数学与系统科学研究院

计算数学所学术报告

报告人：　朱升峰 副教授

（ 数学科学学院，华东师范大学 ）

报告题目：

Convergence analysis of mixed finite element approximations to shape gradients in shape optimization of flows

邀请人：　　龚伟 副研究员

报告时间：**2019** 年 **7** 月 **24** 日（周三）

下午 **16:30~17:30**

报告地点：　　科技综合楼三层

311 报告厅

Abstract:

Eulerian derivatives of shape functionals in shape optimization can be written in two formulations of boundary and volume integrals. For shape functionals governed by the Stokes equation, we consider the mixed finite element approximations to the two types of shape gradients. We present a priori error estimates for the two approximate shape gradients. The theoretical analysis shows that the volume integral formula has superconvergence property. Numerical results are presented to verify theory and show practical applications in shape optimization of flows.

欢迎大家参加！