

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Qianqian Ding**

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报告题目:

**Second order unconditionally  
convergent of finite element method  
for the thermally equation with Joule  
heating problem**

邀请人: 毛士鹏 研究员

报告时间: 2020 年 12 月 16 日(周三)

**晚上 19:00-20:00**

报告地点: 科技综合楼

**311 教室**

## **Abstract:**

**In this talk, we will discuss the finite element approximation for nonlinear thermally equation. The fully discrete second order backward difference formula based on the finite element method to approximate the temperature and electric potential is considered. We establish the optimal L2 error estimate for the fully discrete finite element solution without any restriction on the time-step size. In addition, the discrete solution enjoys boundedness of infinite-norm. Finally, several numerical examples verify the effectiveness of the scheme.**

**欢迎大家参加！**