

# 数学与系统科学研究院

## 计算数学所学术报告

报告人: **Prof. Bangti Jin**

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报告题目:

**Mathematical Modeling for  
Magnetic Particle Imaging**

邀请人: 龚伟 副研究员

报告时间: 2018年4月11日(周三)

上午 10:00--11:00

报告地点: 数学院科技综合楼

三层 Z311 报告厅

报告摘要:

**Magnetic particle imaging is an imaging modality of relatively recent origin. It exploits the nonlinear magnetization response for reconstructing the**

**concentration of nanoparticles. Since first invented in 2005, it has received much interest in the literature. In this talk I will discuss one prototypical mathematical model in multi-dimension, i.e., the equilibrium model, which formulates the problem as a linear Fredholm integral equation of the first kind. I will discuss the degree of ill-posedness of the associated linear integral operator by means of the singular value decay estimate for Sobolev smooth bivariate functions, and discuss the influence of various experimental parameters on the decay rate.**

**欢迎大家参加！**