

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**The continuous and discontinuous
finite element methods for delay
differential equations**

邀请人: 曹礼群研究员

报告时间: 2011 年 11 月 10 日 (周四)

下午 16: 00-17: 00

报告地点: 科技综合楼三层 301
计算数学所小报告厅

Abstract:

Delay differential equations (DDEs) arise widely in various scientific fields such as biology, ecology, medicine and physics. This class of equations plays an important role in modeling diverse problems of engineering and natural science, and hence have come to intrigue researchers in numerical computation and theoretical analysis. For DDEs, although some research have been presented, there still exist a lot of open problems keeping to be done both in theory and in computation. In this talk, we deal with continuous Galerkin finite element methods for neutral-type DDEs and discontinuous Galerkin finite element methods for nonneutral-type DDEs. Some superconvergence results of the both methods are obtained. Numerical experiments further confirm the effectiveness and the superconvergence of the methods.

欢迎大家参加!