数学与系统科学研究院

计算数学所学术报告

报告人：**Assistant Prof. Qiang Ma**

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报告题目：

Projected explicit It\^{o}-Taylor methods for stochastic differential equations

邀请人：　唐贻发研究员

报告时间：**2017 年 12 月 21 日（周四）**

晚上 19:30--20:30

报告地点：　数学院南楼九层

N902 教室

报告摘要：

Although numerical methods of stochastic differential equations (SDEs) with coefficients of

locally Lipschitz and polynomial growth have been discussed by some authors, there is little work on the high strong order numerical methods. In this talk, the mean-square convergence of general projected explicit It\^{o}-Taylor methods is considered. It is shown that projected methods based on order \gamma explicit It\^{o}-Taylor (PIT) methods are stochastically C-stable and stochastically B-consistent with order \gamma. Therefore, PIT methods owning appropriate parameters hold the same high mean-square convergence order as It\^{o}-Taylor methods. Finally, two numerical experiments are presented to show the effectiveness of the theoretical results. (受交叉课题资助)

欢迎大家参加！