数学与系统科学研究院

计算数学所学术报告

报告人：**Prof. Jiming Peng**

(UIUC, USA)

报告题目：

Separable nonconvex quadratci optimization with applications to optimal asset deleveraging strategies with linear price impact

邀请人：　　戴彧虹 研究员

报告时间：**2013** 年 **7** 月 **5** 日（周五）

下午 **14:30-15:30**

报告地点：　　科技综合楼三层 **311**

计算数学所报告厅

Abstract:

In this talk, we consider the optimal aset deleveraging problem under linear price impact, which can be formulated as a separable nonconvex optimization problem with a single quadratic and box constraints known to be NP-hard. We present a lagrangian method for solving the nonconvex QP and characterize when the globally optimal solution can be located in polynomial time under mild conditions on the present price of the asset and the price impact factor.

We also estimate the approximation ratio of the obtained solution when it is only suboptimal. If time allows, we shall discuss extensions to the scenario of nonlinear price impact and cross-impact.

This is joint with Jingnan Chen, Liming Feng and Yinyu Ye.

欢迎大家参加！