

数学与系统科学研究院

计算数学所学术报告

报告人: **Assistant Prof. Li Xiuyan**

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报告题目:

Discrete gradient methods and linear projection methods for preserving a conserved quantity of stochastic differential equations

邀请人: 唐贻发 研究员

报告时间: 2017 年 10 月 29 日(周日)

上午 9:00-10:00

报告地点: 数学院南楼九层

902 教室

Abstract:

Numerical methods preserving a conserved quantity for stochastic differential equations are considered. A class of discrete gradient methods based on the skew-gradient form is constructed, and the sufficient condition of convergence order 1 in the mean square sense is given. Then a class of linear projection methods is constructed. The relationship of the two classes of methods for preserving a conserved quantity is proved, which is, the constructed linear projection methods can be considered as a subset of the constructed discrete gradient methods. Numerical experiments verify our theory and show the efficiency of proposed numerical methods.

欢迎大家参加！