数学与系统科学研究院

计算数学所系列学术报告

报告人： **Prof. Cristina Anton**

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报告题目：

Weak Backward Error Analysis for Stochastic Hamiltonian Systems

邀请人： 曹礼群 研究员

报告时间：**2014** 年 **6** 月 **25** 日（周三）

上午 **10:00-11:00**

报告地点： 科技综合楼三层 **311**

计算数学所报告厅

Abstract：

We consider long term numerical approximations of stochastic Hamiltonian systems by a first order weak symplectic scheme. Under appropriative assumptions we show that the generator associated with the numerical solutions coincides with the solutions of a modified Kolmogorov equation up to high order terms with respect to the step size. Based on the modified Kolmogorov equation, we obtain an asymptotic expansion of a formal invariant measure for the numerical scheme, and we study the long term behaviour of the numerical solution.

欢迎大家参加！