

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**Quasi-periodic solutions of the  
Belov-Chaltikian lattice hierarchy**

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报告时间: 2018 年 5 月 31 日 (周四)

晚上 19:30-20:30

报告地点: 数学院南楼七层

702 教室

## **Abstract:**

Utilizing the characteristic polynomial of Lax matrix for the Belov-Chaltikian lattice hierarchy associated with a  $3 \times 3$  discrete matrix spectral problem, we introduce a trigonal curve with three infinite points, from which we establish the associated Dubrovin-type equations.

The essential properties of the Baker-Akhiezer function and the meromorphic function are discussed, that include their asymptotic behavior near three infinite points on the trigonal curve and the divisor of the meromorphic function. The Abel map is introduced to straighten out the continuous flow and the discrete flow in the Jacobian variety, from which quasi-periodic solutions of the entire BC lattice hierarchy are obtained in terms of the Riemann theta function.

**欢迎大家参加！**