1083-16-4   **Milen T. Yakimov*** (yakimov@math.lsu.edu), Louisiana State University, Department of
                   Mathematics, Baton Rouge, LA. *The Andruskiewitsch-Dumas conjecture.*

The automorphism groups of noncommutative associate algebras are often difficult to describe. Precise answers are only known for very particular algebras. In some cases Joseph, Alev, Shestakov, and Umirbaev proved the existence of wild automorphisms. On the other hand, Andruskiewitsch and Dumas conjectured that the positive parts of all quantized universal enveloping algebras of simple Lie algebras have small automorphism groups which can be described explicitly, but this was only proved in four cases.

We will outline a proof of the latter conjecture in full generality. The key step in this proof is a rigidity theorem for an important class of "bifinite" automorphisms of completions of quantum tori. It has a broad range of applications. It allows one to control the automorphism groups of large classes of associative algebras, for instance quantum cluster algebras. (Received August 28, 2012)