数学与系统科学研究院

计算数学所定期学术报告

报告人：　赵卫东 教授

（ *山东大学* ）

报告题目：

Highly accurate stochastic scheme for solving second-order fully nonlinear parabolic partial differential equations

邀请人：　洪佳林 研究员

报告时间：**2015** 年 **5** 月 **7** 日（周四）

下午 **16:00-17:00**

报告地点：　科技综合楼三层

311 报告厅

Abstract:

Second-order fully nonlinear parabolic partial differential equations (2PDEs) are associated with second-order forward backward SDEs (2FBSDEs), including semi-linear and quasi-linear PDEs as special ones associated with forward backward SDEs. By solving the associated 2FBSDEs, in this talk, we will give a stochastic scheme for solving 2PDEs, which have applications in scientific and engineering fields, such as fluid mechanics, image processing, optimal control, etc. To demonstrate the effectiveness and high accuracy of the scheme, we test our scheme by several examples, including HJB equations as special ones. Our numerical results show that the scheme is effective, highly accurate and stable.

欢迎大家参加！