

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:

Inexact Feasibility Pump for Mixed Integer Nonlinear Programming

邀请人: 戴彧虹 研究员

报告时间: 2016 年 11 月 13 日 (周 日)

下午 14:00~15:00

报告地点: 数学院南楼七层

702 会议室

Abstract:

The mixed integer nonlinear programming (MINLP) problem as an optimization problem involves both continuous and discrete variables. Moreover, at least one of the functions defining the objective function or the constraints must be nonlinear. Because of its complexity, it is very difficult to obtain the exact optimal solution. Therefore, the heuristic methods for getting a feasible solution of MINLPs are very important in practice. The feasibility pump is one of the famous heuristic methods, which alternates between solving nonlinear programming (NLP) problems and mixed integer linear programming (MILP) relaxed master problems. We show that the feasibility pump can be extended to the case where the NLP problems are solved inexactly and propose the convergence of this method under some conditions. Moreover, we present the study of inexactness of the Lagrange multipliers (which are returned negative) of the NLP problems.

欢迎大家参加！