

1018-17-204

Vyjayanthi Chari and **Jacob Greenstein***, Department of Mathematics, University of California Riverside, Riverside, CA 92521. *Graded level zero integrable representations of affine Lie algebras.*

We study the structure of the category of integrable level zero representations with finite dimensional weight spaces of affine Lie algebras. We show that this category possesses a weaker version of the finite length property, namely that an indecomposable object has finitely many simple constituents which are non-trivial as modules over the corresponding loop algebra. Moreover, any object in this category is a direct sum of indecomposables only finitely many of which are non-trivial. We obtain a parametrization of blocks in this category. That result depends on the conjecture on the dimension of Weyl modules over loop algebras, which was recently proved by G. Fourier and P. Littelmann for all simply laced types. (Received March 06, 2006)