed, and Reliability Data	Reconstructing Vehicle Trajectories to Support Travel Time Estimation	Yao-Jan Wu	University of Arizona
1:30 PM-3:15 PM	P - 654	Hall E	Public Transportation: Accessibility Analysis and Tools	Transit and Wages The Association between Wages and Transit Station Proximity over Time and with Respect to the Great Recession	Arthur Nelson	University of Arizona
1:30 PM-3:15 PM	P - 655	Hall E	Public Transportation: Developing Future Transit	Trip and Parking Generation Study of Orenco Station TOD, Portland Region	Reid Ewing; Guang Tian*; Keunhyun Park	University of Utah
1:30 PM-3:15 PM	P - 633	Hall E	Statewide Data and Information Systems, Part 2 (Part 1, Session 632)	Exploration of a Lane-Specific Approach to Locate Intersection Crashes	Juan Medina	University of Utah
1:30 PM-3:15 PM	P - 653	Hall E	Transit Capacity and Quality of Service	Transit Vehicle Performance Analysis for Service Continuity/Termination: A Data Envelopment Analysis (DEA) Approach	Seyed Kiavash Fayyaz Shahandashti*; Xiaoyue Cathy Liu; Ran Wei	University of Utah
1:30 PM-3:15 PM	P - 649	Hall E	Transit Data Take Center Stage: New Sources and New Applications	A Study of Bus High-Resolution GPS Speed Data Accuracy	Miguel Figliozi	Portland State
1:30 PM-3:15 PM	P - 657	Hall E	Transit Networks: Design and Assessment	Metropolitan Scale Effects on Fixed Guideway Transit Ridership	Matt Miller*; Reid Ewing	University of Utah
3:45 PM-5:30 PM	P - 726	Hall E	Bus Transit Research and Practices, Part 1 (Part 2, Session 727)	Bus Rapid Transit and Economic Development: A Quasi-Experimental Treatment and Control Analysis	Arthur Nelson; Keuntae Kim	University of Arizona; University of Utah

Tuesday, Jan 9

Wednesday, Jan 10

Time	#	Room	Session	Presentation	Researchers	University
3:45 PM-5:30 PM	L - 696	147A	Forward Motion: New Sources of Transit Data	Evaluation of Route Changes Utilizing High-Resolution GPS Bus Transit Data	Travis Glick*; Miguel Figliozzi	Portland State
3:45 PM-5:30 PM	L - 684	204A	Subgrade Stabilization by Polymer-, Ionic-, and Microbial-Induced Methods	Expansive Soil Treatment With Ionic Soil Stabilizer	Xinbao Yu; Anand Puppala	University of Texas, Arlington
3:45 PM-5:30 PM	P - 712	Hall E	The World of Transportation Planning Applications	Characterizing Activity Patterns Using Co-Clustering and User-Activity Network	Yi-Chang Chiu	University of Arizona
3:45 PM-5:30 PM	P - 722	Hall E	Traffic Control Devices	Approach-level Safety Comparison of Permitted-protected and Protected Left Turn Phasing to Flashing Yellow Arrows	Michael Shea*, Juan Medina	University of Utah
3:45 PM-5:30 PM	L - 686	Salon C	Traffic Signal Timing for Multimodal Operations	Peer-to-peer Priority Signal Control Strategy in a Connected Vehicle Environment	Larry Head	University of Arizona
6:00 PM-7:30 PM	L - 730	151A	Best Papers from the 11th International Conference on Travel Survey Methods	Towards measures of positive utility of travel: affective and eudaimonic travel subjective well being	Kelly Clifton; Patrick Singleton	Portland State University
8:00 AM-9:45 AM	P - 779	Hall E	Current Research on User Information Systems	The Effects of Voice System Design Components on Driver Workload	Joel Cooper; David Strayer	University of Utah
8:00 AM-9:45 AM	P - 783	Hall E	Cycling and Equity	Bike Share and Equity in Low-Income Communities of Color: What Opportunities are there to Include Older Adults?	Steven Howland*; Nathan McNeil; Joseph Broach; John Macarthur; Jennifer Dill	Portland State University
8:00 AM-9:45 AM	P - 782	Hall E	Cycling Demand and Cyclist Behavior	Bicyclist Positioning Behavior at Signalized Intersections in Portland, OR, U.S.A.	David Soto*	Portland State
8:00 AM-9:45 AM	L - 734	151B	Economic Impacts on Transportation Investments	Advocacy in Regional Transportation Funding Referendums	David Weinreich; Ahmad Bonakdar	University of Texas, Arlington
8:00 AM-9:45 AM	P - 787	Hall E	Insights on Streetcar Priority and Accessibility	Streetcars and Equity: Case Studies of Four Streetcar Systems Assessing Change in Jobs, People and Gentrification	Arthur Nelson; Sarah Hinnners; Martin Buchert	University of Arizona; University of Utah
8:00 AM-9:45 AM	P - 790	Hall E	Quantitative Analysis of Intermodal Facilities	Evaluation of Underground Freight Transportation in Texas	Mohammad Najafi; Siamak Ardekani; Mohsen Shahandashti	University of Texas, Arlington
8:00 AM-9:45 AM	L - 744	140A	The Built Environment, Travel Behavior, and Smart Growth	Travel Behavior in TODs Versus Non-TODs: Using Cluster Analysis and Propensity Score Matching	Keunhyun Park	University of Utah

Wednesday, Jan 10

Time	#	Room	Session	Presentation	Researchers	University
8:00 AM-9:45 AM	P - 775	Hall E	Traffic Flow Theory and Characteristics, Part 3	Add An Integrated Data Approach for Constructing Arterial Shockwave Profiles	Yao-Jan Wu	University of Arizona
8:00 AM-9:45 AM	P - 774	Hall E	Travel Behavior	The Effects of Traffic Congestion on Vehicle Miles Traveled (VMT)	Shima Hamidi	University of Texas, Arlington
10:15 AM-12:00 PM	P - 828	Hall E	Information and Communications Technology and Travel Behavior: A Spectrum of Findings	Will Information and Incentive Affect Traveler's Day-to-Day Departure Time Decisions? - An Empirical Study of Decision Making Evolution Process	Yi-Chang Chiu	University of Arizona
10:15 AM-12:00 PM	P - 828	Hall E	Information and Communications Technology and Travel Behavior: A Spectrum of Findings	An Empirical Investigation of the Reward Incentive and Trip Purposes on Departure Time Behavior Change	Yi-Chang Chiu	University of Arizona
10:15 AM-12:00 PM	P - 835	Hall E	Pedestrian Planning, Modeling, and Simulation	Density Differences: Exploring Built Environment Relationships with Walking Between and Within Metropolitan Areas	Kelly Clifton	Portland State University
10:15 AM-12:00 PM	P - 835	Hall E	Pedestrian Planning, Modeling, and Simulation	Examining the Impacts of Street-Level Built Environmental and Urban Design Qualities on Walking Behavior in Downtown Dallas, TX	Shima Hamidi; Somayeh Moazzeni*	University of Texas, Arlington
10:15 AM-12:00 PM	P - 835	Hall E	Pedestrian Planning, Modeling, and Simulation	Making Strides: State-of-the-practice of pedestrian forecasting in regional travel models	Kelly Clifton	Portland State University
10:15 AM-12:00 PM	L - 805	156	Planning Process and Environmental Justice	Assessing the Equity Impacts of a Transportation Improvement Program -and- Realizing the Potential of Equity Analyses of Regional Transportation Plans: Law, Practice, and Proposals for Reform	Aaron Golub	Portland State University
10:15 AM-12:00 PM	L - 805	156	Planning Process and Environmental Justice	Does Location Matter? Performance Analysis of the HUD Assistance Programs with Respect to Transportation Affordability in Dallas-Fort Worth Metropolis	Shima Hamidi; Jinat Jahan*; Somayeh Moazzeni*	University of Texas, Arlington
10:15 AM-12:00 PM	P - 834	Hall E	The Search for a Better Way, Part 2: Exploring and Refining Methods in Highway Safety (Part 1, Session 523)	A Finite Mixture Random Parameters Model for Exploring the Risk Factors on Driver Injury Severity of Low Visibility Realated Crashes	Xiaoyue Cathy Liu	University of Utah



Wednesday, Jan 10

Jan 11

Time	#	Room	Session	Presentation	Researchers	University
10:15 AM-12:00 PM	P - 834	Hall E	The Search for a Better Way, Part 2: Exploring and Refining Methods in Highway Safety (Part 1, Session 523)	An Empirical Assessment and Investigation of the Driver Injury Severities in Rain-Related Rural Single-Vehicle Crashes Using Mixed and Latent-Class Logit Models	Xiaoyue Cathy Liu	University of Utah
10:15 AM-12:00 PM	P - 834	Hall E	The Search for a Better Way, Part 2: Exploring and Refining Methods in Highway Safety (Part 1, Session 523)	Real-Time Crash Prediction Using Data Mining Techniques	Yao-Jan Wu	University of Arizona
10:15 AM-12:00 PM	P - 830	Hall E	Urban Applications of Connected and Automated Vehicle Systems	Development of Two-Stage Based Eco-driving System for Connected Automated Vehicles	Xianfeng Yang	University of Utah
2:30 PM-4:00 PM	L - 844	140B	Built Environment and Demographic Issues	Does Urban Form Matter to Keep Seniors Active? Evidence from 23 Diverse Regions of the United States	Guang Tian*; Reid Ewing	University of Utah
2:30 PM-4:00 PM	P - 862	Hall E	Emergency and Disaster Evacuations	Development of Integrated Wildfire Evacuation Decision Support System (IWEDSS) with Population Density Distribution and robust Optimization Framework	Xianfeng Yang; Zhehao Zhang	University of Utah
2:30 PM-4:00 PM	P - 864	Hall E	Transportation Network Modeling	Modeling Street Connectivity: Case Studies from Three Cities in Utah	Seyed Kiavash Fayyaz Shahandashti	University of Utah
2:30 PM-4:00 PM	L - 844	140B	Built Environment and Demographic Issues	Longitudinal Cluster Analysis of Jobs-Housing Balance in Transit Neighborhoods	Arthur Nelson; Robert Hibberd	University of Arizona
8:00 AM-12:00 PM	W - 874	209B	Implications of Technological and Societal Changes for Air Quality Policy and Regulations: Are Our Analysis Tools Adequate?	Future Trends in Transportation That Could Impact Air Quality Policy and Regulations	Kelly Clifton	Portland State University

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The **National Institute for Transportation and Communities (NITC)** is one of five U.S. Department of Transportation national university transportation centers. Housed at Portland State University, NITC is a program of the Transportation Research and Education Center (TREC). The NITC research partnership also includes the University of Oregon, Oregon Institute of Technology, University of Utah, University of Arizona, and University of Texas at Arlington. We pursue our theme through research, education, and technology transfer.

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