数学与系统科学研究院

计算数学所学术报告

报告人：　**Prof. Frank Nijhoff**

（Department of Applied Mathematics，University of Leeds）

报告题目：

Discrete-time Calogero-Moser (CM) system and Lagrangian 1-form structure

邀请人：　　胡星标研究员

报告时间：**2011** 年 **4** 月 **13** 日（周三）

下午 **15：30**

报告地点：　　科技综合楼三层 **311**

计算数学所报告厅

Abstract:

We use the case of the (rational) discrete-time Calogero-Moser system to elucidate a new variational principle ion terms of Lagrange 1-forms. This new point of view on least-action principles is applicable exclusively to integrable systems, i.e. systems exhibiting commuting flows, and captures the key notion of multidimensional consistency at the Lagrangian level. The connection with discrete KP type equations, from which the CM model arises as a pole-reduction, is crucial in establishing appropriate continuum limits. In the simplest non-trivial case, i.e. the 3-particle case, we establish the explicit form of the generlized Euler-Lagrange equations applicable to Lagrange 1-form actions.

This work is in collaboration with Sikarin Yoo-Kong and Sarah Lobb.

欢迎大家参加！