

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Zhongqiang Zhang**

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报告题目:

**Recent numerical methods for highly  
nonlinear stochastic differential  
equations**

邀请人: 洪佳林 研究员

报告时间: **2018 年 8 月 9 日 (周四)**

**上午 8:30-9:30**

报告地点: 数学院南楼二层

**222 教室**

## **Abstract:**

**Numerical methods are discussed for stochastic differential equations (SDEs) with local Lipschitz coefficients growing at most polynomially at infinity. We first review numerical methods for such nonlinear SDEs and then present our recent work on stability-preserving implicit schemes and explicit numerical schemes including modified forward Euler schemes and modified Milstein schemes. We also discuss some positivity-preserving schemes for SDEs with both local Lipschitz coefficients and Holder coefficients. Numerical comparison among various schemes for nonlinear SDEs is presented.**

**欢迎大家参加！**