

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Rong-Qing Jia**

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报告题目:

**Applications of Approximation
Theory to Some Fundamental
Problems in Numerical Partial
Differential Equations**

邀请人: 许志强 研究员

报告时间: **2014年6月9日 (周一)**

上午 10:00

报告地点: **科技综合楼三层 311**

计算数学所报告厅

Abstract:

The finite difference method and the finite element method are two main methods for numerical solutions of partial differential equations. Although these methods have been well developed, some fundamental problems remained unsolved.

In this talk we are concerned with elliptic equations of second order on domains with nonsmooth boundaries. The solutions for nonsmooth domains often do not have full regularity. In such a case, the optimal order of convergence in the L2-norm by the finite element method was not known. We demonstrate that substantial techniques from approximation theory can be used to solve such fundamental problems.

欢迎大家参加!