

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**Numerical Analysis of FEMs for
Multi-Term Time Fractional PDEs**

邀请人: 唐贻发 研究员

报告时间: 2017 年 10 月 19 日(周四)

上午 9:30-10:30

报告地点: 数学院南楼七层

702 教室

Abstract:

Some underlying processes can be described more accurately by multi-term time fractional PDEs than single-term ones. We focus on numerical analysis of classical FEMs and mixed FEMs for three kinds of two-dimensional multi-term time fractional PDEs. Unconditionally stable fully-discrete approximate schemes are established by using proper temporal FDMs and spatial FEM. Moreover, by employing the properties of finite elements and temporal FDMs, optimal order error estimates or spatial global superconvergence are proposed without restrictions between time step and mesh size. And, several numerical results have been provided to confirm the efficiency and reliability of the theoretical analysis.

欢迎大家参加！