

数学与系统科学研究院
计算数学所学术报告

(定期学术报告)

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**报告题目: Various Numerical
Methods in CFD to Handle Complex
and Moving Boundaries**

邀请人: 袁礼研究员

**报告时间: 2007年12月6日(周四)
下午4:00—5:00**

**报告地点: 科技综合楼三层311
计算数学所报告厅**

Abstract:

In this presentation, three methods in CFD to deal with complex and moving boundary will be introduced. They are: 1) Immersed Boundary Method (IBM) 2) Unstructured Chimera mesh method; 3) Unstructured ALE method. The first method has received a lot of attentions in the recent years due to easy mesh generation and highly efficient solver. Most of its existing applications are limited to laminar flows and some researchers are now considering its utilization in LES and DNS of turbulence. Although some hurdles still exist (e.g. SGS and wall modeling, mesh resolution in the boundary layer etc), IBM is a very promising technique in CFD aimed at industrial applications.

The formulation, implementation and applications of these methods will be given. Most of the numerical examples are taken from the works of the research group in LNM, IMECH. The advantages and hurdles of each method and the future research directions will be discussed.

欢迎大家参加！