数学与系统科学研究院

计算数学所网络学术报告

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报告题目：

离散可积系统研究中的代数曲线方法

邀请人：　常向科 副研究员

报告时间：**2020** 年 **12** 月 **7** 日（周一）

上午 **10:00-11:00**

报告工具：腾讯会议（**ID：669 385 820**）

摘要：

On the basis of the characteristic polynomials of Lax matrixes for the soliton hierarchies, we introduce the corresponding algebraic curves, including the hyperelliptic curve, trigonal curve, and tetragonal curve. We study the calculation of genus of algebraic curve, properties at infinity, and the construction of three kinds of Abel differentials. We establish the corresponding Baker-Akhiezer functions and meromorphic functions. The straightening out of various soliton flows is exactly given through the Abel map and Abel-Jacobi coordinates. Using the theory of algebraic curves, we obtain the explicit Riemann theta function representations of the Baker-Akhiezer function and the meromorphic function. As an illustration, we arrive at algebro-geometric solutions for the hierarchy of Belov-Chaltikian lattices.

欢迎大家参加！