

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Ming-Jun Lai**

(*Department of Math., University of Georgia*)

报告题目:

**Polygonal Splines and Their
Application**

邀请人: 许志强 研究员

报告时间: **2019 年 7 月 10 日 (周三)**

上午 10:30

报告地点: **数学院南楼二层**

208 教室

Abstract:

In addition to bivariate splines over triangulation, we shall define bivariate splines over a collection of polygons. Over each polygon, say pentagon P , we use generalized barycentric coordinates (GBC), say Washpress coordinate to construct a set of basis functions over P of degree d called reduced GBC polynomials of degree d which enable us to reproduce polynomials of degree d . Then continuous polygonal splines can be defined and can be used to solve PDE numerically.

Next we explain how to construct C^1 polygonal splines using GBC polynomials of degree d over quadrilaterals. We construct C^1 vertex splines and show how to use them for surface construction.

欢迎大家参加！