1030-81-255          **Istvan Heckenberger\***, Institute for Mathematics, University Munich, Theresienstr. 39, 80333 Munich, Germany. *Lusztig Isomorphisms for some Drinfeld Doubles.*

In the literature several papers appeared in the near past which discuss properties of multiparameter quantizations of semisimple Lie algebras and Lie superalgebras. Whereas for the analysis of the former the Lusztig automorphisms are usual tools, it is a common belief that for the latter one can not define these maps appropriately. The talk will counter this belief. A natural doubling construction for a class of Hopf algebras is explained. It is shown how the Lusztig maps can be defined naturally in this setting. It is explained in which sense the Lusztig maps satisfy Coxeter type relations. As an application a method for the computation of the defining relations of an arbitrary Nichols algebra of diagonal type will be given. (Received August 05, 2007)