Call for Papers

Annals of Operations Research
Special Volume: ROADEF/EURO Challenge 2014 on Rolling Stock Unit Management on Railway Sites


Between arrivals and departures in terminal train stations, trains never vanish. Unfortunately, this aspect is often neglected in railway optimization approaches. Whereas in the past, rail networks had enough capacity to handle all trains without much trouble, traffic has greatly increased in recent years and some stations have real congestion issues. The ROADEF/EURO challenge 2014 was proposed by SNCF to address the multiple dimensions of this problem.

The aim of this challenge was to solve an integrated train planning and routing problem where the goal was to assign arriving trains to scheduled departures after possible convoy junctions or disjunctions. Assignment problems of trains to facilities (such as platforms, yards, single tracks, and track groups), maintenance constraints, and resource constraints were present. The complete routing and scheduling of the train through the facilities had to be computed with the objective to minimize a global cost, including penalties for uncovered departures, maintenance costs, and resource usage costs.

We invite papers for this special volume of the Annals of Operations Research. All participants to the ROADEF/EURO challenge 2014 are invited to submit a paper.

Papers addressing optimization methods for related railway planning problems are welcome as well.

More details can be found on the subject at http://challenge.roadef.org/2014/en/

Instructions for authors can be found at:
http://www.springer.com/business/operations+research/journal/10479

Authors should submit a cover letter and a manuscript by May 15, 2015, via the Journal's online submission site. Manuscripts submitted after the deadline may not be considered for the special volume and may be transferred to a regular volume.

Please see the Author Instructions on the web site if you have not yet submitted a paper through Springer's web-based system, Editorial Manager. Be sure to note when leaving a comment that your work is intended for the special volume and to select the article type "S.I. : Rolling Stock Unit Management".

Papers will undergo a strict review process managed by the Guest Editors, and accepted papers will be published online individually, before print publication.
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