Editorial

Bernard Fortz^{1,2} · Luís Gouveia³

Published online: 11 May 2016

© EURO - The Association of European Operational Research Societies 2016

This special issue of the EURO Journal on Computational Optimization is devoted to Optimization Methods in Telecommunications. It contains a selection of papers presented or related to topics presented at the 12th INFORMS Telecommunications Conference that was held on March 2–4, 2014 in Lisbon, Portugal.

The papers submitted and accepted for inclusion for this special issue are organized as follows.

[Grégoire and Hamel \(2016\)](#) introduce a model for a bi-objective problem arising in the distribution of digital contents. They consider scheduling user demands in the particular context of Video-On-Demand. The two objectives considered are the cost for the provider and the delay experienced by the end user. The authors derived algorithms related to bin-packing algorithms and conducted a worst-case analysis on them.

The paper by [Hill and Voß \(2016\)](#) studies a network design problem combining rings and tree structures with capacity constraints. They present an exact algorithm based on a branch-and-cut procedure. To this aim, they propose several classes of valid inequalities and propose separation procedures for these inequalities.

[Le et al. \(2016\)](#) study a cooperative game based on the generalized minimum spanning tree, that aims at distributing the cost of the tree among players. This is an extension of the minimum spanning tree game, where the graph is partitioned into clusters, and the tree must include exactly one vertex from each cluster. The paper

✉ Bernard Fortz
bernard.fortz@ulb.ac.be

¹ Département d'Informatique, Université Libre de Bruxelles, CP 212, Boulevard du Triomphe, 1050 Brussels, Belgium

² INOCS, INRIA Lille Nord-Europe, Lille, France

³ Departamento de Estatística e Investigação Operacional, Faculdade de Ciências da Universidade de Lisboa, Bloco C/2-Campo Grande, Cidade Universitária, 1700 Lisbon, Portugal

studies properties of this game and describes a constraint generation algorithm to calculate a stable payoff distribution.

Finally, the paper by [de Sousa et al. \(2016\)](#) addresses two variants of the routing and wavelength assignment problem arising in the context of optical transport networks. For each variant, they propose an integer linear programming compact formulation. These formulations are then improved using variable reformulation and variable elimination techniques.

We would like to thank the authors for having submitted top-quality papers and the referees for their excellent reviews.

References

- de Sousa A, Lopes CB, Monteiro P (2016) Compact ILP formulations for the routing and wavelength assignment problem in the design of optical transport networks with regenerators. *EURO J Comput Optim* 4(2):189–214
- Grégoire J-Ch, Hamel AM (2016) Models for video-on-demand scheduling with costs. *EURO J Comput Optim* 4(2):125–136
- Hill A, Voß (2016) Optimal capacitated ring trees. *EURO J Comput Optim* 4(2):137–166
- Le PH, Nguyen T-D, Bektaş T (2016) Generalized minimum spanning tree games. *EURO J Comput Optim* 4(2):167–188