数学与系统科学研究院

计算数学所学术报告

报告人：　　**Prof. Ju Lili**

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报告题目：

Adaptive Finite Volume Methods for Convection-Diffusion Equations with Mesh Optimization

邀请人：　　崔涛 博士

报告时间：**2013** 年 **5** 月 **14** 日（周二）

下午 **15:00-16:00**

报告地点：　科技综合楼三层 **301**

计算数学所小报告厅

Abstract:

In this talk, we consider an adaptive meshing scheme for the convection-diffusion equations with mixed boundary conditions. The mesh refinement and optimization process is based on an algorithm that combines the so-call conforming centroidal Voronoi Delaunay triangulations and a residual type a posteriori error estimator for the finite volume (co-volume) discretization. Various numerical experiments including convection-dominated cases are presented and our adaptive scheme is shown to be optimal in the following sense: errors are very well equidistributed over the triangles; at all levels of refinement, the triangles remain very well shaped; and the convergence rates achieved are the best obtainable using the finite volume method.

欢迎大家参加！