数学与系统科学研究院

计算数学所学术报告

报告人： **Prof. Lianjie Huang**

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报告题目：

Imaging Complex Subsurface Structures with High–Resolution Acoustic and Elastic Wave–Equation Migration

邀请人： 陈志明研究员

报告时间： **2008 年 5 月 16 日(周五)**

上午 10:00—11:00

报告地点： 科技综合楼三层 311

计算数学所报告厅

Abstract：

Imaging complex subsurface structures is critically important for many applications, including oil/gas exploration, reservoir monitoring for optimizing production, and long-term monitoring of carbon sequestration. Conventional ray-based Kirchhoff migration imaging often fails in complex regions because it cannot properly handle complex wave phenomena. We have developed a number of wave-equation-based migration imaging methods. They are based on solutions of acoustic- (scalar-) and elastic-wave equations, and can accurately account for seismic-wave propagation and scattering effects in complex regions during migration imaging. I will present migration imaging results of synthetic and real 2D/3D seismic data. The results demonstrate that wave-theory-based migration imaging can greatly improve image resolution and quality for complex regions compared to industry routinely used Kirchhoff migration.

欢迎大家参加！