

数学与系统科学研究院  
计算数学所网络学术报告

报告人: **Associate Prof. Buyang Li**

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报告题目:

**Convergence of Dziuk's linearly  
implicit parametric finite element  
method for curve shortening flow**

邀请人: 毛士鹏 研究员

报告时间: **2020 年 11 月 20 日 (周五)**

**下午 14:00-15:00**

报告工具: 腾讯会议 (ID: 745 692 378)

会议链接:

<https://meeting.tencent.com/s/fAxEjHMNUMYW>

## Abstract:

Convergence of Dziuk's fully discrete linearly implicit parametric finite element method for curve shortening flow on the plane remains still open since it was proposed in 1990, though the corresponding semidiscrete method with piecewise linear finite elements has been proved to be convergent in 1994. In this paper, we present an error estimate of Dziuk's fully discrete linearly implicit parametric finite element method for curve shortening flow on the plane for finite elements of polynomial degree  $r \geq 3$ . Numerical experiments are provided to support and complement the theoretical convergence result.

欢迎大家参加！