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：

Adaptive finite element methods for Maxwell equations

报告时间：2009 年 11 月 26 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：

We develop an adaptive finite element method for solving the eddy current model with voltage

excitations for complicated three dimensional structures. The mathematical model is based on the $\bA-\phi$ formulation whose well-posedness is established. We derive the a posteriori error estimate for the finite element approximation of the model whose solution is not unique in the non-conducting region. We also consider the elliptic and electromagnetic problems with discontinuous coefficients. The meshes in the methods do not need to fit the interfaces. New error indicators are introduced to control the error due to non-body-fitted meshes. Flexible h-adaptive strategies are developed, which can be systematically extended to a large class of interface problems. The talk is based on joint works with Junqing Chen, Tao Cui, Yuanming Xiao and Linbo Zhang.

欢迎大家参加！