

数学与系统科学研究院  
计算数学所网络学术报告

报告人: **Dr. Yuancheng Xie**

( *Ohio State University, USA* )

报告题目:

**On the full Kostant-Toda lattice of  
type B**

邀请人: 胡星标 研究员

报告时间: **2020 年 11 月 21 日 (周六)**

**晚上 20:00-21:00**

报告工具: **Zoom 会议 (ID: 442 353 6640)**

**Password: 336571**

## **Abstract:**

The full Kostant-Toda lattice is a generalization of the classical well studied tridiagonal Kostant – Toda lattice, and the flow evolves on the set of full complex Hessenberg matrices. In type A, its real regular solutions are parameterized by the totally nonnegative (tnn) part of the flag variety and their asymptotics are also studied by Y. Kodama and L. Williams. In terms of concrete form of soliton solutions, much less is known for full Kostant-Toda lattice of other types. In this talk, I will use  $B_2$  as a concrete example to explain how to get some soliton solutions attached to elements of the Weyl group. The relation between these solutions and solutions of BKP hierarchy expressed by Pfaffians is still mysterious. This is part of an ongoing project joint with Y. Kodama.

欢迎大家参加！