

SPEAKER: Karl Mahlburg (Louisiana State University)

TITLE: Coefficient Asymptotic for Kac-Wakimoto characters

ABSTRACT: In this talk I will present joint work with K. Bringmann on the characters for affine Lie superalgebras that were introduced by Kac and Wakimoto. The characters are the generating functions for the weight multiplicities of irreducible submodules, and can be explicitly written as products of theta functions and Appell-type sums. These sums have recently been studied using developments in the theory of mock modular forms and harmonic Maass forms. The main result of this talk is asymptotic series expansions for the coefficients of the characters with polynomial error, which is proven using a refinement of Hardy and Ramanujan's Circle Method.