

Invitation to lecture series „Simulation Sciences“

Wednesday, January 13th 2016, Room 0.101, Institute for Computer Science, University of Göttingen, 4:30 pm

Dr. Natalia Rezanova
Danish State Railways (DSB)

will talk about

Optimization problems in DSB long-term and strategic planning

Content of the lecture:

Danish State Railways (DSB) is the largest passenger operator in Denmark. DSB Longterm Planning Department is responsible for the long-term traffic planning, including line planning, timetabling and rolling stock (2 years before the day of operations), as well as the strategic traffic planning (10+ years before the day of operations). Many optimization problems arise within the different strategic planning areas. Some of them are solved using commercial optimization software uniquely developed for DSB. Other optimization problems are addressed in-house. The talk will focus on two different optimization projects, where Mixed Integer Programming models formulated, implemented and solved. The line planning optimization model determines an optimal set of train lines, patterns and frequencies, and is used in the strategic planning on DSB S-train network. The facility location optimization model is developed to determine the size and location of maintenance, preparation, cleaning and stabling facilities required to service the fleet of electrical trains, which DSB is planning to acquire in the near future. Both projects, even though quite different in purpose and impact, exploit the advantages of Operations Research and help to address the real-life challenges of a railway operator.

Guests are welcome.

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The SWZ is a common interdisciplinary research facility in simulation science of



TU Clausthal



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GÖTTINGEN

The lecture will be held in this building:

Room 0.101

**Institute für Computer Science, University of Göttingen
Goldschmidtstrasse 7
37077 Göttingen**

