数学与系统科学研究院

计算数学所学术报告

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报告题目：**An H(div) Finite Element Method for the Stokes Equations and its a posteriori Error Estimation**

邀请人：　许学军研究员

报告时间：**2010** 年 **7** 月 **7** 日（周三）下午 **4：00**

报告地点：　科技综合楼三层 **311** 计算数学所报告厅

Abstract:

An H(div) finite element method for the Stokes equations and its a posteriori error estimation will be presented. This method is designed to find the discrete velocity and pressure in stable pairs of H(div) conforming spaces. One important property of this method is that the discrete velocity will be exactly divergence-free, assuming the fluid is incompressible. Hence the saddle-point problem for the Stokes equations can easily be reduced to a symmetric positive definite problem in the divergence-free subspace for which basis functions are readily available. Numerical results have demonstrated the efficiency and robustness of this divergence-free H(div) finite element approach. We will also discuss an a posteriori error estimator for the H(div) finite element method. This talk is based on the joint work with Junping Wang and Xiu Ye.

欢迎大家参加！