

数学与系统科学研究院
计算数学所学术报告

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报告题目:

**A Vehicle Routing Problem in Glass
Waste Collection**

邀请人: 数学院卓越中心

报告时间: **2015 年 9 月 29 日 (周二)**

下午 16:00

报告地点: 数学院南楼二层

202 会议室

Abstract:

We consider a capacitated vehicle routing problem which occurs in the context of glass waste collection. Supplies of several different product types (glass waste of different colors) are available at customer locations. The supplies have to be picked up at their locations and moved to a central depot at minimum cost. Different product types may be transported on the same vehicle, however, while being transported they must not be mixed. A specific device allows for separating the capacity of each vehicle individually into a limited number of compartments where each compartment can accommodate one or several supplies of the same product type. For solving this problem a mathematical model has been implemented by means of IBM ILOG CPLEX. Since only small instances can be solved to optimality, a heuristic solution approach, namely a variable neighborhood search, has been developed and implemented. The metaheuristic has been evaluated in extensive numerical experiments, both on randomly generated problem instances and on real world data.

欢迎大家参加！