

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Jiawang Nie**

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报告题目:

**Local versus global conditions in
polynomial optimization**

邀请人: 戴彧虹 研究员

报告时间: **2016年9月18日(周日)**

上午 10:30-11:30

报告地点: 数学院南楼七层

702 会议室

Abstract:

This talk compares local and global conditions for polynomial optimization problems. First, we review the classical local optimality conditions: constraint qualification, strict complementarity and second order sufficiency conditions. We show that they are always satisfied, except a zero measure set of input data. Second, we review global optimality conditions that are expressed by sum-of-squares type representations. We show that if the above classical local optimality conditions hold, then the sum-of-squares type global optimality conditions must be satisfied. Third, we review Lasserre's hierarchy for solving polynomial optimization, and show that it always has finite convergence, except a zero measure set of input data.

欢迎大家参加！