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Maria Gorelik and **Vera Serganova*** (serganov@math.berkeley.edu), Department of Mathematics, UC Berkeley, Berkeley, CA 94530. *On representations of affine superalgebras with non-symmetrizable Cartan matrix.* Preliminary report.

Representations of affine superalgebras were studied by V. Kac and M. Wakimoto. They had a conjectural character formula for certain irreducible highest weight modules for symmetrizable affine superalgebras, which has interesting application in number theory.

However, not all affine superalgebras have symmetrizable Cartan matrix, one such example is the Lie superalgebra $q(n)^2$. In this case an interesting phenomenon happens: any Verma module is reducible, its structure is similar to Verma modules at critical level in the usual case. That makes one to believe that the corresponding vertex algebra has a huge center. We obtain a character formula for a generic irreducible highest weight module. (Received September 19, 2005)