

Conference Program



6th Interdisciplinary Conference on Production, Logistics and Traffic (ICPLT) Dortmund

Resilient & Sustainable Transport
March 21st & 22nd 2023

For more information visit our website:
www.icplt.org



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WELCOME TO 6TH ICPLT IN DORTMUND, GERMANY

The Conference Board is pleased to announce the official conference program for the 6th Interdisciplinary Conference on Production, Logistics and Traffic (ICPLT) jointly hosted by Technische Universität Dortmund and Technische Universität Darmstadt. This time, the conference venue of the 6th ICPLT is Dortmund, Germany.

The conference program will commence at **12.30 a.m. on March 21st**, 2023 and will end at **16.00 p.m. on March 22nd**, 2023.

As did its predecessors, the conference addresses an audience concerned with the disciplines production, logistics and traffic, including spatial and transport planning, which is interested in discussing scientific and application-oriented approaches. **Practitioners, politicians, representatives of public authorities and researchers** from production, logistics and traffic are cordially invited to join and benefit from the conference as a platform for knowledge-exchange and transfer.

Furthermore, there is plenty of opportunity to network and discuss, especially at the **Conference Dinner** which will be hosted on March 21st at the „**Dortmunder U**“, Dortmund's famous landmark in the city center.

During the conference, distinguished speakers will address selected interdisciplinary topics in keynotes. Additionally, designated innovative research and practice approaches will be presented in 25-minute talks in two parallel sessions on each conference day.

The Conference Board is looking forward to welcoming you in Dortmund!

SESSIONS & TOPICS

The conference's focus topic is **Resilient and Sustainable Transport**. Within this focus topic ICPLT presents a broad spectrum of different scientific and practical solutions for more efficient, environmentally friendly and resilient production, logistics and traffic. Due to the manifold interfaces, ICPLT contains both methodical and content-related focal points.

In particular, the sessions will focus on

- Freight Transport
- Public Transport
- Demand Modelling
- Cargo Bikes
- Maritime & Rail Transport
- Electrical & Hydrogen Vehicles
- Simulation & Optimization
- Production & Supply Chain Management
- Sustainable Logistics
- Intralogistics & Automation

Additionally Dr. Maria Tsavachidis, Dr. Joachim Weise and Prof. Dr. Hubertus Bardt will address selected topics on **future logistics, trends and visions in resilient and sustainable production, logistics and traffic in a keynote**.



Who should attend?

The conference addresses all representatives of the disciplines production, logistics as well as spatial and transport planning, who are interested in discussing scientific and practice-oriented approaches.

Practitioners, politicians, public authorities and researchers from production, logistics and transport are invited to use the conference as a platform for knowledge-exchange and transfer.

Chairmen of the 6th ICPLT

Prof. Dr.-Ing. Uwe Clausen (Chair)

TU Dortmund University, Institute of Transport Logistics

Prof. Dr. Ralf Elbert (Co-Chair)

TU Darmstadt, Chair of Management and Logistics

Scientific Committee

Prof. Dr. Michael Boulakias, Cranfield University
Prof. Ph.D. Michael Browne, University of Gothenburg
Prof. Dr. Laetitia Dablanç, University of Paris-Est
Prof. Dr. René De Koster, Erasmus University Rotterdam
Prof. Dr. Gerard DeJong, University of Leeds
Prof. Dr. Gerald Ebel, FH Bielefeld
Prof. Dr.-Ing. Verena Ehrler, IÉSEG School of Management
Prof. Dr. Alexander Eisenkopf, Zeppelin University Friedrichshafen
Prof. Dr. Pietro Evangelista, National Research Council Naples
Prof. Dr. Nathalie Fabbe-Costes, Aix-Marseille Université
Prof. Dr.-Ing. Heike Flämig, Hamburg University of Technology
Prof. Dr. Hanno Friedrich, Kühne Logistics University Hamburg
Prof. Dr. Roel Gevaers, University of Antwerp
Prof. Dr. Christoph Glock, Technische Universität Darmstadt
Prof. Dr. Michael Henke, TU Dortmund University
Prof. Dr.-Ing. Carlos Jahn, Institute of Maritime Logistics
Prof. Dr. Eva Kassens-Noor, TU Darmstadt
Prof. Dr. Danuta Kisperska-Moron, University of Economics Katowice
Prof. Dr.-Ing. Bernd Kuhlenkötter, Ruhr-University Bochum
Prof. Dr. Sebastian Kummer, Wirtschaftsuniversität Wien

Prof. Dr.-Ing. Bert Leerkamp, University of Wuppertal
Prof. Dr. Barbara Lenz, German Aerospace Center
Prof. Dr. Tone Lerher, University of Maribor
Prof. Dr. rer. pol. Gernot Liedtke, German Aerospace Center
Prof. Dr. Alan McKinnon, Kühne Logistics University
Prof. Dr. Herbert Meyr, University of Hohenheim
Prof. Dr. Stefan Minner, Technische Universität München
Prof. Dr. Markus Muschkiet, Hochschule Niederrhein
Prof. Dr. Dr. h.c. Hans-Christian Pfohl, TU Darmstadt
Prof. Dr.-Ing. Markus Rabe, TU Dortmund University
Prof. Dr. Erik Sandberg, Linköping University
Prof. Dr. Kai-Oliver Schocke, University of Applied Sciences Frankfurt
Prof. Dr. Stefan Seuring, University of Kassel
Prof. Dr. Carsten Sommer, University of Kassel
Prof. Dr. Frank Straube, Technische Universität Berlin
Prof. Dr. Lóránt Tavasszy, Delft University of Technology
Prof. Dr. Michael ten Hompel, TU Dortmund University
Inge Vierth, VTI Stockholm
Prof. Dr. Jaroslaw Witkowski, Wrocław University of Economics



Agenda - 6th ICPLT 2023 Dortmund

March 21st, 2023

Venue: TU Dortmund University - MBIII - Baroper Straße 303

Time	Session	Topic	Session	Topic
12:30	Room C	Coffee Reception		
13:15	Room A	Welcome <i>Prof. Dr.- Ing. Uwe Clausen - TU Dortmund University</i>		
13:30	Room A	Keynote: Mobility for more liveable urban spaces <i>Dr.-Ing. Maria Tsavachidis - CEO EIT Urban Mobility</i>		
14:00	Session Chair: Prof. Dr. Bert Leerkamp - University of Wuppertal		Session Chair: Dr.-Ing. Christin Schumacher - TU Dortmund University	
	Room A	Design of a forecasting method for occupancy rates in local public transport based on data from automatic passenger counting systems Stefan Saake, M. Sc. <i>University of Kassel</i>	Room B	Exploratory Analysis of Transport Systems for Disruptive Vehicle Technologies using Continuous Approximation Modeling Elija Deineko, M. Sc. <i>German Aerospace Center (DLR)</i>
14:25	Freight & Public Transport	Effects of Automation on Route and Logistic Network Planning - A Case Study for the Food Retail Industry in Germany Elija Deineko, M. Sc. <i>German Aerospace Center (DLR)</i>	Simulation & Optimization in Production and Logistics	Approximation algorithms for p-Hub Center Problems Niklas Jost, M. Sc. <i>TU Dortmund University</i>
14:50	Room C	Coffee Break		
15:15	Room A	Keynote: Resilient Networks - Optimizing Global Logistics at DB Schenker <i>Dr. Joachim Weise - Senior Vice President Data Strategy and Analytics - DB Schenker</i>		
15:40	Session Chair: Prof. Dr. Ralf Elbert - TU Darmstadt		Session Chair: Prof. Dr. Tone Lerher - University of Maribor	
	Room A	Effects of cognitive biases and their fuzzy measure during freight transportation Eszter Sós <i>Széchenyi István University</i>	Room B	Requirements Catalog for Intralogistics Processes in the Production of Performance Chemicals Maximilian Kiefer, M. Sc. <i>TU Dortmund University</i>
16:05	Freight Transport, Human Factors and Challenges	Knowledge gaps amongst key actors concerning the electrification of the Swedish freight transport system Dr. Petra Stelling <i>VTI Sweden</i>	Chemical Logistics, Hydrogen Supply Chains & Supplier Selection	Hydrogen Supply Chains for Industrial Consumers Patrick Zimmerman, M. Sc. <i>Fraunhofer CML</i>
16:30		First mile challenges for agricultural logistics Taha Karasu, M. Sc. <i>University of Oulu</i>		Occupational Health and Safety Practices and Supplier Selection in the South African Mining and Construction Industry Prof. Dr. Chengedzai Mafini <i>University of South Africa</i>
17:15	Site Visit Fraunhofer IML (optional) <i>Venue: Fraunhofer IML, Joseph-von-Fraunhofer-Str. 2-4, 44227 Dortmund</i>			
19:30	Dinner Reception <i>Venue: "Dortmunder U" - Restaurant Brauturm - Leonie-Reygers-Terrasse, 44137 Dortmund</i>			
20:00	Welcome Address & Introduction "Die Physikanten" <i>Prof. Dr.-Ing. Uwe Clausen</i>			
	Conference Dinner & Dinner Show <i>Die Physikanten</i>			

Agenda - 6th ICPLT 2023 Dortmund

March 22nd, 2023

Venue: TU Dortmund University - MBIII - Baroper Straße 303

Time	Session	Topic	Session	Topic
08:30	Room C	Coffee Reception		
09:00	Room A	Keynote: Supply Chains, Costs and Investments in Times of Multiple Crises <i>Prof. Dr. Hubertus Bardt - German Economic Institute</i>		
09:40	Session Chair: Room A	FGSV-Session Prof. Dr. -Ing. Gernot Liedtke - German Aerospace Center	Session Chair: Room B	Prof. Dr. René de Koster - Rotterdam School of Management
	Freight Transport & Demand Modelling	Identification of logistics land and approach to examine logistics sprawl in the Rhineland metropolitan region Andre Thiemermann, M. Sc. <i>University of Wuppertal</i>	Simulation & Optimization in Production and Logistics	Partitioned vs. Integrated Planning of Hinterland Networks for Less-than-Container-Load Shipment Transportations Niklas Jost, M. Sc. <i>TU Dortmund University</i>
10:05		Microscopic Agent-Based Modeling Framework for Urban Parcel Movements to and from Companies Lukas Barthelmes, M. Sc. <i>Karlsruhe Institute of Technology</i>		Cooling technologies in cooled supply chains. About the suitability and sustainability of dry ice as a cooling medium. An exhaustive literature review Naeem Bagwan, M.Sc. <i>University of Antwerp</i>
10:35	Room C	Coffee Break		
11:00	Session Chair: Room A	WCTRS SIG B3 "Freight Transport Operations and Intermodality" Prof. Dr. Jason Monios - Kedge Business School	Session Chair: Room B	Prof. Dr. Kai-Oliver Schocke, Frankfurt University of Applied Sciences
	Maritime & Rail Transport	Dynamic container routing problem on a rail-based hub-and-spoke network Prof. Dr. Ralf Elbert & Hongjun Wu, M. Sc. <i>TU Darmstadt</i>	Cargo Bikes & Freight Transport	Cargo Bikes in Transport Logistics - Review of User Requirements and Related Bike Models Maximilian Mowe, M. Sc. <i>TU Dortmund University</i>
11:25		Reinforcement Learning at Container Terminals: A Literature Classification Michaela Grafelmann, M. Sc. <i>TU Hamburg</i>		Delivery and shipping behaviour of companies as commercial clients of logistics service providers – An empirical study for Berlin Greta Hettich, M.A. <i>German Aerospace Center (DLR)</i>
12:00	Room C	Lunch Break		
13:00	Session Chair: Room A	Prof. Dr. Roel Gevaers - University of Antwerp	Session Chair: Room B	Prof. Dr. Markus Muschkiet - University of Applied Sciences Niederrhein
	Production, SCM & Maintenance	Resilience of Urban Factories and their Supply Chains - Identification of indicators and Recommendations for Increasing Resilience Sina Rudolf, M. Sc. <i>TU Braunschweig</i>	Electric and Hydrogen Vehicles	Simulation-Based Assessment of the potential of Electrified and Hydrogen-Powered Vehicles for Urban Parcel Delivery Ibraheem Adeniran, M. Sc. <i>German Aerospace Center (DLR)</i>
13:25		The Planning of Hyperloop-based Cargo Tubes Routes for sustainable logistic solutions Heiko Duin <i>BIBA - University of Bremen</i>		Groundbreaking Challenges of Deploying Battery-Electric Terminal Trucks in Container Terminals Andreas Mohr, M. Sc. <i>TU Hamburg</i>
13:50	Room C	Coffee Break		
14:15	Session Chair: Room A	Dr.-Ing. Moritz Roidl - TU Dortmund University	Session Chair: Room B	Prof. Dr.-Ing. Uwe Clausen
	Intralogistics & Logistics Facilities	Robotic gripping efficiency - Benchmarking bin picking performance using different robotic grippers Prof. Dr. Tone Lerher, <i>University of Maribor</i>	e-Highway	Driver's acceptance of overhead line hybrid trucks Regina Linke, M. Sc. <i>TU Darmstadt</i>
14:40		Literature review on current approaches to ergonomic order allocation in order picking Linda Maria Wings, M. Sc. <i>Fraunhofer IML</i>		Greenhouse gas emissions saving potential of the eHighway system Regina Linke, M. Sc. & Jürgen Wilke, Dipl. Ing. <i>TU Darmstadt</i>
15:05		Enhancing manual order picking process through picking robots in a forward-reserve warehouse Minqi Zhang, M. Sc. <i>Saarland University</i>		Traffic flow analysis using electric road system data Jürgen Wilke, Dipl. Ing. <i>TU Darmstadt</i>
15:30	Room A	Best Paper Award Ceremony <i>Prof. Dr.- Ing. Uwe Clausen - TU Dortmund University</i> <i>Prof. Dr. Ralf Elbert - Technische Universität Darmstadt</i>		
15:45	Room A	Closing Remarks <i>Prof. Dr.- Ing. Uwe Clausen - TU Dortmund University</i> <i>Prof. Dr. Ralf Elbert - Technische Universität Darmstadt</i>		

KEYNOTE SPEAKERS



Dr. Maria Tsavachidis is the CEO of the EIT Urban Mobility, a European knowledge and innovation community to accelerate the transition towards sustainable urban mobility and livable urban spaces. Before joining the European Institute for Innovation and Technology in 2018, she was responsible for Innovation at Siemens for more than 20 year in different positions. She started her career as a researcher in the field of Intelligent Transport Systems and holds a PHD in traffic engineering from the Technical University of Munich.

EIT Urban Mobility is an initiative of the European Institute of Innovation and Technology (EIT). Since January 2019 we have been working to encourage positive changes in the way people move around cities in order to make them more liveable places. We aim to become the largest European initiative transforming urban mobility. Co-funding of up to € 400 million (2020-2026) from the EIT, a body of the European Union, will help make this happen.



Dr.-Ing. Joachim Weise is Senior Vice President Data Strategy & Analytics at DB Schenker. The Global Data Strategy & Analytics department comprises teams of Business Consultants, Data Scientists, Operations Research specialists and Data Engineers who, in close cooperation with business units, develop and operate advanced analytics solutions and drive the shift to a data-driven culture.

Prior to his current role, Joachim Weise has leveraged Business Analytics for 15+ years in top management consulting at The Boston Consulting Group and in corporate development roles at Deutsche Bahn AG. Joachim holds a PhD in Innovation Management from the Technical University of Berlin, a MSc in Production Management from Chalmers Tekniska Högskola Göteborg, and a Diploma in Industrial Engineering from the Technical University of Berlin.



Prof. Dr. rer. pol. Hubertus Bardt, born 1974 in Bonn, completed his studies of economics at the Philipps-University Marburg and of business administration at the FernUniversität in Hagen. He received his doctorate on the topic "'Labor" versus "Capital" - on the transformation of a classical conflict" from the Philipps-University Marburg in 2003. Since 2000, Prof. Dr. Bardt has been employed at the German Economic Institute in Cologne. Since 2014, he has been managing director of the German Economic Institute in Cologne and Head of Science. Since 2022, he has been honorary professor at the Heinrich Heine University Düsseldorf. His main research interests are economic policy, industrial policy and climate economics.

The German Economic Institute (IW) is a private economic research institute in Germany, which is an advocate of a liberal economic and social order. We work to improve understanding of how business and society function and interact



Registration

Deadline for registration is **March 1st, 2023** via e-mail.
Further contact information is given below.

Conference Fee

for undergraduate students & speakers	200€
for researchers, PhD-students & practitioners	400€

Conference Venue

Maschinenbau III
Campus Süd
TU Dortmund

Baroper Str. 303
44227 Dortmund, Germany



CONFERENCE DINNER & SHOW

Venue of ICPLT's Conference Dinner is Dortmund's famous landmark at city center.

„Dortmunder U“

The Dinner will be served in the restaurant Brauturm, which is located on roff-top level of the U-Tower building. The Dinner location offers an amazing, panoramic view.

Adress:
Leonie-Reygers-Terrasse
44137 Dortmund



Contact

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