

YOJI YOSHII, Wisconsin-Madison  
*Lie tori and structurable tori*

We report some recent progress on Lie tori. Lie  $n$ -tori are certain  $\mathbb{Z}^n$ -graded Lie algebras which coincide with the cores of extended affine Lie algebras. Lie 1-tori of type  $A_1$  and  $BC_1$  are exactly affine Kac-Moody Lie algebras of type  $A_1^{(1)}$  and  $A_2^{(2)}$  respectively. We discuss Lie 2-tori of type  $A_1$  and  $BC_1$  which are coordinatized by analogs of the algebra of Laurent polynomials in 2 variables. It turns out that the coordinate algebras for type  $A_1$  include one infinite family containing the algebra of Laurent polynomials in 2 variables and precisely one other algebra. For type  $BC_1$  the situation is rather different. There are precisely 5 different coordinate algebras in that case.