数学与系统科学研究院

计算数学所学术报告

报告人： Prof. Hermann Brunner

(Memorial University of Newfoundland, Canada and Hong Kong Baptist University)

报告题目：

On the theory and numerical analysis of finite-time blow-up in semilinear parabolic PDEs

邀请人： 周爱辉研究员

报告时间： 2010 年 3 月 19 日(周五)

上午 10:00—11:00

报告地点： 科技综合楼三层 311

计算数学所报告厅

Abstract：

The first part of this talk will be dedicated to a review of selected results on finite-time blow-up of solutions to semilinear parabolic PDEs on various types of unbounded spatial domains $\Omega $. It will be shown that the analogous theory for semilinear partial integro-differential equations with Volterra-type memory terms is still largely open. I will then describe a number of recent computational approaches (some based on joint work with Houde Han, Xiaonan Wu and Jiwei Zhang) to semilinear parabolic PDEs on certain unbounded $\Omega $ whose solutions blow up in finite time. The talk will conclude with a discussion of current and possible future work on the numerical analysis of semilinear parabolic integro-differential equation

欢迎大家参加！