

数学与系统科学研究院

计算数学所学术报告

报告人: Prof. Shangyou Zhang

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报告题目:

**A  $C^0$ -Weak Galerkin Finite Element Method for the Biharmonic Equation**

邀请人: 毛士鹏 博士

报告时间: 2013 年 4 月 12 日 (周五)

下午 16:00~17:00

报告地点: 科技综合楼三层 311

计算数学所报告厅

## Abstract:

The weak Galerkin method is similar to the discontinuous Galerkin method. That is, the finite element functions are totally discontinuous across element. But further additional finite element functions are introduced on inter-element faces in the WG method. In this talk, a  $C^0$ -weak Galerkin method is introduced and analyzed for solving the biharmonic equation in 2D and 3D. This WG finite element formulation is symmetric, positive definite and parameter free. Optimal order error estimates are established, based on a mass preserving Scott-Zhang interpolation operator.

欢迎大家参加!