

数学与系统科学研究院

计算数学所学术报告

(学术研讨班)

报告人: Prof. Bao Gang

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报告题目:

Maxwell's Equations in Periodic  
Structures with applications to  
diffractive optics

报告时间: 2008年7月23日(周三)

下午 2:00—5:00

报告地点: 科技综合楼三层 311

计算数学所报告厅

## **Abstract:**

**This summer course addresses significant recent developments in mathematical analysis and computational methods for solving Maxwell's equations in periodic structures. The model problems arise especially in the mathematical modeling of diffractive optics. Particular emphasis is placed on the formulation of the mathematical model, well-posedness and regularity analysis of the solutions of Maxwell's equations in complex media including linear, chiral, and nonlinear media, the design and analysis of new computational approaches, and optimal design and inverse diffraction problems in diffractive optics. Recent developments in near-field and nano optics will also be highlighted.**

**Lecture II: Variational Formulations**

**Lecture III: Numerical Solution: Adaptive Finite**

**Element Methods for Diffraction Gratings**

**欢迎大家参加！**