

ON MINIMAL AFFINIZATIONS OF QUANTUM AFFINE ALGEBRAS

Adriano Moura

Let \mathfrak{g} be a finite-dimensional simple Lie algebra over the field of complex numbers. Consider its loop algebra \mathfrak{g} and the corresponding quantized enveloping algebras $U_q(\mathfrak{g})$ and $U_q(\tilde{\mathfrak{g}})$. It is known that, unless \mathfrak{g} is of type A , there is no quantum group analogue of the evaluation maps $\tilde{\mathfrak{g}} \rightarrow \mathfrak{g}$. In particular, the concept of evaluation representations is not available in the context of the quantum affine algebra $U_q(\tilde{\mathfrak{g}})$ in general. Chari and Pressley introduced and studied the concept of minimal affinizations (nowadays also called generalized Kirillov-Reshetikhin modules) which, in some sense, play the role of evaluation modules. We plan to discuss a few results on minimal affinizations and Kirillov-Reshetikhin modules.