Bojko Bakalov and Samantha Kirk\*, 2108 SAS Hall, Box 8205, Raleigh, NC. A Construction of Representations of Toroidal Lie Algebras via Vertex Algebras.

Given a simple finite-dimensional Lie algebra and an automorphism of finite order, one can construct a twisted toroidal Lie algebra. Similar to twisted affine Lie algebras, which are well-studied in the literature, we can create representations of twisted toroidal Lie algebras with the help of vertex algebras. In this talk, I will discuss twisted modules of vertex algebras and I will show how representations of twisted toroidal Lie algebras can be constructed from such twisted modules. (Received September 15, 2020)