



OPTIMIZING INTEGRATED PASSENGER AND FREIGHT TRANSPORTATION – WHAT, WHY, AND HOW?

Speaker

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Abstract

Passenger and freight transportation are typically operated in isolation. Both systems face challenges, among which are understaffing, underutilized capacity, and entry restrictions to urban areas. Many of these challenges can be addressed by integrating passenger and freight transportation. In this presentation, we first share insights from users and practitioners on challenges and opportunities in Integrated Passenger-Freight Transport (IPFT) systems. We then consider systems with varying levels of integration (from shared infrastructure to integrated services) and the optimization challenges that arise in those systems. We look into (1) how these systems can be modelled, (2) how these models can be solved, (3) what insights can be obtained from their solutions.

Biography

Patrick Stokkink is an Assistant Professor of Transport and Logistics at the Faculty of Technology, Policy and Management at Delft University of Technology. Dr. Stokkink received his PhD degree in Civil Engineering from Ecole Polytechnique Fédérale de Lausanne and a master's degree in Operations Research from Erasmus University Rotterdam. His research interests range from integrated and multi-modal passenger-freight transportation to resilient supply chain logistics. In his work, Dr. Stokkink applies exact and heuristic methods grounded in Operations Research, combined with game theoretic and choice modelling concepts.





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