

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:

**Inexactness in several decomposition  
methods for MINLP**

邀请人: 戴彧虹 研究员

报告时间: 2016 年 4 月 22 日 (周五)

下午 14:00-15:00

报告地点: 数学院南楼九层

902 会议室

## **Abstract:**

**In the context of convex mixed integer nonlinear programming (MINLP), we investigate how decomposition methods such as the outer approximation (OA) method, the generalized Benders decomposition (GBD) method and the feasibility pump (FP) technique are affected when the respective nonlinear programming (NLP) subproblems are solved inexactly. The former two methods are well-known as the exact methods for MINLP, while the last one belongs to heuristic methods for MINLP. We show that the cuts in the master problems can be changed to incorporate the inexact residuals, still rendering equivalence and finiteness in the limit case. Some numerical results will be presented to illustrate the behavior of the methods under NLP subproblem inexactness.**

**欢迎大家参加！**