数学与系统科学研究院

计算数学所学术报告

报告人：**Assistant Prof. Rongjie Lai**

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报告题目：

Geometric PDEs meet matrix completion: Euclidean distance geometry problem and beyond

邀请人：　刘歆副研究员

优化与应用研究中心

报告时间：**2017** 年 **12** 月 **15** 日（周五）

上午 **11:30--12:30**

报告地点：数学院科技综合楼

三层 **311** 报告厅

报告摘要：

The problem of global understanding of point clouds represented as incomplete inter-point distance has many applications in 3D modeling, sensor network localization as well as protein structuring. Without considering time-consuming global coordinates reconstruction, we propose to only reconstruct manifold locally based on low-rank matrix completion theory and to conduct global understanding using geometric PDEs to link local information and global information. I will demonstrate efficiency and effectiveness of the proposed methods. I will also discuss some theoretical analysis of the proposal low-rank matrix completion problem and its extension to understanding matrix completion from sampling under non-orthogonal basis.

欢迎大家参加！