

# 数学与系统科学研究院

## 计算数学所学术报告

报告人: **Prof. Xue-Cheng Tai**

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报告题目:

**PDE based algorithms for smooth  
watersheds**

邀请人: 陈志明院士

报告时间: 2017 年 12 月 26 日 (周二)

上午 10:00--11:00

报告地点: 数学院南楼七层

702 教室

报告摘要:

**Tracking of front propagation for water**

**immersion has many applications.**

**Traditionally, the front is tracked by fast sorting algorithms. In this work, we propose a PDE based method to track the front. The main advantage of using a partial differential equation to track the immersion front is that the method becomes versatile and may easily be stabilized by introducing regularization terms. We demonstrate the advantage of the new method for image segmentation. Coupling the geometric approach with a proper "merging strategy" creates a robust algorithm which minimizes over- and under-segmentation even without predefined markers.**

**This talk is based on joint work with Kalisch and Hodneland**

**欢迎大家参加！**