



# 北京理工大学

## 数学与统计学院学术报告

### The affine Toda system: Local mass and affine Weyl group

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**时间:** 2023年11月22日(周三)下午16:00-17:00

**地点:** 腾讯会议 770-904-291

**摘要:** The local mass is a fundamental quantized information that characterizes the blow-up solution to the Toda system and has a profound relationship with its underlying algebraic structure. In a recent work we have observed that the associated Weyl group can be employed to represent this information for the  $\mathbf{A}_n$ ,  $\mathbf{B}_n$ ,  $\mathbf{C}_n$  and  $\mathbf{G}_2$  type Toda systems. The relationship between the local mass of blow-up solution and the corresponding affine Weyl group is further explored for some affine  $\mathbf{B}$  type Toda systems, where the possible local masses are explicitly expressed in terms of  $8$  types. In this talk I shall present a comprehensive study of the general affine  $\mathbf{A}$  type Toda system with arbitrary rank..

**个人简介:** 杨文，研究员，2015年获得加拿大英属哥伦比亚大学数学专业哲学博士学位。2015 - 2018年，先后在台湾大学理论科学研究中心以及香港理工大学从事博士后的研究工作。2019年4月任中科院武汉物理与数学研究所研究员。主要从事非线性椭圆型偏微分方程的研究，已在J. Differential Geometry, Arch. Rat. Mech. Anal, Int. Math. Res. Not., J. Math. Pure. App., Analysis & PDE, Comm. PDEs, Calc. PDE等国际数学期刊上正式和接受发表论文50篇。