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Representation Theory of the quantum function algebra of a Kac Moody Lie algebra.

It is well known that the (classical) algebra of regular functions on a Lie group is a commutative algebra whose irreducible representations are all one dimensional, corresponding to the “closed points” of the group. On the other hand, the “quantum” coordinate algebra on a finite dimensional Lie group is NOT commutative, and its irreducible representations are parametrized by the elements of the Weyl group of the associated Lie algebra. Our aim is to see whether this result still holds for the ”infinite dimensional ” Kac Moody Lie algebras. (Received August 08, 2000)