数学与系统科学研究院

计算数学所学术报告

报告人： **Prof. Reinout Quispel (Department of Mathematics, Latrobe University, Australia ）**

报告题目：

Integral–preserving integrators and linearization–preserving integrators

邀请人：　　洪佳林研究员

　　　　　　　孙雅娟博士

报告时间：　2007 年 5 月 30 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:

In this talk we will discuss integrators that preserve first integrals such as energy, momentum, etc. The method we use is the so-called 'discrete-gradient' method, which often is preferable to a projection method.
We also discuss integrators that are linearization-preserving, and integrators that are both integral-preserving AND linearization-preserving.
Though none of these methods is restricted to Hamiltonian systems, we will stress the Hamiltonian case because of its importance in applications. One of our numerical examples will be the (alternating) Fermi-Pasta-Ulam problem.

欢迎大家参加！