

# VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

*Zeit:* Donnerstag, 18. Juni 2009, 17:30 Uhr

*Ort:* Raum 214, Gebäude 11.40

*Es spricht:* Prof. Elena Fernández, Universidad Politécnica de Cataluña (UPC) Barcelona

*Zum Thema:* **The Tree of Hubs Location Problem: formulations and solution algorithms**

*Abstract:* The Tree of Hubs Location Problem (THLP) is a hub location problem that combines several aspects of location, network design and routing problems. Its main particularity is that it is required that the hubs are connected by means of a tree. Feasible solutions can be obtained with a simple heuristic. However, mathematical programming formulations that allow the exact solution of the THLP require a big number of variables which limits drastically the size of the instances that can be addressed in practice. We present two different integer programming formulations for the THLP and, for each of them, we analyze its potential advantages and difficulties, as well as its algorithmic possibilities. Furthermore, we present several families of valid inequalities, and we give an exact separation procedure for them. Finally, some computational results are given that for instances up to 100 nodes.

## Die Vorträge zum Operations Research wenden sich an alle Interessierten!

Ab 17:00 Uhr ist am Lehrstuhl für Operations Research (Gebäude 11.40, Besprechungsraum 249) Gelegenheit zu einem Gespräch mit dem Referenten bei einer Tasse Kaffee gegeben.

Bei Rückfragen wenden Sie sich bitte an:

Prof. Dr. Stefan Nickel, Lehrstuhl für Operations Research.