数学与系统科学研究院

计算数学所网络学术报告

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报告题目：

Error analysis of some numerical methods for fractional differential equations with weakly singular solutions

邀请人：　唐贻发 研究员

报告时间：**2020** 年 **6** 月 **26** 日（周五）

上午 **10:30-11:30**

报告工具：腾讯会议直播地址

https://meeting.tencent.com/s/m4XCHynwYbbg

Abstract:

The solutions of the fractional initial-boundary problems usually have some weak singularities at the initial time $t=0$. In this talk, we do some error analysis of some numerical methods for time fractional initial-boundary problems with weakly singular solutions, including L1 scheme, Gr\"{u}nwald-Letnikov scheme and L2-1_σ scheme. Also we improve the error bounds for some numerical methods which otherwise will blow up when α approaches 1 in the existing literature.

欢迎大家参加！