1139-37-356 **Luen-Chau Li*** (luenli@math.psu.edu), Department of Mathematics, Pennsylvania State University, University Park, PA 16802. *Integrable isospectral flows on infinite periodic band matrices.*

The periodic Kostant-Toda flow was introduced by K. Ben Abdeljelil on general complex simple Lie algebras. When the Lie algebra is $mathfraks\mathfrak{l}(n,\mathbb{C})$, this turns out to be a special case of the flows considered by van Moerbeke and Mumford. In this talk, we will begin by discussing the resolution of the conjecture of Ben Abdeljelil for $\mathfrak{sl}(n,\mathbb{C})$ where the band matrices have upper bandwidth equal to 1 with 1's on the first superdiagonal. Then we will discuss recent progress in understanding the case where the upper bandwidth is general. (Received February 16, 2018)