数学与系统科学研究院

计算数学所学术报告

报告人： 姬利海 博士

（ 北京应用物理与计算数学研究所 ）

报告题目：

Stochastic conformal multi-symplectic method for damped stochastic nonlinear Schroedinger equation

邀请人： 崔涛 副研究员

报告时间：2017 年 2 月 28 日（周二）

上午 **11:00-12:00**

报告地点： 数学院南楼七层

702 会议室

Abstract：

In this talk, we propose a stochastic conformal multi-symplectic method for a class of damped stochastic Hamiltonian partial differential equations in order to inherit the intrinsic properties, and apply the numerical method to solve a kind of damped stochastic nonlinear Schrödinger equation with multiplicative noise. It is shown that the stochastic conformal multi-symplectic method preserves the discrete stochastic conformal multi-symplectic conservation law, the discrete charge exponential dissipation law almost surely, and we also deduce the recurrence relation of the discrete global energy. Numerical experiments are preformed to verify the good performance of the proposed stochastic conformal multi-symplectic method, compared with a Crank-Nicolson type method. Finally, we present the mean square convergence result of the proposed numerical method in temporal direction numerically.

欢迎大家参加！