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Robert Lee Wilson* (rwilson@math.rutgers.edu), Department of Mathematics, Rutgers University, 110 Frelinghuysen Road, Piscataway, NJ 08854-8019. *Multisum identities related to standard modules for affine Lie algebras*. Preliminary report.

Certain important power series identities (in particular, the Rogers-Ramanujan identities and their combinatorial generalizations by Andrews, Gordon and Bressoud) have been explained in terms of filtrations of standard modules for affine Lie algebras (in particular, $A_1^{(1)}$). Andrews has given another generalization of the Rogers-Ramanujan identities in which the sum side is replaced by a multisum:

$$\prod_{n>0, n \neq 0, \pm k_0 \pmod{2k+1}} (1 - q^n)^{-1} = \sum_{n_1, \dots, n_{k-1} \geq 0} \frac{q^{N_1^2 + N_2^2 + \dots + N_{k-1}^2 + N_{k_0} + N_{k_0+1} + \dots + N_{k-1}}{(q; q)_{n_1} (q; q)_{n_2} \dots (q; q)_{n_{k-1}}}$$

where $1 \leq k_0 \leq k, k \geq 2$, and $N_j = n_j + \dots + n_{k-1}$. We give a Lie theoretic interpretation of this expression using the operators $X^{(i)}$ introduced by Meurman and Primc on a standard $A_1^{(1)}$ -module V_Λ . (Received February 14, 2008)