数学与系统科学研究院

计算数学所学术报告

报告人： 赵艳敏 教授

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报告题目：

多项时间混合分数阶扩散波动方程的有限元方法高精度分析

邀请人： 唐贻发 研究员

报告时间： 2021 年 5 月 22 日（周六）

晚上 **20:00-21:00**

报告地点： 数学院南楼

702 教室

Abstract：

Fully discrete schemes are proposed for multi-term time-fractional mixed sub-diffusion and diffusion-wave equations on regular and anisotropic meshes, where FEM is used for the spatial discretization and modified L1 approximation coupled with Crank-Nicolson scheme is applied to temporal direction. Theoretical proofs of unconditional stability are presented. Based on the property of the projection operator, the special relationship between the projection operator and the interpolation operator of FEM, the optimal error estimation and superclose result are deduced. Then the global superconvergence property is derived by the interpolated postprocessing technique. Some numerical experiments are carried out to confirm the theoretical analysis.

欢迎大家参加！