



**Prof. Dr.
Gerhard Wäscher**

Research Interests

The research interests of Dr. Andreas Bortfeldt focus on advanced methods for decision support like graph search strategies and metaheuristics, including also parallel metaheuristics. New approaches are developed in the first line for cutting and packing problems of different types and dimensions. Recently highly topical problems in the area of transportation logistics which combine packing and routing aspects are investigated. Moreover, other application fields, e.g., container management in seaports or school timetabling, are also addressed. Further research activities are concerned with the development of patterns for object oriented system analysis. Current research projects are dealing with:

- ▶ the development of advanced metaheuristics for solving different variants of the vehicle routing and loading problem,
- ▶ the development of a graph search approach for three-dimensional container loading that is capable to take into account a broad spectrum of packing constraints,
- ▶ the development of graph search approaches for container pre-marshalling problems in container seaports,
- ▶ the development of an instance generator for 3D container loading problems with multiple constraints.