数学与系统科学研究院

计算数学所网络学术报告

报告人：　　陈黄鑫 教授

（ *厦门大学* ）

报告题目：

Modeling and simulation of flow in fractured porous media: adaptation and multiscale approximation

邀请人：　黄记祖 副研究员

报告时间：**2021** 年 **12** 月 **15** 日（周三）

上午 **9:00-10:00**

报告工具：腾讯会议（**ID：325-957-902**）

会议链接：

https://meeting.tencent.com/dm/c1sUuBcIppjM

Abstract:

In this talk we will introduce the adaptive mixed FEM and adaptive IP-HDG method for the Darcy flow in fractured porous media. The discrete fracture model (DFM) is applied to model the fractures. We derive robust residual-based a posteriori error estimators for the problem with non-intersecting fractures. The reliability and efficiency of the a posteriori error estimator are established for the error measured in an energy norm. We will also introduce the multiscale approximation for simulating the Darcy flow in fractured porous media with complex fractures distribution. Numerical results will be shown to demonstrate the efficiency of the adaptive algorithms and the multiscale approximations.

欢迎大家参加！