

## Pricing in transportation networks

Michael Florian · Siriphong Lawphongpanich

© Springer-Verlag Berlin Heidelberg and EURO - The Association of European Operational Research Societies 2015

The purpose of this special issue is to commemorate the inaugural Transportation Science & Logistics Society (TSL) Workshop held in 2011 from June 26th to 29th at the Asilomar Conference Grounds in Pacific Grove, California. The workshop focused on Congestion Management of Transportation Systems on the Ground and in the Air and was organized by Michael Ball of the University of Maryland, Michael Florian of INRO and the Université de Montréal and Siriphong (Toi) Lawphongpanich of the University of Florida. The main goal of the workshop was to bring together researchers from both the road and air transportation domains. Typically, close interactions among researchers from these two disciplines are uncommon. Thus, this workshop provided an opportunity for rich discussions and cross fertilization of ideas. Moreover, the workshop's broader theme, congestion management, is of great interest and importance to transportation planners and government policy makers around the world.

There were 35 presentations organized into ten sessions and two panel discussions. Among the 45 attendees were 12 graduate students whose room, board and registration fee were covered by stipends provided by the workshop sponsors: Center for Multi-model Solutions for Congestion Mitigation at the University of Florida, INRO and the Robert H. Smith School of Business at the University of Maryland.

In this issue, there are four papers that address topics related to pricing in transportation networks. In their paper titled “Tolled Multi-Class Traffic Equilibria

---

M. Florian (✉)  
Université de Montréal, Montreal (Québec), Canada  
e-mail: mike.florian@cirrelt.net

S. Lawphongpanich  
University of Florida, Gainesville, Florida, USA  
e-mail: lawphong@ise.ufl.edu

and Toll Sensitivities,” Lindberg and Engelson consider toll pricing for the purpose of mitigating congestion on road networks assuming that network users have different values of time. They study properties of equilibrium flow distributions in the presence of additive link-tolls and how they influence flows on individual links. Morosan and Florian also study toll pricing on road networks in their paper titled “A Network Model for Capped Link-Based Tolls.” However, tolls in Morosan and Florian’s paper are not necessarily link-wise additive because there is a requirement that the total toll users pay for individual trips must be between a lower and an upper bound. In “Self-Supported Freight Demand Management: Pricing and Incentives,” Holguin-Veras and Aros-Vera propose a system that uses pricing to raise funds needed for implementing an unassisted off-hour delivery program. Such a program can reduce road traffic generated by freight pick-ups and deliveries during peak hours. In “Revenue Management of Rail Container Transportation,” Bilegan, Brotcorne, Feillet, and Hayel study the problem in deciding whether to accept a request (or booking) to transport a shipment via rail in a dynamic setting with uncertain demands. The objective of their problem is to maximize the expected revenue.

All of the above papers were rigorously reviewed to ensure quality. We also want to thank you the journal’s editor-in-chief, Michel Bierlaire, for his help, understanding, and patient throughout the entire process of organizing and preparing this special issue. He independently handled the review of the paper by Morosan and Florian because of the apparent conflict of interest.

Michael Florian  
Siriphong Lawphongpanich  
lawphong@ise.ufl.edu  
mike.florian@cirrelt.net