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Ryan Roger Moruzzi, Jr* (rmoru001@ucr.edu). *An isomorphism of modules of type D_n* . Preliminary report.

In 2010, Hernandez and Leclerc identified a family of prime representations of the quantum affine algebra associated to a lie algebra of type A_n and D_n . In 2015, Brito, Chari, and Moura studied the classical limit of that family of prime representations of type A_n , which can be viewed as representations of the current algebra, and proved such representations specialize to stable prime Demazure modules.

Currently, I am working on proving similar results for the lie algebra of type D_n . In this setting, the prime representations specialize not to Demazure modules as in the case of a lie algebra of type A_n , but $V(\xi)$ modules defined by Chari and Venkatesh in 2013. In this talk, I will introduce an isomorphism between representations of the current algebra of type D_n , specifically, an isomorphism of a $V(\xi)$ module and a generalized Demazure module. I will also talk about current work and further exploration of such representations. (Received September 25, 2018)