数学与系统科学研究院

计算数学所学术报告

报告人： **Jiawang Nie**

（ *University of California* ）

报告题目：

Tight relaxations for polynomial optimization

邀请人： 戴彧虹 研究员

报告时间：2018 年 12 月 13 日（周四）

上午 10:30

报告地点： 数学院南楼二层

202 教室

Abstract：

We propose tight semidefinite relaxations for polynomial optimization. The optimality conditions are investigated. We show that generally Lagrange multipliers can be expressed as polynomial functions in decision variables over the set of critical points. The polynomial expressions can be determined by linear equations. Based on these expressions, new Lasserre type semidefinite relaxations are constructed for solving polynomial optimization. We show that the hierarchy of new relaxations has finite convergence, or equivalently, the new relaxations are tight for a finite relaxation order.

欢迎大家参加！