数学与系统科学研究院

计算数学所定期学术报告

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报告题目：

Construction of H^2(curl) conforming elements and their application

邀请人： 毛士鹏 研究员

报告时间：**2019 年 5 月 9 日（周四）下午 16:00-17:00**

报告地点： 数学院南楼二层 **204 教室**

Abstract：

In 1980 and 1986, Nedelec proposed $H(curl)$-conforming elements to solve electromagnetic equations that contains the "curl" operator. It is more or less as the H^1-conforming elements (or C^0 elements) for elliptic equations that contains the "grad" operator. As is well known in the finite element method literature, in order to solve 4th-order elliptic equations such as the bi-harmonic equation, H^2-conforming elements (or C^1-elements) were developed. Recently, there have been some research in solving electromagnetic equations which involve four "curl" operators. Hence, construction of $H(curl\ curl)$-conforming elements becomes necessary. In this work, we construct $H(curl\ curl)$-conforming elements for rectangular and triangular meshes and apply them to solve quad-curl equations as well as related eigenvalue problems.

欢迎大家参加！