

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Yufeng Nie**

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报告题目:

**Error Estimates for Laplace  
Interpolation on Convex Polygons**

邀请人: 曹礼群 研究员

报告时间: 2019 年 1 月 14 日 (周一)

下午 14:00-15:00

报告地点: 数学院南楼七层

702 教室

## **Abstract:**

**We present numerical results, which show that the proposed approach can provide good accuracy. Laplace interpolation error estimate on convex planar polygons suitable for the natural element method (NEM) is proved in this talk. The proof is based on bounding gradients of Laplace interpolation for convex polygons that satisfy certain geometric requirements, and can be divided into several parts with each part bounded by a constant. Under the given geometric assumptions, we can obtain an optimal convergence estimate. Some simple numerical examples are selected to verify the theoretical result, and to show the computing accuracy of natural element method.**

**欢迎大家参加！**