数学与系统科学研究院

计算数学所学术报告

报告人： **Prof. Shiqian Ma**

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报告题目：

On the Convergence and Complexity of Nonconvex ADMM

邀请人： 刘歆 副研究员

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报告时间：2018 年 8 月 28 日（周二）

上午 **10:00-11:00**

报告地点： 科技综合楼三层

311 报告厅

Abstract:

The alternating direction method of multipliers (ADMM) has been successfully used in solving problems arising from different fields such as machine learning, image processing, statistics and so on. In this talk, we discuss several recent results on convergence behavior of ADMM for solving nonconvex problems. We consider two nonconvexmodels. The first model allows the objective function to be nonconvex and nonsmooth, but the constraints are convex. The second model allows the constraints to be Riemannian manifolds. For both models, we propose ADMM variants for solving them and analyze their iteration complexities for obtaining an ϵ-stationary solution. Numerical results on tensor robust PCA, maximum bisection problem and community detection problem are reported to demonstrate the efficiency of the proposed methods.

欢迎大家参加！