2022 INUF Conference Detailed Agenda

- 1. Local/last mile pickup and delivery
- 2. Modes and nodes
- 3. Urban modeling and planning
- 4. Technology and automation
- 5. Changing consumption, production, and spatial organization
- 6. Best practices

Wednesday, May 25, 2022

7:30-8:30 AM Continental Breakfast and Check In

Regency Foyer

8:30-10:00 AM Opening Plenary Session

Regency ABC

Host: **Genevieve Giuliano**, Director, METRANS

Welcome Speakers:

Jeet Joshee, Associate Vice President and Dean, Office of International Education and Global Engagement, CSULB

Marlon Boarnet, Professor and Chair, Department of Urban Planning and Spatial Analysis, USC

Introduction: **Genevieve Giuliano**, Director, METRANS Transportation Consortium

Keynote title: Looking Ahead: The Value of Place in Supply Chain

Keynote Speaker: **Melinda McLaughlin**, Senior Vice President, Global Head of Research,

Prologis

10:00-10:30 AM Break

Regency Foyer

10:30 AM - Noon Concurrent Sessions

Beacon A Special Session: Curbside freight deliveries: National approaches and

typologies of curbside analysis and curb management

Moderator: DJ Mason, US Department of Transportation, Volpe Center

Panelists:

Ken Husting, City of Los Angeles **Evan Iacobucci**, University of North Carolina at Chapel Hill **Ariana Vito**, City of Santa Monica

Regency D Track 5-3 Spatial Organization

Session Moderator: Carla Tejada, City College of New York

"Proximity logistics": Characterizing the development of logistics facilities in dense mixed-use urban areas around the world

Presenter: Heleen Buldeo Rai, Univ Gustave Eiffel, Logistics City Chair

Co-author: Laetitia Dablanc, Univ Gustave Eiffel; Sanggyun Kang, Chung-Ang University; Takanori Sakai, Tokyo University of Marine Science and Technology; Carla Tejada, City College of New York; Quan Yuan, Tongji University; Alison Conway, City College of New York

An analysis of the evolution of warehouses location from 2012 to 2019 in major U.S. Consolidated Statistical Areas (CSA): New insights of warehousing spatial patterns Presenter: Matthieu Schorung, Gustave Eiffel University

Co-authors: Laetitia Dablanc, Univ Gustave Eiffel; Thibault Lecourt, Avignon Universite

Regency E Track 4-2 Alternative Fuels

Session Moderator: Gina Yeonkyeong Park, Cornell University

Life cycle analysis of heavy-duty trucks: An environmental impact study comparing alternative fuels/drivetrains

Presenter: Sue Dexter, University of Southern California

Economic impacts of electrification of cargo handling equipment at POLA/POLB

Presenter: Dan Wei, University of Southern California

Co-author: Genevieve Giuliano, University of Southern California

Modeling a biofuel supply chain between urban centers Presenter: Seckin Ozkul, University of South Florida Co-author: Rob Hooker, University of South Florida

Charging infrastructure considerations of electric trucks

Presenter: Jeffrey Short, American Transportation Research Institute

Regency F Track 1-1 Curb Management

Session Moderator: Carlos Otero, University of California, Davis

Exploring the potential of urban delivery microhubs and cargo bike deliveries Presenter: Anne Goodchild, University of Washington

Co-author: Seyma Gunes, University of Washington

Investigation of private loading bay operations in Seattle's Central Business District

Presenter: Griffin Donnelly, University of Washington Co-author: Anne Goodchild, University of Washington

Roadblocks to Sustainable Urban Freight

Presenter: Thomas Maxner, University of Washington

Co-authors: Giacomo Dalla Chiara and Anne Goodchild, University of Washington

Can real-time parking occupancy information improve urban delivery efficiency? Presenter: Giacomo Dalla Chiara, University of Washington

Co-authors: Klaas Fiete Krutein and Anne Goodchild, University of Washington

Noon-1:30 PM Lunch

Regency ABC

Keynote Title: From Invisible to Essential: Covering Freight Media Panel

Moderator: Tyler Reeb, Director of Research and Workforce Development, CITT, CSULB

Panelists:

Samantha Masunaga, Staff Writer, Los Angeles Times Sarah McGregor, L.A. Bureau Chief and Editor, Bloomberg News Dan Ronan, Associate News Editor Print and Media, Transport Topics

1:30-3:00 PM Concurrent Sessions

Beacon A Track 1-2 Curb Management 2

Session Moderator: Giacomo Dalla Chiara, University of Washington

On the understanding of the real-life performance of autonomous food delivery robots Presenter: Carlos Otero, University of California Davis

Co-authors: Miguel Jaller, University of California Davis

Planning for local delivery using sidewalk robots: Comparing optimized mothership vans methods"

Presenter: Jacob Lamb, University of Calgary

Co-authors: S. C. Wirasinghe and Nigel Waters, University of Calgary

Gamification of Urban Freight

Presenters: Tom O'Brien, Biju Kewalram, Anh Vu and Jared Paz, California State University, Long Beach

Improving delivery efficiency and understanding user behavior through common carrier lockers

Presenter: Andisheh Ranjbari, University of Washington

Co-authors: Caleb Diehl, Giacomo Dalla Chiara, and Anne Goodchild, University of

Washington

Regency D Track 3-2 US Based Case Studies

Session Moderator: Johanna Amaya, Pennsylvania State University

Testing the association between development patterns and truck crashes: A case study in Dallas-Fort Worth, TX

Presenter: Sanggyun Kang, Chung-Ang University

Characterization of the geographic patterns of fuel consumption and emissions of freight vehicles in the Albany-New York City Corridor

Presenter: Sofia Perez-Guzman, Rensselaer Polytechnic Institute

Co-authors: José Holguín-Veras, Julia Amaral, and Carlos Rivera-Gonzalez, Rensselaer Polytechnic Institute

Analysis and identification of urban commercial traffic patterns: A clustering approach for the Seattle's urban area

Presenter: Anne Goodchild, University of Washington Co-author: Gabriela Giron, University of Washington

Off-hours delivery: Simulated systemwide results for the Chicago region

Presenter: Olcay Sahin, Argonne National Laboratory
Co-author: Monique Stinson, Argonne National Laboratory

Regency E Track 2-1 Trucking and Technology

Session Moderator: Alison Conway, City College of New York

Dynamic last-mile delivery with crowd-shipping Presenter: Matthew Roorda, University of Toronto

Co-authors: Kianoush Mousavi and Merve Bodur, University of Toronto; Mucahit Cevik, Ryerson University

Applying machine learning to model freight vehicle type choice

Presenter: Usman Ahmed, University of Toronto Co-author: Matthew Roorda, University of Toronto

Rewards program to electrify short-haul drayage trucks Presenter: Miguel Jaller, University of California Davis

Co-author: Emil Youssefzadeh, WattEV, Inc.

Regency F Track 1-3 Routing and Optimization

Session Moderator: Dingtong Yang, University of California, Irvine

Improving commercial vehicle routing with parking information Presenter: Klaas Fiete Krutein, University of Washington

Co-authors: Giacomo Dalla Chiara and Anne Goodchild, University of Washington

Time-dependent pickup and delivery problems with stochastic travel times and hard time windows via branch-price-and-cut

Presenter: Petros Ioannou, University of Southern California

Co-authors: Zheyu Wang and Maged Dessouky, University of Southern California

Shared logistics assets for new mobility-assist two-echelon e-grocery delivery network Presenter: Evangelos Kaisar, Florida Atlantic University

Co-author: Dan Liu, Freight Mobility Research Institute (FMRI) and Florida Atlantic University

Co-simulation based optimization for container pickup and delivery Presenter: Maged Dessouky, University of Southern California

Co-author: Siyuan Yao, University of Southern California

3:00-3:30 PM Break

Regency Foyer

3:30-5:00 PM Concurrent Sessions

Beacon A Track 3-1 Issues in Trucking

Session Moderator: Matthew Roorda, University of Toronto

Distributed load balancing freight routing with a co-simulation optimization method Presenter: Pengfei Chen, University of Southern California

Co-authors: Petros Ioannou and Maged Dessouky, University of Southern California

Modelling freight vehicle type and shipment size choice

Presenter: Usman Ahmed, University of Toronto Co-author: Matthew Roorda, University of Toronto

Truck routing optimization for large-scale transportation networks Presenter: Hyun Seop Uhm, Argonne National Laboratory

Co-authors: Taner Cokyasar, Monique Stinson, Jeffrey Larson, Olcay Sahin, Omer Verbas, and Vincent Freyermuth, Argonne National Laboratory

Inter-regional truck route choice modeling with revealed and state preference approaches Presenter: Kevin Gingerich, York University

Co-authors: Yashar Zarrin Zadeh and Ubaid Ali, York University

Regency F Track 3-3 International and Case Studies Session Moderator: Elyakim BenHakoun

Modelling impacts of off-peak-hour delivery in the greater Toronto and Hamilton area Presenter: Tufayel Chowdhury, University of Toronto

Co-authors: James Vaughan, Marc Saleh, Kianoush Mousavi, Marianne Hatzopoulou, and Matthew Roorda, University of Toronto

The role of logistics performance index for developing port's hinterland: A case study for Bangladesh

Presenter: Razon Chandra Saha, Head of Research and Innovation, Saif Powertec Limited, Bangladesh

5:00-7:00 PM Reception

Poolside

Thursday, May 26, 2022

7:30-8:30 AM Continental Breakfast and Check In

Regency Foyer

8:30-10:00 AM Plenary Session

Regency ABC

Keynote title: California Leading the Way

Welcome Speaker: Congressmember Alan Lowenthal, 47th Congressional District of

California

Moderator: Tom O'Brien, Executive Director, CITT, CSULB

Panelists:

Fran Inman, Senior Vice President, Majestic Realty Co.

Matt Petersen, President & CEO, Los Angeles Cleantech Incubator (LACI)

Matt Schrap, CEO, Harbor Trucking Association

10:00-10:30 AM Break

Regency Foyer

10:30 AM - Noon Concurrent Sessions

Beacon A **Special Session: Optimizing Truck Movements in the Southern**

California Port Region

Moderator: Mark Jensen, Transpo Group

Panelists:

Ed Alegre, LA Metro Sal Manzo, InfoMagnus Krista Jeannotte, Cambridge Systematics

Christopher Chase, Port of Los Angeles

Theresa Dau-Ngo, Port of Long Beach

Regency E Track 3-4 Assessing Impact

Session Moderator: DJ Mason, US Department of Transportation

Time-dependent patterns in freight trip generation

Presenter: Sofia Perez-Guzman, Rensselaer Polytechnic Institute

Co-authors: José Holguín-Veras and Diana Ramirez-Rios, VREF Center of Excellence for Sustainable Urban Freight Systems Rensselaer Polytechnic Institute

Data-driven time-dependent freight volume estimation at a granular spatial and temporal resolution

Presenter: Chrysovalantis Anastasiou, University of Southern California

Co-authors: Luciano Nocera and Cyrus Shahabi, University of Southern California

Freight eco-routing – carrier's trade-offs and system-wide impacts

Presenter: Anmol Pahwa, University of California Davis Co-author: Miguel Jaller, University of California Davis

Reducing impacts of heavy-duty trucks on communities of color Presenter: Genevieve Giuliano, University of Southern California

Regency F Track 1-4 Improving the Last Mile

Session Moderator: Klaas Fiete Krutein, University of Washington

Lessons learned from urban freight pilot tests

Presenter: Andisheh Ranjbari, University of Washington *Co-author: Anne Goodchild, University of Washington*

A shift towards "retro" last-mile & urban logistics. How the pandemic has accelerated this trend

Presenter: Wouter Dewulf, University of Antwerp *Co-author: Roel Gevaers, University of Antwerp*

Set partition-based formulation and decomposition solution approach for the crowdsourced package delivery problem

Presenter: Dingtong Yang, University of California Irvine Co-author: Michael Hyland, University of California Irvine

Curbside management in the physical internet Presenter: Paola Cossu, FIT Consulting SRL

Co-authors: Fabio Cartolano, FIT Consulting; Giuliano Mingardo, Erasmus University

Rotterdam; Giacomo Lozzi and Ivo Cré, POLIS; Fernando Liesa, ALICE

Noon-1:30 PM Keynote Luncheon

Regency ABC

Keynote title: A Mile in their Shoes: Talent Retention and Acquisition in Supply Chain

Keynote Speaker: **Tricia Zulic,** State Director, California Society for Human Resource Management

1:30-3:00 PM Concurrent Sessions

Beacon A Track 4-1 Technology & Automation

Session Moderator: Sue Dexter, University of Southern California

Using artificial intelligence to improve traffic flows with consideration of data privacy principles

Presenters: Tyler Reeb, California State University Long Beach

Co-authors: Gwen Shaffer, Hossein Jula, and Anastasios Chassiakos, California State University, Long Beach

Freight Automation: Dangers, threats, and opportunities for health and equity Presenter: Jessica Tovar, Moving Forward Network

Co-authors: Joel Ervice, Regional Asthma Management and Prevention; Martha Ockenfels-Martinez, Human Impact Partners

Suitability of human monitored autonomous lockers for urban deliveries: a comparison with the current scenario through field observations

Presenter: Kartik Varma, Universite Gustav Eiffel

Co-authors: François Combes, and Pierre Eykerman, Universite Gustav Eiffel

A Global Truck Parking Problem That Today's Technology Can't Fix Presenter: Richard Easley, E-Squared Engineering

Regency E Track 5-1 E-commerce Consumption Flows

Session Moderator: Heleen Buldeo Rai, Univ Gustave Eiffel, Logistics City Chair

Reconciling retail and logistics demand in the on-demand economy Presenter: Joris Beckers, University of Antwerp

Tracking parcels: Understanding delivery paths and their impacts on a city Presenter: Carla Tejada, City College of New York

Co-authors: Yaxin Zhang and Alison Conway, The City College of New York; Jean-Paul Rodrigue, Hofstra University

Changes in grocery shopping and related travel during Covid-19

Presenter: Sarah Dennis, University of California Davis

Co-authors: Miguel Jaller and Sebastian Amador, University of California Davis; Teddy Forscher, University of California Berkeley

Regency F Track 3-5 Metropolitan and Network Level Planning
Session Moderator: Tufayel Chowdhury, University of Toronto

Supply-chain-focused measures of centrality and spread in metropolitan areas Presenter: Oriana Calderon, Rensselaer Polytechnic Institute

Co-authors: José Holguín-Veras, Carlos Rivera-Gonzalez, Joshua Schmid, Benjamin Caron, and Woojung Kim, Rensselaer Polytechnic Institute

Facilitating synchromodality: A conceptual framework for arbitrating stakeholders' conflicting interests

Presenter: Emma Ceulemans, University of Antwerp

Co-authors: Ivan Cardenas-Barbosa, Thierry Vanelslander and Edwin van Hassel, University of Antwerp

Econometric characterization of spatial distribution of urban freight generation Presenter: Oriana Calderon, Rensselaer Polytechnic Institute

Co-authors: José Holguín-Veras, Carlos Rivera-Gonzalez, and Benjamin Caron, Rensselaer Polytechnic Institute

Urban freight logistics: What do citizens perceive? Presenter: Johanna Amaya, Penn State University

Co-authors: Maira Delgado Lindeman, Julian Arellana Ochoa, Universidad del Norte; Jaime Allen, National Laboratory of Materials and Structural Models (LanammeUCR), Universidad de Costa Rica

3:00-3:30 PM Break

Regency Foyer

3:30-5:00 PM Concurrent Sessions

Beacon A Track 5-2 Impacts of E-commerce
Session Moderator: Joris Beckers, University of Antwerp

The community impacts of e-commerce growth: A case study of Berks County, Pennsylvania

Presenter: Alison Conway, City College of New York

Co-author: Moira Conway, Kutztown University

Mobility interventions to protect supply chain workers during pandemics

Presenter: Kevin Gingerich, York University

Co-authors: Elanakayon Annalingam, Peter Park, York University; Erik Nevland, Region of

Peel Transportation Planner

Aggregate and income distribution impacts of resilience to seaport and highway transportation network disruption

Presenter: Dan Wei, University of Southern California

Co-authors: Adam Rose, Eyuphan Koc, Zhenhua Chen, and Lucio Soibelman, University of

Southern California

Container Terminal Fluidity - Adjusting to the New Normal

Presenters: Philip Davies, Davies Transportation Consulting Inc. and Hanh Le-Griffin, University of Southern California

Regency E Track 6-1 Best Practices

Session Moderator: Si Liu, McMaster University

Gender inequality in the transport sector of Bangladesh

Presenter: Razon Chandra Saha, Head of Research and Innovation, Saif Powertec Limited, Bangladesh

Best practices in at-grade crossing of public roads with railroads

Presenter: Guang Tian, UNO Transportation Institute, University of New Orleans

Co-authors: Maryam Izadi and Brittany Waggener, UNO Transportation Institute, University of New Orleans

A critique on best practices for city logistics

Presenter: Konstantina Katsela, University of Gothenburg

Co-author: Michael Browne, University of Gothenburg

The next normal in urban logistics: The ALICE forward-looking actions on the physical internet to achieve inclusive, shared and interconnected logistics networks

Presenter: Paola Cossu, FIT Consulting SRL

Co-authors: Charlotte Migne, FM Logistics; Hans Schurmans, PROXIMUS; Magnus

Blinge, SCANIA; Yanying Li and Fernando Liesa, ALICE

Regency F Track 1-5 Modeling Freight Activity

Session Moderator: Anne Goodchild, University of Washington

The little ship that got away: Small vessel - Big impact

Presenter: Elyakim Ben-Hakoun, The Technion - Israel Institute of Technology

Co-authors: Eddy Van De Voorde, University of Antwerp; Yoram Shiftan, The Technion - Israel Institute of Technology

Cargo bikes and UCCs as a solution to last mile delivery

Presenter: Mehrab Khan, German Aerospace Center (DLR) and Technische Universität Berlin, Institute of Land and Maritime Transport (ILS)

Co-authors: Carina Thallera, German Aerospace Center (DLR), Institute of Transport Research; Gernot Liedtke, German Aerospace Center (DLR) and Technische Universität Berlin, Institute of Land and Maritime Transport (ILS)

The daily port & shoreline emission inventory model

Presenter: Elyakim Ben-Hakoun, The Technion - Israel Institute of Technology

Co-authors: Eddy Van De Voorde, The University of Antwerp; Yoram Shiftan, The Technion - Israel Institute of Technology

Redesigning "Clean Trucks" Programs for the Emerging Energy Transition

Presenter: Nathan Hutson, University of North Texas

Co-author: Gina Park, University of North Texas

5:00-7:00PM TRB - Intermodal Freight Transport Committee Meeting (AT045)

Beacon A Non-Members Welcome

Friday, May 27, 2022

7:30-8:00 AM Continental Breakfast and Check In

Regency Foyer

8:00-9:30 AM Plenary Session

Regency ABC

Keynote topic: Perspectives on Technology Implementation

Moderator: Genevieve Giuliano, Director, METRANS Transportation Consortium

Panelists:

Biju Kewalram, Guest Lecturer CSULB / CITT, Chief Digital Officer, Transformation Core **Jack Symington**, Sr. Program Manager of Transportation, LACI

9:30-9:45 AM Break

Regency Foyer

9:45 AM - 11:15AM Concurrent Sessions

Beacon A Special Session: Transportation Planning Considerations for Cities with

Growing Warehousing Operation

Moderator: Fatemeh Ranaiefar, Fehr & Peers

Panelists:

Gena Guisar, CSG Consultants Jason Welday, City of Rancho Cucamonga Jolene Hayes, Fehr & Peers Blair Dahl, Goodman

Regency E Track 1-6 Consumer Behavior and Equity

Session Moderator: Usman Ahmed, University of Toronto

Spatial accessibility and equity analysis of Amazon parcel lockers facilities

Presenter: Miguel Figliozzi, Portland State University

Co-author: Jaclyn Schaefer, Portland State University

Effect of COVID-19 on equity of fresh food distribution in New York City Presenter: Alison Conway, City College of New York

Co-authors: Camille Kamga, Sandeep Mudigonda, Patricio Vicuna, Charles Ukegbu, Susan McSherry, Diniece Mendes, Justin Romeo, and Denise Ramirez, University Transportation Research Center

Explore the Potential of Applying Smart Mobile Lockers with City Buses for the Last-Mile Deliveries in the City of Mississauga, Canada

Presenter: Si Liu, McMaster University

Co-author: Elkafi Hassini, McMaster University and Zhen Qiao, Waseda University

Regency F Track 6-2 Data and Methods

Session Moderator: Konstantina Katsela, University of Gothenburg

Analysis on the clean truck program and the local air quality: Case of the Port of New York and New Jersey

Presenter: Gina Yeonkyeong Park, Cornell University

Residential freight trip generation: A review of current methods and datasets Presenter: Panagiota Goulianou, University of Washington

Co-authors: Giacomo Dalla Chiara and Anne Goodchild, University of Washington

A guidebook for implementing freight fluidity for Texas and its regions Presenter: Bill Eisele, Texas A&M Transportation Institute

Co-authors: Nicole Katsikides, Mario Monsreal, Jason Wallis, William Hwang, and Casey Wells, Texas A&M Transportation Institute

Operational analysis of emergency truck parking in Florida state under emergency situations

Presenter: Vasileia Antonoglou, Florida Atlantic University

Co-authors: Katerina Koliou and Evangelos Kaisar, Florida Atlantic University

11:30 AM - 5:00 PM SITE TOUR

I-NUF attendees with Eventbrite tickets only - limited seating; Tour at Santa Monica Zero Emissions Delivery Zone Pilot Program and TTSI's Clean Energy Facility. Lunch provided.