

# 数学与系统科学研究院

## 计算数学所学术报告

报告人: Associate Prof. Junfeng Yang

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报告题目:

**Inertial proximal point method and  
inertial ADMM**

邀请人: 袁亚湘 院士

报告时间: 2015 年 3 月 17 日 (周二)

下午 15:30-16:30

报告地点: 数学院科技综合楼三层

311 报告厅

## **Abstract:**

**In this talk, we first review some popular first order methods, including the Augmented Lagrangian Method (ALM), linearized ALM, Douglas-Rachford Operator Splitting, Alternating Direction Method of Multipliers (ADMM), primal-dual algorithm of Chambolle-Pock and linearized ADMM. We explain that all these methods fall into the framework of proximal point method (PPM). Then, motivated by a second order differential system, we propose a general inertial PPM for mixed variational inequality problem. Convergence and rate of convergence results are established under certain conditions. When restricted to structured convex optimization with linear constraints, similar convergence results are also established for proximal ADMM. Finally, we present some numerical results to illustrate the benefits gained by the inertial extrapolation.**

**欢迎大家参加！**