

数学与系统科学研究院

计算数学所学术报告

报告人: Associate Prof. Anthony Man-Cho So

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报告题目:

**Linear Convergence of the Proximal  
Gradient Method for Structured  
Trace Norm Regularization**

邀请人: 刘亚锋 博士

报告时间: 2013 年 8 月 6 日 (周二)

下午 15:00-16:00

报告地点: 科技综合楼三层 311

计算数学所报告厅

## Abstract:

Motivated by various applications in machine learning, the problem of minimizing a convex smooth loss function with trace norm regularization has received much attention lately. Currently, a popular method for solving such problem is the proximal gradient method (PGM), which is known to have a sublinear rate of convergence. In this talk, we show that for a large class of loss functions, the convergence rate of the PGM is in fact linear. Our result is established without any strong convexity assumption on the loss function. A key ingredient in our proof is a new Lipschitzian error bound for the aforementioned trace norm-regularized problem, which may be of independent interest.

欢迎大家参加!