数学与系统科学研究院

计算数学所博士后学术报告

报告人：　Dr. Yakui Huang

（ *Institute of Computational Mathematics and Scientific/Engineering Computing, CAS* ）

报告题目：

A new algorithm for MINLP arising in gas network optimization

报告时间：2016 年 10 月 12 日（周三）

下午 16:00-17:00

报告地点：　科技综合楼三层

311 报告厅

Abstract:

Nowadays, large quantities of natural gas is transported through a gas network system which involves a set of pipes, compressors stations, and other physical components. Typically, about 3-5% of the transported gas is consumed by these compressor stations. As a result, how to operate the compressors driving the gas at minimum cost is an important aim of gas network optimization. Integer variables are often introduced to represent the running state of a compressor, which leads to a complex mixed integer nonlinear problem (MINLP). We propose a new method to solve the MINLP where the nonlinear functions are approximated by piece-wise linear ones by employing the convex combination method. Preliminary numerical results are also presented.

欢迎大家参加！