数学与系统科学研究院

计算数学所学术报告

报告人：**Tenured Lecturer Omar Lakkis**

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报告题目：

A posteriori error analysis of timestepping schemes for the wave equation

邀请人：　陈志明 研究员

　　　　　张晨松 副研究员

报告时间：2014 年 12 月 15 日（周一）

下午 **16:00**

报告地点：　数学院南楼七层 **702**

会议室

Abstract：

Aposteriori error estimates provide a rigorous foundation for the derivation of efficient adaptive algorithms for the approximation of solutions of partial differential equations. While the literature abounds with results for elliptic and (more recently) parabolic equations, the situation is much less developed for the hyperbolic equations such as the wave equation. In this talk, I will review some of the "standard" aposteriori results by Bangerth, Rannacher, Bernardi, and Süli, for the wave equation and present recent developments and improvements. Particular focus will be given to practically relevant methods such as Verlet, or Cosine, methods, a popular example of which is the Leap-frog method. This is based on joint work with E.H. Georgoulis, C. Makridakis and J.M. Virtanen.

欢迎大家参加！