1056-17-1394Arkady Berenstein, Department of Mathematics, University of Oregon, Eugene, OR 97403, and<br/>Jacob Greenstein\*, Department of Mathematics, University of California Riverside, 900<br/>University avenue, Riverside, CA 92521. On quantum foldings. Preliminary report.

A classical result in Lie theory stipulates that every finite dimensional simple Lie algebra  $\mathfrak{g}$  which is not of type ADE can be constructed as the fixed point subalgebra for a diagram automorphism  $\sigma$  of a simple Lie algebra  $\mathfrak{s}$  of type ADE. This construction does not have a direct quantum analogue. The aim of the present talk is to explain how to construct a homomorphism of associative algebras from a subalgebra in the algebra of fixed points for  $\sigma$  of the upper triangular part of  $U_q(\mathfrak{s})$  onto the quantized enveloping algebra of the upper triangular part of  $U_q(\mathfrak{g}^{\vee})$ , where  $\mathfrak{g}^{\vee}$  is the Langlands dual of  $\mathfrak{g}$ . (Received September 21, 2009)