Meeting: 1003, Atlanta, Georgia, SS 23A, AMS Special Session on Representations of Lie Algebras, I

1003-17-880 **Arturo Pianzola*** (a.pianzola@ualberta.ca), Department of Mathematical Sciences, University of Alberta, Edmonton, Alberta T6G 2G1, Canada. *Twisted forms of Toroidal Lie algebras.* Preliminary report.

I will begin by recalling the description of affine Kac-Moody Lie algebras as torsors (= principal homogeneous spaces) over the punctured algebraic line. In passing to two variables, serious but interesting difficulties take place. I will describe a complete cohomological classification of inner twisted toroidal Lie algebras, and plan of attack for the general case (join work with P. Gille). (Received September 30, 2004)