

Title : Representations of quantum toroidal algebras
Mathieu Mansuy.

Abstract : We construct new integrable representations of quantum toroidal algebras (double affinization of quantum groups), called extremal loop weight representations. Their definition is given by Hernandez in 2009, following the one of extremal weight representations of quantum affine algebras by Kashiwara. The aim, like in the works of Kashiwara, is to construct finite-dimensional representations of the quantum toroidal algebras, but at roots of unity in this case.