

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Xiaoping Xie**

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报告题目:

**Efficient algorithms for time
fractional wave and diffusion
equations**

邀请人: 毛士鹏 副研究员

报告时间: 2018 年 10 月 29 日 (周一)

下午 16:00-17:00

报告地点: 科技综合楼三层

311 报告厅

Abstract:

We consider numerical algorithms of high-order temporal accuracy for two types of fractional partial differential equations, i.e. time fractional wave and diffusion problems. For the time fractional wave problems, we develop two numerical methods, a time-spectral finite element method and a space-time finite element method. For the time fractional diffusion problems, we present a time-stepping finite element method and a discontinuous Galerkin method. Stability and convergence of the algorithms are derived. Numerical experiments are performed to verify the theoretical results.

This is joint work with Binjie Li and Hao Luo.

欢迎大家参加！